Annual Accountability Report

2015

UNIVERSITY OF CALIFORNIA

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 development. Accountability will be demonstrated:

- By the transparency of the decision-making processes that govern the University and its campuses, medical centers, and laboratories
- 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 and Academic Planning 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.

www.universityofcalifornia.edu/accountability

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University of California
Annual Accountability Report 2015
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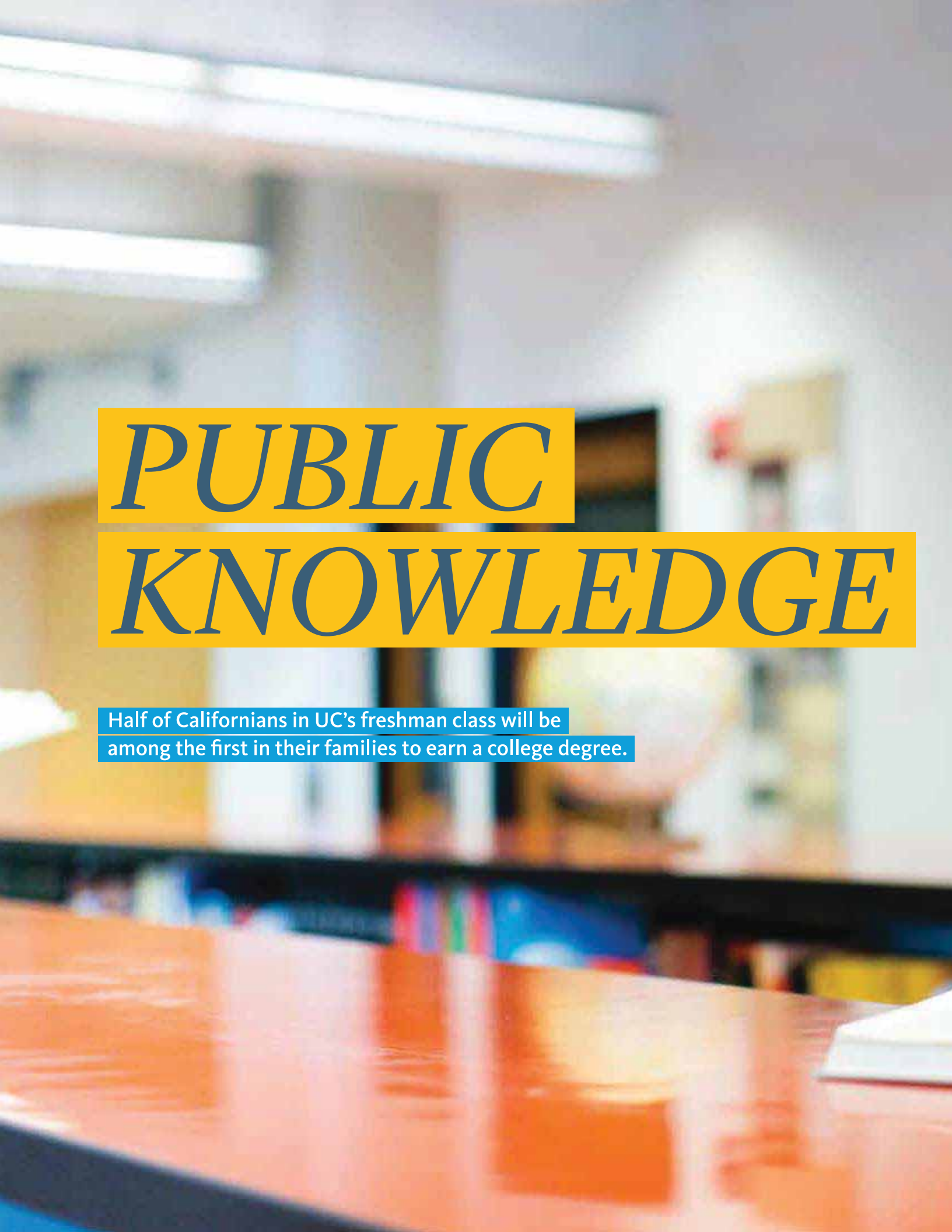
Data tables can be found online at www.universityofcalifornia.edu/accountability.

Interactive maps are available at http://arcgis.cisr.ucsc.edu/ucop/.



PUBLIC KNOWLEDGE

Half of Californians in UC's freshman class will be among the first in their families to earn a college degree.

The University of California – The Power of Public

ACCOUNTABILITY REPORT

As part of its transparency efforts, the University of California (UC) annually produces the Accountability Report to provide greater awareness of University operations. The report is a management tool for UC leaders, faculty and staff. It is also intended to be a public document for a broad range of stakeholders with an interest in understanding how the University is performing, including its strengths and areas needing improvement. It also shows the public benefit that comes from state and federal investment in the University.

The 2015 Accountability Report illustrates the power of the University of California as an agent of social mobility, economic growth and scientific advancement by describing its role in:

- Educating California undergraduate, graduate academic, graduate professional and health science students; fostering their skills in critical thinking, analysis and communication; and preparing them to be future leaders, entrepreneurs, teachers and public servants
- Supporting K-12 education by managing thousands of community-based programs throughout the state designed to improve both the academic skills of students and the professional preparation of teachers
- Conducting research that promotes economic development and discoveries in such critical areas as water resource management, agricultural sustainability and food security, benefiting the state, the nation and the world
- Operating five teaching hospitals where nearly 60 percent of patients are covered by Medicare or Medi-Cal, or lack insurance; providing half the state's organ transplants; serving as the state's Ebola health care centers and training over half of California's medical students
- Harnessing the collective strength of UC's over $26 billion enterprise to lead on issues of environmental sustainability, including efforts to save water and achieve carbon neutrality

> *"Public research universities transform not only individual lives but also our society as a whole. At the same time, they create new knowledge and transport it out into the world. As stewards of a public institution, we must commit to the highest standards of transparency and accountability. It is in this spirit that this annual document is presented."*
>
> UC President Janet Napolitano

This executive summary highlights findings in the Accountability Report. Each chapter begins with an introductory essay that describes UC operations in that subject area, followed by specific indicators and data visualizations to illustrate trends, provide comparisons and set context. Each chapter also offers links to additional information sources and references the data sources. The full report and executive summary, along with data and visualizations, can be downloaded at http://accountability.universityofcalifornia.edu.

PUBLIC RESEARCH UNIVERSITIES

In 1862, President Abraham Lincoln signed the Morrill Land-Grant Act, which provided federal lands to the states for what would become the nation's public research universities. The Morrill Land-Grant Act laid out the future of American public research universities, decreeing that practical fields such as agriculture and the mechanical arts would be taught alongside more traditional liberal arts and sciences. The goal and eventual result of the Morrill Act was to promote the economy of the United States by creating a well-educated technical workforce.

American public research universities share many of the characteristics of their private peers, including a focus on research and graduate education, and a commitment to undergraduate education provided by active research-based faculty. In addition, they possess a number of distinct characteristics:

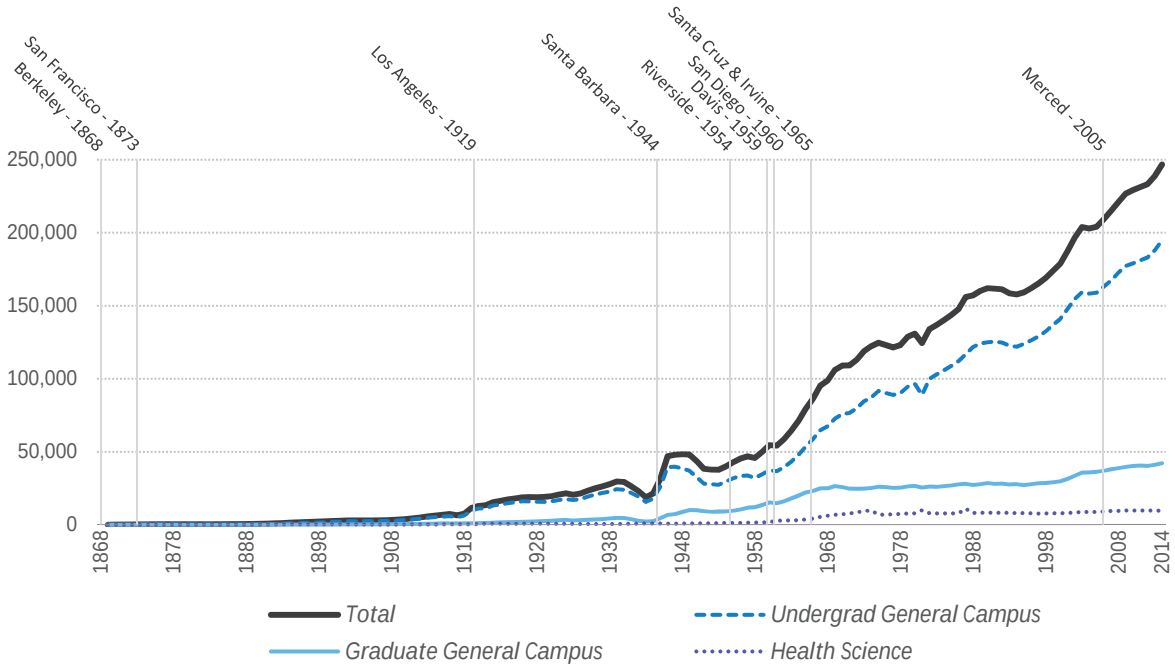
- **Public mission:** The activities and culture of these universities are driven by values of public service. Research often focuses on issues of particular importance to the state; faculty, in addition to teaching and conducting research, provide expertise to policymakers; educational and cultural programs and services are offered at low or no charge for residents.
- **Public investment:** State support allows universities to charge in-state students less than the cost of their education. This investment in human capital creates a highly skilled workforce, increases participation in democratic institutions and lowers public costs (e.g., social services, corrections).
- **Focus on social mobility:** By placing an emphasis on serving undergraduates from all segments of society, these institutions create upward social mobility for the citizens of their state.
- **Size:** Public universities tend to be much larger than their private peers and grow in response to enrollment demand and state needs.

The University of California is the world's premier public research university, and continues to benefit the state and the nation by developing an educated and enlightened citizenry, producing research that supports economic development and critical discoveries, supporting agricultural and public service needs, and producing future health care professionals while providing essential patient care.

The University of California enrolls more than 246,000 students at its 10 campuses. UC produces graduates who meet the state's critical needs, including the largest proportion of science, technology, engineering and math (STEM) degrees compared to CSU and private counterparts, and half of California's medical students and residents. More than 70 percent of bachelor's degree recipients go on to work in California, as do half of the graduates in academic Ph.D. and master's programs, and more than 60 percent of professional program graduates. Of UC's more than 1.6 million living alumni, 1.2 million are California residents.

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

Undergraduate and graduate student enrollment, with campus opening date
Universitywide
Fall 1868 to 2014



ACCESS, AFFORDABILITY AND SOCIAL MOBILITY FOR UNDERGRADUATES

Historically, high-quality education in the United States was synonymous with small private colleges clustered in New England and the mid-Atlantic states. For geographic and financial reasons, this education was inaccessible to all but the wealthiest college-bound California students. The founders of the University of California envisioned providing undergraduate education of the same caliber as the nation's finest private universities but at a cost and scale accessible to students from all walks of life.

Access has been a fundamental tenet of the University of California since its inception, and this has enabled social mobility for California residents and fostered the ongoing economic vitality and social benefits associated with an educated population.

UC maintains its commitment to the California Master Plan for Higher Education by offering freshman admission to every state resident who meets its requirements and applies for admission.

Over the past two decades, freshman applications have grown almost 5 percent per year, tripling since 1994. UC expects that freshman demand will continue to increase as both the number of high school students and their graduation rates increase, particularly among Latina and Latino students.

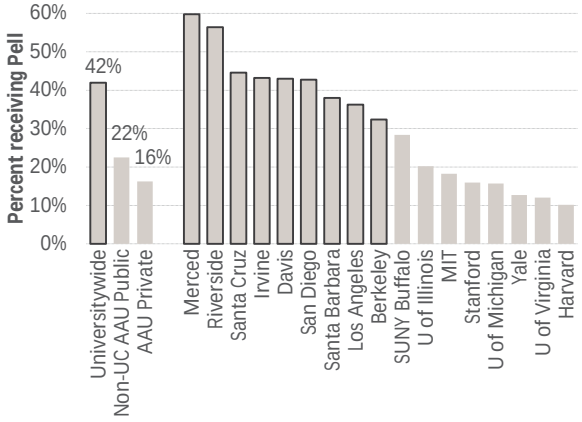
With this growing number of applicants, admission rates have declined at some UC campuses. Despite these trends, all qualified freshman applicants either are admitted to a campus of their choice or receive an offer of admission to another UC campus through UC's referral process.

Roughly 30 percent of UC's incoming undergraduates are California Community College (CCC) transfers. UC's goal is to increase that to 33 percent by 2017–18. Transfer applicants have almost doubled over the past 20 years, with some fluctuations in the past few years. UC expects that recent state budget surpluses will result in increased funding to the CCCs and create more transfer applicants to UC. In addition, UC President Janet Napolitano's transfer initiative together with work from the Academic Senate will streamline transfer pathways and likely increase transfer demand.

Affordability is one of UC's highest priorities. The University provides access to students across the socio-economic spectrum, including a significant percentage of low-income undergraduates who receive assistance through the federal Pell Grant and state Cal Grant programs. The University of California leads the nation's research universities in the proportion of undergraduates who are low income. Five UC campuses *each* enroll more low-income students than all eight Ivy League institutions put together.

UC enrolls a higher percentage of Pell Grant recipients than its peer research universities.

Percentage of undergraduates receiving Pell Grants, 2012–13 (AAU is the Association of American Universities)



UC's financial aid program considers multiple factors to determine how much parents and independent students can afford. Individual student aid packages will include any available federal, state and University grant aid (such as the Blue & Gold program), and a manageable student "self-help" contribution from work and/or borrowing.

About 45 percent of the most recent graduating class left UC with no debt at all. For those graduating with debt, the average amount was just over $20,600, roughly $5,000 less than the average debt incurred at other public four-year institutions. And it is between $10,000 and $15,000 lower than the

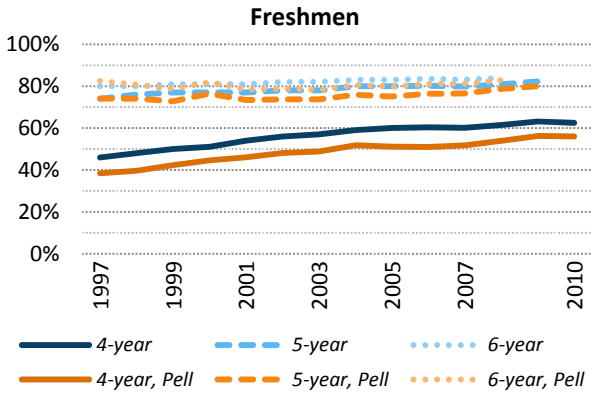
average debt for graduates of private nonprofit and for-profit institutions.

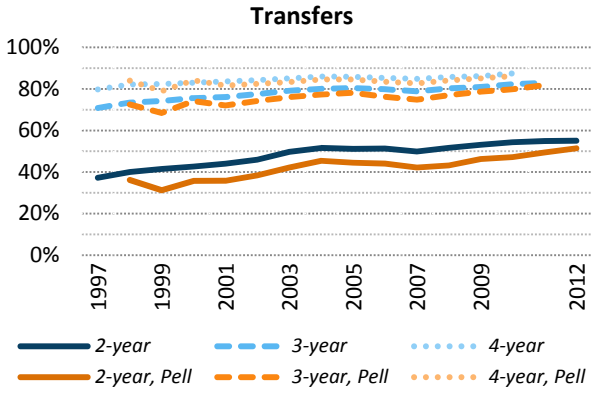
UC's four-year graduation rate for freshmen has risen significantly over the past 12 years — from 46.0 percent for the 1997 entering cohort to 62.5 percent for the 2010 cohort. The most recent six-year graduation rate is 84.0 percent.

Transfer entrants have demonstrated similar gains, with the two-year graduation rate increasing from 37.3 percent for the 1997 entering cohort to 55.0 percent for the 2012 cohort. The most recent four-year graduation rate is 87.5 percent. Pell Grant recipients graduate at rates similar to those of all freshman and transfer entrants.

Freshman and transfer graduation rates, including those for Pell Grant recipients, are high and improving.

Graduation rates by entering cohort





UC is actively engaged in efforts to continue to improve undergraduate outcomes.

Increasing summer enrollment, for example, is critical to supporting timely graduation, with 9 percent of freshman entrants graduating in the summer of their fourth year. More full-time students are enrolling during summer session, an increase of 22 percent over the past decade.

UC data show that higher education remains one of the best investments an individual and the state can make. For example, within five years of graduating from UC, more than 50 percent of Pell Grant recipients have higher individual earnings than their entire family's income prior to their enrollment. Overall, incomes of UC bachelor's degree recipients double between two and ten years after graduation.

GRADUATE PROGRAMS AND DOCTORAL RESEARCH

The California Master Plan charges UC with the responsibility for preparing graduate academic and professional degree students to help meet the workforce needs of the state and the nation.

Graduate education at UC is ranked at the highest levels among the country's leading universities. One of the keys to successful graduate academic and graduate professional programs is recruitment of outstanding students. These students support the academic and research enterprise by serving as graduate student instructors and graduate student researchers. The quality of UC's graduate students is also a critical factor in retaining faculty in many academic disciplines.

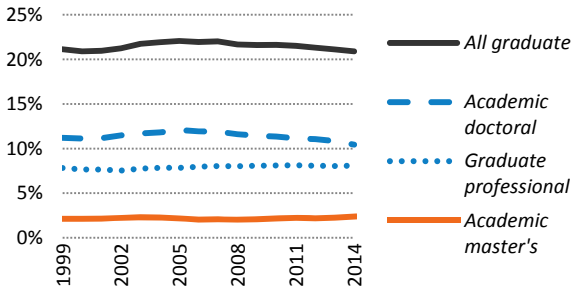
In 2015, 18 UC graduate students received Sloan Research Fellowship awards, which recognize early-career scientists and scholars whose achievements and potential identify them as rising stars. More than 20 UC Ph.D.s have gone on to receive Nobel Prizes.

Though graduate enrollment has grown, commensurate growth in undergraduates has kept the share of graduate enrollment relatively steady over the past 14 years. Just over 20 percent of UC students are graduate students. Ten percent are in academic doctoral programs.

- More than 20 UC Ph.D.s went on to get a Nobel Prize
- In 2015, 18 UC Ph.D. candidates received Sloan Research Fellowship awards
- 22% of California State University faculty are UC Ph.D. recipients

Graduate enrollment, as a share of UC's total undergraduate and graduate enrollment, has remained relatively steady over the past 15 years.

Graduate degree programs, share of total enrollment, Universitywide
Fall 1999–2014



More than 25,000 graduates of UC's academic Ph.D. and master's programs (in fields other than engineering/computer science) have entered the California workforce since 2000. Half of them have gone on to participate in the state's higher-education workforce, which includes all of the two-year and four-year colleges and universities, both public and private. This highlights the critical role of UC's graduate academic programs in producing the cadre of faculty who teach California's future college-educated workforce and conduct research that advances the state and national economies. More than 12 percent of the employed graduates of UC physical sciences and life sciences programs work in the state's manufacturing sector, while another 25 percent work in the engineering industry. This shows that the skills gained in UC's academic Ph.D. and master's programs are both applicable and relevant to key high-tech industries.

DISTINGUISHED FACULTY TEACH FOR CALIFORNIA, RESEARCH FOR THE WORLD

UC faculty have won Nobel Prizes nearly every year for the past decade. In all, 61 UC faculty have won Nobel Prizes, ranking the university system fifth in comparison to other countries for the number of Prizes awarded. More than 580 faculty are members of the National Academy of Sciences; more than 500 are American Academy of Science members; and more than 200 are Institute of Medicine members.

The state of California expects UC faculty not only to teach undergraduate and graduate students but also to spend a substantial portion of time undertaking research, creative activity and public service.

The UC faculty are a rich source of innovation, discovery and mentorship. The state investment in dedicated research faculty produces quantifiable public dividends: UC faculty attract federal and private research funding equivalent to four to five times what they are paid in salary and benefits. These revenues directly benefit California's economy, while the research itself contributes even more value in the form of indirect and intangible social, cultural and economic benefits.

Among UC faculty, the proportion of women and underrepresented minorities (URMs) continues to grow. With just over 31 percent female faculty, 9 percent URM and almost 4 percent URM women, UC compares favorably to its peer institutions.

TEACHING AND LEARNING FOR UC STUDENTS AND OTHER CALIFORNIANS

By educating (not merely instructing) vast numbers of Californians at an elite level, UC helps develop California residents who can think critically, understand and assess complex issues, and contribute to the culture of the state. UC has more than 150 academic disciplines and over 600 graduate degree programs. UC confers more doctoral degrees per tenured/tenure-track faculty than the average at public American Association of Universities (AAU) peers, and is on par with private AAU peers.

Most UC instruction is provided by full-time permanent faculty. This means that even undergraduates have opportunities to participate in research: More than 80 percent of seniors complete a research project or paper as part of their coursework, and more than 40 percent assist faculty in their research.

UC undergraduates report significant growth in their academic skills over the course of their college education. Ninety-five percent of seniors who earned a bachelor's degree reported good to excellent skills in understanding their field of study upon graduation, compared to just 33 percent in their first year at UC; 94 percent of seniors reported strong analytical and critical-thinking skills, up from 54 percent as freshmen; and 91 percent of seniors reported good to excellent writing skills, up from 54 percent in their freshman year.

In addition to traditional classroom and regular term instruction, UC is offering more classes using online technology. All UC campuses are expanding online courses, and the Innovative Learning Technology Initiative (ILTI) at the UC Office of the President (UCOP) currently has 72 online courses available for cross-campus enrollment, with 25 more courses in development. To date, more than 8,000 UC undergraduate students have completed online courses funded and built through UCOP and ILTI efforts.

Finally, UC offers over 440 extension programs that enroll over 300,000 adult professionals and continuing education students.

RESEARCH ACTIVITIES SPURRING ECONOMIC GROWTH AND CRITICAL DISCOVERIES

Throughout the past 50 years, the research and development (R&D) that private industry once supported has shifted to research universities. Today, American research universities account for a large part of the nation's R&D expenditures, one of the key drivers of the nation's economy. Universities account for about 60 percent of all U.S. basic research expenditures. The estimated $63 billion spent on U.S. academic research in 2014 is greater than the "total whole country" R&D expenditures for all but five countries.

- 5 inventions per day
- More than 1,700 new inventions in 2014
- 840 startups founded on UC patents
- 12,559 active patents

Academic research results in new discoveries, some of which have formed the basis for new industries. Thus, American research universities are essential to creating new jobs in the U.S., particularly the high-wage, high-skill jobs that arise from an economy dependent on innovation. UC's research enterprise is a powerhouse of innovation and discovery, and its overarching commitment is to create public benefit from UC research endeavors.

The University operates more than 800 research centers, institutes, laboratories and programs distributed over 10 campuses, five medical centers, three national energy laboratories, 39 Natural Reserve sites and numerous specialized research facilities.

UC researchers reported more than 1,700 new inventions in 2014, and during that same year, UC inventions launched over 70 startup companies in California and generated $118 million in royalty and fee income. UC has more than 12,500 active U.S. patents from its inventions — more than any other university in the country — and 840 startups have been founded on UC patents since 1976.

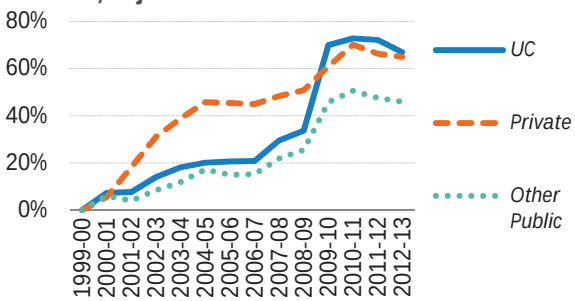
UC's research activities provide clear and substantial benefit for the state of California and beyond. UC researchers have been called upon to share insights on how to adapt water consumption to drought conditions; develop energy alternatives; create greater understanding of the aging process; preserve indigenous languages; improve high school graduation rates; and develop effective therapies and treatments that can enhance global health.

UC's performance in meeting its research goals can be assessed in a variety of ways. One widely used

indicator of research activity is the dollar amount expended each year for research. Research expenditures at UC nearly doubled over the past 15 years to more than $4.3 billion, mostly fueled by federal funds. UC performs nearly one-tenth of all the academic research and development conducted in the U.S.

UC research expenditures have nearly doubled over the past 15 years.

Growth in research expenditures 1999–2000 to 2012–13, adjusted for inflation



UC'S IMPACT ON CALIFORNIA AND PUBLIC SERVICE ACTIVITIES

UC's direct impact on the state of California extends well beyond its campuses and laboratories, and touches virtually every community throughout the state. Undergraduate and graduate students are drawn to UC from every region. The University awards nearly one-third of California's bachelor's degrees. University alumni, faculty, staff and other employees reside in every county, contributing to the local economy and community activities.

Beyond the impacts of its graduates, UC's public service activities contribute significantly to the state's growth and well-being. UC's Division of Agriculture and Natural Resources (ANR) is the bridge between local issues and the power of the University of California. ANR manages the state's Agricultural Experiment Station (AES) and Cooperative Extension (CE) system. ANR works with communities and industry to enhance agricultural markets, address environmental concerns, protect plant health, offer hands-on science-based learning for youth, promote youth development and provide farmers with scientifically tested production techniques.

Currently, ANR encompasses nine research and extension centers and 57 CE offices throughout California, housing 700 academic researchers, about 200 locally based CE advisors, about 130 campus-based CE specialists and six statewide programs.

UC's public service mission includes extensive environmental stewardship activities. One example of this is the management of natural reserve lands that encompass most of the state ecosystems. The UC Natural Reserve System comprises 39 sites with more than 756,000 acres across California, providing undisturbed environments for students and faculty members to conduct research and enhancing students' opportunities to engage in meaningful educational experiences.

Promoting healthy outcomes for all Californians is an important focus of UC's public service mission. In addition to more than 1,000 community partnership programs promoting health and nutrition, UC's medical centers maintain long-term institutional partnerships that address the needs of specific populations. For example, the five UC medical centers work with regional Veterans Affairs Health Care systems to address health issues of particular concern to veterans.

For more than 40 years, the University of California's Student Academic Preparation and Educational Partnership (SAPEP) has helped prepare California students across all levels of education and increase their access to higher education institutions. SAPEP programs such as the Early Academic Outreach Program (EAOP); Mathematics, Engineering, Science Achievement (MESA); and the Puente Project are designed to improve academic preparation for all students in a variety of disciplines.

UC plays an important role in providing ongoing professional development in education, law, health and other programs.

The following map illustrates UC's impact across the state. Clearly, UC's reach goes far beyond its ten campuses to affect all Californians. An interactive version of this map may be found online at http://arcgis.cisr.ucsc.edu/ucop/.

UC's Statewide Presence

Source: UC campuses and UC Corporate Personnel System
Interactive maps are available on the web at: http://arcgis.cisr.ucsc.edu/ucop/

UC HEALTH: DEVELOPING HEALTH CARE PROFESSIONALS AND MEDICAL RESEARCH

Under the California Master Plan, UC is the only state public institution chartered to grant the medical degrees of 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). The University also provides doctoral education leading to Ph.D. degrees in Nursing and Public Health, as well as the D.P.H. (Doctor of Public Health) degree.

UC operates the largest health sciences instructional program in the nation, enrolling more than 14,000 students annually. The systemwide instructional program includes six schools of medicine and three smaller medical education programs; three schools of nursing and one program in nursing science; two schools each of dentistry, pharmacy and public health; and one school each of optometry and veterinary medicine.

The 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 (training nearly half of the medical students and residents in the state), drive major advances in biomedical and clinical research, and serve as California's fourth-largest health care delivery system, with about 42,000 employees, including approximately 12,000 nurses. UC medical centers also perform thousands of clinical trials each year, resulting in new drugs and disease treatments.

UC medical centers annually manage nearly 159,000 inpatient admissions, 334,000 emergency room visits and nearly 4.2 million outpatient visits. Nearly 60 percent of UC patients are covered by Medicare or Medi-Cal, or lack health insurance.

UC medical centers tend to treat patients who are more seriously ill than those at other medical centers in California. UC staffs five major trauma centers, provides half of California's organ transplants and one-fourth of its extensive burn care.

STAFFING TRENDS

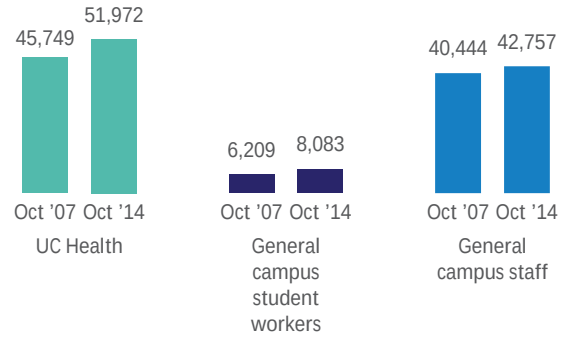
As of fall 2014, UC employed 140,000 non-academic staff (equivalent to 103,000 full-time employees) across a wide range of occupational categories, including doctors, nurses and other health care staff; research administration and laboratory staff; student services staff; food and auxiliary services staff; maintenance and physical plant staff; and management and clerical staff.

Since 2007, UC staff growth has been concentrated in health sciences, due to the increasing demand for health care, most notably the growth in Medi-Cal and other government programs. Ninety-seven percent of health science staff are supported by revenue from medical center operations and other non-state funds.

Despite a 6 percent growth in general campus staff, the number supported by core funds (state funds and tuition) has decreased over this period. In addition, the number of executives has declined and general campus growth is largely in technical, professional and support staff supported by non-core funds.

Staff growth is focused in the health sciences.

Growth in staff, October 2007 to 2014



PROMOTING DIVERSITY

Over time, UC's undergraduate students have become increasingly diverse. In January 2015, UC Santa Barbara became the first member of the Association of American Universities to be designated as a Hispanic Serving Institution (HSI) with at least 25 percent Hispanic undergraduate enrollment. Three other campuses – UC Riverside,

UC Santa Cruz and UC Merced – are already HSIs, and UC Irvine and UC Davis expect to reach this milestone soon.

Underrepresented populations show slow and steady growth within the ranks of UC academic graduate programs across disciplines, with growth in international students primarily in physical science and engineering. Female students constitute the majority in all disciplines except for physical science and engineering.

Graduate professional programs show similar growth patterns for underrepresented and international students, with variation by discipline. Education programs have a larger proportion of underrepresented students, and business and other professional programs have growing international populations. The proportion of female students is trending slightly downward but remains around 50 percent or higher for all disciplines except business.

For staff, the proportions of nonwhites and females in Management & Senior Professional (MSP) and Senior Management Group (SMG) positions are smaller than their proportions in Professional & Support Staff (PSS) positions. The proportion of females among ladder-rank faculty is lower than proportions among other academic employee groupings.

BUILDING A SUSTAINABLE FINANCIAL MODEL

UC seeks to develop reliable sources of revenues, including a strong investment from the state and a stable and predictable tuition model.

Totaling about $25 billion in 2013–14, the University's revenues fund its core mission and a wide range of support activities, including teaching hospitals, the Lawrence Berkeley National Laboratory and UC Extension, as well as an array of self-supporting auxiliary services such as campus housing and dining services, parking and bookstores.

Prior to 2010–11, state funding was the largest single source of support for the University's educational mission. Over the past ten years, state educational appropriations have fallen more than $1 billion in inflation-adjusted dollars despite UC's enrollment growth. State educational appropriations constituted only 9 percent of UC's operating budget in 2013–14 compared to 23 percent in 2001–02; the growth in tuition and fees has not compensated for those losses.

While UC has worked on increasing revenues from other sources, such as medical centers, contracts and grants, and private giving, those funds tend to be restricted and not available to support educational operations. For example, 99 percent of donor gifts are restricted in how they may be used. State funding and tuition and fees tend to be unrestricted. As these fund sources become more constrained, so does the University's flexibility to direct funds where needed.

The University has moved aggressively to reduce operating costs. Yet even under the most optimistic assumptions, efficiency improvements and alternative revenue generation can offset only a portion of the budget shortfalls projected over the next few years.

Much of UC's 2015–16 budget development has focused on encouraging the state to reinvest in UC, providing predictable increases in tuition for students and their families, and continuing UC's agreement to reduce operating costs.

ADDRESSING CAPITAL NEEDS AND PROMOTING SUSTAINABILITY

UC maintains more than 5,800 buildings enclosing 130 million square feet on approximately 30,000 acres on its ten campuses, five medical centers, nine agricultural research and extension centers, and the Lawrence Berkeley National Laboratory. These facilities include classrooms, laboratories, museums, concert halls, galleries and other facilities. With such a substantial infrastructure, the University strives to be a good steward of the capital resources entrusted to its care.

Historically, the majority of UC's core academic infrastructure projects were funded by the state. However, over the past decade, the state's contribution has fallen to about 15 percent, and external financing now plays a dominant role.

During fiscal year 2013–14, UC spent about $1.3 billion on capital projects, with nearly two-thirds of this amount funded by external financing. The majority of these projects were aimed at the capital requirements of core academic programs and aging facilities.

The University is a national leader in sustainability and strives to reduce greenhouse gases to mitigate climate change. In November 2013, President Napolitano announced an initiative for UC to become the first research university to achieve carbon neutrality by 2025.

Successful sustainability efforts noted in Chapter 13 of this year's report include $138 million in cumulative avoided energy costs via Energy Efficiency Partnership projects; 23 megawatts of on-site renewable electrical generation (installed or under contract); and 191 LEED certifications, the most of any higher education institution in the country.

Furthermore, Princeton Review ranked four UC campuses — UC Santa Barbara, UC Irvine, UC Santa Cruz and UC Davis — in the top 50 green campuses, and UC Santa Barbara was number one among public universities.

HOW UC RANKS

UC provides its students, many of them low income, with access to an educational and research environment that is among the best in the world. This high-quality experience comes in large part from the excellence and recognition of UC's faculty. Over the past decade, UC has celebrated a faculty member receiving a Nobel Prize on almost an annual basis, with 61 faculty in total for the UC system, which ranks fifth in comparison to other countries.

UC does not endorse nor does it set goals tied to any particular set of rankings. However, these rankings, although limited in scope, can give an indication of an institution's overall academic quality and the public perception of performance, relative to other academic peers.

UC campuses rate highly in many rankings, including:

- Five of the top ten national public universities in US News and World Report rankings
- Four of the top five in Washington Monthly's national university rankings
- Top four public universities in the top 20 in Shanghai Jiao Tong University's Academic Rankings of World Universities
- Top two public universities in the top 20 in Times Higher Education ranking.

UC Merced was founded too recently to be reflected in these national ranking systems.

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

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Berkeley	1	1	1	1	1	1	1	1	1
Los Angeles	4	3	3	2	2	2	2	2	2
San Diego	8	8	7	7	7	8	8	9	8
Davis	13	11	12	11	9	9	8	9	9
Santa Barbara	13	13	12	11	9	10	10	11	10
Irvine	12	13	12	14	11	13	12	14	11
Santa Cruz	33	35	45	29	29	31	32	36	35
Riverside	39	45	40	43	41	41	46	55	55

Washington Monthly: National University Ranking

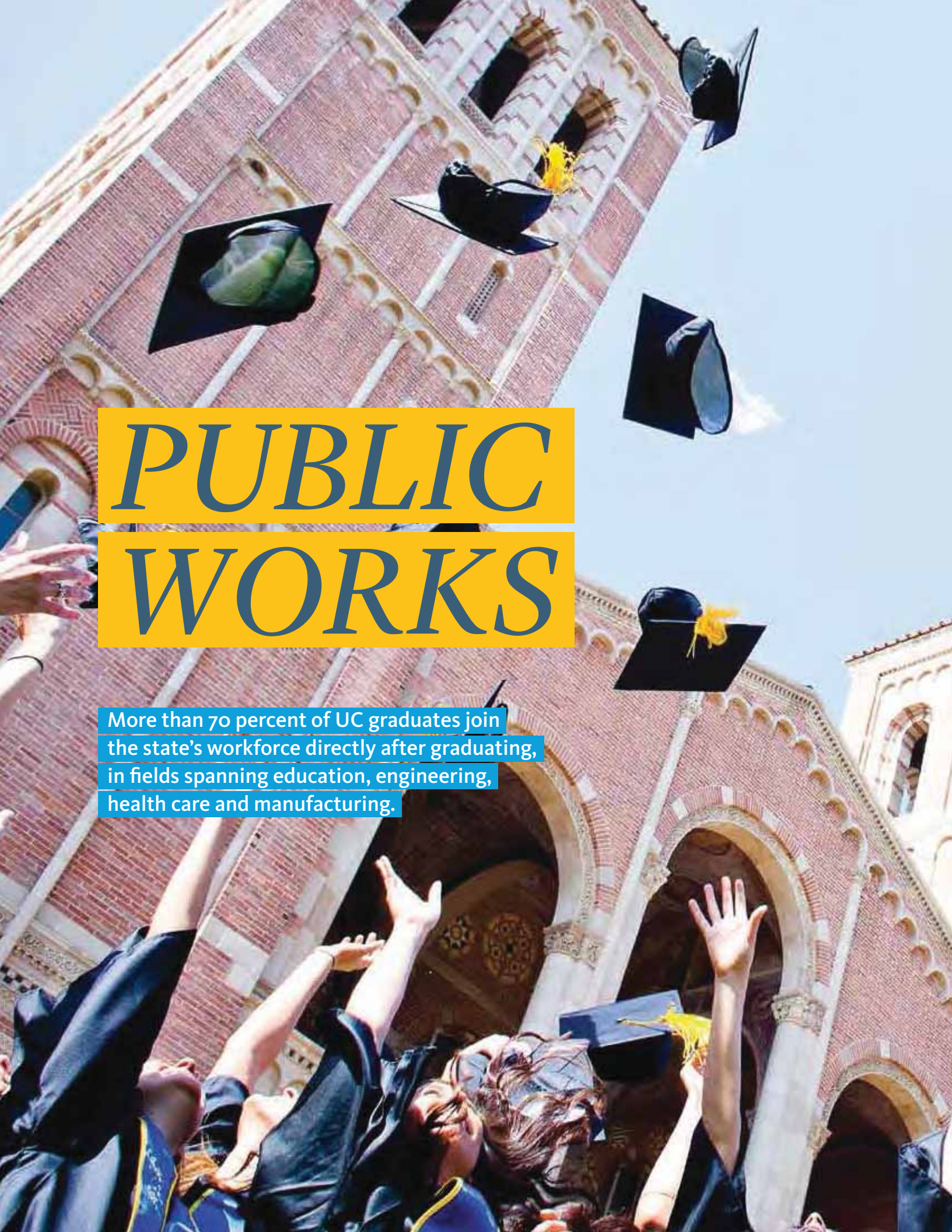
	2005	2006	2007	2008[1]	2009	2010	2011	2012	2013	2014
San Diego	8	6	4	n/a	2	1	1	1	1	1
Riverside	-	22	15	n/a	16	40	5	9	2	2
Berkeley	3	2	3	n/a	1	2	3	5	5	3
Los Angeles	2	4	2	n/a	3	3	2	6	10	5
Santa Barbara	-	57	36	n/a	21	11	13	14	22	15
Davis	17	10	8	n/a	10	6	8	17	23	16
Santa Cruz	--	68	76	n/a	56	93	70	67	65	79
Irvine	--	72	49	n/a	44	50	60	117	84	83

UNIVERSITY OF CALIFORNIA: THE POWER OF PUBLIC

The University of California redefines what it means to be a public university. UC community members — educators, researchers, staff and students — are passionately committed to UC's mission of teaching, research and public service, and its contributions to California, which include:

- UC enrolls freshmen and transfer students from every county in California.
- UC has more than 1.6 million living alumni, 1.2 million of whom are California residents.
- UC operates more than 3,000 academic skills programs for K-12 students throughout the state, and almost 4,500 teacher preparation programs and workshops.
- UC produces graduates that meet the state's critical workforce needs, including a larger proportion of STEM degrees compared to CSU and private counterparts, and half of California's medical students and residents.
- UC enables social mobility: Within five years of graduating from UC, more than 50 percent of Pell Grant recipients have higher individual earnings than their pre-UC family income.
- UC researchers are called upon to share insights on how to adapt to drought conditions, search for energy alternatives, preserve indigenous languages, assess innovative educational methods and develop effective therapies and treatments that enhance global health.
- UC inventions launched more than 70 startup companies in California in 2014 alone.
- UC's agricultural experiment stations and cooperative extension offices are in virtually every California county, providing communities and industry with the expertise to enhance agricultural markets, address environmental concerns and help farmers deploy scientifically tested production techniques.
- UC medical centers manage about 159,000 inpatient admissions; 334,000 emergency room visits; and 4.2 million outpatient visits each year, with nearly 60 percent of patients covered by Medicare or Medi-Cal, or uninsured.
- UC operates five major trauma centers and provides half of all the state's organ transplants and one-fourth of care for extensive burns.

[1] Washington Monthly did not publish rankings for 2008.



PUBLIC WORKS

More than 70 percent of UC graduates join the state's workforce directly after graduating, in fields spanning education, engineering, health care and manufacturing.

Chapter 1. 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 articulated in California's "Master Plan for Higher Education," which calls for UC to admit all qualified freshmen in the top 12.5 percent of California public high school graduates. It also calls for UC to admit all qualified California Community College (CCC) transfer students.

In 2014, there were around 149,000 freshmen applicants and 35,000 transfer applicants in total. Campus admissions decisions are based on holistic review of the qualifications of applicants and target the incoming class size based on the capacity of classrooms, laboratories, housing and available state funding.

President Napolitano's vision for UC is to "Teach for California, and research for the world." The president is partnering with California State University (CSU) and California Community College leaders to strengthen higher education in California. In addition, one of President Napolitano's first initiatives was to create a Transfer Action Team to examine ways to increase demand, provide access and better serve transfer students. The University's goal is to admit entering cohorts that are close to a 2:1 ratio of freshmen to transfer students.

Admissions trends — freshmen

Freshman applications have risen dramatically over the past two decades, growing over five percent per year and tripling since 1994. With increases in high school graduation rates, particularly among Chicano/Latino students, the University expects continued growth in demand for college access.

UC relies on a comprehensive review process to make admissions decisions, considering not only successful completion of a rigorous curriculum of college preparatory courses, high school GPA and standardized test scores but also special talents, special projects and accomplishments in light of life experiences and special circumstances.

Due to increasing demand and limited capacity, campuses are admitting a lower percentage of applicants. Despite that trend, UC continues to reach its "Master Plan" goals by guaranteeing admission to applicants who are either in the top 9 percent of high school graduates statewide or the top 9 percent of graduates from their own high school. Qualified freshman applicants are offered an opportunity to be admitted to another UC campus if they do not receive an offer of admission from the UC campuses where they applied. While all campuses offer admission to out-of-state and international students, these students who are admitted must compare favorably to the California residents admitted to that campus.

Admissions trends — transfers

Transfer applications have almost doubled over the last 20 years, reaching a high of 36,200 in 2011. Applicants dropped to 34,800 in 2012 and slightly rebounded to around 35,000 in 2013 and 2014.

Both the Transfer Action Team and the California Community Colleges have identified the cumulative effects of state budget cuts to the CCCs as the likely cause of this decline in applications. With improving state revenues and Proposition 98, state support for the CCCs has increased significantly. Preliminary data from 2015 show an increase in CCC transfer applications, lending credence to the idea that the restoration in funding for the CCCs, coupled with the Academic Senate's efforts to improve transfer pathways, will likely result in increased demand for transfer applicants.

Almost all transfer students enter UC as juniors. Campus enrollment targets are based on capacity in major programs at the upper-division level.

Enrollments

The University enrolls freshmen and transfer students from every county of California, but students tend to apply to campuses closer to their residence. One goal of the president's transfer initiative is to increase the geographic diversity of transfer entrants.

The "Master Plan" specifies that the University maintain a 60:40 ratio of upper-division to lower-division students, which corresponds to a 2:1 ratio of new freshmen to new CCC transfers. Over the past several years, UC has moved closer to that ratio, from 2.42:1 in 2007–08 to 2.31:1 in 2014–15. The report from the Transfer Action Team recommits the University to achieving that goal by 2017–18.

Compared to a decade ago, freshman and transfer entrants today are better prepared academically as measured by grades, and — for freshmen — test scores and the number of rigorous high school courses completed. As academic qualifications of the entering class continue to improve, UC still maintains access for populations historically underserved by higher education. Over 40 percent come from low-income families and are the first in their families to complete a four-year degree.

The number of nonresident domestic and international students has increased in recent years, though their proportion is still much lower than at comparable research universities. Nonresident students enrich and diversify the student body; they also pay supplemental tuition ($22,878 in 2013–14) not charged to California residents. This extra revenue enables UC to improve educational programs for all students.

For more information

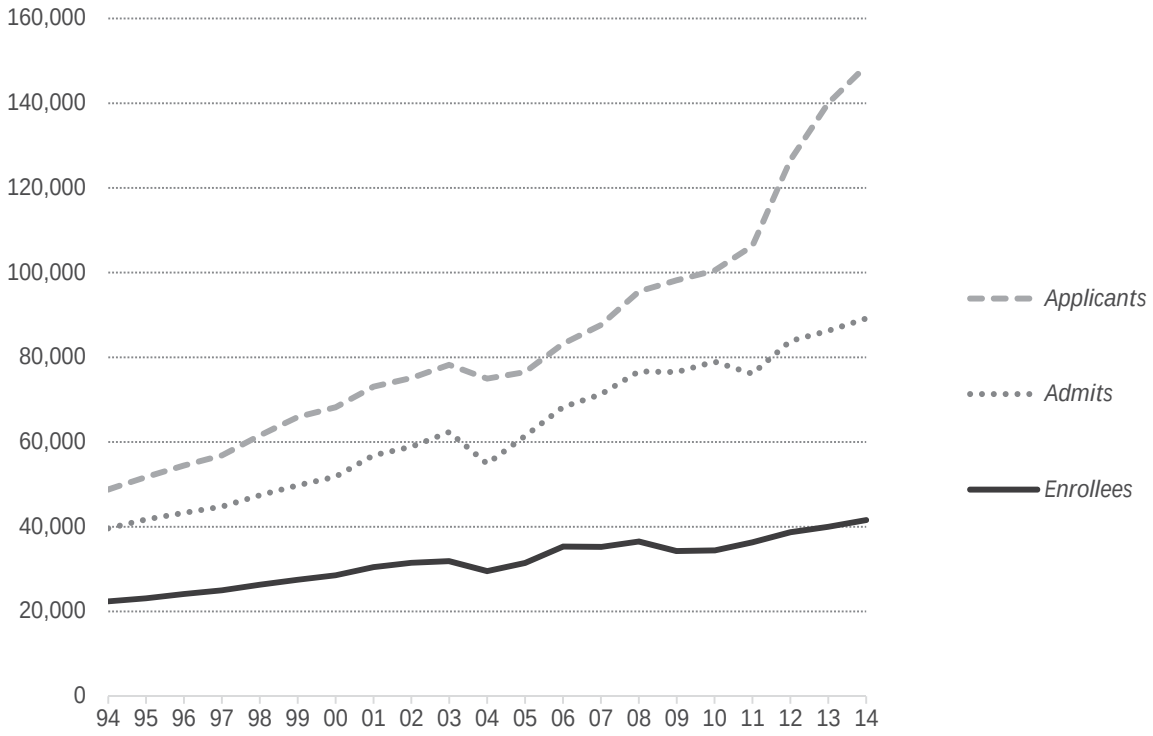
Information on admissions:
www.universityofcalifornia.edu/admissions

The Transfer Action Team report:
http://ucop.edu/transfer-action-team/transfer-action-team-report-2014.pdf

Data tables on UC admissions and enrollment:
www.universityofcalifornia.edu/infocenter

Demand for UC continues to grow.

1.1.1 Freshman applicants, admits and enrollees
Universitywide
Fall 1994 to 2014



Source: UC Corporate Student System.[1]

The rapid growth in freshman applications to UC over the past two decades demonstrates the increased demand for college education, the growth of California's population and UC's continued popularity with California graduates. UC continues to maintain its obligations under the "Master Plan" by guaranteeing admission to all qualified students.

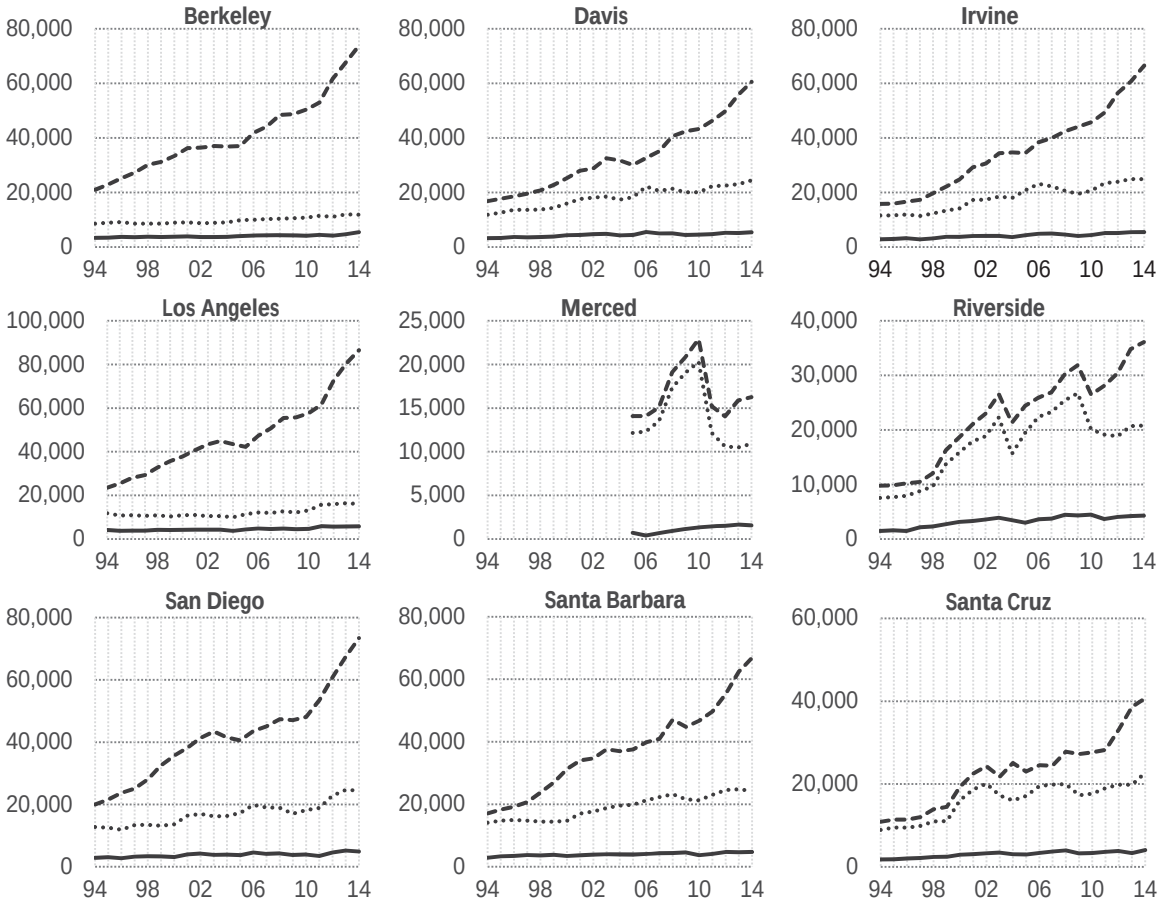
Some qualified applicants are not offered admission at the campus they applied to but instead are admitted to another campus by a referral process. A change in accounting for referral students is responsible for the apparent drop in 2011 admits. Beginning that year, UC Merced began admitting only students who indicated interest in a referral offer, rather than every student who qualified for such an offer. This procedural change is reflected in graphs 1.1.1 and 1.1.2 for Merced.

From 2010 to 2014, unduplicated freshman applications grew 48 percent, compared to a 27 percent increase in the six-year period between 2003 and 2009. The 48 percent growth consists of increases of 18 percent among California residents, 14 percent among domestic nonresidents and 16 percent among international applicants.

[1] Admits and enrollees here include the "referral pool," which comprises eligible applicants who are not offered admission at a campus to which they applied, but who are admitted by another campus which has 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, which only show fall data. Students who apply to multiple UC campuses are counted only once in this Universitywide indicator.

Most UC campuses have experienced tremendous growth in applications and admissions. Trends in campus enrollments have been more stable over time.

1.1.2 Freshman applicants, admits and enrollees
UC campuses
Fall 1994 to 2014 [NOTE SCALES; SEE LEGEND ON PREVIOUS PAGE]



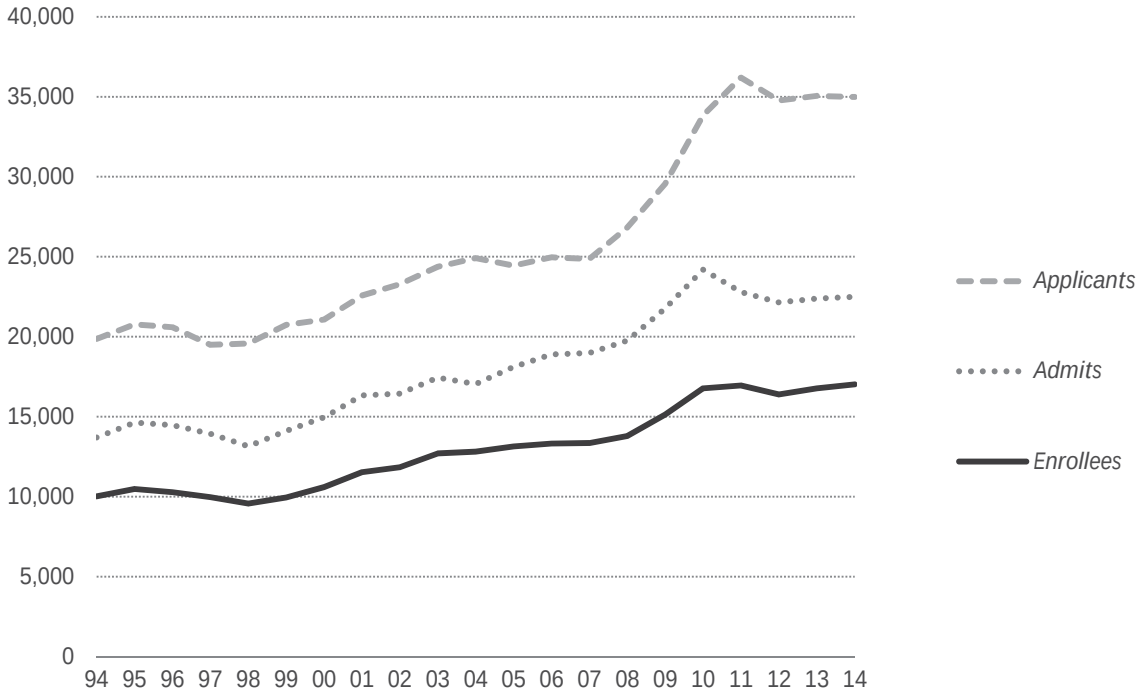
Source: UC Corporate Student System.[1]

Most UC campuses have seen considerable growth in the number of freshman applications they receive, as demonstrated by the steep dashed lines in the graphs above. One factor contributing to this growth is the increase in the number of UC campuses chosen by each applicant; this grew from about 2.8 campuses per applicant in 1994 to over 3.5 campuses per applicant in 2014.

[1] Applicants here include the "referral pool," which comprises eligible applicants who are not offered admission at a campus to which they applied, but who are admitted to another campus with sufficient capacity. Some campuses admit fall applicants for a subsequent term (winter or spring). These "rollover" admits and enrollees are excluded from these graphs, which only show fall data. A change in accounting for referral students is responsible for the apparent drop in 2011 admits. Beginning that year, UC Merced began admitting only students who indicated interest in a referral offer, rather than every student who qualified for such an offer. This procedural change is reflected in the 1.1.2 and 1.1.4 graphs for Merced.

Since 2012, transfer admissions and enrollments have steadily increased, with applications fluctuating.

1.1.3 Transfer applicants, admits and enrollees
Universitywide
Fall 1994 to 2014



Source: UC Corporate Student System.[1]

After a period of sizable growth from 2007 to 2011, which followed a decade of more modest growth, UC experienced a significant drop in transfer applications from California residents in 2012, with a slight increase in 2013, followed by very slight drop in 2014. A less dramatic trend is seen among admits and enrollees, with both increasing since 2012.

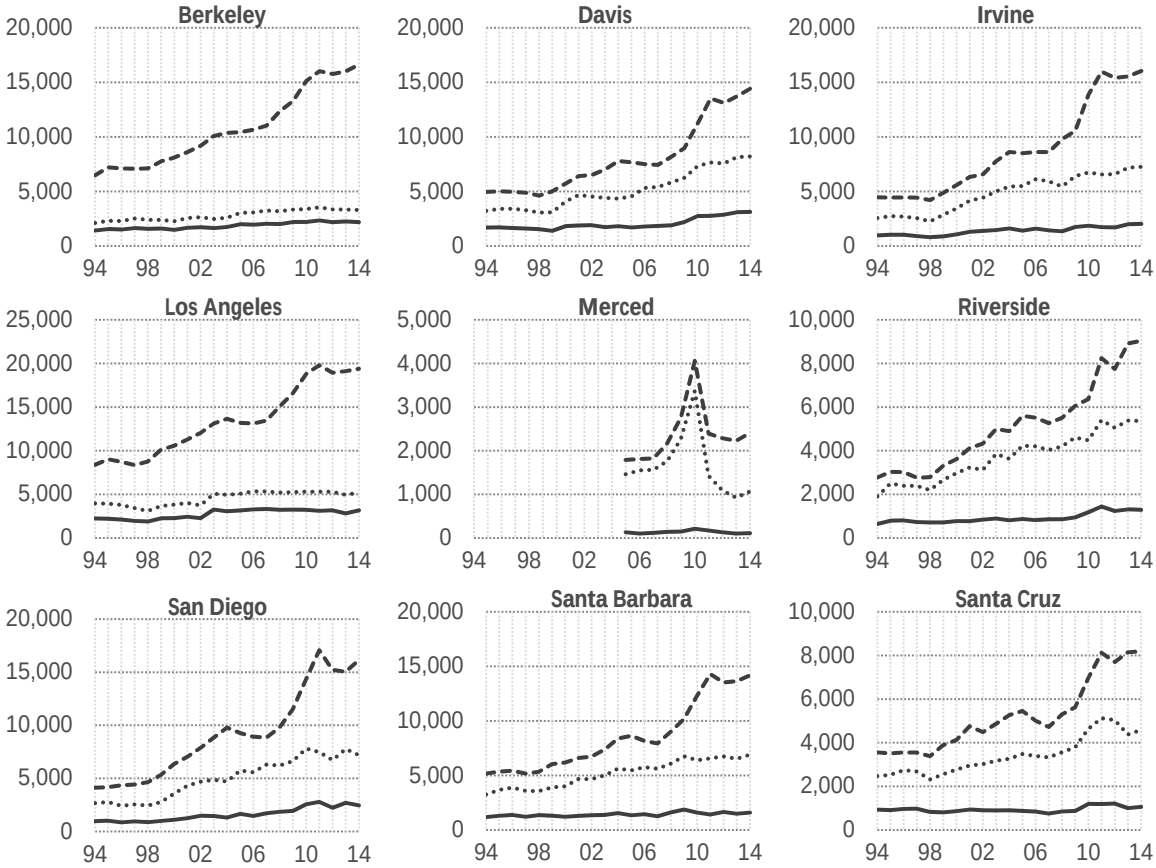
The decline in applicants likely is due to fiscal constraints in the California Community Colleges (CCCs), which forced them to decrease enrollment by about 500,000 students over the past few years, curtail courses that students needed for transfer, and cut counseling services.

Recent funding increases to the CCCs and UC's transfer initiative are to likely expand the number of students that transfer to UC. Preliminary data from 2015 indicate that CCC transfer applications may indeed be rebounding.

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

Since 1994, transfer applications, admissions and enrollees have increased at every campus.

1.1.4 Transfer applicants, admits and enrollees
UC campuses
Fall 1994 to 2014 [NOTE SCALES; SEE LEGEND ON PREVIOUS PAGE]



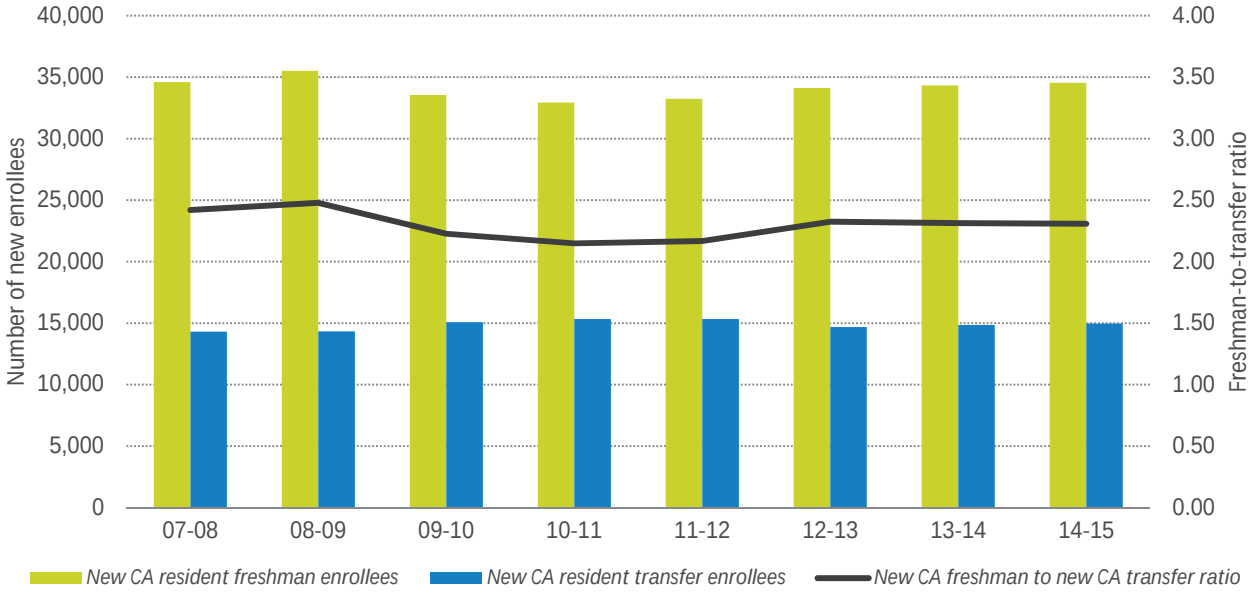
Source: UC Corporate Student System

Consistent with UC's commitment to transfer students, the fall enrollment of new California Community College (CCC) California resident transfers has increased 63 percent since 1994 (from 8,400 to over 13,700).

In June 2012, the UC Academic Senate approved a restructuring plan that will help clarify the transfer process for CCC students interested in UC and also improve their preparation for UC-level work. These changes lay the foundation for the Transfer Action Team's recommendations, which the University is now implementing.

UC continues to work toward achieving its goal of a 2:1 ratio of California resident freshmen to transfer students.

1.1.5 New freshmen and transfer students
Universitywide
2007–08 to 2014–15



Source: UC Corporate Student System.[1]

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

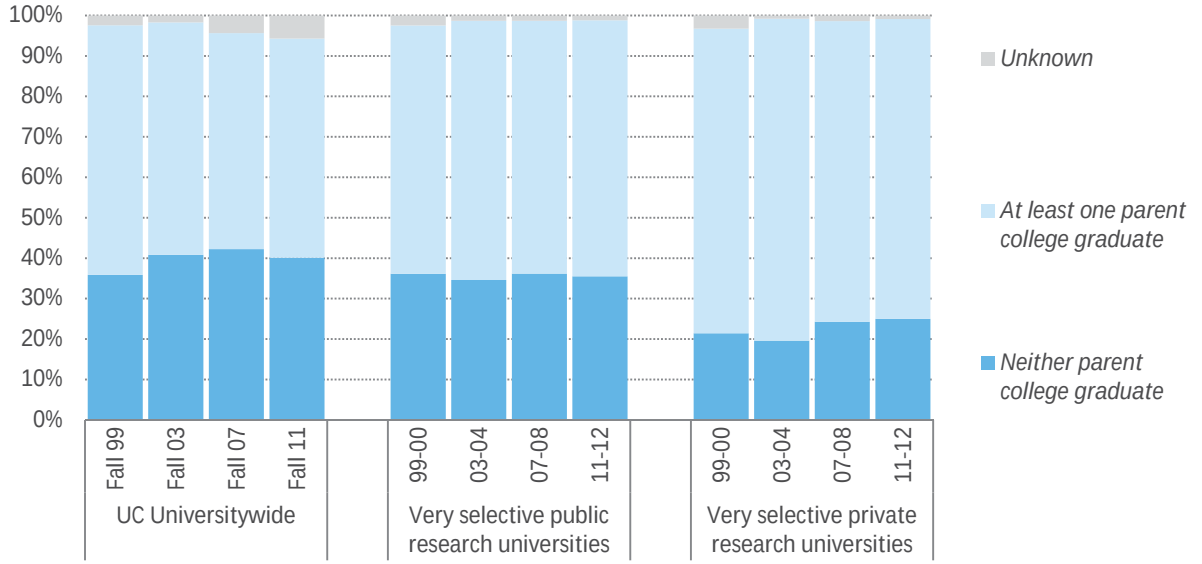
To ensure a smooth transition to UC for transfer students, the Academic Senate is actively developing clear transfer pathways across ten of the top majors by fall 2015, and will do so for another 11 majors by fall 2016.

2014-15	% New CA resident freshmen	% New CA resident transfers	Ratio of new CA freshmen to new CA transfers
Berkeley	67%	33%	2.08
Davis	62%	38%	1.64
Irvine	71%	29%	2.47
Los Angeles	62%	38%	1.60
Merced	93%	7%	13.29
Riverside	78%	22%	3.47
San Diego	65%	35%	1.88
Santa Barbara	75%	25%	3.02
Santa Cruz	77%	23%	3.30
Universitywide, all campuses	70%	30%	2.31
Universitywide, excl. Merced	69%	31%	2.26

[1] Enrollment numbers include applicants to fall, winter and spring terms.

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

1.2.1 First-generation undergraduate students
Universitywide and very selective public and private research universities
1999–2000, 2003–04, 2007–08, and 2011–12



Source: NPSAS and UC Corporate Student System.[1]

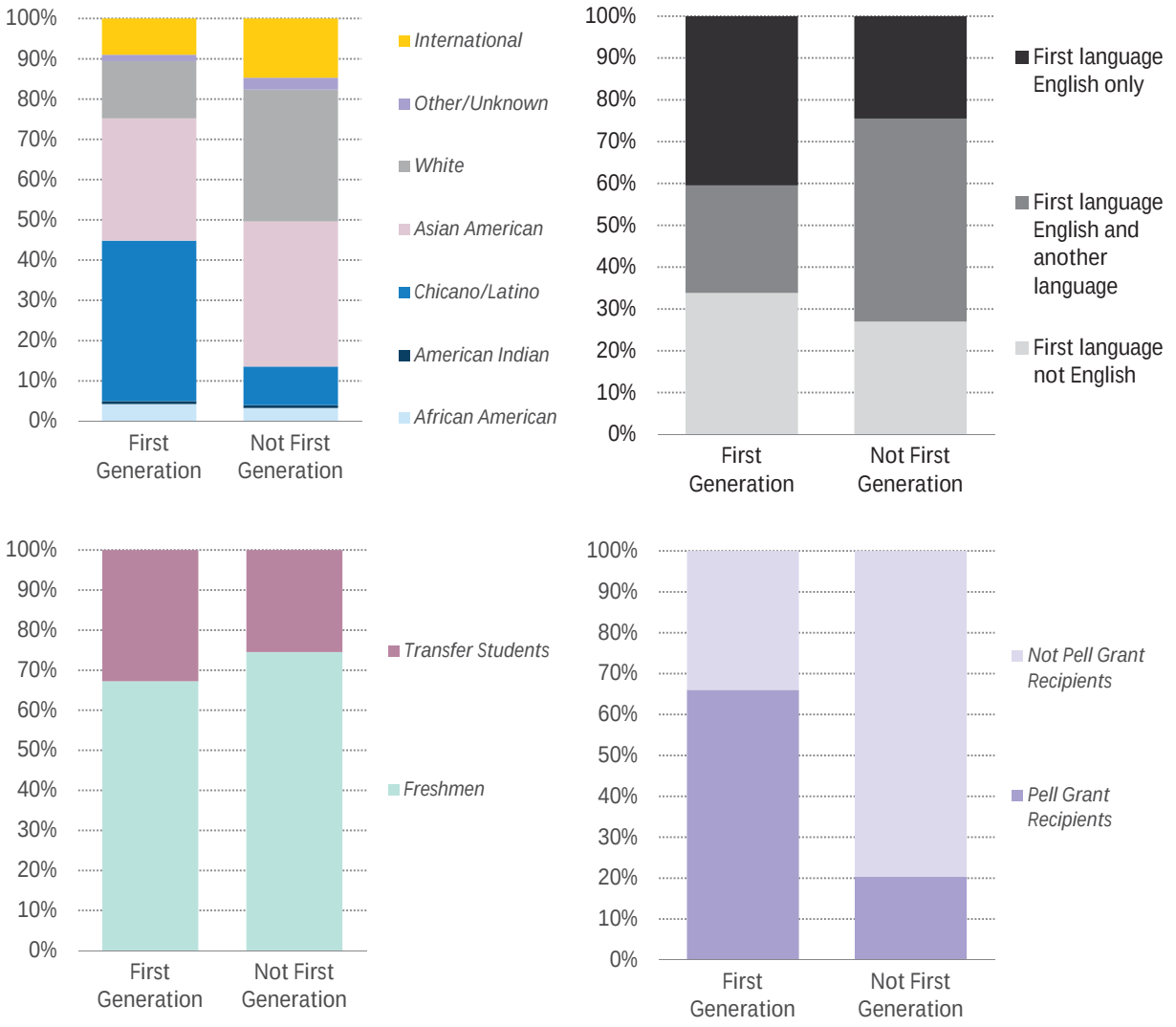
A first-generation student is one whose parents do not hold four-year college degrees. Having one or both parents with a college degree can provide a student with additional tools for success in college, such as having role models, understanding college and family expectations, and having financial means that ease transition from high school to college.

In 2011, around 40 percent of UC undergraduates came from first-generation families, compared to 36 percent for very selective public research universities and 25 percent for very selective private research universities.

[1] Selectivity as defined in IPEDS is 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). The institutions included here are in the most selective group.

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

1.2.2 Entering students by first-generation status, race/ethnicity, first language spoken at home, Pell Grant receipt and entering level
Universitywide
Fall 2014



Source: UC Corporate Student System.[1]

[1] First-generation students do not have a parent with a 4-year college degree. Total of first-generation students is 25,550 (43.6%); non-first-generation students total 31,700 (54.1%); and missing/unknown are 1,350 (2.3%). Unknowns are excluded from charts. Pell Grant receipt is used as a proxy for low-income status.

There are significant differences in the racial/ethnic/income profiles for students entering UC via the freshman or transfer paths.

1.2.3 Entering domestic undergraduates by race/ethnicity, Pell Grant status and class level
Universitywide
Fall 2014

		Freshmen	Transfers	All	
Pell Grant recipients	URM	18.4%	16.6%	17.9%	
	Asian	14.1%	15.7%	14.8%	
	White	4.8%	14.2%	7.5%	
Pell Grant recipients total (includes unk)		**37.9%**	**47.6%**	**40.7%**	n=23,837
Non-Pell Grant	URM	9.6%	9.2%	9.5%	
	Asian	21.8%	11.4%	18.8%	
	White	17.2%	16.4%	17.0%	
Non-Pell Grant total (includes unk)		**50.4%**	**38.4%**	**46.9%**	n=27,462
International		**11.8%**	**14.0%**	**12.4%**	n=7,287
All		**100.0%**	**100.0%**	**100.0%**	
		n=41,569	n=17,017		n=58,586

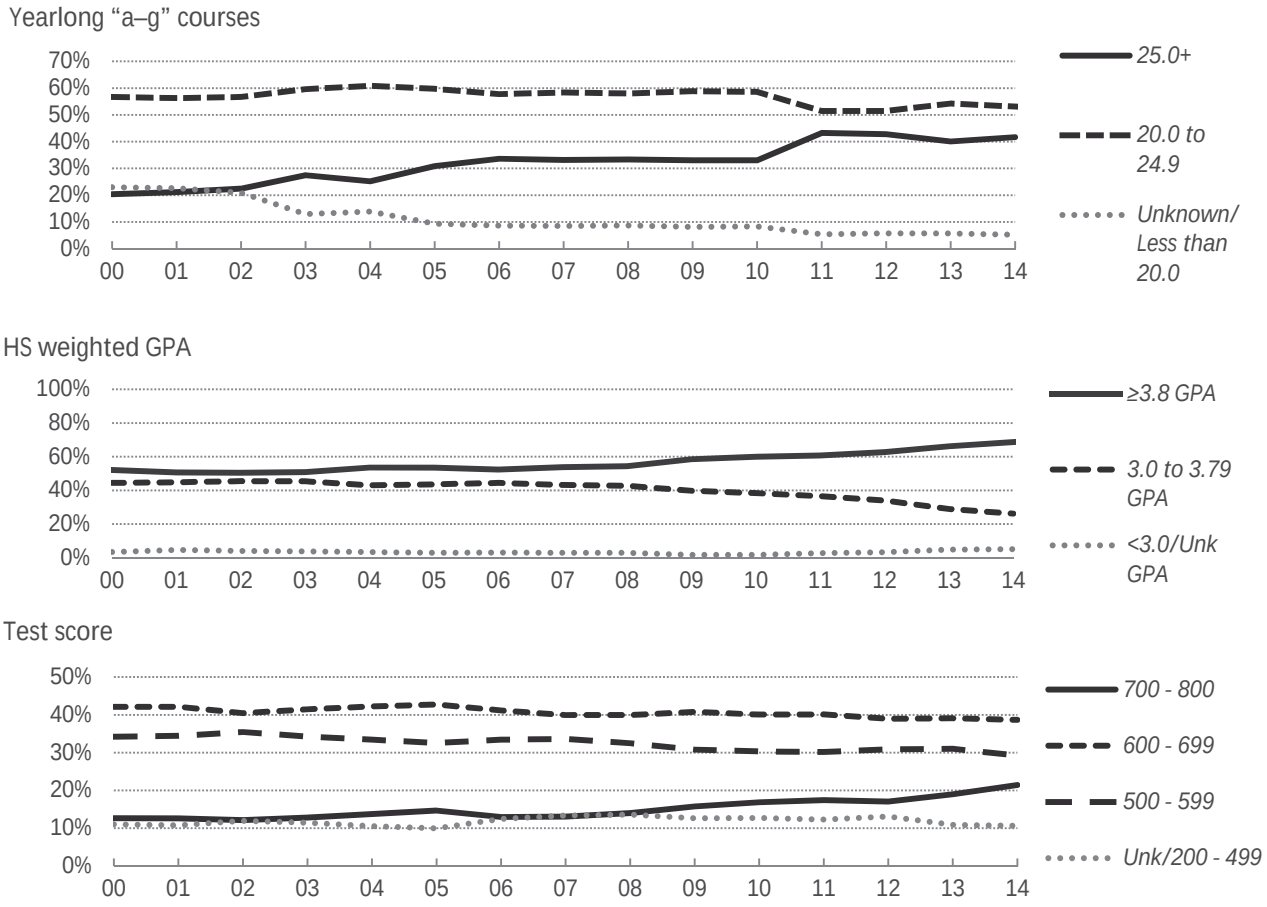
Source: UC Corporate Student System

Underrepresented students constitute a larger proportion of the incoming freshman class than of the entering transfer class, both for Pell Grant recipients and non-Pell Grant recipients. Among Asian students, a higher share of Pell Grant recipients are found in the transfer class compared to the freshman class, while Asian students from non-Pell families are almost twice as prevalent in the freshman class as the transfer class.

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

Freshmen entering UC are increasingly well-prepared.

1.3.1 A–G (college preparatory)[1] courses; weighted, capped high school grade point average (GPA)[2]; and standardized test scores[3] of entering freshmen, as share of class
Universitywide
Fall 2000 to fall 2014

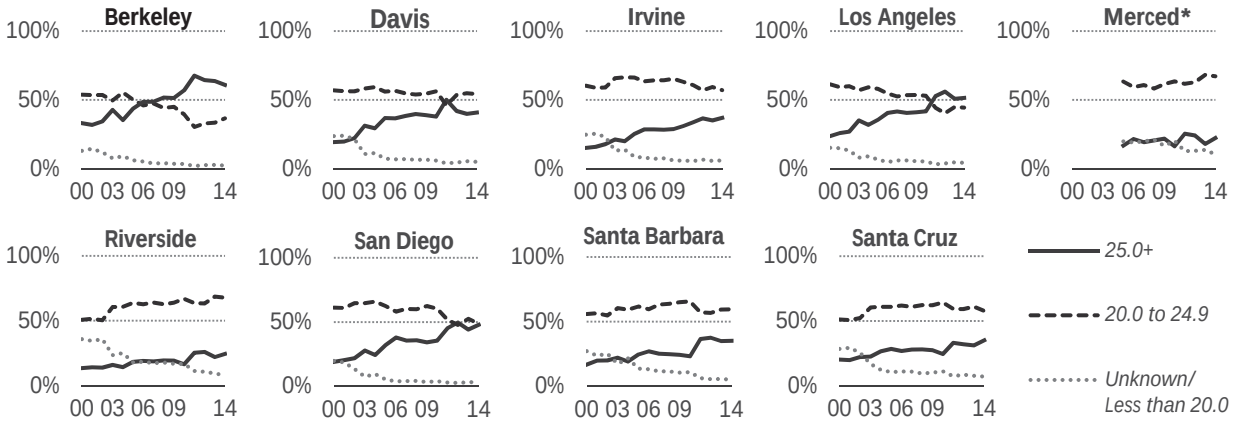


Source: UC Corporate Student System

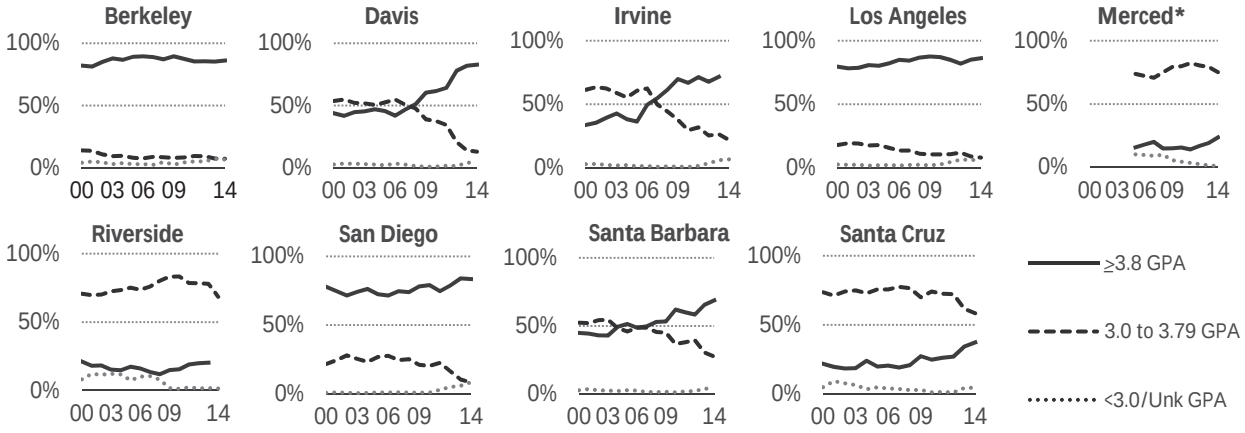
The academic qualifications of UC applicants and admitted students continues to improve, as reflected by an increase in the number of college-preparatory course completed, higher achievement on standardized entrance exams (SAT/ACT) and rising high school GPAs. UC uses both weighted and unweighted GPAs to evaluate freshman applicants. A weighted GPA 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. For UC eligibility purposes, the weighted, capped GPA is used (shown above) and includes this extra credit for a maximum of eight semester-long courses.

[1] A–G courses refer to those high school courses that UC has reviewed and approved as college preparatory.
[2] Weighted, capped GPA means that students may receive a maximum of eight semesters of honors credit. More information is available at http://admission.universityofcalifornia.edu/freshman/california-residents/admissions-index/index.html.
[3] Test scores are the highest of either SAT or ACT scores. ACT scores are converted to the 800 SAT scale. From 2000 to 2005, SAT scores are the average of SAT I Math and Verbal scores. From 2006 onward, SAT scores are the average of SAT Critical Reading and Math scores.

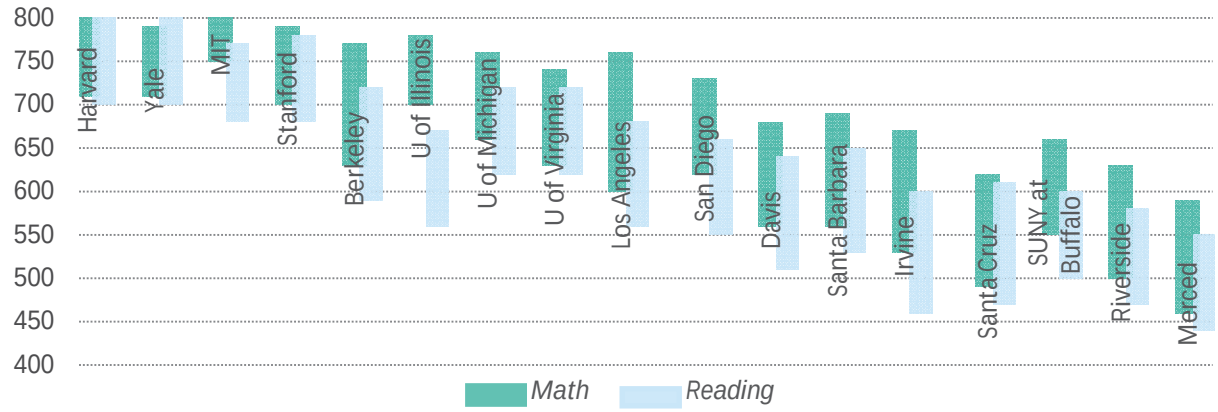
1.3.2 A–G (college preparatory)[1] courses of entering freshmen by campus, as share of class
Fall 2000 to fall 2014



1.3.3 High school weighted, capped GPA, incoming freshmen
Fall 2000 to fall 2014



1.3.4 SAT Reading and Math scores, 25th to 75th percentile
UC campuses and comparison institutions
Fall 2013



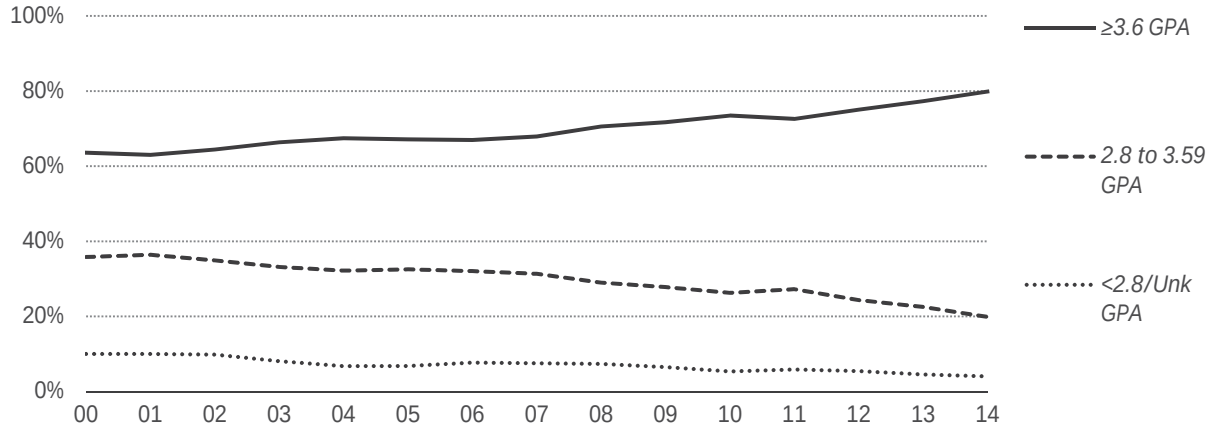
Source for SAT scores is IPEDS. Other data are from UC Corporate Student System.

[1] A–G courses refer to those high school courses that UC has reviewed and approved as college preparatory. *Merced opened in 2005.

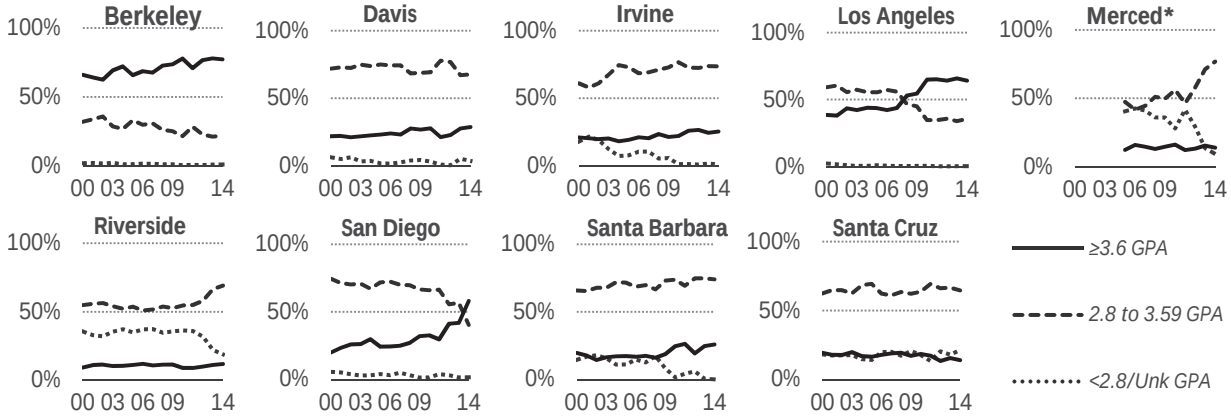
Like freshmen, UC transfer students in fall 2014 were better prepared academically than their counterparts in earlier years, as measured by their grades.

1.3.5 College grade point average (GPA)[1] of entering transfer students, as share of class
Fall 2000 to 2014

Universitywide



UC campuses

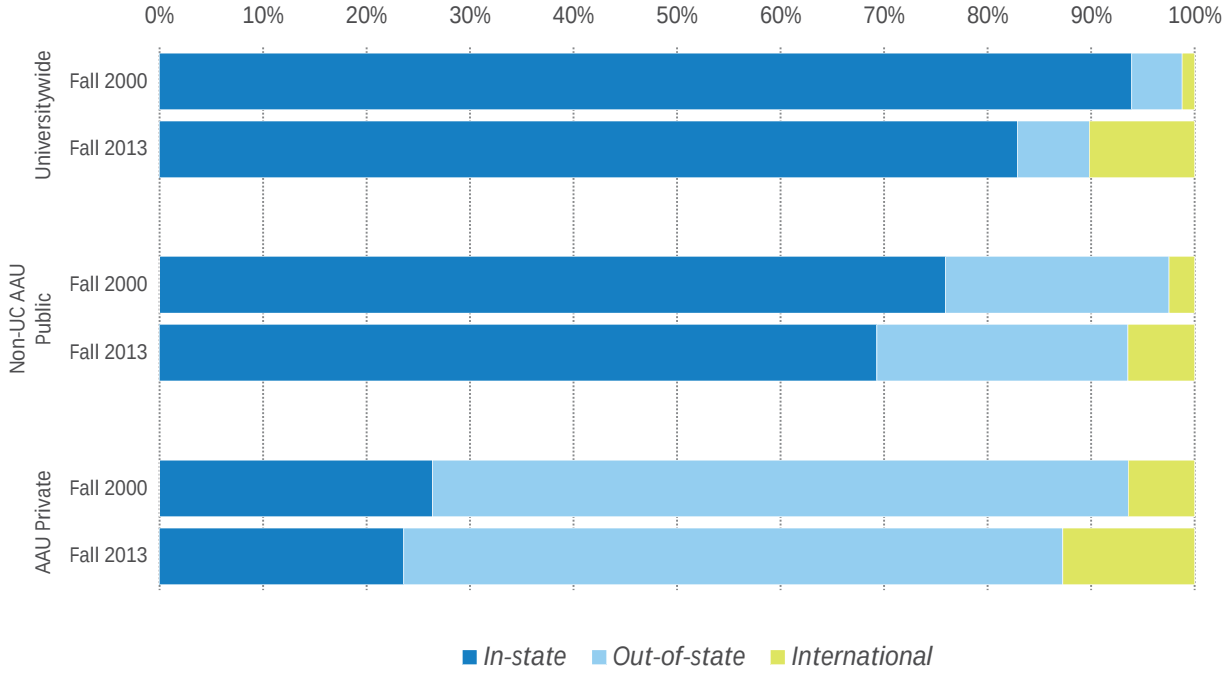


Source: UC Corporate Student System

[1] The transfer GPA is based on grades for college-level academic courses from the college(s) where students were previously enrolled. *Merced opened in 2005.

UC has a substantially lower proportion of out-of-state undergraduates than other AAU universities. In fall 2013, only 17 percent of new UC freshmen were out-of-state or international, compared with 31 percent and 76 percent for AAU publics and AAU privates, respectively.

1.4.1 Geographic origin of entering freshmen
Universitywide and comparison institutions
Fall 2000 and 2013



Source: IPEDS. Residency based on IPEDS definition.

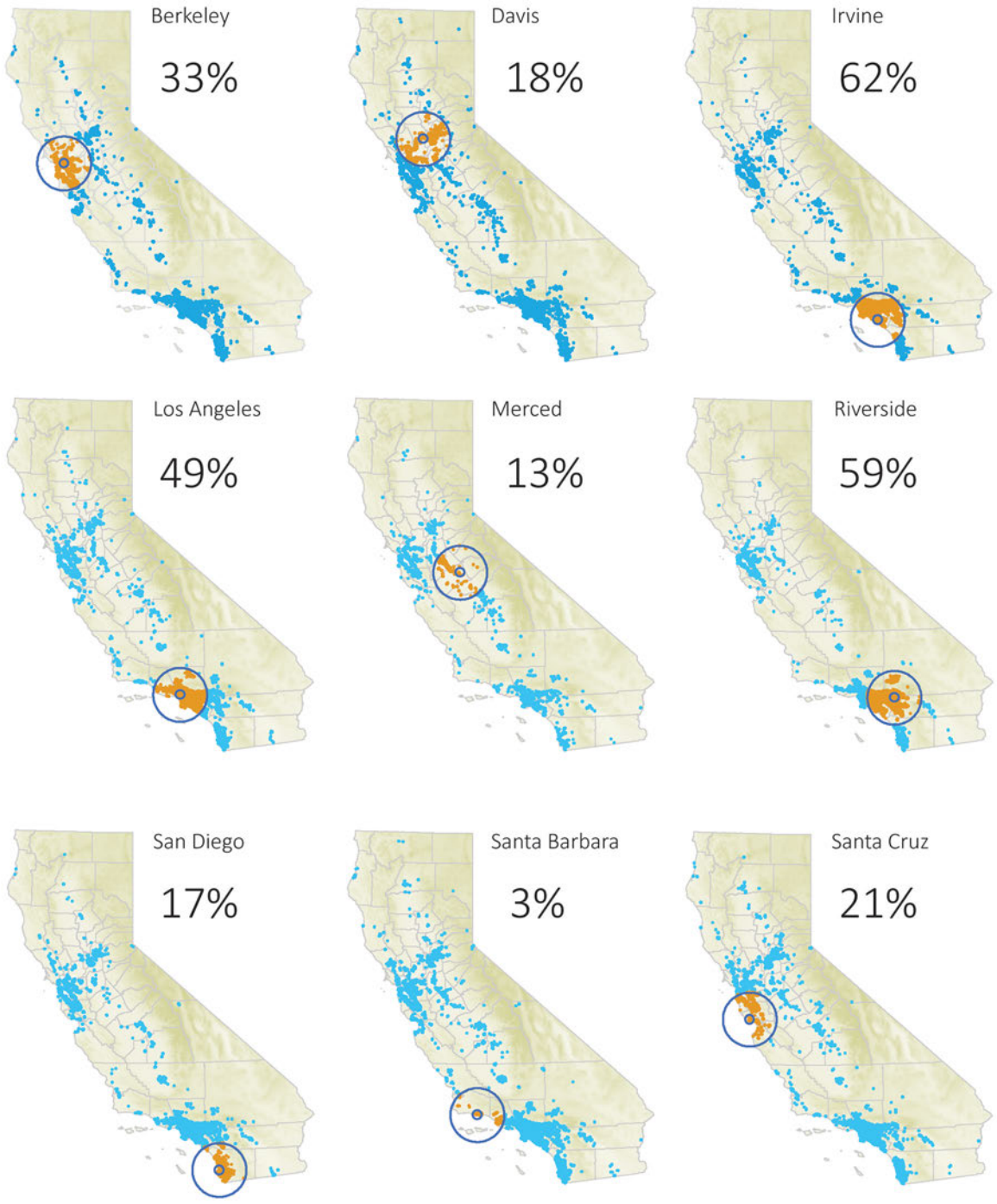
Nonresidents provide geographic diversity to the student body. They also pay the full cost of their education. In 2014–15, tuition and fees at UC campuses for a nonresident undergraduate, including health insurance, ranged from $36,900 to $39,000, compared to $14,000 to $16,200 for California resident students.

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

UC's priority is to enroll California residents. Campuses enroll nonresident students based on available physical and instructional capacity, and the campus's ability to attract qualified nonresident students.

UC campuses attract students from their local regions and the major urban areas of California, with an overall local attendance rate of 32 percent.

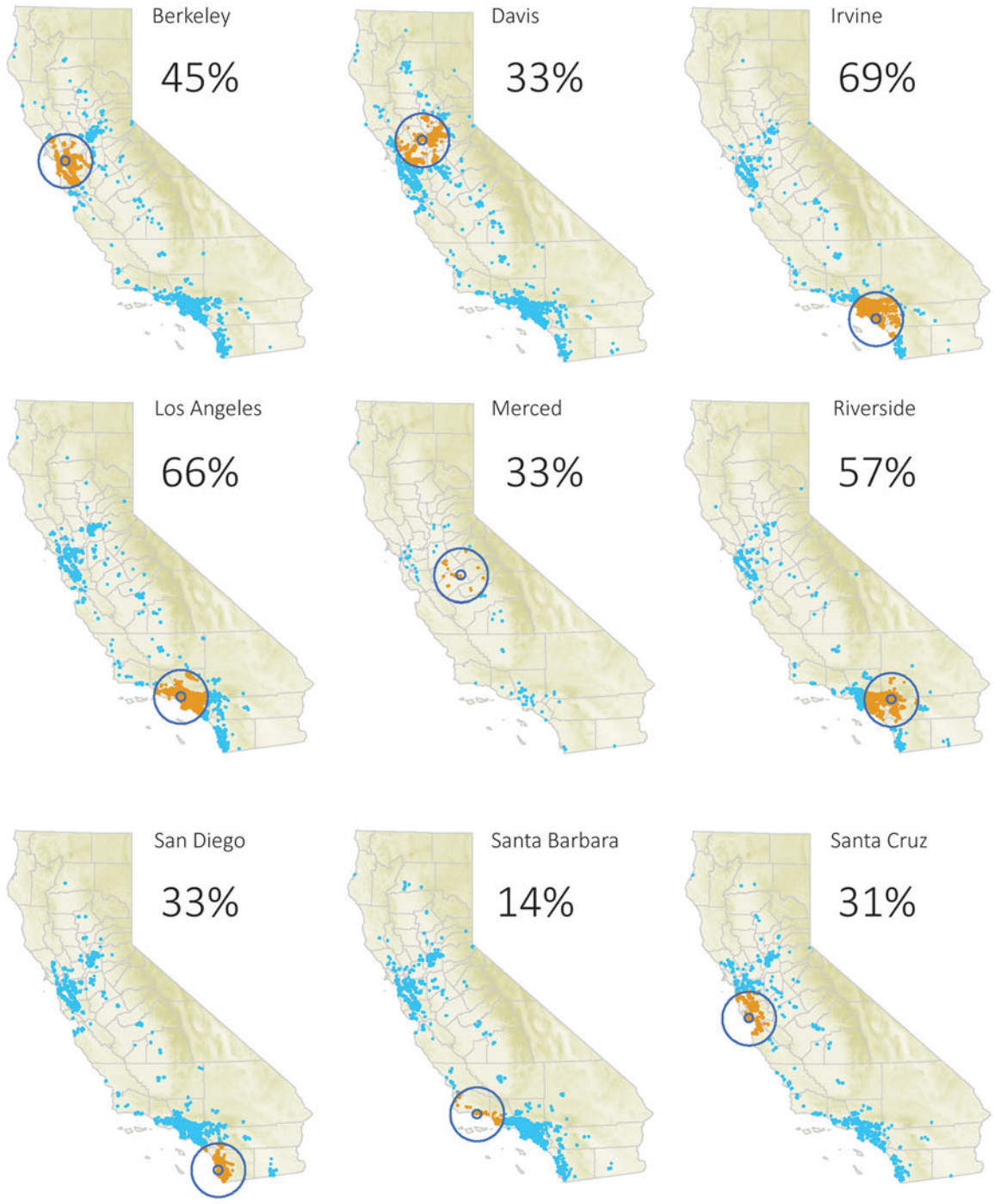
1.4.2 Percentage of new CA resident freshman enrollees whose home is within a 50-mile radius of their campus
UC campuses
Fall 2014



Source: UC Corporate Student System

While freshmen have a high local attendance rate, transfer enrollee rates are even higher, with 45 percent enrolling at a UC campus within 50 miles of their home.

1.4.3 Percentage of new CA resident transfer enrollees whose home is within a 50-mile radius of their campus
UC campuses
Fall 2014



Source: UC Corporate Student System

As a system, UC enrolls far fewer nonresidents than other public research universities.

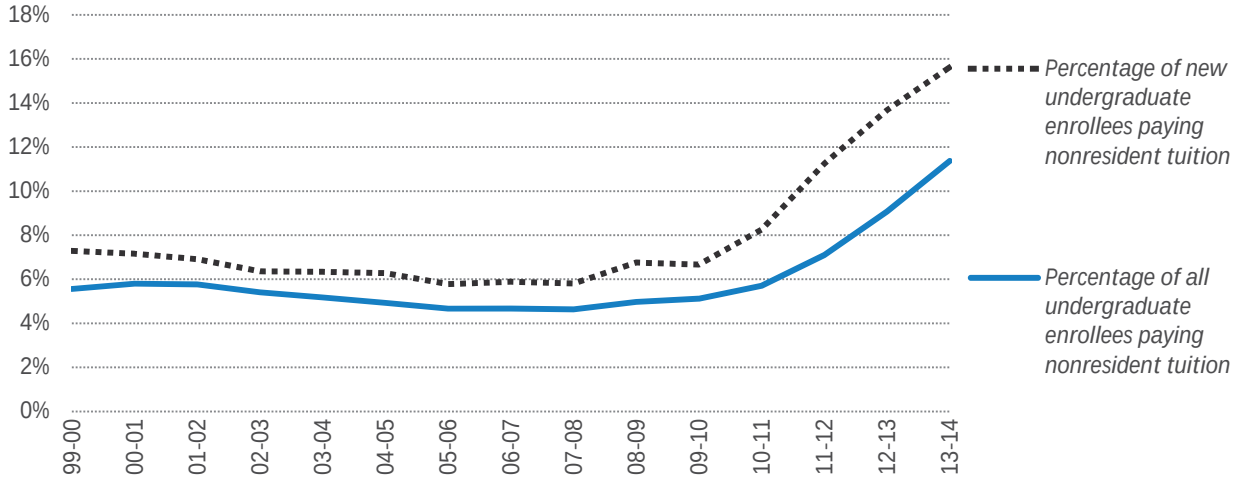
1.4.4 State funding versus percentage of nonresidents
UC campuses and AAU public institutions
2013–14

Source: IPEDS

Even the UC campuses with the highest proportions of nonresidents are still below the average among public members of the AAU. There is an association between declining state funding and increasing nonresident enrollment, a clear trend seen across the nation.

The proportion of undergraduate students paying nonresident tuition is rising.

1.4.5 Percentage of full-time-equivalent undergraduate enrollees paying nonresident tuition
Universitywide
1999–2000 to 2013–14



Source: UC Corporate Student System

The proportion of nonresident students at individual campuses varies depending on a campus's capacity as well as its ability to attract nonresident students.[1]

With decreases in state support and flat undergraduate tuition, some UC campuses are leveraging increased revenue from nonresident tuition to support the provision or expansion of undergraduate courses or to expand financial aid for California residents.

There are some differences between the data shown in the graph above and the data shown earlier in this chapter. Here, the graph shows the annual full-time-equivalent undergraduates who pay nonresident tuition, while the previous page shows new freshmen based on home location or visa type. These measures have different uses depending on the policy question under consideration.

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


UC IRVINE

Chapter 2. Undergraduate Students — Affordability

Goals

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

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

Maintaining access

The total cost of attendance and the composition of undergraduates in terms of parental income levels set the framework for what is required to provide adequate financial support.

Focusing on in-state students that live on campus, the total cost of attendance, divided into tuition and fees and other expenses (e.g., living and personal expenses, books and supplies, transportation and health care), has remained relatively flat over the last several years at just under $32,000. This figure compares to about $25,000 on average at other AAU publics and around $59,000 for the AAU privates.

The income profile indicators demonstrate that the University remains accessible to students from all income groups, including low-income students.

Since 2008–09, the proportion of UC students in the lowest income category increased from 13 percent to 16 percent of the total undergraduate student body, with an offsetting decline among upper- and upper-middle-income families. This may reflect, in part, a statewide decline in the incomes of middle-income families due to the economic recession.

In fall 2014, 41 percent of all UC undergraduates qualified for Pell Grants.[1]

Financing a UC education

UC is able to provide access to students across the socio-economic spectrum thanks to a progressive financial aid program that takes into consideration how much parents can afford; federal, state and University gift aid or grants; and a manageable student "self-help" contribution from work and/or borrowing.

There is more gift aid available to UC students than students at other AAU public institutions, which dramatically reduces the net cost of attendance for the neediest families and enables UC to attract a sizable proportion of students from low-income families. In addition, the net cost of attendance for students from families in the lowest income bracket (less than $53,000) has actually declined since 2004–05, when adjusted for inflation.

Federal and state governments provide critical support through the Pell Grant and Cal Grant programs. In addition, UC's commitment to affordability is evident in the University's systemwide Blue and Gold Opportunity Plan, which ensures that needy students with family incomes below $80,000 receive gift aid sufficient to cover their tuition and fees. As a result of these robust state and institutional financial aid programs, 55 percent of California resident students paid no tuition in 2013–14. Furthermore, in 2011–12, UC provided a grant to cover the full cost of that year's tuition increase for students with need from families earning incomes up to $120,000. UC has not increased systemwide undergraduate tuition and fees since 2011–12.

An undergraduate's self-help requirement can be met through a combination of work and loans. UC relies on student survey data — including the UC Undergraduate Experience Survey (UCUES) and Cost of Attendance Survey — to measure how much students work. UCUES data show that over 50 percent of undergraduates do not work. Studies indicate that 20 hours of work per week is the threshold at which undergraduate academic performance is impacted. Recently, the proportion

[1] Pell percentage for fall 2014 has been updated.

of students working more than 20 hours per week has increased to 10 percent, up from 7 percent two years earlier.

About 43 percent of undergraduates relied on student loans to help finance their education, with loan amounts averaging $6,470. These figures are slightly lower than the year before, after inflation adjustment. Parental borrowing under the federal PLUS program decreased from 7 percent to 6 percent; the average loan amounts increased slightly but remained below $16,000 per year.

Limiting cumulative debt

The proportion of undergraduates leaving with debt is lower than a decade ago. About 55 percent of the class of 2013–14 graduated with debt, with an average amount of $20,600. This translates into a monthly repayment amount of about $230 for 10 years at a 6 percent annual interest rate.

Comparison data show the 2011–12 cumulative debt level for UC undergraduates at $20,200, compared to $25,700 for public 4-year; $30,740 for private nonprofit 4-year; and $37,840 for private for-profit institutions.

Looking forward

As part of its ongoing commitment to keeping college affordable, the University successfully completed its Project You Can initiative in December 2014, raising over $1 billion in private support for student aid.

Since 2013–14, students who qualify for in-state tuition and fees under AB 540 are now eligible for Cal Grants. Approximately 1,400 of these students received Cal Grants in 2013-14, totaling $17.2 million.

For more information

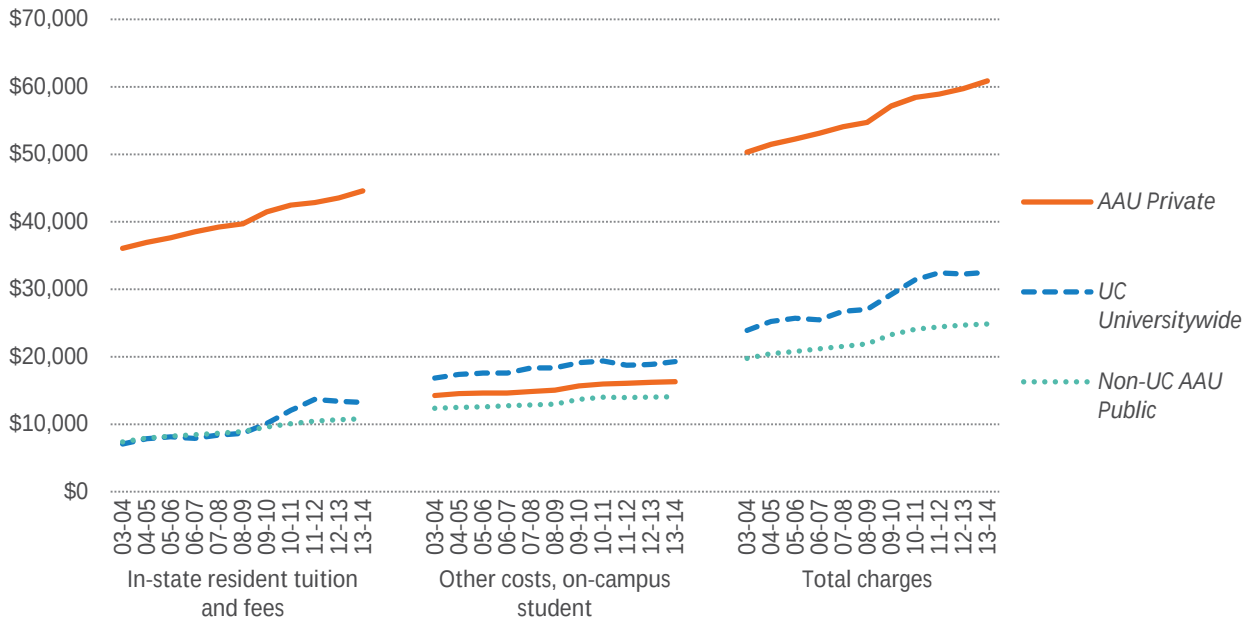
More information about UC costs and financial aid, including details about UC's Blue and Gold Opportunity Plan and links to financial aid estimators:
http://admission.universityofcalifornia.edu/paying-for-uc

Detailed information about trends in UC financial aid:
http://ucop.edu/student-affairs/data-and-reporting

Data storyboards on access and affordability:
www.universityofcalifornia.edu/infocenter

UC resident tuition and fees and total costs have remained relatively flat over the last several years, and while they still exceed the national average for AAU public institutions, they remain below the average for AAU private institutions.

2.1.1 Total cost of attendance for undergraduates Universitywide and comparison institutions 2003–04 to 2013–14



Source: IPEDS[1]

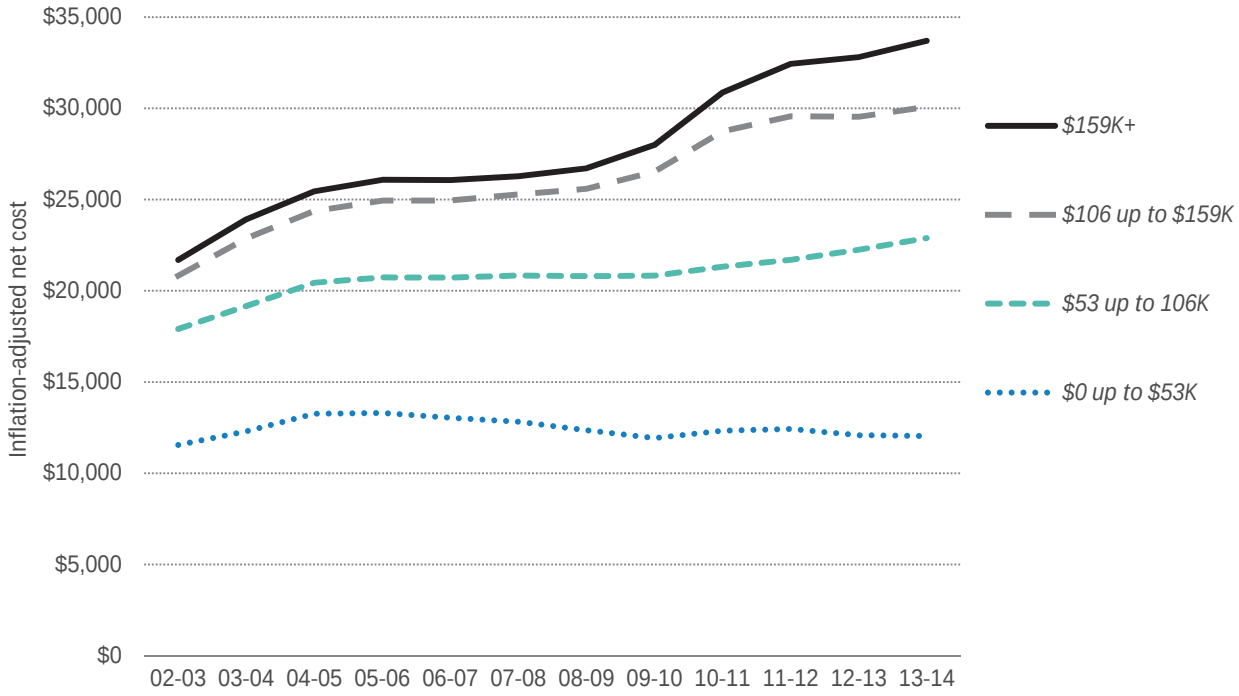
The total cost of attending college includes tuition and fees as well as living expenses, books and supplies, transportation, health insurance and personal expenses. The total cost of attendance is higher at UC than at AAU public comparison institutions partly because of the relatively high cost of living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

After several years of increases, UC tuition and fees and total cost of attendance have remained relatively flat.

[1] Charges are for in-state students living on campus. Averages are simple averages. Weighted averages for UC can be found at http://ucop.edu/student-affairs/data-and-reporting/student-budget-tables/index.html. A list of the 28 non-UC AAU public and 26 AAU private institutions in the comparison groups can be found in the data glossary.

The net cost of attendance for students from families in the lowest income categories has actually declined since 2004–05, after accounting for inflation, while it has increased for students from middle- and high-income families.

2.1.2 Net cost of attendance by family income
Universitywide
2002–03 to 2013–14



Source: UC Corporate Student System[1]

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

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

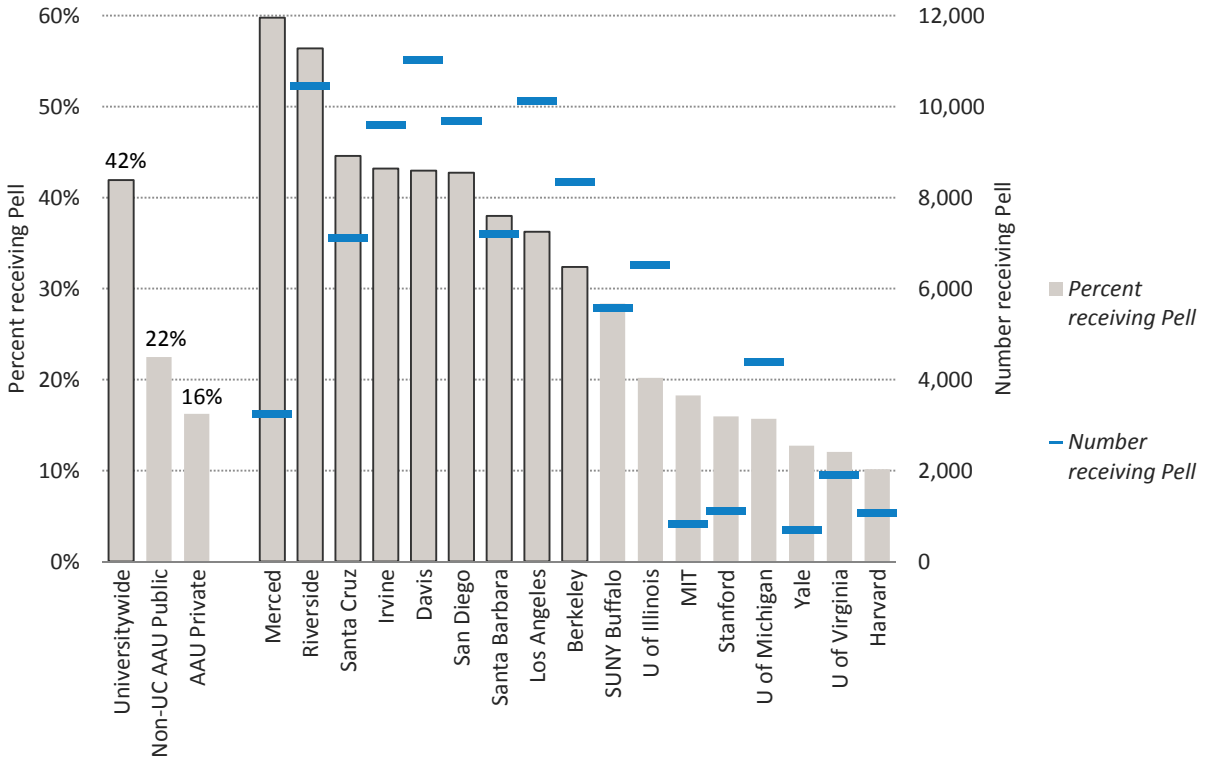
The availability of scholarships and grants has mitigated the impact of cost increases on students from families earning below $100,000.

Between 2002–03 and 2013–14, the average increase in inflation-adjusted net cost for all UC undergraduate students, including independent students, was approximately $4,200. Inflation-adjusted increases ranged from $500 for low-income students to about $12,000 for high-income students.

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

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

2.2.1 Undergraduate Pell Grant recipients
UC and comparison institutions
2012–13



Source: IPEDS[1]

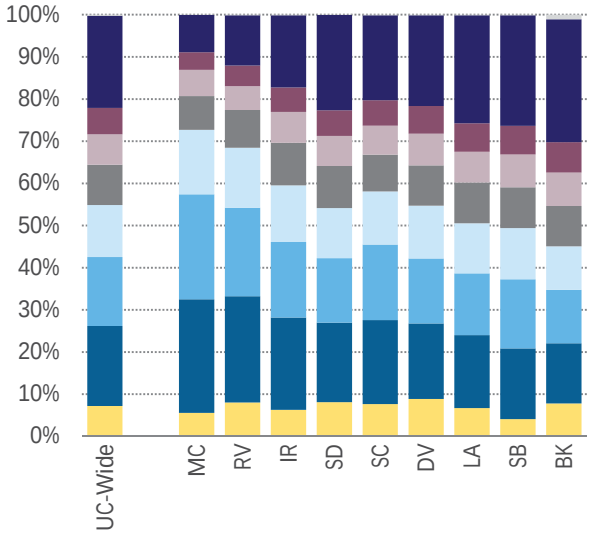
The percentage of undergraduate students with Pell Grants provides a useful means to compare different institutions in terms of their accessibility for low-income students. It is also a useful indicator for comparing the socio-economic diversity of an institution's undergraduate student population.

The data shown above represent the most recent year that data on comparison institutions are available. The proportion of UC undergraduates receiving Pell Grants went up from 31 percent in 2008–09 to 42 percent in 2012–13, and is 41 percent for fall 2014. 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.

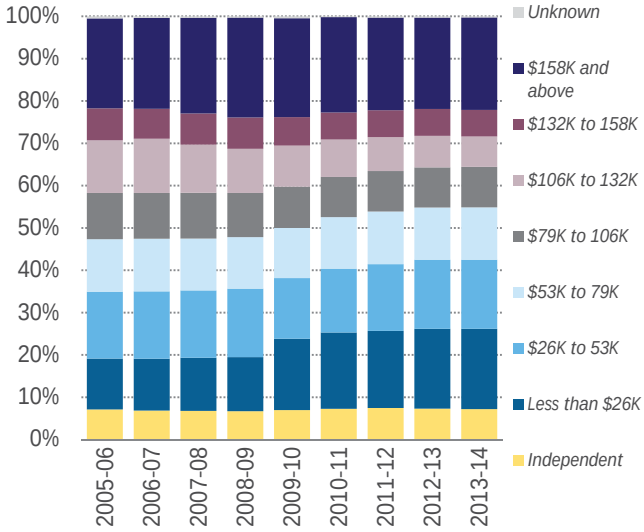
[1] Percentage reported is that of students who received Pell Grants at any time during the 2012–13 year as a percentage of all undergraduates. Note that Pell Grant eligibility criteria change annually because of the federal appropriations process and other formula changes. Thus, trend analysis of Pell recipients would not be a valid measure of changes in low-income students but rather would reflect the changes in eligibility criteria. A list of the institutions in the AAU comparison groups can be found in the data glossary. Pell percentage for fall 2014 is updated.

A large proportion of UC students come from low-income families, especially at UC's newer campuses.

2.2.2 Undergraduate income distribution Universitywide and UC campuses 2013–14



2.2.3 Trends in the parent income of UC undergraduates, 2013 constant dollars Universitywide 2005–06 to 2013–14



Source: UC Corporate Student System[1]

While all UC campuses enroll a significant proportion of low-income students, the proportion varies across the campuses.

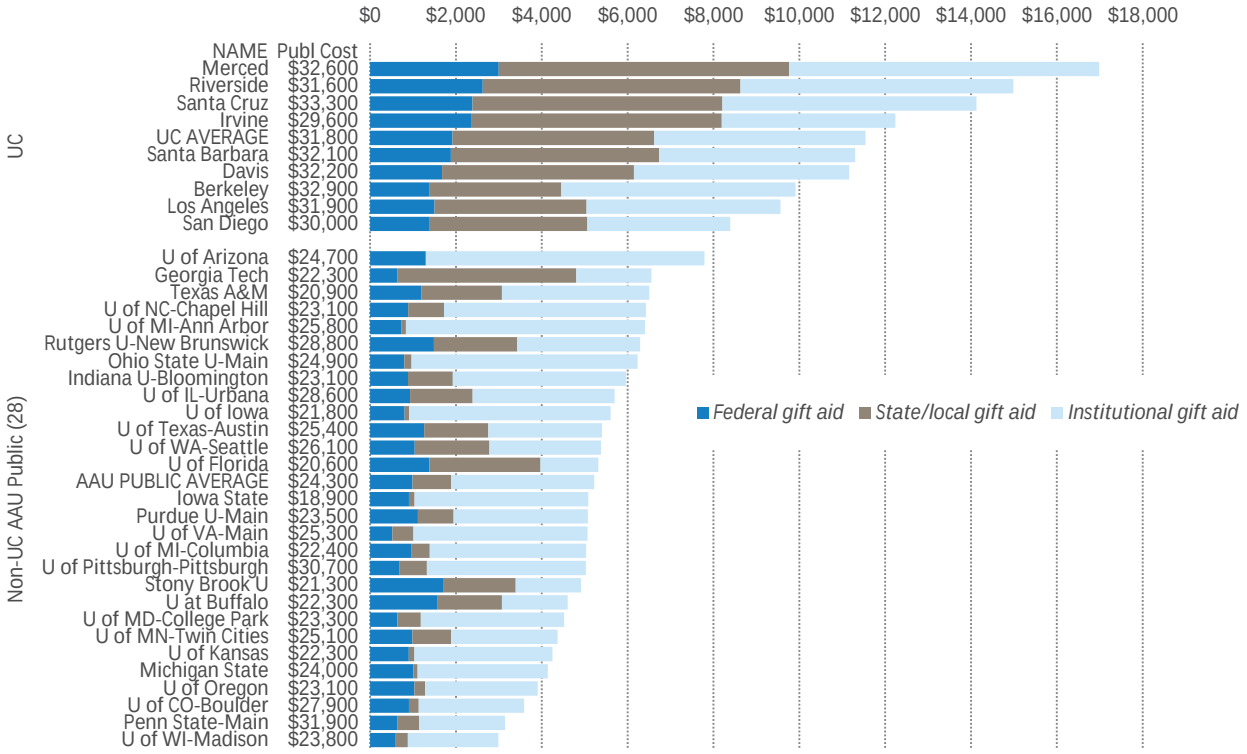
The income distribution of UC undergraduates remained stable for many years despite increases in the University's cost of attendance. This suggests that the University's financial aid programs kept the University's net cost of attendance within reach of low- and middle-income families, and that UC's total cost of attendance remains affordable for others.

The chart above also shows the impact of the recent economic downturn on UC families: since 2008–09, the proportion of UC students in the lower income categories increased noticeably, with an offsetting decline among upper- and upper-middle-income families.

[1] Note that prior to 2007–08, an increasing number of students at one campus with parent incomes above $100,000 were incorrectly categorized as having an income of $100,000. This problem was fixed in 2007–08, resulting in an apparent (but not actual) decline in the percentage of students shown in the $106,000 to $132,000 category and a corresponding increase in the percentage shown in higher income categories.

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

2.3.1 Average per capita gift aid for new freshmen
UC campuses and public AAU institutions
2012–13



Source: IPEDS.[1]

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 (Blue and Gold Program). AAU institutions in other states generally have either a strong state aid program or a strong institutional aid program, but not both.

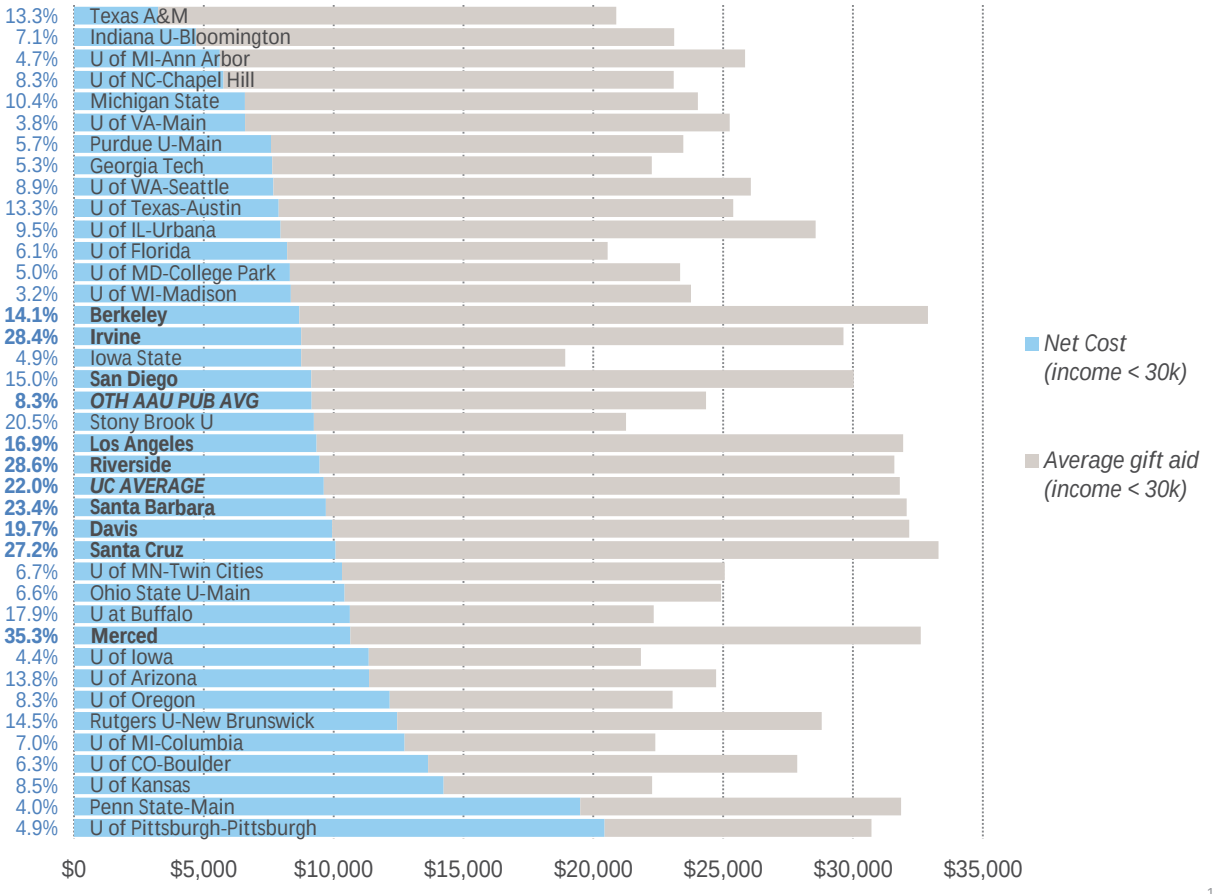
Institutional gift aid is the largest source of grant and scholarship support for UC undergraduates. The primary source of institutional gift aid is the nearly one-third of all tuition and fee revenues that UC sets aside for need-based financial aid. Although 90 percent of all gift aid received by UC students is based on need, one in six UC undergraduates receives a merit-based scholarship. In 2013–14, the average merit-based scholarship was about $4,860, funded from a mix of federal, state, external private and institutional sources.

[1] Figures include gift aid given to all full-time first-time students, while the data in indicator 2.3.2 shows gift aid only 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. "Publ cost" in the column to the right of the institution names is the published cost for in-state students living on campus.

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

2.3.2 Average gift aid, cost of attendance and net cost for very low-income students
UC campuses and public AAU institutions
2012–13

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



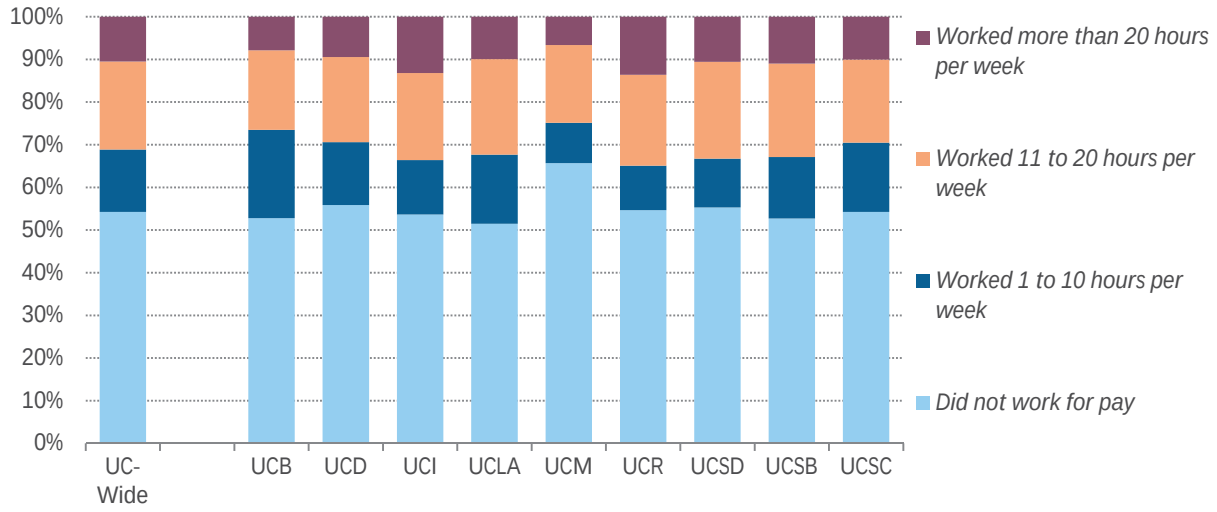
Source: IPEDS[1]

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.

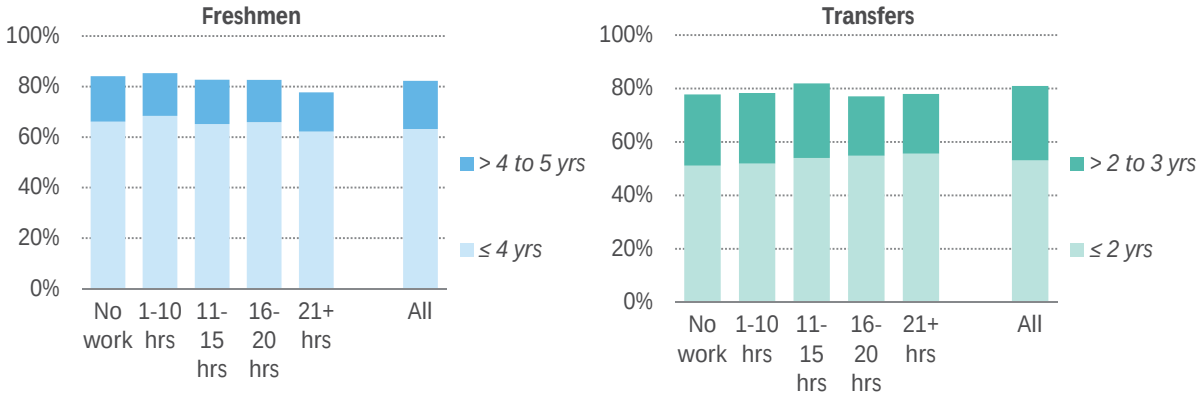
[1] Very low-income students shown here have family incomes below $30,000. Published Cost of Attendance = Tuition + Published Living Expenses. Living expenses vary depending on a student's housing choices and on the housing market around a campus. This leads to the slightly different averages shown in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

The proportion of undergraduates working more than 20 hours per week was less than 10 percent in 2013–14. A little over half of undergraduates did not work for pay.

2.4.1 Undergraduate hours of work
Universitywide and UC campuses
2013–14



2.4.2 Graduation rates by hours worked in first year
Universitywide
2009–10 entering freshmen and transfers



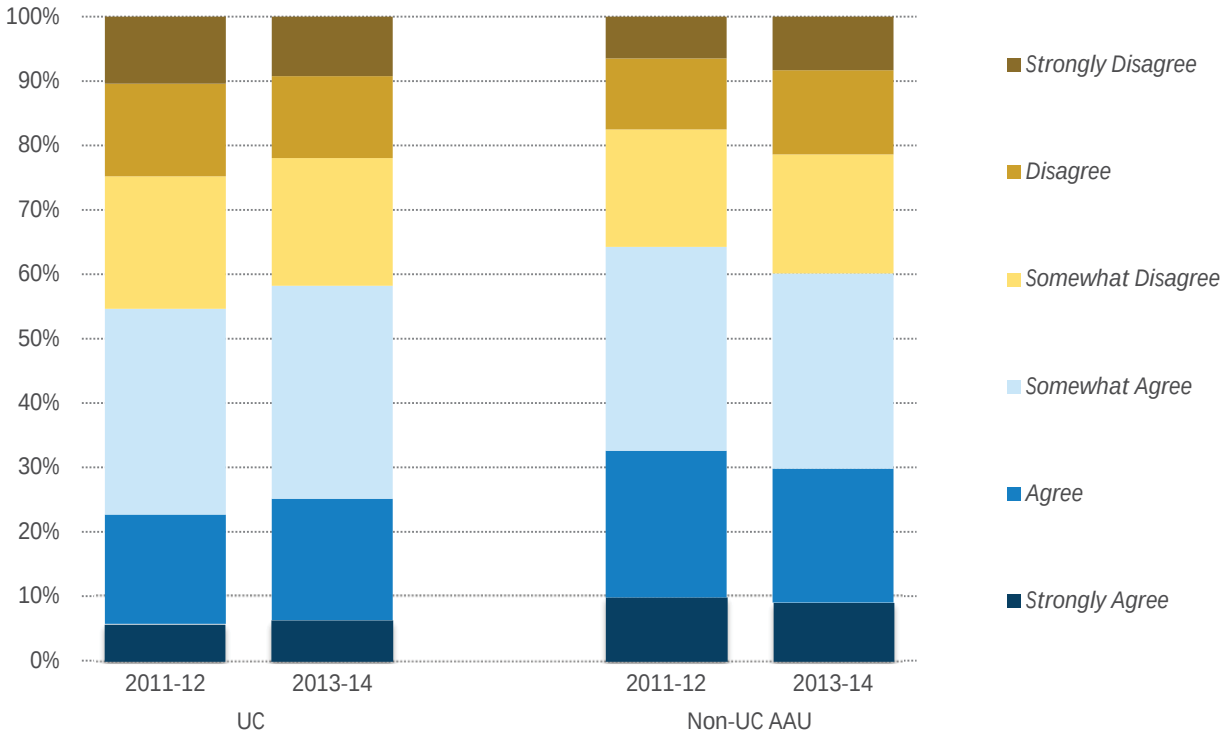
Source: UCUES and Corporate Student System

UC expects all students to help finance their education through a combination of work and borrowing. With respect to student work, the University's goal is for students to work at a reasonable level that does not impede progress toward completion of the baccalaureate degree.

Studies show that work in excess of 20 hours a week may affect academic performance or progress to degree.

The proportion of UC students who feel that the cost of their education is manageable has increased from two years ago.

2.5.1 Response to "With grants and scholarships, if any, the total cost of attending the school is manageable" Universitywide and comparison institutions 2011–12 and 2013–14



Source: UCUES and SERU[1]

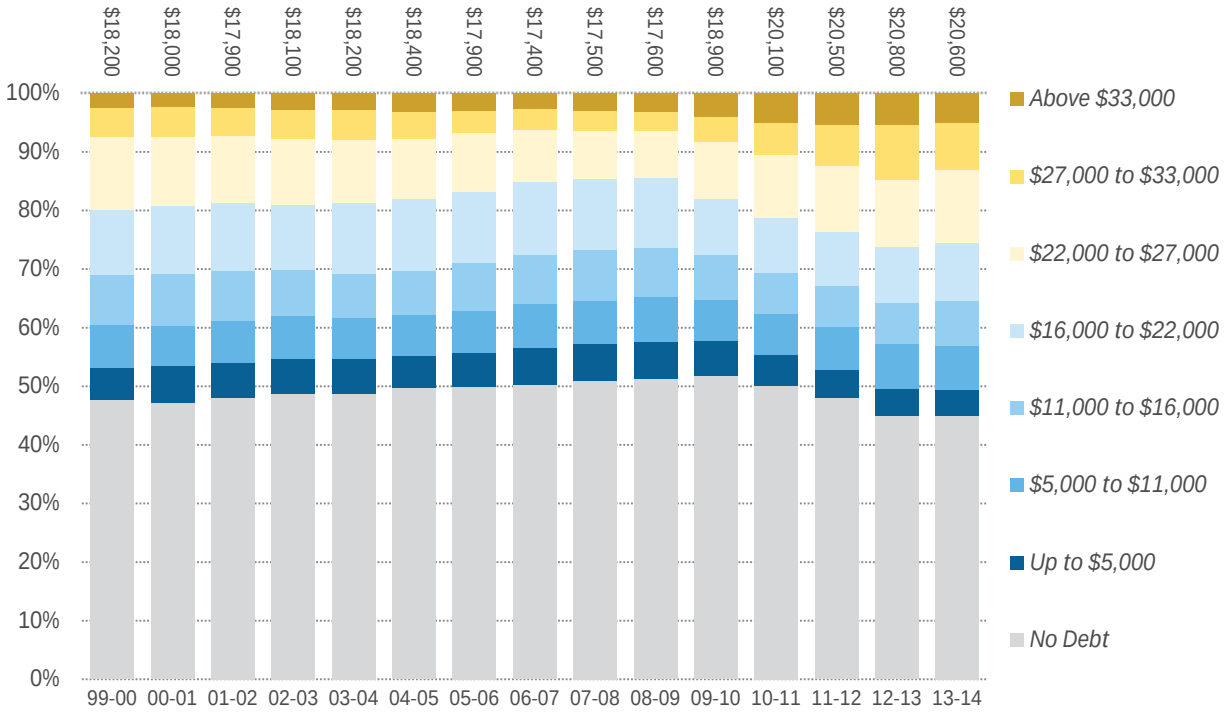
Fifty-eight percent of UC undergraduates report feeling that the cost of attendance is manageable. This figure is up from 55 percent in the previous UCUES survey. Sixty percent of survey respondents at other AAU schools agree that the cost of their education is manageable.

Among non-UC AAU schools, a direct comparison between the 2011–12 survey and the 2013–14 survey should be viewed with caution, since the number of schools in the SERU consortium has grown.

[1] SERU is the Student Experience in the Research University survey, which is administered at a number of AAU institutions. There were more non-UC AAU institutions schools included in the survey in 2013–14 compared with 2011–12. Non-UC schools included in 2011–12: U Minnesota, Rutgers U, U Pittsburgh, USC, Texas A&M U, and U Virginia. In 2013–14, additional schools included U Michigan, Indiana U, Purdue U, U Iowa and U Washington.

The average inflation-adjusted debt at graduation of student borrowers increased by 13.2 percent (from $18,200 to $20,600) over the past 13 years.

2.5.2 Student loan debt burden of graduating seniors, inflation-adjusted
Universitywide
1999–2000 to 2013–14 (average debt of those with debt shown above each year)



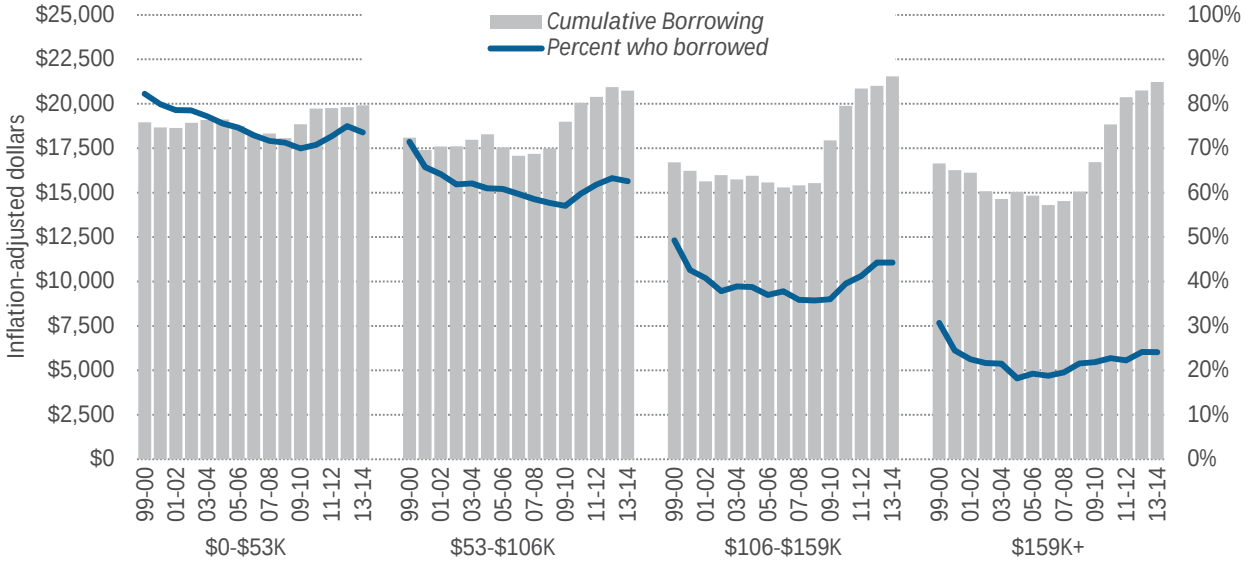
Source: UC Corporate Student System[1]

Forty-five percent of UC undergraduates graduate with no debt at all. For those who do borrow, the average student loan debt at graduation in 2013–14 was about $20,600. The monthly repayment for this amount is about $230 for 10 years at the 6 percent average interest rate that typically applies to student loans. Lower payments are available with longer repayment periods.

[1] Figures adjusted for inflation in 2013 dollars using CA CPI-W. Borrowing shown here represents loans coordinated through the campus financial aid offices; some families also borrow from outside sources, which are not captured in this indicator. Independent students and students with unknown parent incomes are not shown, which accounts for the differences between this graph and the previous indicator. Only includes graduates who originally entered as freshmen.

Despite recent increases, the proportion of students graduating with loan debt across all incomes was still lower in 2013–14 than it was 15 years ago.

2.5.3 Student loan debt burden of graduating seniors by parent income
Universitywide
1999–2000 to 2013–14



Source: UC Corporate Student System[1]

The proportion of students who borrow decreased steadily from 1999–00 through 2009–10 for students in nearly every income category. From 2010–11 through 2012–13, student borrowing increased, both in percentage and in cumulative amount. This uptick in borrowing may reflect a combination of higher costs and a reduction in other borrowing alternatives (e.g., home equity loans).

In the most recent year, however, student borrowing decreased slightly for the lowest two income categories, and it remained flat for families making over $105,000.

2.5.3 Average cumulative loan debt
UC and national comparison institutions
2011–12 graduates

Riverside	$21,090
San Diego	$20,940
Los Angeles	$20,880
Santa Cruz	$20,830
Irvine	$20,280
UC AVERAGE	$20,210
Santa Barbara	$19,770
Davis	$19,730
Merced	$19,220
Berkeley	$18,380
Private for profit	$37,840
Private nonprofit 4-year	$30,740
Public 4-year	$25,700
National Average	$29,400

Source: NPSAS and TICAS

[1] Figures adjusted for inflation in 2013 dollars using CA CPI-W. Borrowing shown here represents loans coordinated through the campus financial aid offices; some families also borrow from outside sources, which are not captured in this indicator. Independent students and students with unknown parent incomes are not shown, which accounts for the differences between this graph and the previous indicator. Only includes graduates who originally entered as freshmen.

Chapter 3. Undergraduate Student Success

Goals

The University of California seeks to enable all freshmen and transfer entrants 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.

Improving graduation rates

By traditional graduation rate measures, UC's undergraduates are highly successful.

UC's four-year graduation rates for freshmen have risen significantly over the past 15 years — from 46 percent for the 1997 entering cohort to 62 percent for the 2010 cohort. The most recent six-year graduation rate sits at 84 percent. In addition, time-to-degree has steadily improved over time with freshmen entrants taking four years plus one quarter to graduate.

Similar gains can be found with transfer entrants whose average two-year graduation rate has increased from 37 percent for the 1997 entering cohort to 55 percent for the 2012 cohort. The most recent four-year graduation rate for transfers (2010 entering cohort) is 87 percent.

Researching factors that affect graduation rates

Implicit in the discussion of graduation rates is the need to understand factors that affect retention, because improving retention rates raises the potential ceiling for graduation rates.

While employment is often thought to contribute to lower graduation rates, undergraduates have to work a significant number of hours (i.e., 21 hours or more) for it to play a role, and only a very small proportion of undergraduates work to that extent.

Undergraduate self-evaluation

The percent of graduating seniors who express through the UC Undergraduate Experience Survey (UCUES) that they are satisfied with their campus experiences is relatively consistent over the past eight years, at over 80 percent. Compared to the previous survey administration, a greater proportion of seniors now state that they are very satisfied, but the total proportion indicating that they are satisfied has slightly declined.

Undergraduate outcomes

Overall, the number of undergraduate degrees awarded by UC over the past 15 years has grown by 47 percent, from 32,741 to 48,069 degrees. Increases in the size of the entering freshman class and improving graduation rates have contributed to these positive developments. In addition, over one-third of the undergraduate degrees UC awarded in 2013–14 were in STEM disciplines (science, technology, engineering and math).

Four years later post-graduation, more than a quarter of bachelor's degree recipients have enrolled in graduate or professional programs.

Analysis of wage data reported for UC alumni working in California shows differences in earnings depending on the student's major. Overall, and over time, the earning capacity of UC alumni increases rapidly; ten years after graduation, alumni are earning double what they were just two years post-graduation. Success in the California labor workforce is seen across all socioeconomic groups, including students whose families qualified for federal Pell Grants. Within five years of graduation, Pell Grant recipients earn an average income higher than their parents' combined incomes during the time those students attended UC (approximately $50,000).

California employment data of UC bachelor's degree recipients also illustrates that ten years out, more than 30 percent of life science majors end up working in health care; 15 percent of engineering/ computer science majors end up in the Internet and computer systems industry and another 12 percent end up in engineering services; and 12 percent of social science majors end up in K–12 education.

Looking forward

Despite UC's record of success, there are continued systemwide and campus efforts to improve undergraduate outcomes.

The March 2015 Performance Outcomes report shows that when comparing Pell and non-Pell recipients, there is a gap in graduation rates at four years that all but disappears in six years for freshmen. Graduation rates at UC tend to be lower for socioeconomically disadvantaged students (especially African-American and Chicano/Latino males) and for students from first-generation families.

In January 2015, faculty, advisers and administrators from the University's nine undergraduate campuses and the Office of the President convened to share key research findings, programs and initiatives that support timely graduation, particularly for underrepresented race/ethnic groups and Pell Grant recipients. Campus and systemwide representatives have identified key takeaways that they will implement in the coming year, such as predictive analytics, evaluation of major coursework, expanded use of summer session courses, and student support programs. This conference is just one part of UC's ongoing efforts to examine and improve the efficiency of educational programs as well as the success of students.

For more information

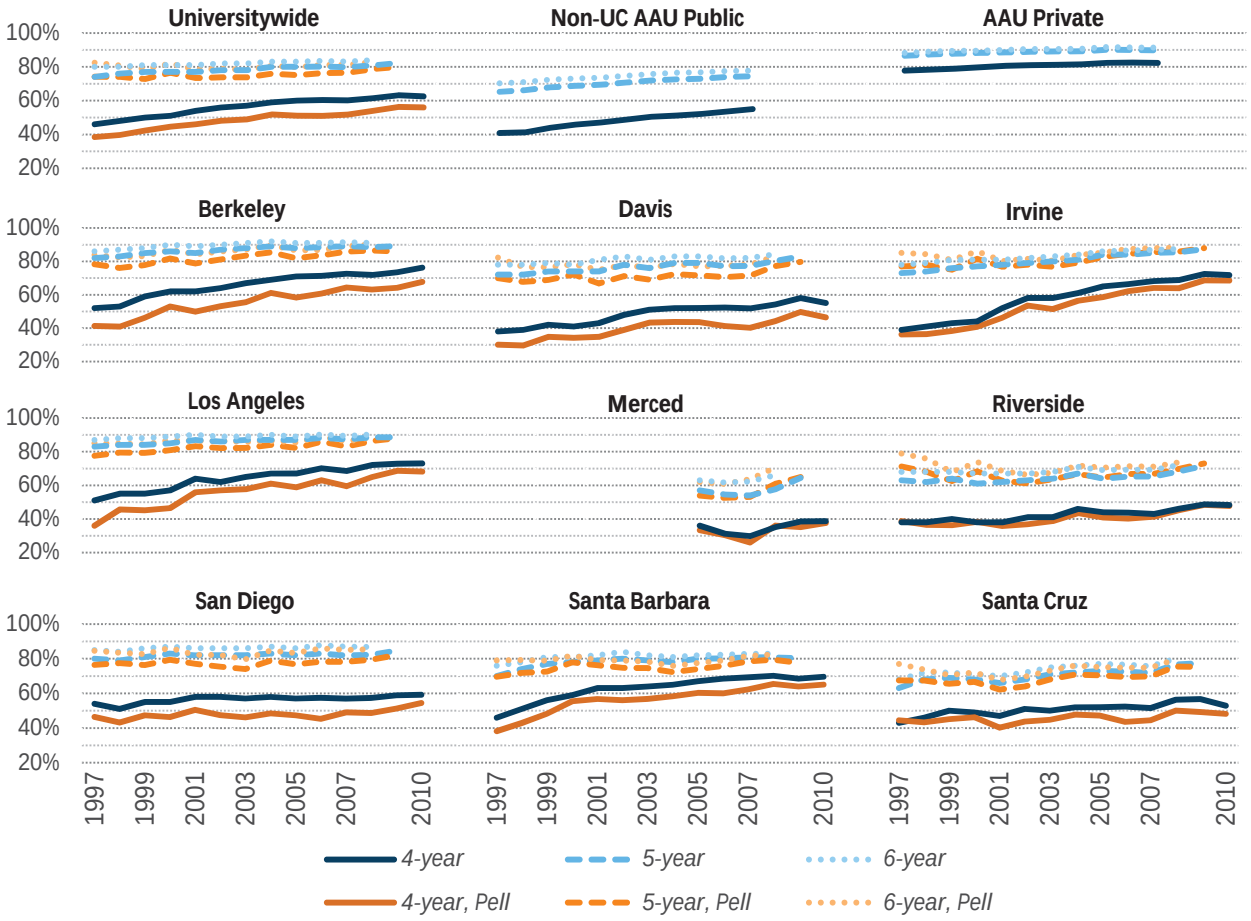
The March 2015 Performance Outcomes report submitted to the legislature:
www.ucop.edu/operating-budget/_files/legreports/14-15/pomlegrpt.021715.pdf

A summary of UC's innovations in education to improve student outcomes:
www.ucop.edu/institutional-research-academic-planning/_files/innovation_in_education_2-27-15.pdf

A data story on undergraduate alumni outcomes:
www.universityofcalifornia.edu/infocenter/uc-undergraduate-alumni-outcomes

Four-year graduation rates for students who enter as freshmen have improved substantially since 1997. They are better than average graduation rates at AAU public institutions, and some campuses approach the average rates of the AAU private institutions.

3.1.1 Freshman graduation rates for all students and Pell recipients
Cohorts entering fall 1997 to 2010
UC and comparison institutions



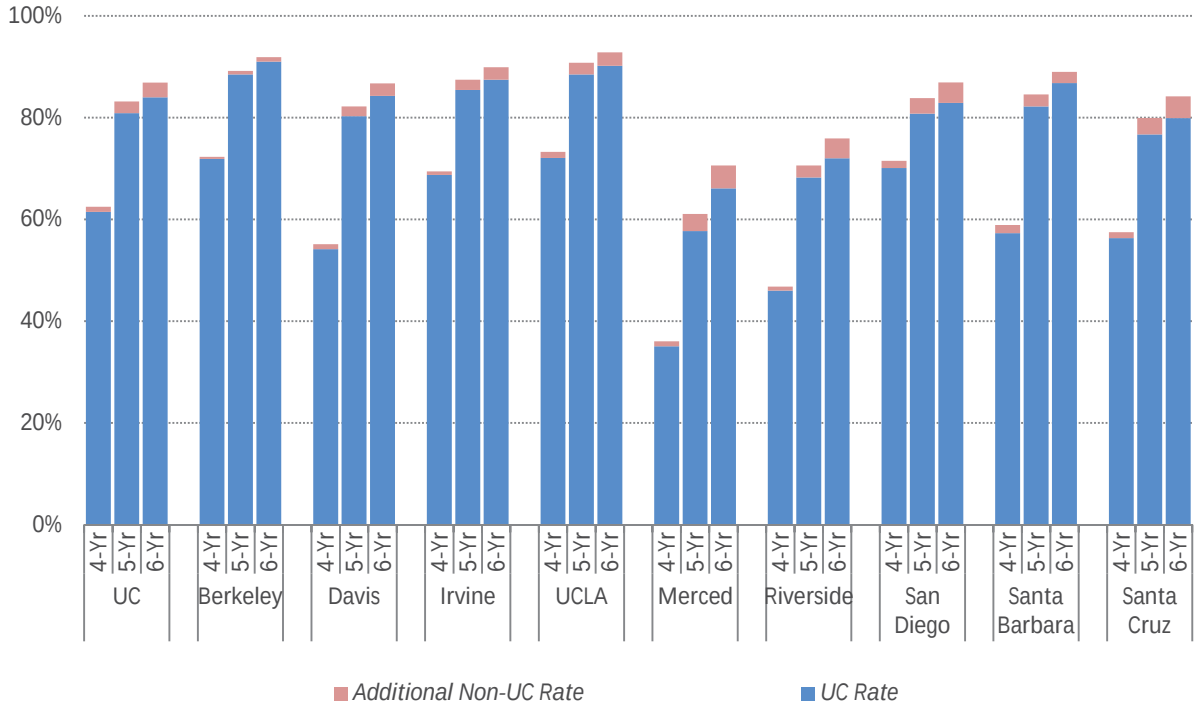
Source: UC Corporate Student System and IPEDS.[1]

UC's four-year graduation rates for freshmen have risen significantly over the past 15 years — from 46 percent for the 1997 entering cohort to 62 percent for the 2010 cohort. The steady improvement in graduation rates is due to many factors, including campus efforts to encourage four-year completion, improvements in the academic preparation levels of incoming students and the current costs of a UC education, which motivate students to complete their educations more quickly.

[1] Comparison IPEDS data are available for more limited years and do not include graduation rates for Pell recipients. The AAU comparison institutions are in the data glossary. Graduation rates are weighted by total cohort size. Institutions with missing data are excluded for that year. Freshmen are those students who entered UC directly from high school and who had not matriculated at another postsecondary institution prior to enrollment. UC statistics give credit to the originating campus for inter-UC campus transfers. Pell recipients are defined as those who received a Pell grant at any time during their time at UC.

The six-year graduation rate of UC freshmen is actually close to 90 percent when students who finished their degree at a non-UC institution are included.

3.1.2 Freshman graduation rates, including those who graduated from a non-UC institution
Universitywide and UC campuses
Cohort entering fall 2008



Source: UCOP Corporate Student System and the National Student Clearinghouse.[1]

The extended graduation rate of students who begin their studies as freshmen at UC includes a small number who transferred to a non-UC institution and completed their bachelor's degree within four, five or six years.

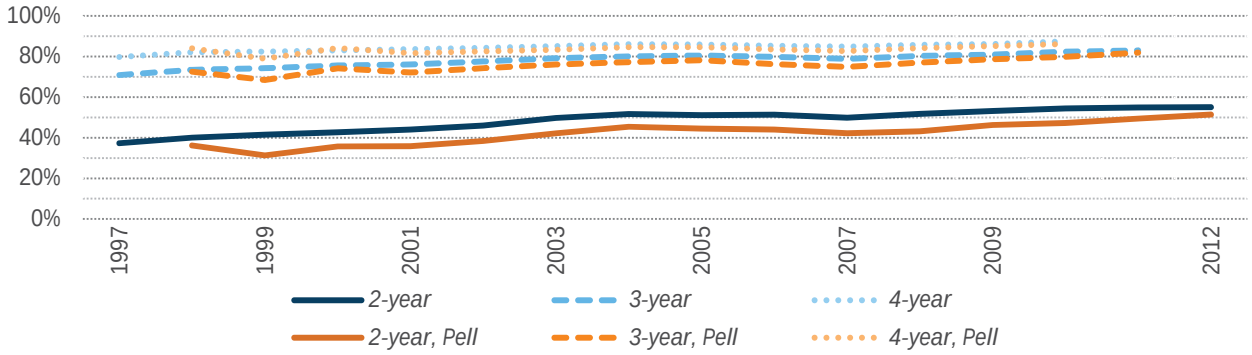
By this measure, UC's overall six-year graduation rate is about 87 percent. The effect of the extended graduation rate varies by UC campus, with Berkeley having very few students who transfer out and earn a degree outside of the UC system, while the six-year rates at San Diego, Merced and Santa Cruz improve by as much as 4 to 4.5 percentage points when students who complete their degree at a non-UC school are counted.

[1] Intercampus transfers within UC are counted as graduates of their originating UC campus. In this graph, non-UC rates only include those who transferred to non-UC institutions and graduated with a bachelor's degree.

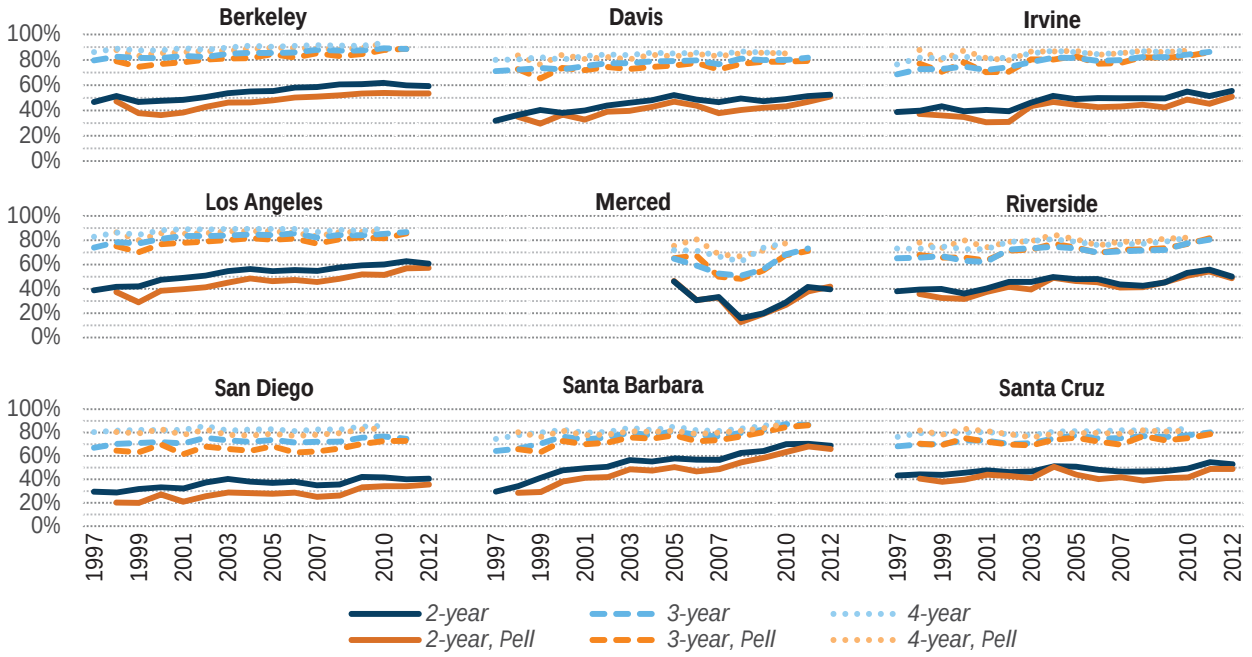
Graduation rates for students who enter as transfers grew steadily for classes entering between 1997 and 2004 but have leveled off since then. Graduation rates among Pell Grant recipients are comparable to all transfer students, especially at the three- and four-year marks.

3.1.3 Transfer graduation rates
Cohorts entering fall 1997 to 2012

Universitywide



UC campuses



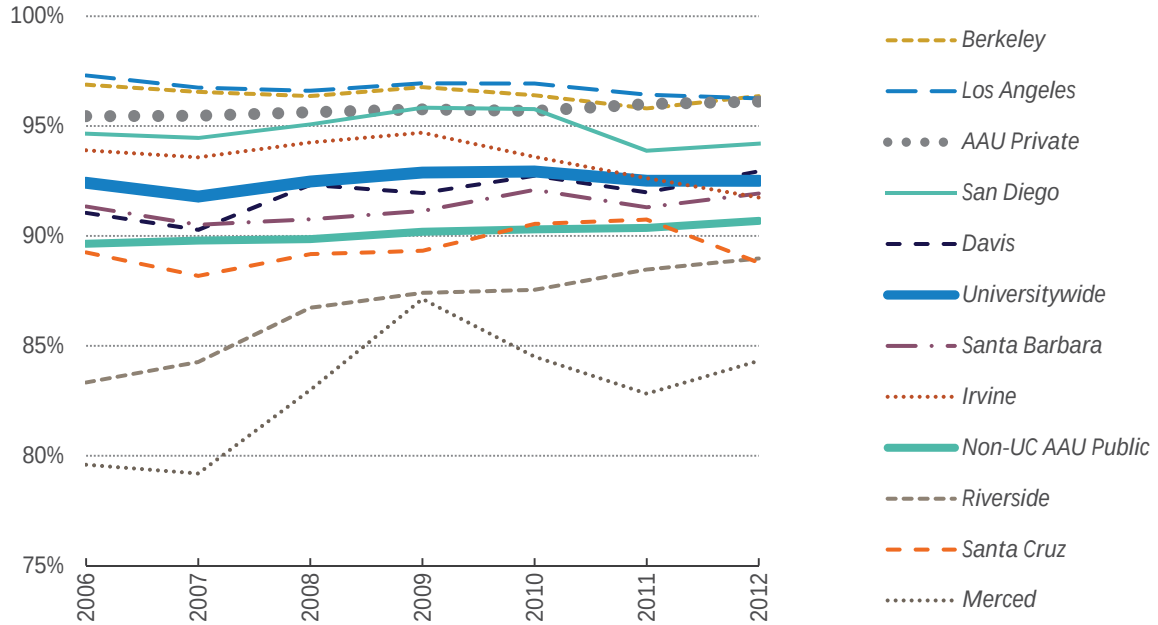
Source: UC Corporate Student System[1]

The two-year graduation rate for transfers is currently at 55 percent. The four-year rate is 87 percent, compared to 84 percent for the six-year freshman graduation rate.

[1] Comparison data on graduation rates for transfer students are not available. UC statistics give credit to the originating campus for inter-UC campus transfers.

Freshman retention rates are high, but there is room for some improvement.

3.2.1 Freshman first-year retention rates
Cohorts entering fall 2006 to 2012
UC and comparison institutions (NOTE SCALE)



Source: IPEDS[1]

Improving first-year retention is the first step to raising graduation rates. For some campuses, there is greater room for improvement; for others it is understanding subpopulations where there is room for improvement.

Studies of retention data divide students into two groups: those who leave UC in good academic standing (i.e., GPA ≥ 2.0) or transfer to another UC and those that leave in poor academic standing (i.e., < 2.0).

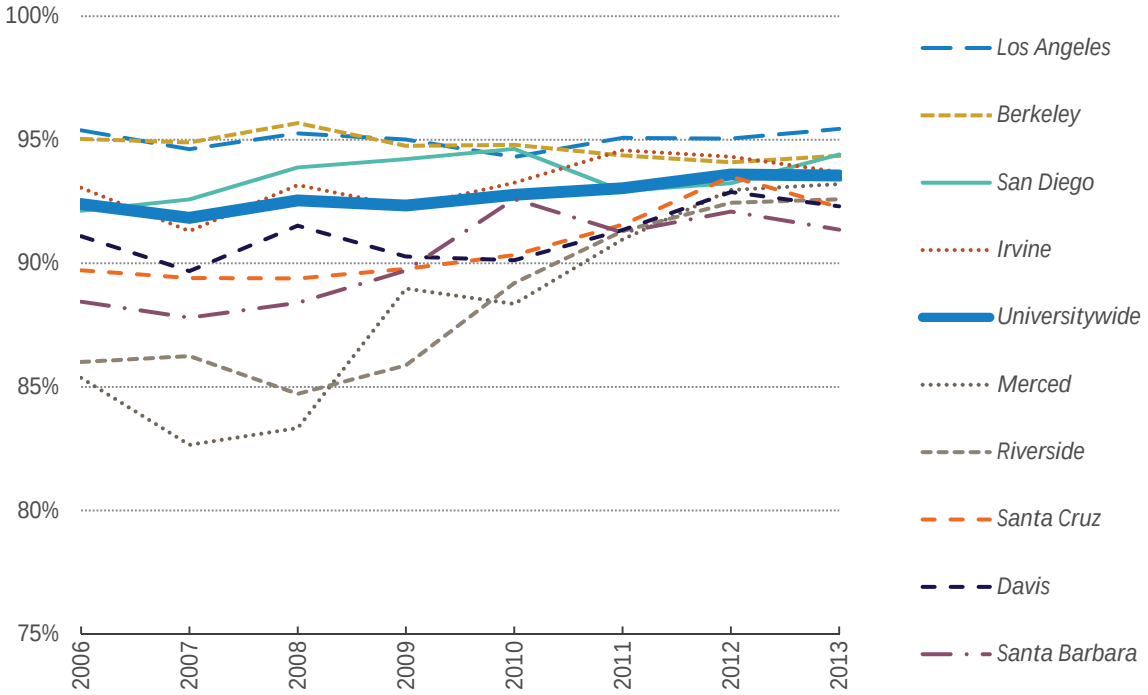
The strategies needed to address retention vary based on this distinction. For students leaving in good academic standing, some UC campuses are considering expansion of honors programs or introduction of undergraduate research activity as early as the freshman year.

For those leaving in poor academic standing, some UC campuses are using summer bridge or early orientation programs to provide a productive jump-start and smooth transition on campus. Other campuses are looking into housing and residential programs and cohort programs as another way to attach undergraduates to college.

[1] Freshmen are first-time, full-time, degree-seeking students from the fall who enroll again in the next fall term.

Transfer retention rates are improving.

3.2.2 Transfer retention rates
Cohorts entering fall 2006 to 2013
UC campuses (NOTE SCALE)



Source: UC Corporate Student System[1]

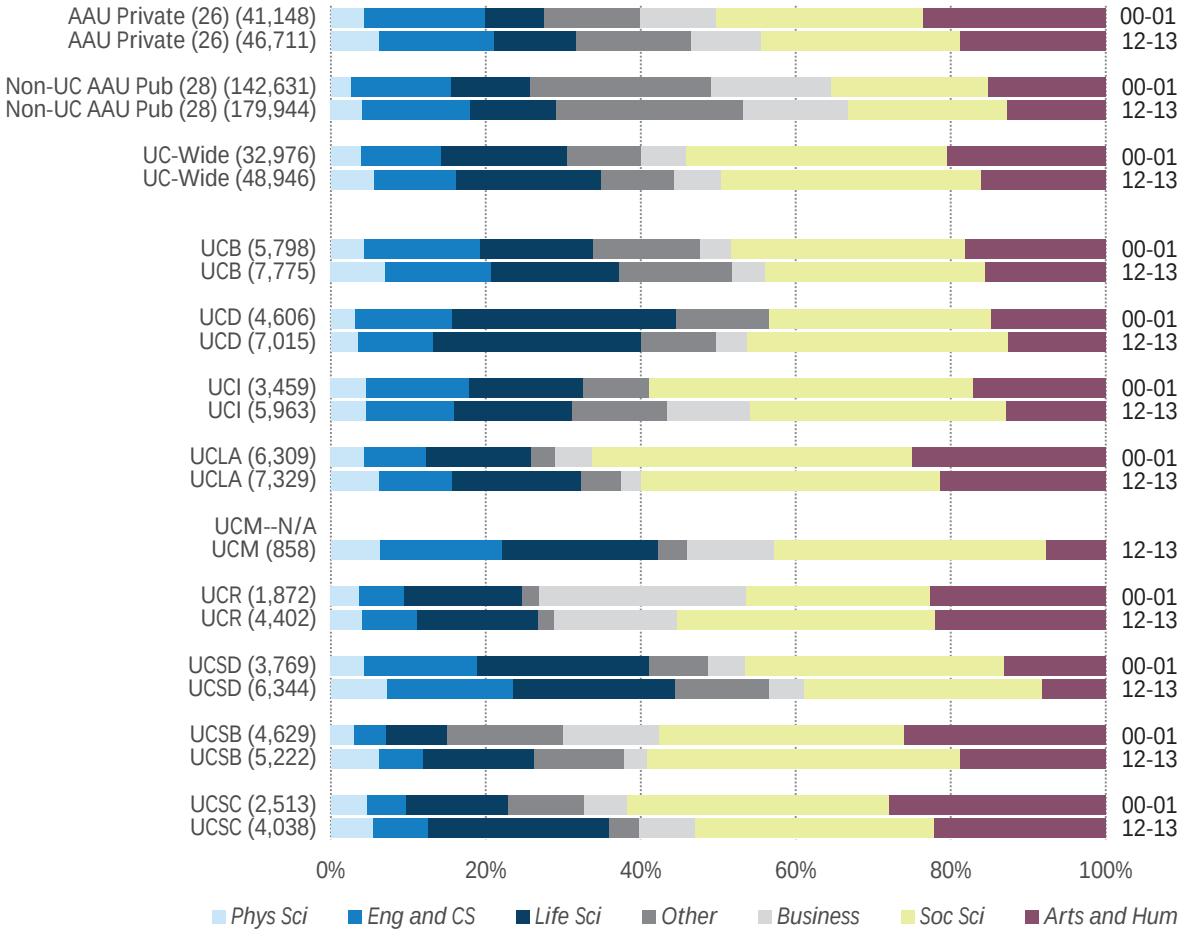
For transfers, there has been a slight improvement in first-year retention. Campuses vary in terms of whether transfers are more likely to leave in poor or good academic standing, and very few leave for another UC campus.

Like entering freshmen, transfer students benefit from a productive start to UC campuses and a smooth transition during their first year. Several UC campuses are launching or expanding summer programs to support transfer students.

[1] Comparison data are not available for transfer students.

Social Science, Life Sciences, and Arts and Humanities are the largest segments of bachelor's degree recipients.

3.3.1 Undergraduate degrees awarded by discipline
UC and comparison institutions
2000–01 and 2012–13



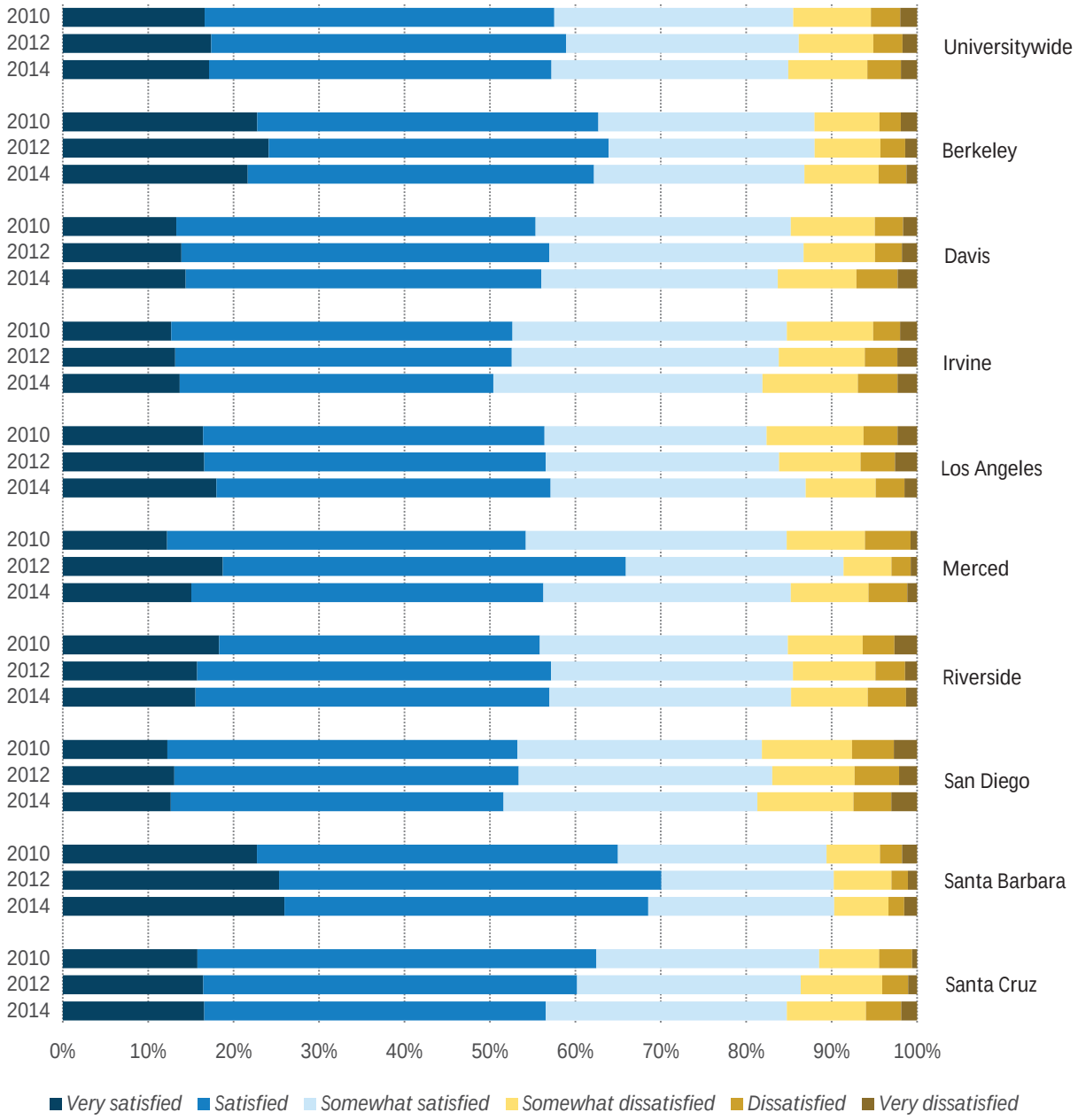
Source: IPEDS

Over one-third of all undergraduate degrees UC awarded in 2012–13 were in science, technology, engineering and math (STEM) fields, which is slightly higher than the proportion at AAU public and private comparison institutions.

Indicator 10.2.4 shows UC's share of the degrees awarded in the state of California.

Survey data suggest that graduating seniors' satisfaction with their overall academic experience has remained high over the last three UCUES survey administrations.

3.3.2 Student satisfaction with overall academic experience
Bachelor's degree recipients who entered as freshmen
Universitywide and UC campuses
Spring 2010 to 2014



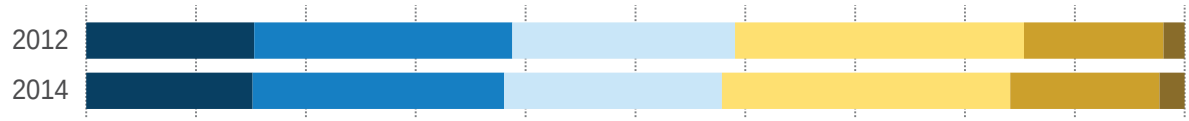
Source: UCUES

For the UC system overall and for most campuses, the percent of seniors who are satisfied (somewhat through very satisfied) has remained relatively stable.

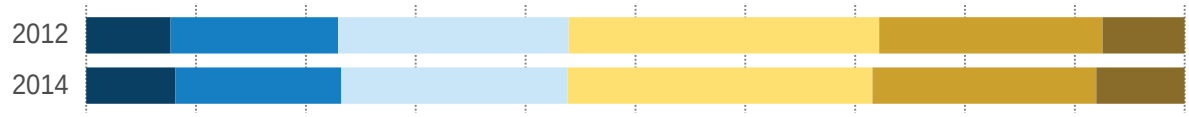
Students report increasing levels of engagement in class and with faculty members. The most likely area of engagement is in class discussion, with about 98 percent of students reporting some level of participation. Almost 50 percent of students have worked with a faculty member on an activity other than coursework.

3.3.3 Student responses to questions about areas of engagement
Universitywide
Spring 2012 and spring 2014

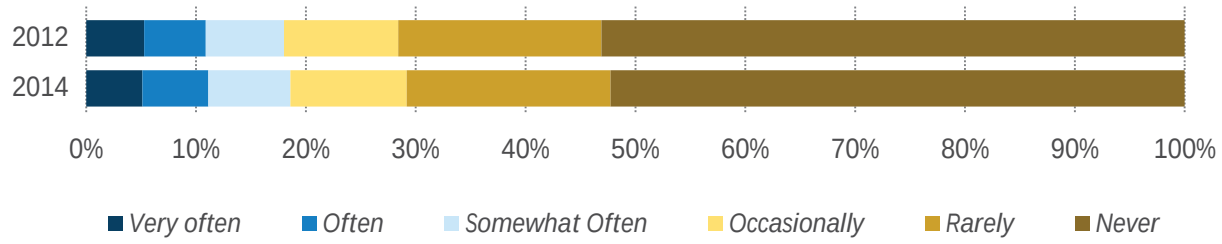
During this academic year, how often have you contributed to a class discussion?



During this academic year, how often have you found a course so interesting that you did more work than was required?



During this academic year, how often have you worked with a faculty member on an activity other than coursework?



Source: UCUES

Levels of student engagement have been relatively stable over the last two surveys. About 84 percent of students report that they contribute to class discussions at least occasionally, and about 71 percent have occasionally or often gone beyond required coursework in a class they found interesting. Twenty-nine percent have worked with a faculty member on a research or creative project beyond coursework, at least occasionally.

Across disciplines, undergraduate degree recipients tend to double their earnings between two and ten years after graduation.

3.3.4 Inflation-adjusted average alumni wages by selected majors, two, five and ten years after graduation
UC Universitywide
2000 to 2011 exit cohorts

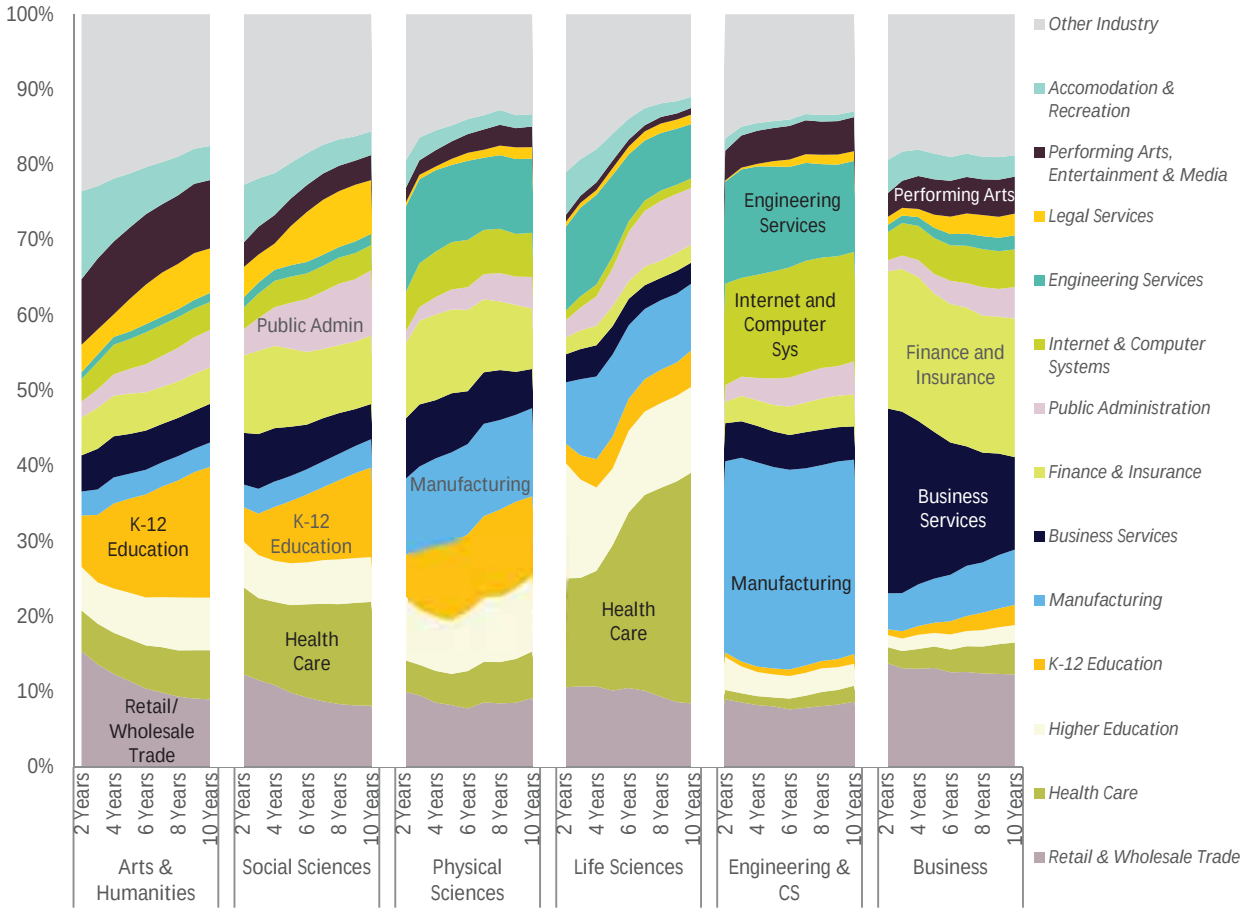
		After two years	After five years	After ten years
Arts & Humanities	Philosophy	$34,289	$52,557	$79,503
	History	$34,855	$51,884	$71,830
	Foreign Language	$34,049	$48,378	$68,820
	English/Literature	$34,142	$48,724	$65,988
Professional/ Interdisciplinary	Cognitive Science	$49,421	$75,093	$104,724
	Business	$52,456	$70,772	$103,212
	Ag. Business	$50,732	$70,516	$95,578
	Legal Studies	$44,918	$65,527	$93,779
	Communications	$39,764	$58,074	$80,074
	International Studies	$37,149	$52,992	$71,789
	Architecture	$44,183	$57,484	$71,048
	Social Work	$32,766	$47,613	$67,837
Life Sci, Phys Sci, Eng, CS	Computer Science	$69,004	$90,340	$124,596
	Engineering	$65,427	$85,681	$117,213
	Physics	$49,145	$67,014	$101,992
	Chemistry	$41,752	$57,205	$99,575
	Biology	$36,761	$59,386	$97,578
	Mathematics	$49,748	$64,903	$86,243
Social Sciences	Economics	$49,802	$69,509	$100,606
	Political Science	$39,455	$62,629	$95,796
	Geography	$39,325	$58,611	$89,082
	Psychology	$34,428	$51,704	$72,140
	Sociology	$36,953	$52,829	$69,360
	Anthropology	$33,037	$47,066	$66,447
All Majors		**$42,400**	**$61,000**	**$87,300**

Source: California Employment Development Department and UC Corporate Student System.
Amounts are inflation-adjusted to 2013 dollars.

Alumni wage data provide compelling evidence of UC's role as an engine of social mobility in the state. From 2000 to 2013, UC graduated more than 200,000 Pell Grant recipients, whose family incomes are generally below $50,000. More than 50 percent of Pell Grant recipients that graduate from UC and work in California go on to earn more than their pre-UC family incomes within five years.

Bachelor's degree recipients work across diverse California industries, particularly health care, education, engineering and manufacturing.

3.3.5 Industry of employment of UC bachelor's graduates by years after graduation
Universitywide
2000 to 2011 graduating cohorts



Source: California Employment Development Department and UC Corporate Student System

Bachelor's degree graduates often begin in positions within the retail and wholesale trade sectors but move on to high-skill industries such as education, health care, engineering and manufacturing.

A significant number of UC graduates go on to become educators within California's K–12 and higher education systems. While about 4 percent of UC graduates work in the state's K–12 education system directly after graduation, almost 10 percent go on to do so within ten years of receiving their UC degree.

UC graduates also populate the state's health care workforce in large numbers. At ten years after graduation, about 12 percent of them are working in health care (31 percent among life sciences majors).

Large numbers of graduates of UC's undergraduate STEM programs enter the state's engineering and high-tech workforce. Close to 15 percent of UC engineering/computer science graduates employed in the state work in the Internet and computer systems industry, while another 12 percent work in the engineering services industry. The manufacturing sector has been a consistent source of employment for large numbers of UC engineering and physical science graduates.

PUBLIC OFFICE

With a boundless curiosity, UC graduate student researchers seek out new knowledge, new discoveries and solutions to critical issues.

Chapter 4. Graduate Academic and Graduate Professional Students

Goals

The California "Master Plan for Higher Education" charges the University of California with the responsibility for preparing graduate academic and graduate professional students to help meet the workforce needs of California and the nation.

UC's goals with respect to graduate education are to offer outstanding degree programs, to support research and undergraduate instruction, and to prepare a professional workforce across all disciplines. UC produces the teachers, artists, thinkers, innovators, scientists, inventors, professionals and leaders of the future; it creates an environment of exploration and discovery that stimulates innovation and invention; and it maintains the University of California's tradition of world-class graduate instruction. In this way, UC serves to drive California's economy, allowing it to grow, create jobs and offer its residents the standard of living for which the state is well-known.

Types of graduate degrees

UC awards both graduate academic degrees and graduate professional degrees.

Graduate academic degrees — These include academic doctoral, academic master's and professional doctoral degrees in the physical sciences, social sciences, arts, humanities and engineering/computer science. The largest proportion of graduate academic degrees awarded at UC is in the STEM fields — science, technology, engineering and math. In 2013–14, 50 percent of UC graduate academic degrees awarded were in STEM.

Graduate professional degrees — UC's professional degrees include professional master's and professional practice degrees in fields such as law, medicine, business, education, architecture, public policy and the arts. The graduate professional category includes professional master's degrees (e.g., M.B.A., M.Ed.) and professional practice degrees (e.g., J.D., M.D.). In the field of medicine, UC offers the nation's largest instructional program in healthcare and health sciences.

Before 1994, graduate professional degree programs were supported in the same manner as were other graduate programs. 1994 saw the beginning of a marked decrease in state support and the University began charging professional degree supplemental tuition. Professional degree supplemental tuition is in addition to the base tuition paid by all students and allows professional schools to recruit and retain UC-quality faculty, provide an outstanding curriculum and attract high-caliber students. Since instituting professional degree supplemental tuition, both the number of professional degree programs that charge professional degree supplemental tuition and the amount of supplemental tuition charged have increased steadily.

Recruitment and support of graduate students

Graduate education at UC is ranked at the highest levels among the country's leading universities. One of the keys to a successful graduate program is recruitment of outstanding students. Such recruitment is challenged by competition with peer institutions for qualified individuals and in the amount of financial support that UC can offer.

Academic graduate student financial support comes from a combination of fund sources, including fellowships (external to UC and UC-funded), on-campus appointments as a graduate student researcher (GSR) or teaching assistant (TA), other opportunities for earnings on or off campus, savings, family contributions and/or loans.

Full financial support throughout a doctoral program is the goal for both UC and its competitors. Increases in tuition and fees have challenged the University's ability to offer competitive support packages to its graduate students and have placed additional strain on the dwindling fund sources that cover those costs.

UC's financial support for its academic graduate students has lagged behind its competitors' offers for the last several years, though the gap narrowed between 2010 and 2013 (see indicator 4.2.3.)

The competitiveness gap in financial support is of particular concern for international graduate students. Indicator 4.1.1 suggests that it has been difficult for departments to admit and enroll international students in numbers proportionate to their rising demand. Currently, domestic non-California resident graduate students can establish state residency after one year of enrollment at UC. This provides the departments supporting these graduate students with an exemption from the annual $15,000 nonresident supplemental tuition charge. International graduate students, however, cannot establish California residency and remain subject to the nonresident supplemental tuition charges.

Since 2006, UC has implemented a number of policies designed to mitigate the additional financial burden of supporting nonresident graduate students. Doctoral students qualify for a nonresident tuition exemption for up to three years after they advance to candidacy, which typically occurs after two to three years of enrollment. Individual campuses have also implemented varying funding programs and strategies to address the cost of supporting international and nonresident graduate students.

Whereas nearly all financial support received by graduate academic students is in the form of fellowships, research positions and teaching assistantships, students in professional degree programs rely primarily on loans for financing their education. Although fellowship support for professional degree students has increased — due in part to the one-third of tuition, fees and professional degree fees that are set aside for institutional aid — it has been outpaced by increases in student borrowing.

Looking ahead

In addition to providing competitive graduate financial support, the University continues to develop programs and benefits designed to enhance the graduate student experience. UC's overall excellence rests on the strength and scope of its graduate programs. Unlike undergraduate enrollment planning, which is based on California's "Master Plan," graduate enrollment planning is based on a number of factors, including assessment of state and national needs, faculty expertise, program quality (which includes international competitiveness) and available financial support. Over the last 50 years, as the University accommodated California's burgeoning number of high school graduates, undergraduate enrollment growth has far outpaced graduate enrollment growth. As a result, the proportion of graduate students to undergraduates on the general campuses has decreased from about 30 percent in the 1960s to about 16 percent today. Given the critical contributions of graduate students to the University's teaching and research mission, a 16 percent proportion of graduate students places UC well below its peer institutions.

For more information

UCOP Office of Research and Graduate Studies: www.ucop.edu/graduate-studies/

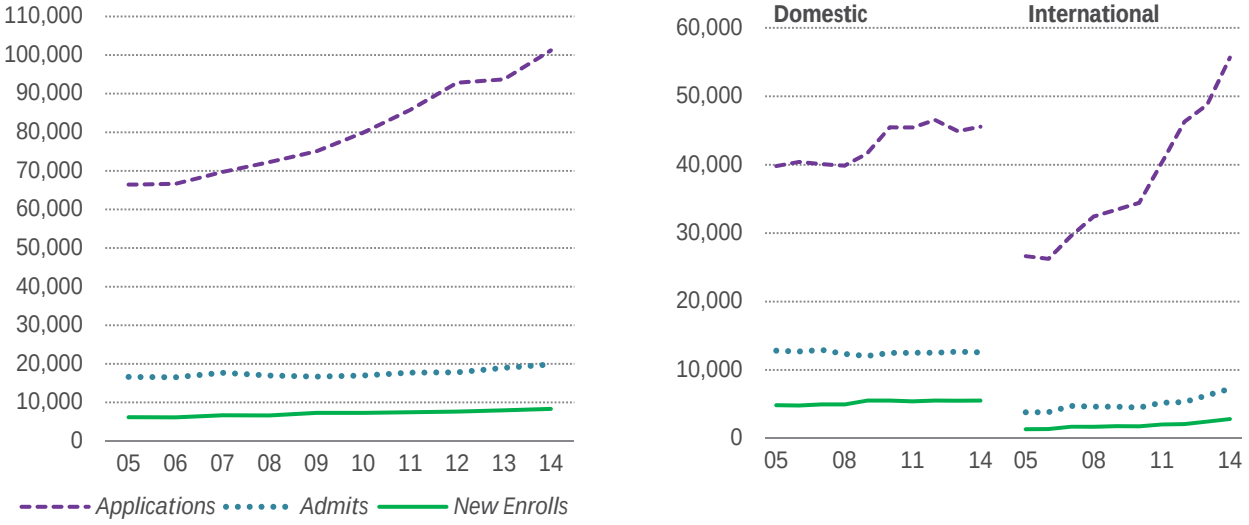
Time-to-doctorate at UC: www.ucop.edu/institutional-research/_files/2011-uc-time-doctorate.pdf

Doctoral completion rates: www.ucop.edu/institutional-research/_files/uc-doctoral-completions.pdf

Doctoral education: http://regents.universityofcalifornia.edu/regmeet/nov13/e1.pdf

Universitywide graduate academic applications have increased substantially over the last ten years, while admits and new enrollments have remained relatively flat.

4.1.1 Graduate academic applications, admits and new enrollees, combined and by citizenship
Universitywide
Fall 2005–2014



Source: UC Corporate Student System

The demand for UC's academic master's and doctoral programs[1] has increased steadily over the past ten years. During this time, applications[2] for admission grew from 66,000 in 2005 to more than 100,000 in 2014 — a rate of 5 percent per year. Nearly all of this increased demand has come from prospective international students, whose applications grew from 26,000 to more than 55,000 — a rate of 11 percent per year. International students now submit more than half of all applications to UC's academic master's and doctoral programs, though the growth is primarily attributable to master's and not doctoral programs.

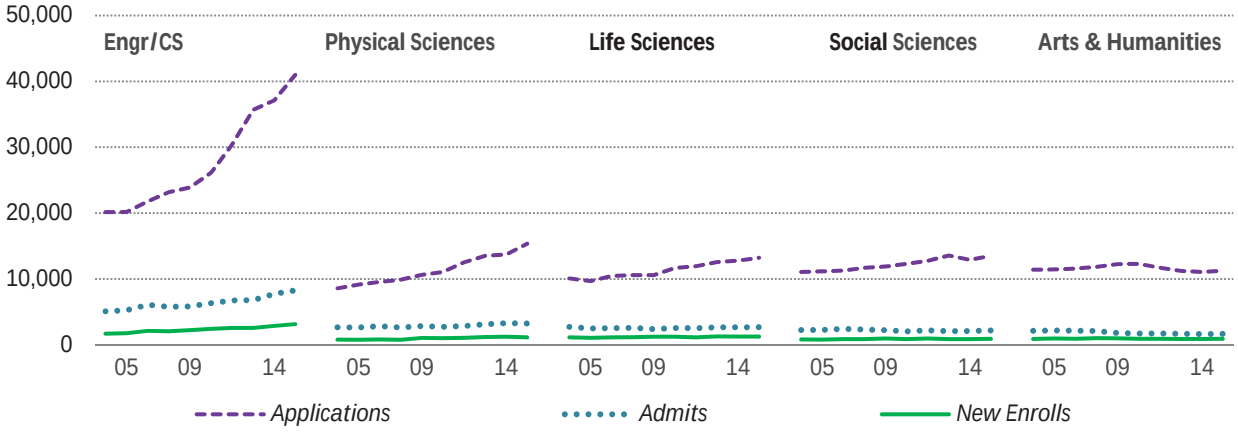
Recent survey data compiled by the Council of Graduate Schools shows a similar nationwide trend, with applications from prospective international students growing at about 7 percent per year, on average, since 2005 — ranging from 2 to 12 percent per year. Engineering, physical sciences and computer science experienced the most robust growth in demand from international applicants, with double-digit growth in most years since 2010.[3]

Despite this more robust demand, new admits and enrollments to UC's academic master's and doctoral programs have remained relatively flat. Since 2005, new admits and enrollments have grown by only about 2 percent per year, with admits remaining at just below 20,000 per year and new enrollments at about 8,000 per year. Unlike applications, which are now predominantly from international students, both new admits and enrollments of domestic students are about double those of international students.

[1] A small number of professional doctoral programs are also included in these data.
[2] Universitywide applications and admits are duplicated in this report since students often apply to more than one campus. These are the numbers of applications and admits, not the number of applicants.
[3] Findings from the 2014 CGS International Graduate Admissions Survey:
http://www.cgsnet.org/ckfinder/userfiles/files/Intl_I_2014_report_final.pdf

The increased demand for UC's graduate academic programs has occurred predominantly in engineering and computer science.

4.1.2 Graduate academic applications, admits and new enrollees by discipline
Universitywide
Fall 2005–2014



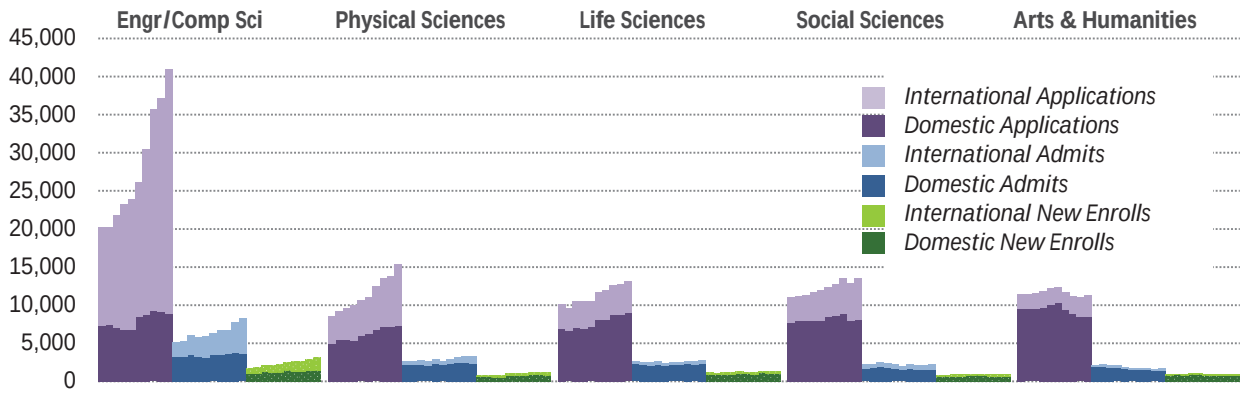
Source: UC Corporate Student System

The increased demand for UC's graduate academic programs has occurred predominantly in engineering and computer science. Applications to master's and doctoral programs in engineering and computer science have grown by 10 percent per year since 2005, reaching 41,000 in 2014. Much of this increased demand has come from international applicants, who now submit 78 percent of the applications in these fields.

Other disciplines have experienced more modest demand increases. Applications in the physical sciences increased by about 8 percent per year from 2005 to 2014, from 8,500 to over 15,000; 3 percent per year in the life sciences, from 10,000 to over 13,000; and 2 percent per year in the social sciences, from 11,000 to 13,500. Arts and humanities experienced a slight decrease in demand of 2 percent per year over the last four years.

New enrollments increased from 2005 to 2014 in engineering and computer science by 9 percent per year and by 5 percent per year in the physical sciences, while remaining relatively flat in the other disciplines.

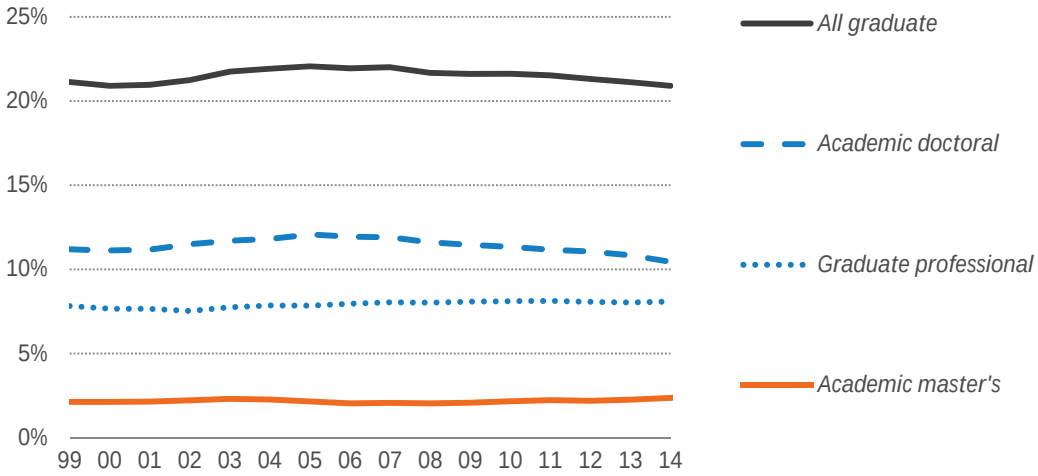
4.1.3 Graduate academic applications, admits and new enrollees by discipline and residency
Fall 2005–2014



Source: UC Corporate Student System

Graduate enrollment, as a share of UC's total undergraduate and graduate enrollment, has remained relatively steady over the past 16 years.

4.2.1 Graduate enrollment share of total
Universitywide
Fall 1999 to fall 2014



Source: UC Corporate Student System

Academic master's students include a small number of post-baccalaureate teaching credential students. The graduate professional category includes professional master's (e.g., M.B.A., M.Ed.) and professional practice (e.g., J.D., M.D.) degrees. Growth at UC has been distributed fairly evenly across academic master's, academic doctoral and graduate professional programs.

With 21 percent graduate enrollment in 2012 including health science students, UC was lower than the average for non-UC AAU[1] public institutions, at 27 percent, and the average for AAU private institutions, at 53 percent.

In fall 2014, the proportion of academic doctoral students varied across the general campuses, from 6 percent at Merced to 15 percent at Berkeley. At San Francisco, an exclusively graduate health-sciences campus, academic doctoral students made up 26 percent of fall 2014 enrollments.

As shown in indicator 10.2.4, UC awards 29 percent of California's graduate academic master's degrees, 63 percent of its academic doctoral degrees and 23 percent of its graduate professional practice degrees.

Percent and number of fall 2014 students who are academic doctoral

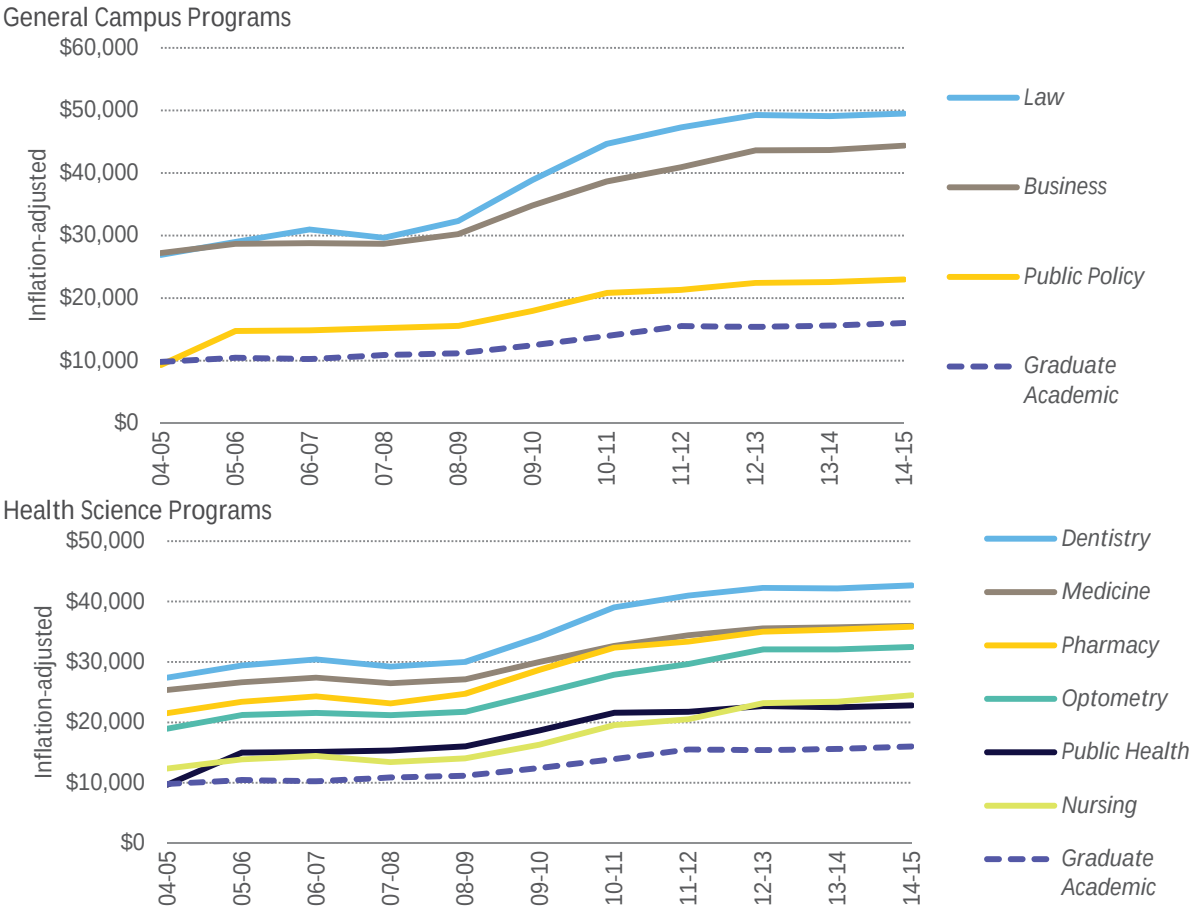
San Francisco	26%	809
Berkeley	15%	5,536
Los Angeles	11%	4,562
Davis	10%	3,413
San Diego	10%	3,201
Santa Barbara	10%	2,234
Irvine	9%	2,634
Riverside	9%	1,880
Santa Cruz	7%	1,253
Merced	6%	348
Universitywide	10%	25,870

Source: UC Corporate Student System

[1] A list of the institutions in the AAU comparison groups can be found in the appendix.

Fee amounts have grown considerably for students in professional degree programs.

4.2.2 Graduate academic and graduate professional average student charges
Universitywide
2004–05 to 2014–15



Source: UC Budget Office and UC campuses

The Board of Regents approves professional degree supplemental tuition levels. Considerations in setting these rates include the articulated program need and proposed use of the additional fees, availability of financial aid, tuition level of peer programs and other factors. The full Regents' policy on professional degree supplemental tuition is available at www.universityofcalifornia.edu/regents/policies/3103.html.

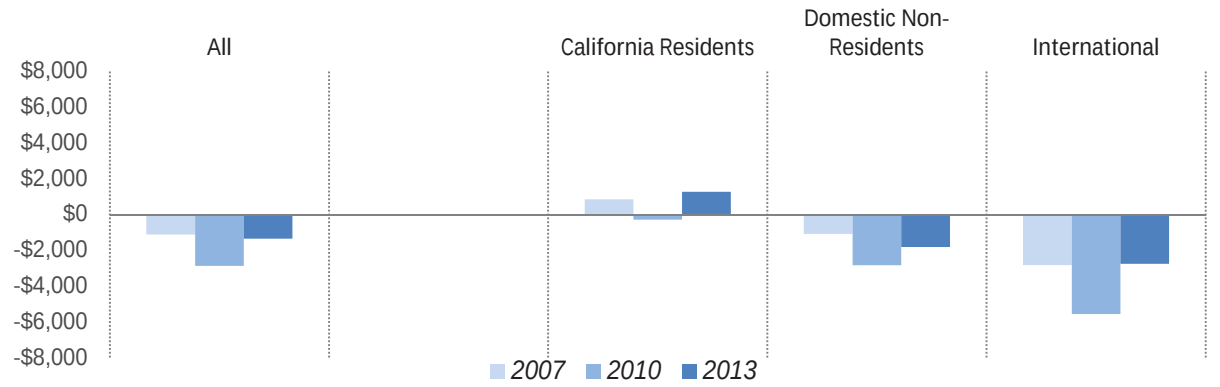
The graphs show the average total charges[1] for selected professional degree programs. They also show the average charge, including health insurance, for a graduate academic student who does not pay professional degree supplemental tuition. Nonresident tuition is excluded.

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

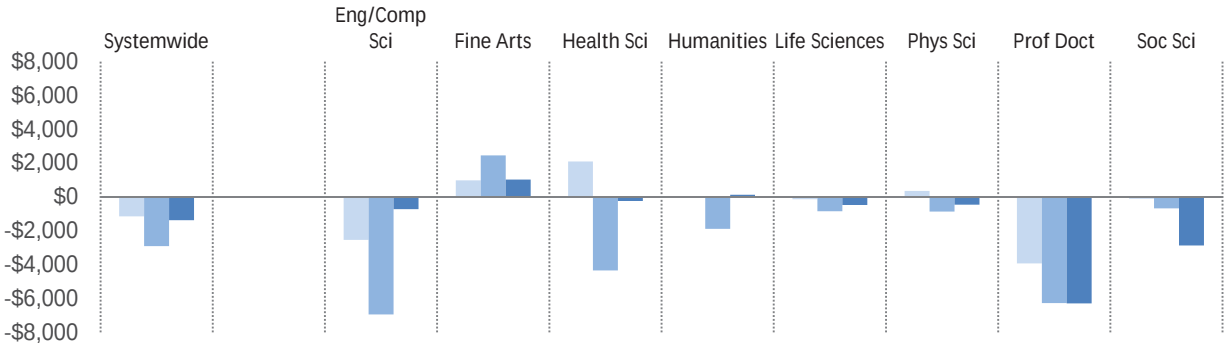
UC net stipends remain below competitive offers, but the gap decreased between 2010 and 2013.

4.2.3 Average net stipend offered to graduate academic doctoral students admitted to UC compared with their first-choice non-UC schools
Universitywide
2007, 2010 and 2013

By residency



By broad discipline

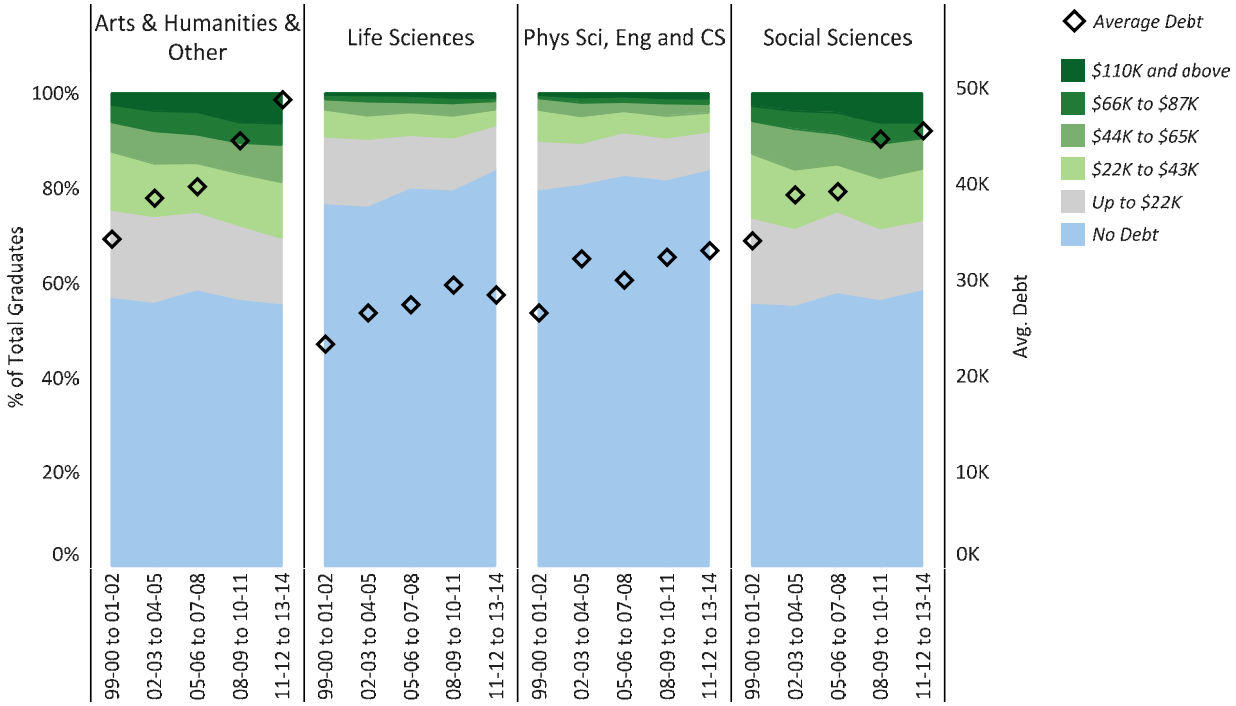


Source: UC Graduate Student Support Survey: www.ucop.edu/student-affairs/_files/regents_1213.pdf. Graduate academic professional doctoral programs include Ed.D., D.Env., D.Ph., D.P.T. and D.N.S.

Doctoral students are crucial to a university's research enterprise and instructional programs. To attract the most highly qualified applicants, universities offer an aid package that includes the cost of tuition and stipends. 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 loans that the student may be offered. The "stipend gap" varies by discipline as shown in the chart above.

More than half of UC doctoral students graduate without debt. Doctoral students in the physical and life sciences have seen smaller increases in debt over the past 12 years, and graduate with less average loan debt than those in the social sciences and arts and humanities.

4.2.4 Academic doctoral students' graduate debt at graduation, by discipline, domestic students
Universitywide
Graduating classes of 1999–2000 to 2013–14



Source: Corporate Student System[1]

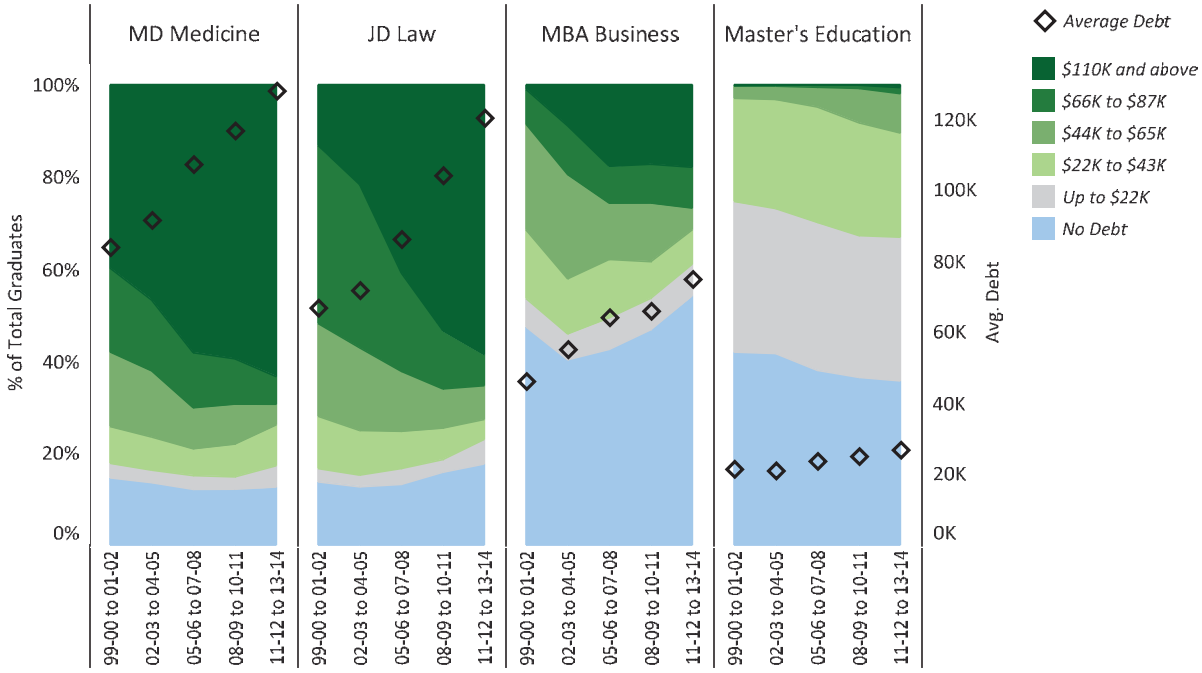
Depending on the field of study, between 55 percent (social sciences) and 85 percent (life sciences) of UC doctoral students take on no additional debt during graduate school.

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. Their programs take less time on average to complete than do programs in the social sciences or arts and humanities.

[1] Debt categories are inflation-adjusted in 2013 dollars using CA CPI-W. "Other" includes interdisciplinary and professional fields. Life sciences include health sciences.

Graduates with the highest debt levels come from professional schools that charge higher supplemental tuition.

4.2.5 Graduate professional degree student debt at graduation, by discipline, domestic students
Universitywide
Graduating classes of 1999–2000 to 2013–14



Source: UC Corporate Student System[1]

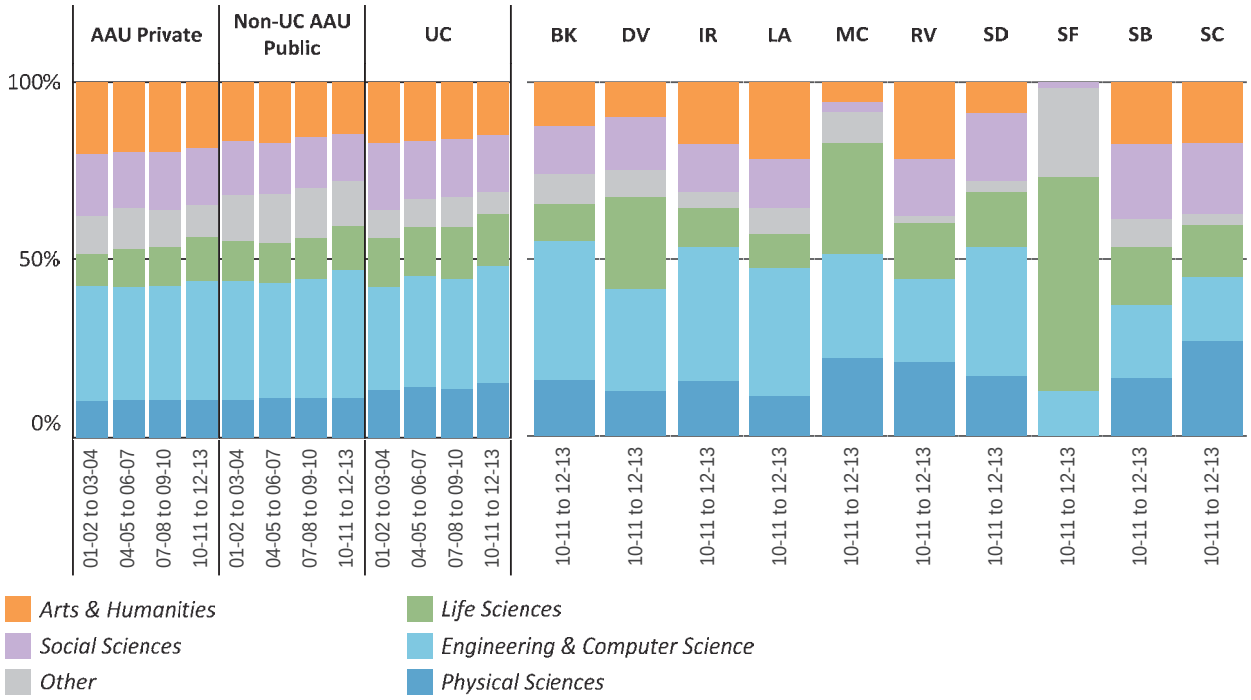
On average, about two-thirds of the aid awarded to graduate professional degree students comes in the form of loans rather than as fellowships or grants. By comparison, loans constitute only 8 percent of the aid awarded to graduate academic students. Graduate funding models require greater reliance on loans for professional degree students as their programs are of shorter duration and many fields offer potential for higher incomes after graduation.

Most graduate professional degree students finance part of their education by borrowing. The increases since 1999–00 in average inflation-adjusted debt levels of graduating professional degree students vary considerably. Increases in graduate debt result from a combination of factors, including steady growth in tuition and greater student reliance on federal student loan programs.

[1] Average debt is among graduates with debt. Debt categories are inflation-adjusted in 2013 dollars using CA CPI-W.

Like other major research universities, UC awards a high proportion of graduate academic degrees in science, technology, engineering and math (STEM) fields.

4.3.1 Graduate academic degrees awarded by discipline
UC and comparison institutions
Number of degrees grouped in 3-year intervals: 2001–02 to 03–04, 2004–05 to 2006–07, 2007–08 to 2009–10 and 2010–11 to 2012–13



Source: IPEDS[1]

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.

UC's graduate STEM programs reflect the predominant industries in California's economy. In addition to leading all California institutions in the production of engineering and computer science degrees, UC far outpaces them in the production of degrees in the biological sciences — key to driving the growth of California's emerging biotechnology sector.

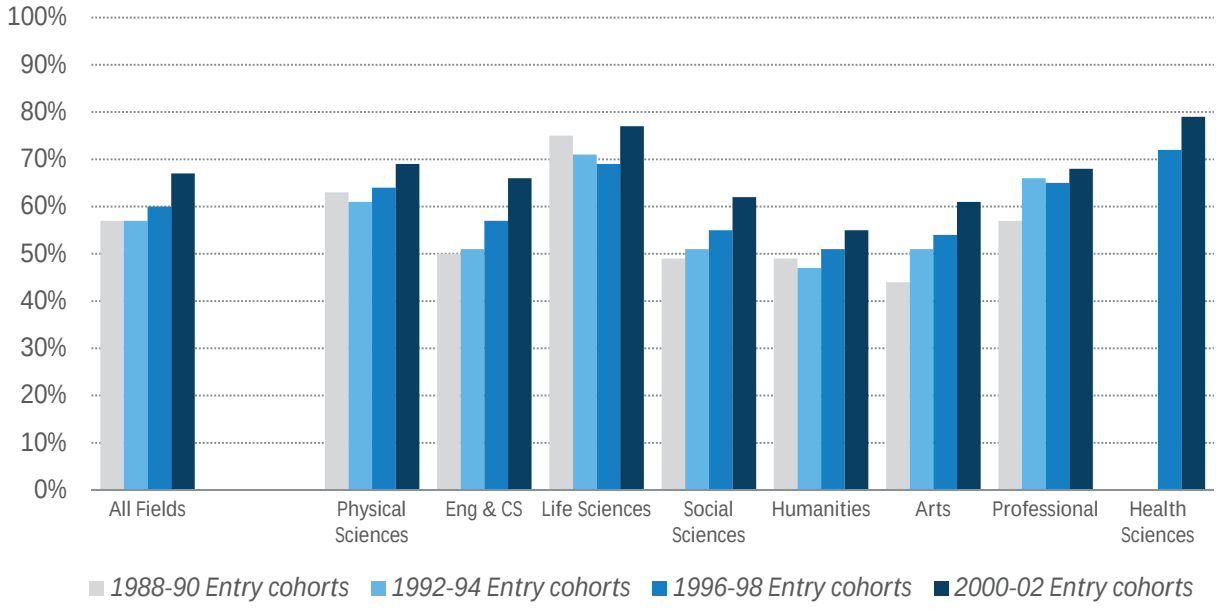
More than 20 UC Ph.D. recipients have been awarded Nobel Prizes.

Over the past 12 years, the number of graduate academic degrees awarded at UC grew by 51 percent, compared to 48 percent at the group of AAU private institutions and 41 percent for the group of non-UC AAU public institutions.

[1] "Other" includes interdisciplinary and academic degrees in otherwise professional fields, such as architecture, communications and public administration.

UC's doctoral completion rate increased in every field over the two most recent cohorts studied.

4.3.2 Doctoral completion rates after ten years, by broad field
Universitywide
Fall 1988–90, 1992–94, 1996–98 and 2000–02 entry cohorts



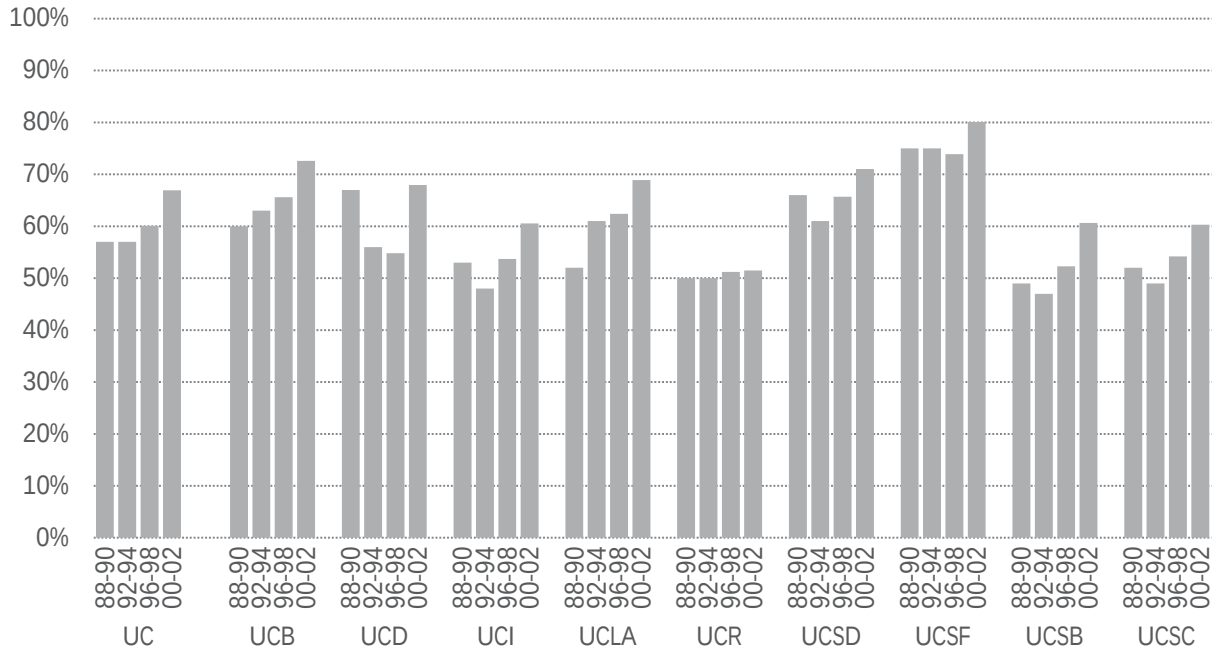
Source: UCOP Institutional Research and Academic Planning

The universitywide ten-year doctoral completion rate across all fields for the fall 2000–02 entering cohorts was 67 percent. This is an increase from the 60 percent completion rate reported for the cohort that entered four years previously. Among broad disciplines, life sciences and health sciences continue to have the highest completion rates. Humanities and arts showed the lowest rates, owing to the longer normative time in those fields and different financial support models, although both experienced an increase compared to previous cohorts.

The overall improvement in ten-year completion rates may be attributed to at least two factors. First, there has been a shift in the student demographics to a larger percentage of international students, who, as a group, have a higher ten-year completion rate than the overall cohort's rate. Second, the proportion of students pursuing doctoral degrees in life sciences, physical sciences and math, and engineering and computer science fields increased 5 percentage points between the 1996–98 and 2000–02 cohorts; students in these fields have a higher completion rate than do students in other fields.

Doctoral completion rates have improved on all UC campuses.

4.3.3 Doctoral completion rates after ten years, by campus
UC campuses
Fall 1988–90, 1992–94, 1996–98 and 2000–02 entry cohorts



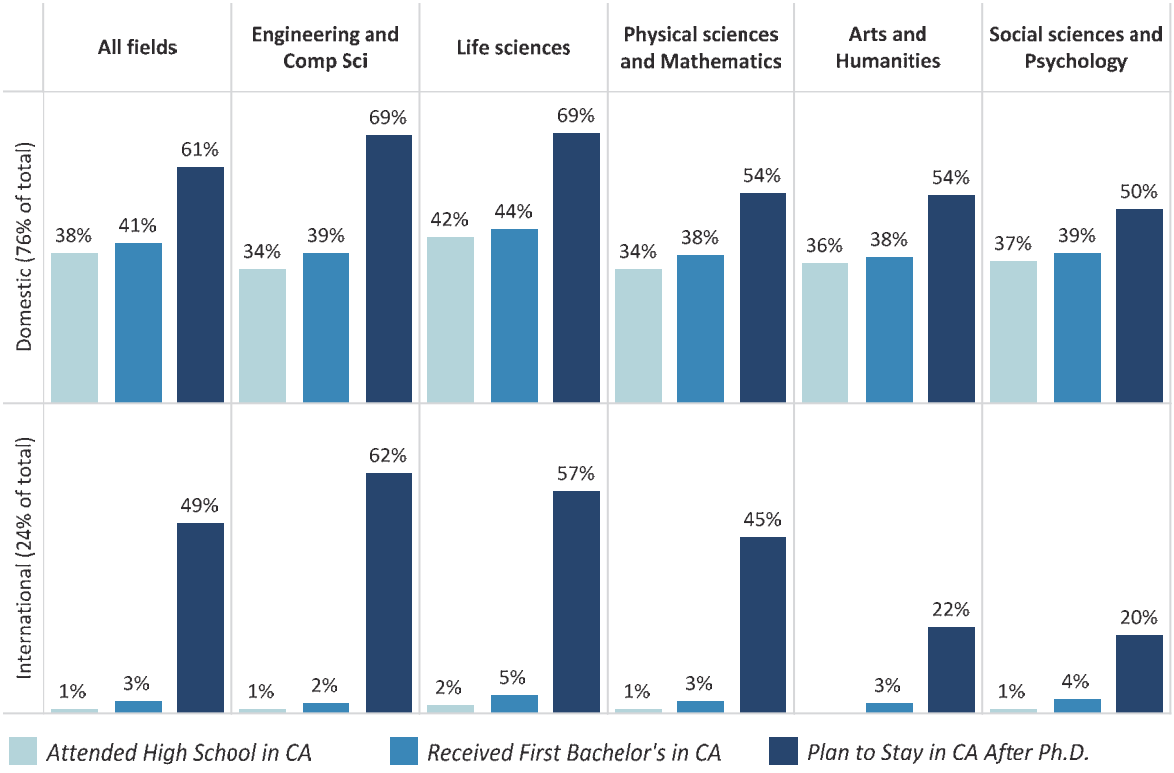
Source: UCOP Institutional Research and Academic Planning

The proportion of students in STEM (science, technology, engineering and math) disciplines on a campus may play a role in its doctoral completion rates. The time spent in these degree programs is shorter than in arts and humanities; therefore, the ten-year completion rates of students in STEM fields tend to be higher than most other fields. In general, the UC campuses with larger proportions of STEM students also tend to have higher overall completion rates. Davis, San Diego and San Francisco have the highest percent of students in STEM fields and have shown some of the highest completion rates over the last four cohorts. Similarly, a larger percent of students at Riverside, Santa Barbara and Santa Cruz were enrolled in programs outside of STEM fields, and ten-year completion rates at those campuses are lower.

The elapsed time-to-doctorate (ETD) at UC is roughly the same as at other academic research universities. There was no change in ETD for UC and the comparison institution groups in the 2004–06 and 2007–09 cohorts in the Survey of Earned Doctorates. UC's individual campuses compare favorably to the Association of American Universities (AAU) members 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 http://www.ucop.edu/institutional-research-academic-planning/_files/2011-uc-time-doctorate.pdf

More than half of UC's academic doctoral recipients plan to stay in California, a greater share than those who attended high school or college in California.

4.3.4 Origin and planned destination of UC academic doctorate recipients
Universitywide
2007–08 to 2012–13



Source: NSF, NIH, USED, USDA, NEH, NASA, Survey of Earned Doctorates. Excludes UC Merced.

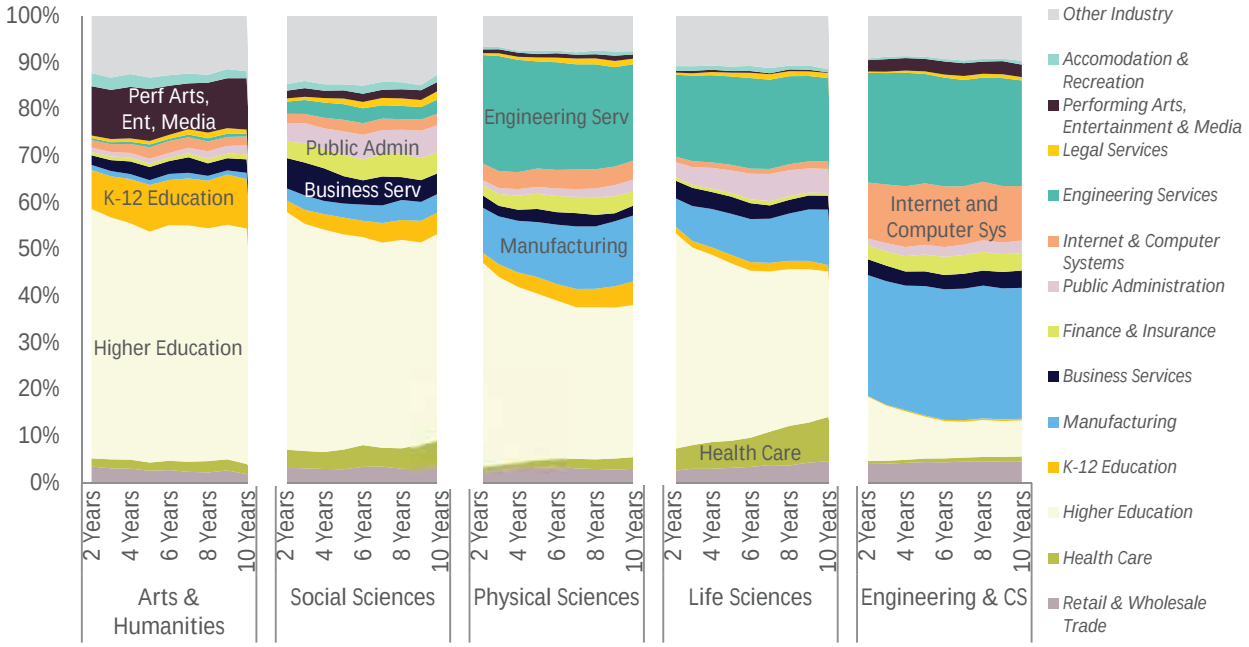
The most recent data for UC's doctorate recipients, based on those graduating between 2007–08 and 2012–13, show that over half plan to stay in California. Sixty-one percent of domestic doctorate recipients intend to stay, though only 41 percent of this cohort received their bachelor's degrees in California and only 38 percent attended high school in California. This proportion is higher in science, technology, engineering and math (STEM) fields, indicating that UC graduates are contributing to California's robust economy in these areas.

Though a negligible share of UC's international (not a U.S. citizen nor permanent resident) doctoral recipients attended high school or college in California, half intend to stay after graduation.

The Survey of Earned Doctorates (SED) is conducted of all individuals receiving a research doctorate degree. It is sponsored by the National Science Foundation, National Institutes of Health, U.S. Department of Education, U.S. Department of Agriculture, National Endowment for the Humanities and NASA.

Half of UC academic doctoral and master's graduates who stay in California work in higher education.

4.3.5 Industry of employment of UC graduate academic students in CA, by year after graduation
Universitywide
2000 to 2011 graduating cohorts



Source: California Employment Development Department and UC Corporate Student System[1]

The job market for doctoral recipients is nationwide, and those who leave California are not tracked here. More than 25,000 graduates of UC academic doctoral and master's programs (in fields other than engineering/computer science) have entered the California workforce since 2000. Half of them have gone on to work in the state's higher education workforce, which includes all of the two-year and four-year colleges, both public and private. This highlights the critical role of UC's graduate academic programs in producing the cadre of faculty who teach California's future college-educated workforce and conduct research that advances the state and national economies.

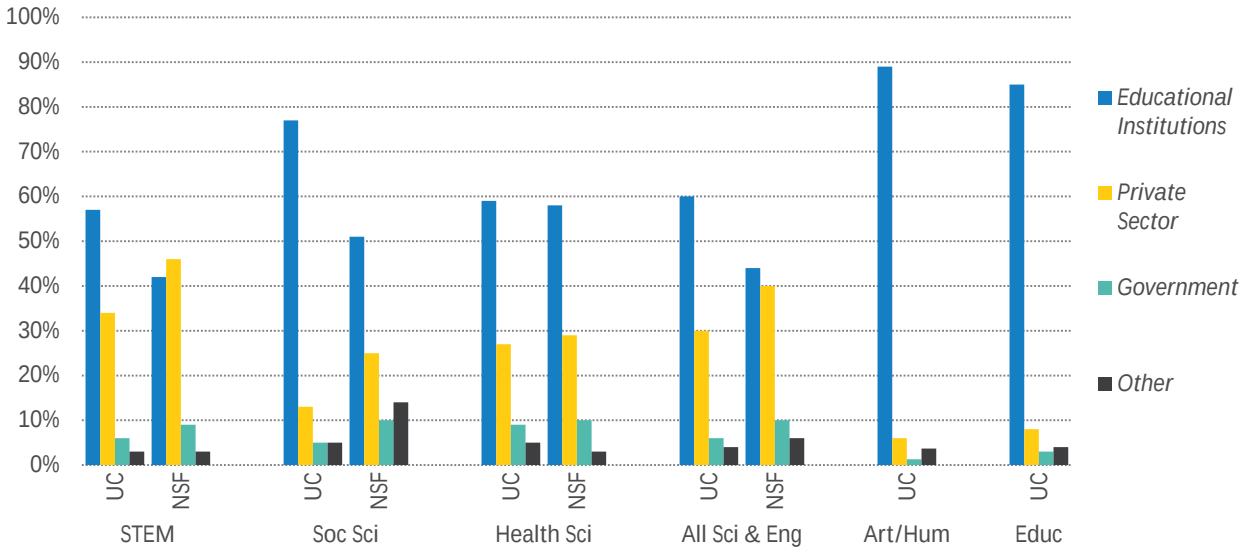
The contributions of UC academic doctoral and master's graduates to the state workforce go beyond higher education. More than 12 percent of the employed graduates of UC physical sciences and life sciences programs work in the state's manufacturing sector, while another 25 percent work in the engineering industry. This shows that the skills gained in UC academic doctoral and master's programs are both applicable and relevant to key high-tech industries.

UC graduate academic programs in engineering and computer science supply workers to the state's high-skilled and high-tech industries. Since 2000, 14,000 graduates of these programs have entered the California workforce, with 30 percent working in the manufacturing sector and 25 percent working in engineering services. Another 18 percent go on to work in the state's fast-growing Internet and computer services industry. About 16 percent of these graduates go on to teaching and research positions in the state's college and university systems.

[1] Includes very small numbers of graduate professional students, which do not affect the overall picture.

Compared with the national average, a greater proportion of UC doctoral graduates find employment in educational institutions.

4.3.6 Academic doctoral degree recipient employment sectors, all graduates since 1969
UC and national comparison
2013 (UC) and 2008 (NSF)



Source: UC Graduate Alumni Survey and NSF Survey of (Science and Engineering) Doctoral Recipients[1]

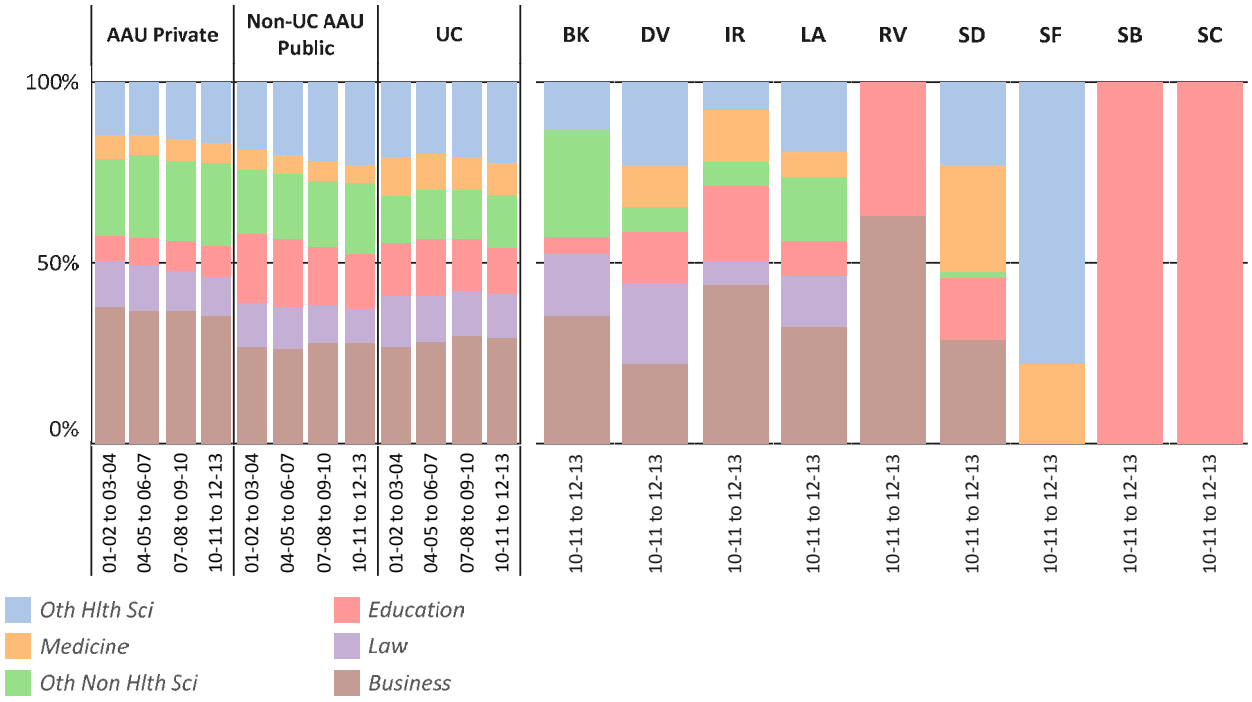
The proportion of UC doctoral degree recipients who find employment in educational institutions is higher than the national average for the broad disciplinary groups tracked by the National Science Foundation (NSF).

California's colleges and universities depend on UC doctorate recipients to teach their students: One out of five UC and CSU faculty members has a UC doctoral degree.

[1] NSF comparisons are only available for certain disciplines and not available for arts/humanities and education.

Like other major research universities, UC awards a high proportion of professional degrees in business.

4.4.1 Graduate professional degrees awarded by discipline
UC and comparison institutions
Number of degrees grouped in 3-year intervals: 2001–02 to 03–04, 2004–05 to 2006–07, 2007–08 to 2009–10 and 2010–11 to 2012–13



Source: IPEDS[1]

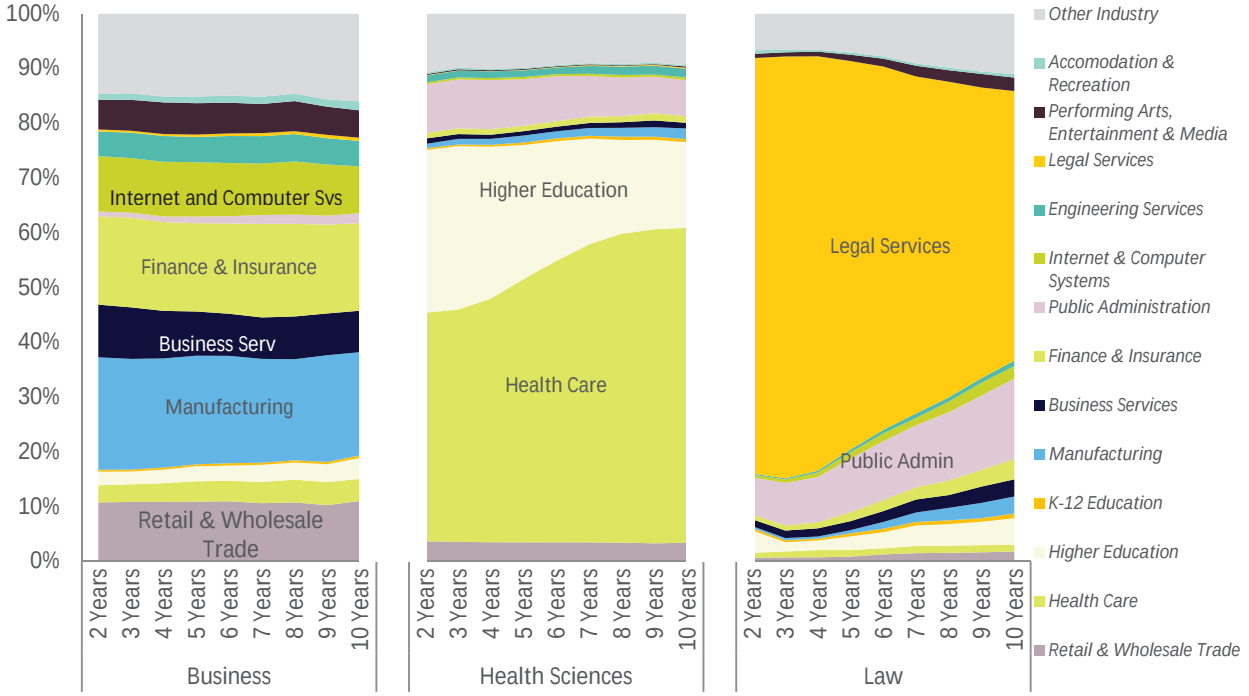
The proportion of professional degrees awarded by UC is comparable to AAU private and public institutions with the greatest proportion of degrees awarded in business. The number and size of graduate professional degree programs varies by campus, with UCLA awarding the greatest number of professional degrees.

Over the past dozen years, UC has opened new professional schools in several areas, including the Rady School of Management at UC San Diego in 2003, the School of Law at UC Irvine in 2006 and the School of Medicine at UC Riverside in 2013.

[1] UC Merced has no professional degree students. "Other" includes disciplines such as public administration, architecture, communications and library science.

UC professional programs prepare graduates for careers related to their field of study.

4.4.2 Industry of employment of UC graduate professional students in CA, by year after graduation
Universitywide
2000 to 2011 graduating cohorts



Source: California Employment Development Department and UC Corporate Student System[1]

Graduates of UC Master of Business Administration (MBA) programs contributed significantly to the state's high-skilled and high-tech industries. The 15,000 UC MBA graduates who have entered the California workforce since 2000 have worked in a wide array of industries, including manufacturing (26 percent), finance and insurance (20 percent), retail and wholesale trade (17 percent), and Internet and computer systems (17 percent).

Nearly 10,000 graduates of UC health science professional practice programs (e.g., M.D., D.D.S., Pharm.D.) have gone on to work in California since 2000. The majority of these graduates (62 percent) go on to work in the state's health care sector. This highlights UC's role, per the "Master Plan," as the state's sole public provider of many health science professional practice degrees and validates UC's success in fulfilling that role. UC health science graduates also play key roles in other areas of public service in the state, including 35 percent who go on to work in the state's higher education system and 12 percent who work in state government.

UC law school graduates go on to work in two main areas — legal services and government. Of the 7,500 UC law school graduates who have worked in California since 2000, more than 80 percent eventually find positions in the legal services industry. Another 15 to 20 percent go on to work in the public sector, including as government prosecutors, as public defenders and in other public agency roles. A large percentage of law school graduates start off in legal services initially after receiving their degree (76 percent), but by ten years after graduation this percentage has fallen to about 49 percent. The percent of UC law school graduates in government rises from 7 percent to 15 percent over the same period.

[1] Includes very small numbers of graduate academic students (e.g., Ph.D. business), which do not affect the overall picture.

Chapter 5. Faculty and Other Academic Employees

The quality and stature of the University of California are due to its distinguished faculty. President Napolitano has said, "We teach for California … [and] we research for the world." UC faculty serve as a rich source of innovation, discovery and mentorship; they provide top-quality education to students, groundbreaking research and public service to society. No other public institution can claim as distinguished a group of individuals: UC faculty have won 62 Nobel prizes and 67 National Medals of Science. As of 2015, UC academics included over 580 members of the National Academy of Sciences and over 500 members of the American Academy of Arts and Sciences.

Describing the academic workforce

Faculty are dedicated to a range of teaching, research and creative work, to clinical service and to public service functions in a vast array of disciplinary areas, including the health sciences. The descriptive data in this chapter provide an outline of the composition of the UC faculty that only hints at the full scope of faculty specialties and expertise.

The faculty renewal pipeline

Over the last few years, new hires have increased as UC recovers from the severe budget cuts of prior years. Faculty diversity has increased and departure rates have declined.

Competitiveness of faculty salaries — Faculty salaries at UC still trail those at comparison institutions by 11 to 15 percent depending on rank. UC compares its faculty salaries to the average of salaries at four public and four private institutions. UC and the state set a goal for UC salaries to be at the midpoint between these two averages, but UC salaries have lagged behind this benchmark for the last 14 years. According to the 2014 update of UC's Total Remuneration Study for General Campus Ladder-Rank Faculty, UC's 6 percent above-market positioning for retirement is offset by 7 percent below-market positioning for health and welfare benefits. When combined with UC's 12 percent below-market cash compensation, this leads to total remuneration ten percent below market in comparison to UC's peers.

Diversity — The University of California remains committed to diversifying its faculty, taking full advantage of the availability of qualified candidate pools. The Office of the President is working with campuses by tracking faculty recruitment data to identify opportunities to diversify the faculty; by sharing best practices in faculty mentoring and professional development; and by enhancing programs to foster work-life balance. The proportion of women and underrepresented race/ethnic groups (URMs) in the faculty continues to grow at a modest pace. When these diversity figures are displayed in the context of eight peer research institutions that make up UC's standard comparator group, UC compares favorably. According to 2013 data, UC is tied for second place, at 31 percent, for the percentage of female faculty. UC also places second for the percentage of URM faculty and female URM faculty. But there is still work to be done. Data comparing U.S. doctoral degree recipients and UC's new faculty hires show that in many disciplines, the share of faculty from underrepresented groups among new UC assistant professors remains below the share in the national pool of available candidates.

Diversity initiatives

A wide variety of diversity programs are in place throughout the UC system to build a more diverse faculty. Notable among these programs are the President's Postdoctoral Fellowship Program Special Presidential Initiative, the Leadership Seminar Series for Deans and Chairs, and campus-based ADVANCE programs.

President's Postdoctoral Fellowship Program Special Presidential Initiative — Established in 1984, the President's Postdoctoral Fellowship Program (PPFP) encourages outstanding women and under-represented PhD recipients to pursue careers at UC. As part of a special initiative to enhance the work of PPFP, the president has committed additional one-

time funds to the program, with $2.4M targeted to support startup costs for fellows hired into STEM faculty positions, including the health sciences. The president also committed $2.1M as additional support for the hiring incentive offered to departments that hire fellows into the faculty. Currently, 17 fellows are being actively recruited by UC departments for positions beginning in fall 2015. The National Institutes of Health (NIH) is using PPFP as a model for postdoctoral recruiting, and PPFP was featured at a recent panel presentation during the National Postdoctoral Association convention.

Leadership Seminar Series for Deans and Chairs — Developed for department chairs and deans with a focus on department climate, the interactive theatre-based leadership seminars provide faculty administrators with a toolkit to deal with racial and gender micro-aggressions and implicit bias. By fall 2015, the seminars will have been held on all ten campuses. Materials are available at http://ucal.us/facultyleadership.

ADVANCE Programs across UC — Throughout the United States, the National Science Foundation (NSF) has sponsored the ADVANCE Programs with the goal of developing "systematic approaches to increase the representation and advancement of women in academic science and engineering careers, thereby contributing to the development of a more diverse science and engineering workforce." Currently, there are three UC campuses offering ADVANCE programs: UC Irvine, UC Riverside and UC Davis.
UC Davis has an innovative faculty hiring program, the CAMPOS Faculty Scholar program, that is increasing their number of Latina and underrepresented women in STEM. The CAMPOS Scholars are new ladder-rank faculty who are selected for the program based on their transformative thinking, unique perspectives, interdisciplinary approaches and leadership potential to affect their STEM discipline in profound and enduring ways. In its first year, the program has recruited seven scholars in a range of STEM disciplines, whose research and outreach involves underrepresented communities. In the last year, the number of Latina STEM faculty on campus increased from 10 to 15 with the addition of five Latina CAMPOS Faculty Scholars, an increase of 50% in one year (2014–2015).

For more information

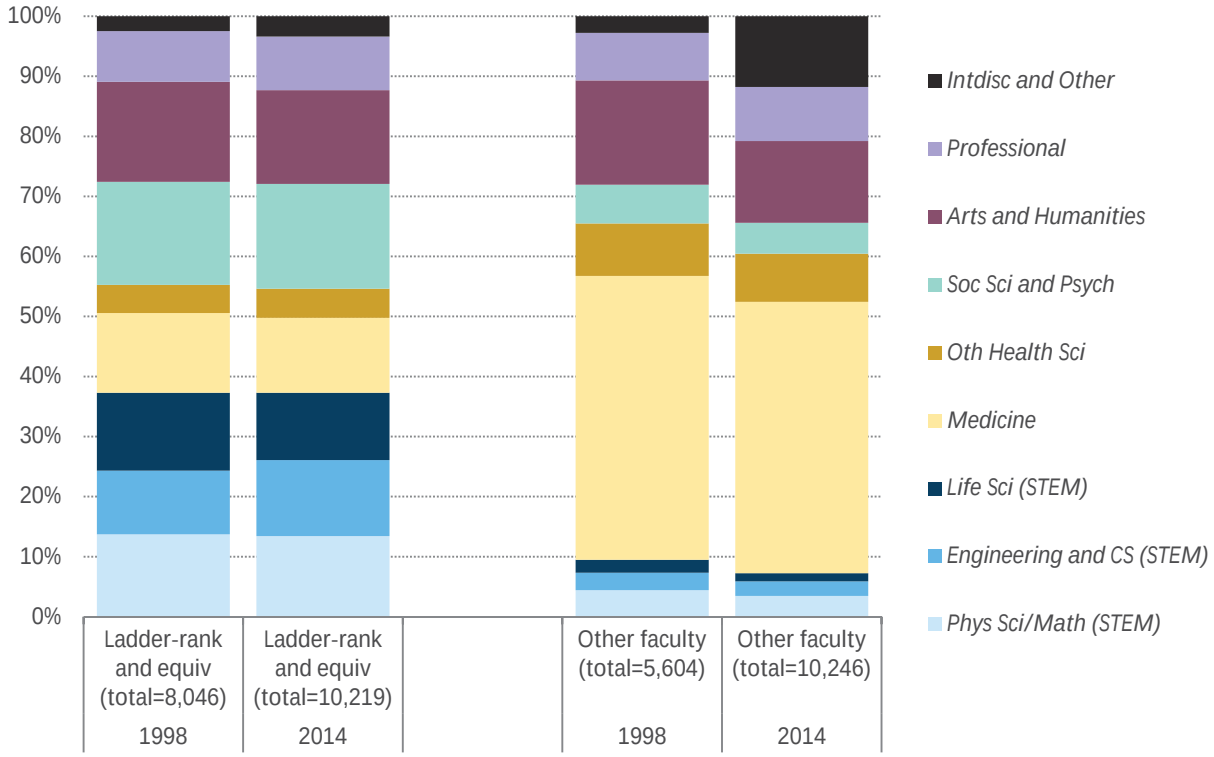
The UC Academic Senate and UCOP's Academic Personnel Department:
www.universityofcalifornia.edu/senate
www.ucop.edu/academic-personnel-programs

Dashboard on diversity of UC's faculty and academic appointees:

http://universityofcalifornia.edu/infocenter/diversity-ucs-faculty-and-academic-appointees

More than half of ladder-rank and equivalent faculty are in STEM (science, technology, engineering and mathematics) and health sciences disciplines. The largest (and growing) percentage of non-ladder-rank faculty is employed in the health sciences.

5.1.1 Faculty by discipline, headcount
Universitywide
Fall 1998 and fall 2014



Source: UC Corporate Personnel System[1]

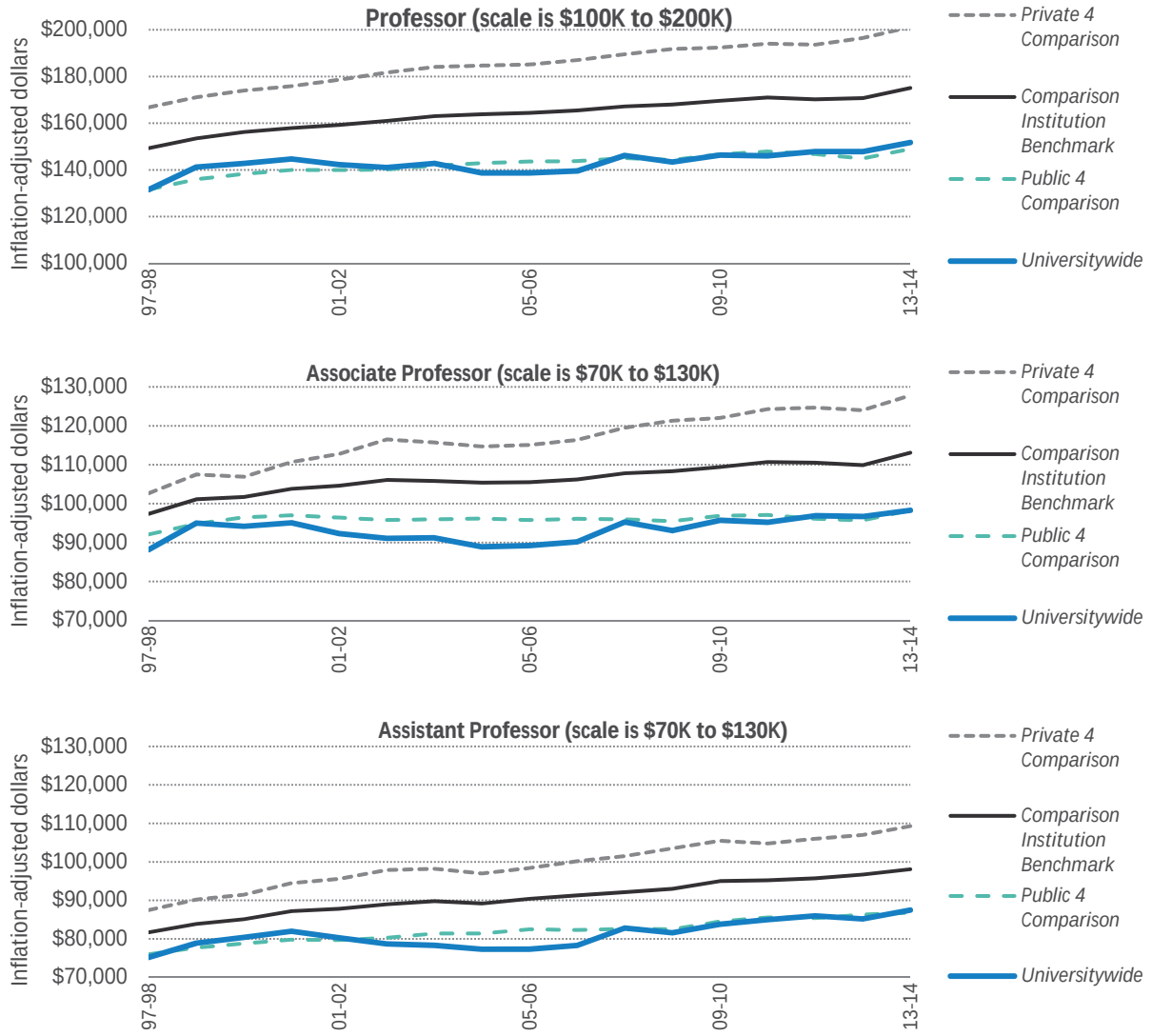
The growth in faculty over the last 15 years has not been evenly distributed across academic disciplines. Among ladder-rank and equivalent faculty, the most significant change over the past 15 years has been a shifting emphasis in the STEM disciplines. The largest growth has been in engineering and computer science — not a surprising development given the dramatically increased demand among students for training in this fast-growing sector of the economy.

Headcount in other faculty series has increased by more than 4,600 (about 75 percent) since 1998 — a much greater increase than in the headcount of ladder-rank and equivalent faculty (about 2,200 or 27 percent). The most significant increase in non-ladder faculty has been in medicine.

[1] Data shown are headcount numbers for all faculty members. "Other faculty" includes lecturers and senior lecturers, visiting and adjunct faculty, instructional assistants and the clinical faculty series. Other health sciences include nursing, dentistry, pharmacy, optometry and veterinary medicine.

UC faculty salaries are currently below the benchmark that UC has historically employed to assess competitiveness. This affects the University's efforts to recruit and retain high-quality faculty.

5.2.1 Average ladder-rank general campus faculty salaries, by rank
UC and comparison institutions
1997–98 to 2013–14

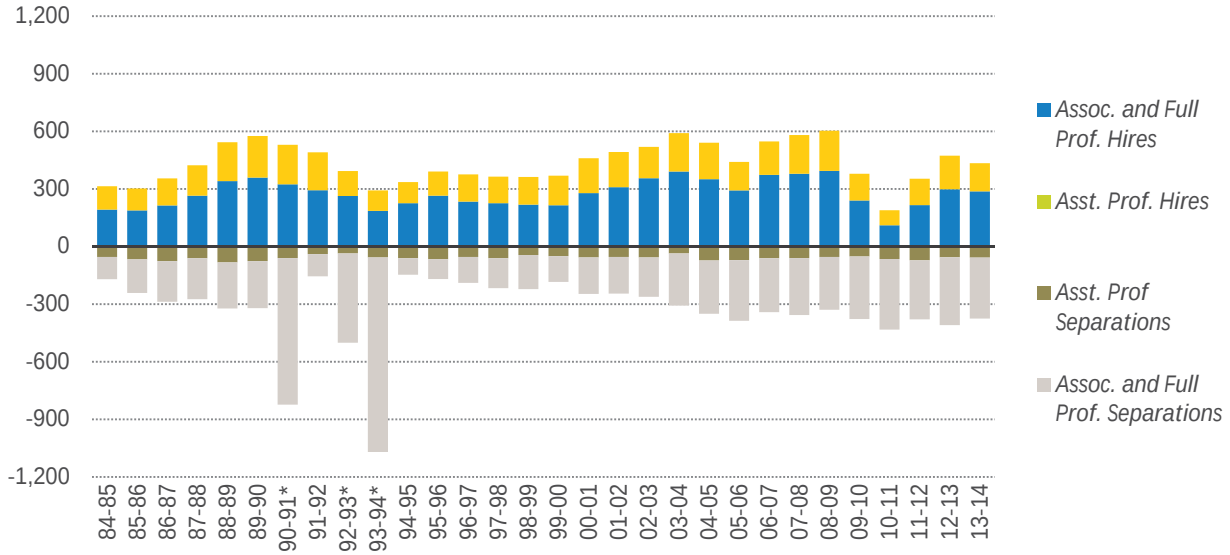


Source: UC Corporate Personnel System, AAUP faculty salary survey

UC historically has used eight universities — four public and four private — against which to benchmark its faculty salaries. The benchmark is the midpoint between the averages of the public and private institutions. The four public institutions are Illinois, Michigan, University at Buffalo and Virginia; the four private institutions are Harvard, MIT, Stanford and Yale. UC's faculty salaries fall significantly below those of the comparison four private institutions and are just keeping pace with the four public institutions.

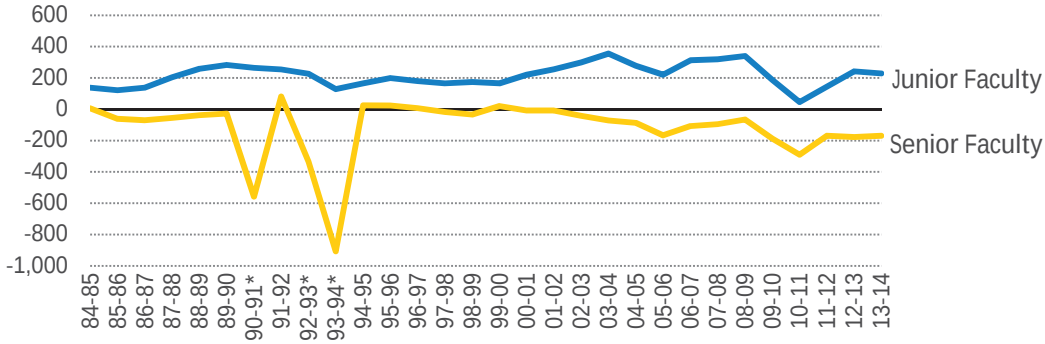
In the past few years, hiring of new faculty started to rebound from a drop due to state budget cuts.

5.3.1 New hires and separations of ladder-rank and equivalent faculty
Universitywide
1984–85 to 2013–14



Source: UCOP Office of Academic Personnel and Program Administration[1]

5.3.2 Net change in ladder- and equivalent-rank faculty
Universitywide
1984–85 to 2013–14



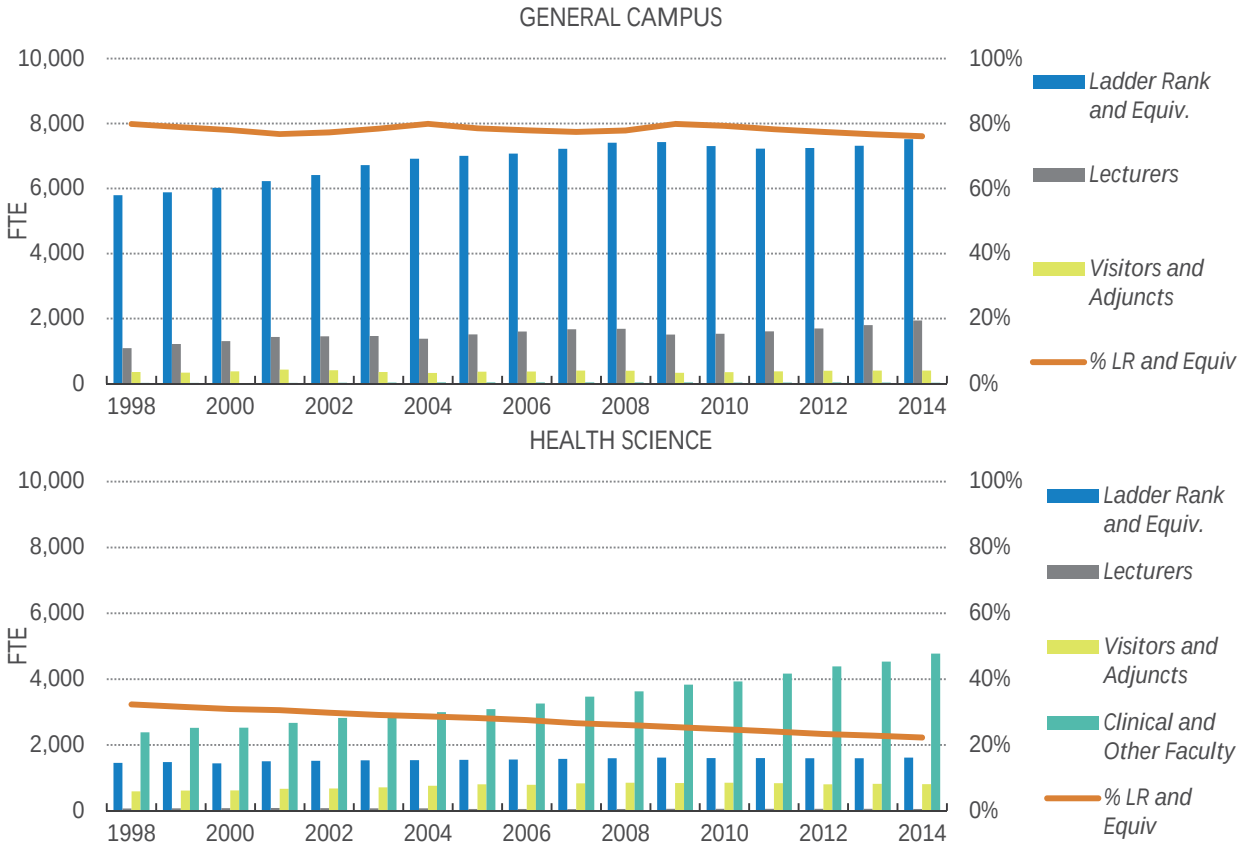
Faculty hiring decreased significantly from 2009 to 2011 in response to fiscal constraints. However, there was an uptick in new hires during 2011–12 to 2013–14.

Since 2003–04, faculty separations have exceeded 300 per year. At the same time, undergraduate enrollment has seen marked increases.

[1] Associate and full professors shown here are tenured faculty; assistant professors are nontenured tenure-track faculty. A very small number of lecturers with security of employment are included in the assistant category.
*Years with Voluntary Early Retirement Incentive Program (VERIP).

Ladder-rank and equivalent faculty constituted 76 percent of UC general campus faculty FTE in fall 2014 but only 22 percent in the health sciences.

5.3.3 Faculty workforce FTE
Universitywide
Fall 1998 to fall 2014



Source: Corporate Personnel System October snapshots and UC DSS — earned in October, paid through November[1]

Ladder- and equivalent-rank faculty numbers declined starting in 2009 as campuses reduced hiring to address budget shortfalls, but have since rebounded.

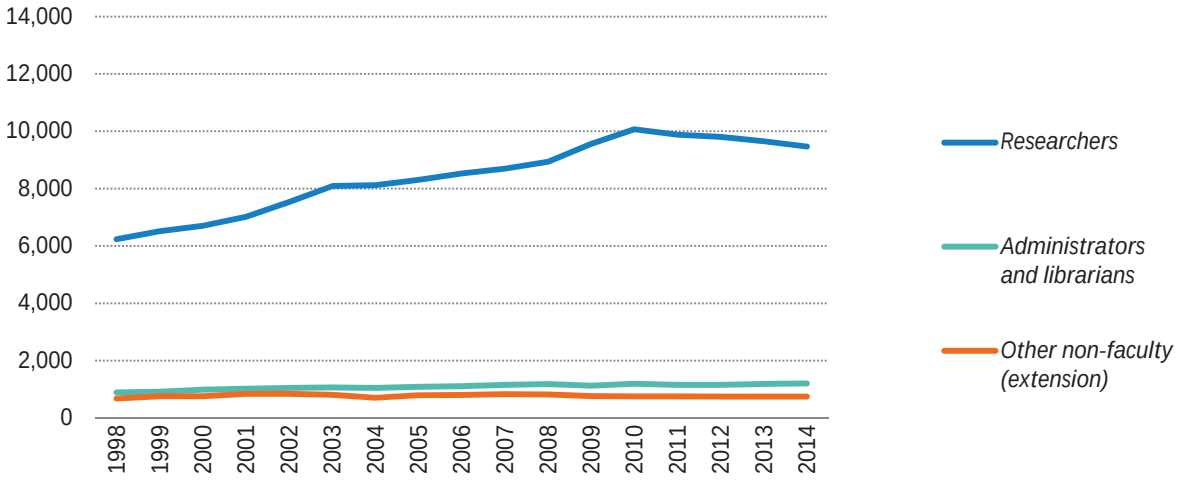
Lecturer[2] titles tend to be more common in general campus departments and represent about 20 percent of the general campus faculty. "Visitors and adjuncts" include other types of faculty who do not have tenure or security of employment.

The "clinical and other faculty" category[3] has grown substantially. These faculty are integral to UC's health sciences clinical and research activities, and are paid primarily from clinical and research revenues, rather than from state sources.

[1] Health Sciences includes FTE in schools of medicine, dentistry, nursing, optometry, pharmacy, public health and veterinary medicine. General campus includes FTE in all other schools and colleges.
[2] Lecturers here refer to "Unit 18 Lecturers" – they are mostly part-time and most are eligible to be represented by a union ("Unit 18"). UC also employs "lecturers with security of employment" and "lecturers with potential security of employment," of which there are fewer than 200 systemwide. "Lecturers with security of employment" are members of the Academic Senate and they are included in the "ladder- and equivalent-rank faculty" category throughout this report.
[3] Includes clinical faculty and professors in residence. Although there are exceptions, these faculty are generally employed at campuses with health science schools. They are mostly supported by non-state dollars, e.g., clinical and research revenues.

FTE of academic researchers has increased, peaking in 2010–11 due to stimulus funds from the federal Recovery Act (ARRA) but dropping since then.

5.3.4 Nonfaculty academic workforce FTE
Universitywide
Fall 1998 to fall 2014



Source: UC Corporate Personnel System. Includes all academic nonfaculty titles except graduate student instructors and researchers.

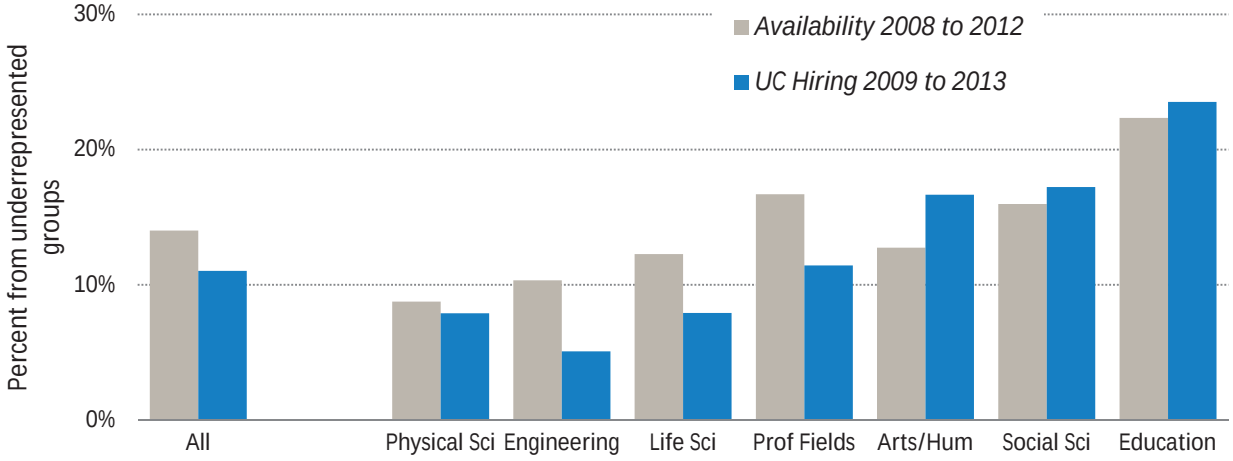
Aside from faculty, most of the nonstudent academic workforce is composed of appointees in professional research titles. The great majority of researchers in the academic workforce are supported by contracts and grants from external sponsors, with the federal government providing about 60 percent of the funding for research. The number of researchers in the academic workforce peaked in 2010–11, largely due to augmentations to federally sponsored research funding provided through the American Recovery and Reinvestment Act (ARRA). Since then, federal agency appropriations for research have declined, and other sources of funding have not increased sufficiently to offset the drop in federal research support. This has resulted in a four-year decline in the overall research workforce.

During FY 2013–14, however, research awards to UC from federal and other sources, which have a lag before they are spent, showed a significant increase. If this positive trend continues, then as these funds are spent, the research workforce is likely to stabilize and perhaps return to modest growth.

Chapter 9, Research, provides details and analysis of the impact of external sponsorship on the research workforce.

The proportion of underrepresented minority scholars among UC assistant professor hires continues to lag in some fields behind their proportion among Ph.D. recipients.

5.4.1 New assistant professors compared with national availability for underrepresented minorities, by discipline
Universitywide
2009 to 2013

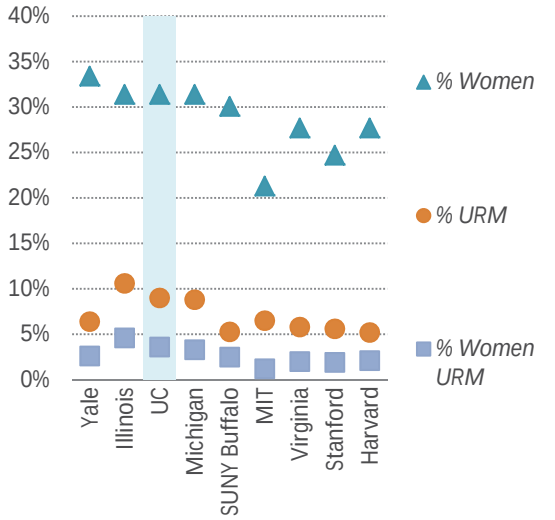


Source: UCOP Academic Personnel and Program Administration and Survey of Earned Doctorates

As evidenced by its continuing campus and system-wide efforts, the University of California remains deeply committed to diversifying its faculty, and taking full advantage of the available pools of qualified candidates. Between 2009 and 2013, underrepresented minorities accounted for 14 percent of the pool of nationwide doctoral degree recipients and 11 percent of UC's new assistant professors.

The proportion of women and underrepresented minorities continues to grow at a modest pace. When these diversity figures are displayed in the context of other peer research institutions in the U.S., namely the "Comparison 8," UC compares favorably. According to 2013 data, UC is tied for second for the percentage of women faculty, at 31.4%. Additionally, UC places second for the percentage of URM faculty and women URM faculty, at 9.0% and 3.6% respectively.

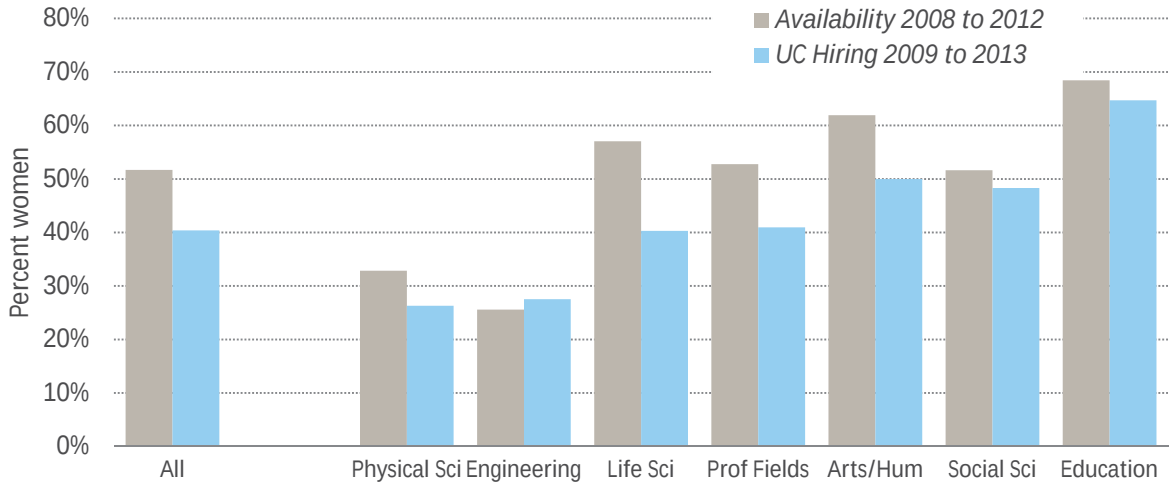
5.4.2 Percent of tenure and tenure-track faculty who are female and/or from underrepresented race/ethnic groups
UC and Comparison Institutions
Fall 2013



Source: IPEDS

UC's hiring of women faculty lags behind the national availability in every broad discipline group except engineering.

5.4.3 New assistant professors compared with national availability for women and discipline
Universitywide
2009 to 13



Source: UC Academic Personnel and Program Administration and Survey of Earned Doctorates[1]

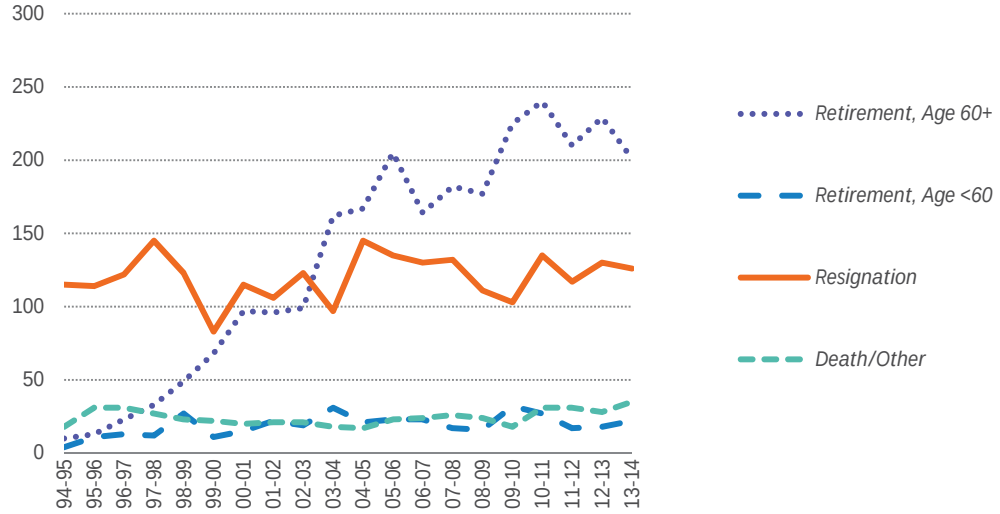
Between 2009 and 2013, women constituted more than half of the nationwide pool of new doctoral degree recipients but only 40 percent of UC's new hires. At a time when the nation's pool of doctoral degree recipients is showing increasing numbers and percentages of women, outreach and recruitment efforts at UC are not generating faculty hire rates that are fully reflective of changes in national availability pools, although the differential varies by field.

UC ADVANCE PAID, a program sponsored by UC Office of the President and the National Science Foundation (NSF), aims to recruit, retain and advance more women and URM women faculty in the fields of science, technology, engineering and mathematics (STEM). For more information, visit www.ucop.edu/ucadvance/index.html.

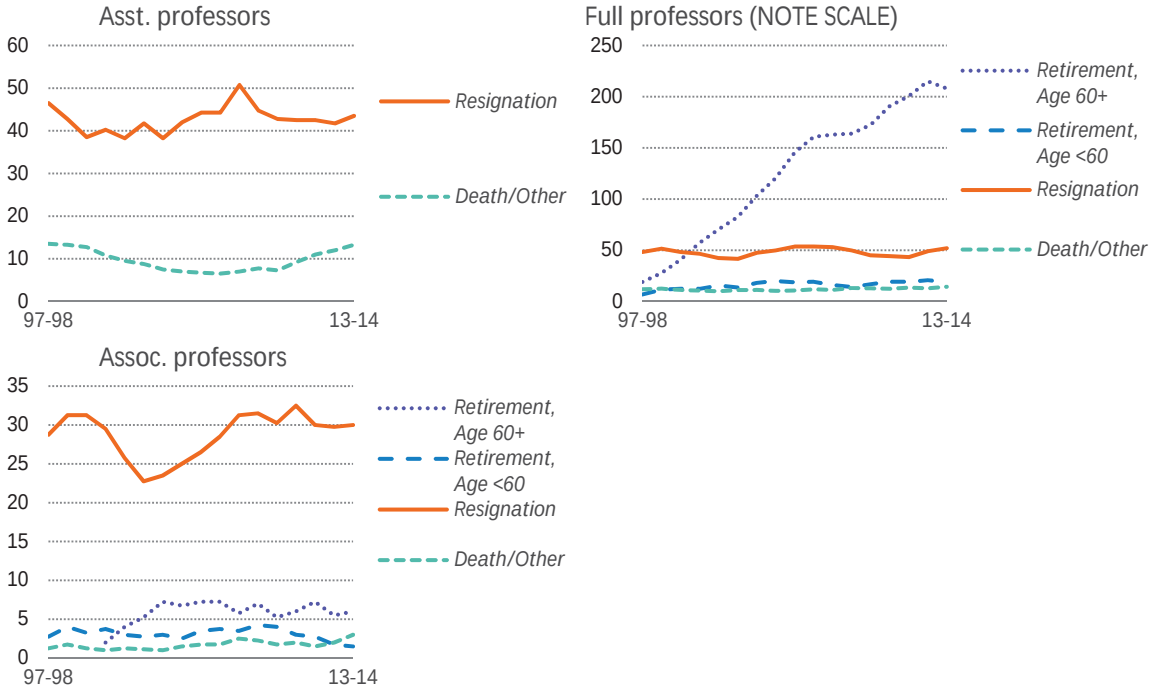
[1] This analysis follows the campus practice required for federally mandated affirmative action plans; UC is required by Proposition 209 to satisfy federal reporting requirements in this area. See the appendix for additional details.

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

5.5.1 Departure reasons of faculty
Universitywide, all faculty
1994–95 to 2013–14



5.5.2 Departure reasons by rank
Moving four-year average, 1997–98 to 2013–14



Source: UCOP Office of Academic Personnel and Program Administration[1]

[1] "Other" reasons include faculty whose appointments ended or who were not tenured or not renewed. 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.

PUBLIC STORAGE

UC is home to scores of world-class libraries and museums—cultural treasures preserved for posterity by a staff that helps make them great.

Chapter 6. Staff

Workforce demographics

Like all universities, UC has both academic and nonacademic employees. The academic employees (teaching faculty, researchers, librarians, academic administrators, etc.) constitute about 30 percent of UC's workforce; nonacademic employees (staff) constitute the remaining share of the workforce. This chapter describes UC's nonacademic workforce in demographic terms: size and structure, age distribution and compensation relative to market levels.

As of fall 2014, UC employed 140,000 nonacademic staff (or 103,000 FTE) across a wide range of occupational categories, including doctors, nurses and other health care staff; research administration and laboratory staff; student services staff; food and auxiliary services staff; maintenance and physical plant staff; and management and clerical staff.

Funding sources and the structure and composition of the staff workforce have changed significantly over the past decade. Hospital and health science funds, for example, contribute an increasingly large proportion of staff salaries, while general funds, which consist primarily of funds from the state of California together with student fees and tuition, constitute a shrinking proportion. 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 also has increased — a shift that aligns with national trends.

Workforce strategies related to staff

In 2015, UCOP Human Resources updated the Human Resources Strategic Plan from 2010. Directed at staff, the plan focuses on employee relations, labor relations, compensation and benefits. The University is striving to construct programs that provide value and engage its employees. In the systemwide staff engagement survey, employees cited competitive compensation as a key concern. Recognizing that quality personnel are essential for maintaining excellence, one of the University's foremost concerns has been to achieve market-competitive total compensation for its employees. The goal of offering competitive compensation was adopted by the Regents in 2005 as part of a ten-year plan to bring compensation and benefits to market levels (http://regents.universityofcalifornia.edu/minutes/2005/fin905.pdf). Although the University was able to fund staff salary increases in fiscal years 2005 to 2007 and in 2011, 2013 and 2014, implementation of the Regents' broader plan to achieve market-comparable pay for staff was delayed by the 2007–09 recession and the state fiscal crisis in 2012. UC is currently emphasizing talent management, focusing on staff hiring, development, deployment and retention. The staff turnover rate, 8.5 percent in 2013–14, was the lowest in the past eight years but remains considerably higher than general industry.

Looking forward — staff renewal challenges

Inconsistencies in delivering an annual salary program have put pressures on UC's competitive position in various employment markets. While in recent years the frequency of annual increase programs has improved, UC is still experiencing the effects of past years when an increase program could not be funded. With more than one-third of UC staff age 50 or older, UC will likely face talent management challenges from its multi-generational workforce and increased turnover rates due to an impending retirement bubble and a continuing economic recovery that may provide alternative opportunities for staff.

For more information

UC's Strategic Plan:
http://ucop.edu/human-resources/_files/hr-strategic-plan.pdf

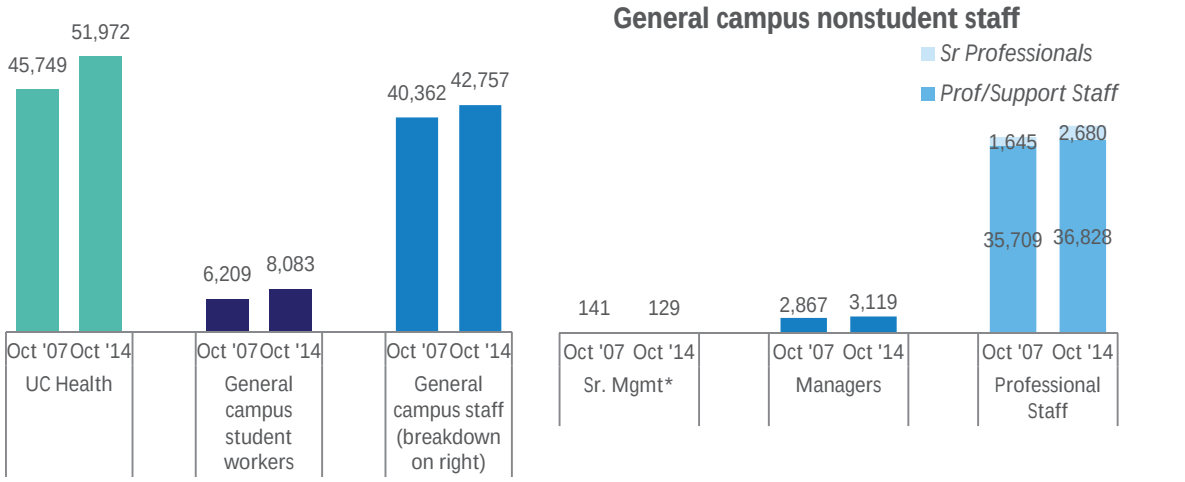
Staff Workforce Profiles:
http://ucop.edu/institutional-research-academic-planning/data-reports/key-reports/workforce-profiles.html

UC Regents Diversity Policy, 2007:
http://regents.universityofcalifornia.edu/governance/policies/4400.html

Staff Engagement Survey Results:
www.ucop.edu/staff-assembly/resources/2012-staff-engagement-survey-results.html

Staff growth has been greatest in UC Health, encompassing the teaching hospitals and health science education programs. Since 2007, UC Health has seen staffing increase by nearly 14 percent. In contrast, general campus staff levels (excluding student employees) grew by only 6 percent. This is less than half of the 15 percent increase in general campus student enrollment over this same period.

6.1.1 Staff FTE (full-time-equivalent) workforce growth over time
Universitywide
Fall 2007 and 2014



Source: UC Corporate Personnel System

* In 2010, certain academic administrators (mostly deans) were moved from the SMG category to the Academic category in recognition that their primary role is academic. Eighty-one Senior Management FTE are excluded from the Oct '07 General Campus nonstudent staff figure to provide accurate comparisons between 2007 and 2014. All staff measures in this chapter exclude Lawrence Berkeley National Laboratory, Hastings School of Law and Associated Students UCLA.

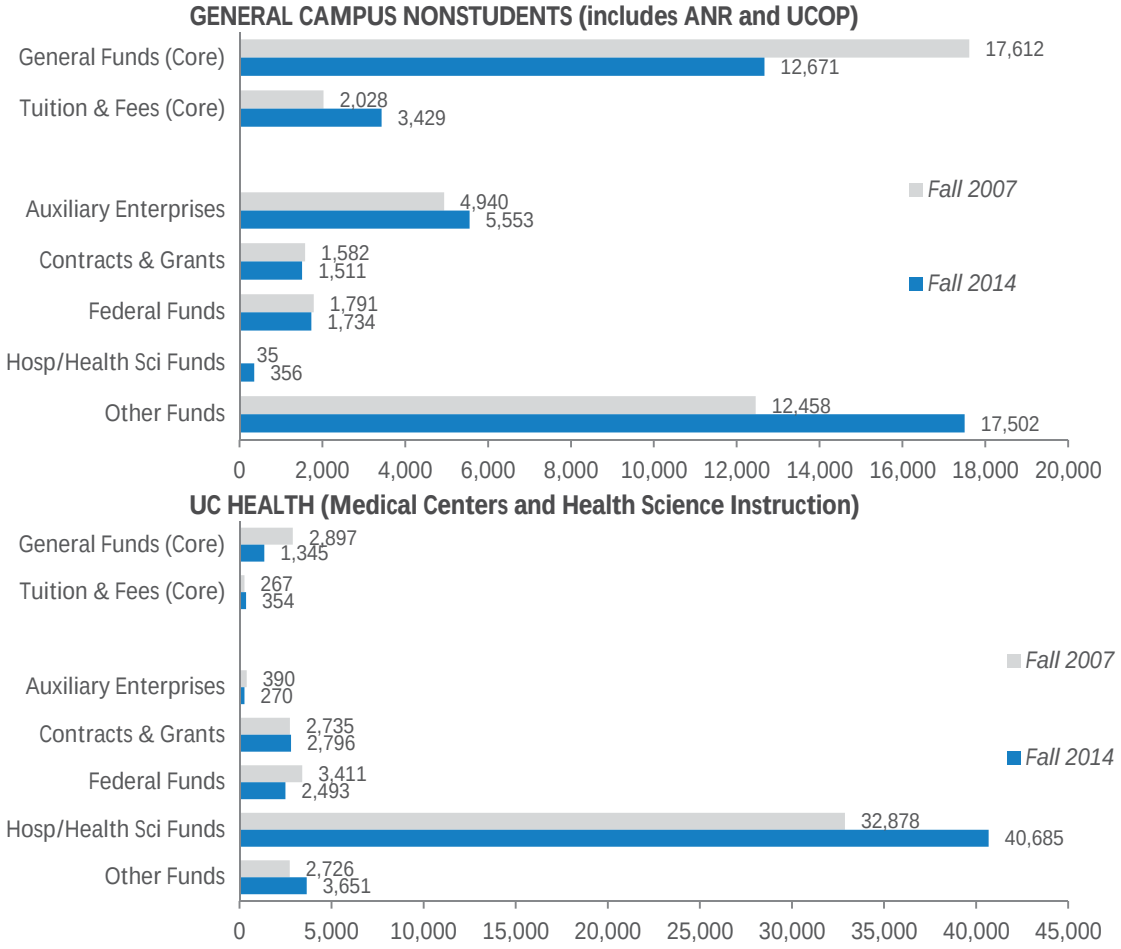
UC operates five teaching hospitals as well as schools of medicine, dentistry, nursing and other health sciences education and research programs. Together these UC Health hospitals and academic programs have experienced proportionally greater growth in staffing since 2007 than the remaining components of UC (including the Office of the President), which are considered "General Campus."

Teaching hospitals and other health sciences programs accounted for more than half of the nonacademic staff increase between 2007 and 2014 (6,222 FTE); this growth is largely related to increased demand for medical care. General Campus nonstudent staff accounted for less than one-fourth of the growth (2,493 FTE), and student employees accounted for about one-fifth of staff growth (1,873 FTE); this growth in student employees is largely related to the additional 31,000 students UC has enrolled on the general campuses over this period. About half of the student employees in staff positions are work-study students who work on-campus as part of their financial aid package.

The growth in Senior Professional staff is a reflection of the professionalization of UC's workforce, similar to changes seen in the wider labor market over the past seven years. This has resulted in growth of more analytical and technical jobs and a reduction in the clerical workforce. The other area with significant growth is professional support staff, which includes such diverse occupations as nurses, computer analysts and technicians, administrative and financial analysts, clerical assistants, groundskeepers, food service workers and many others.

Since 2007, the number of staff supported by general funds has fallen as state funding for the University has decreased. At the same time, the number of staff funded by hospital and health science sources has increased.

6.1.2 Nonstudent staff FTE (full-time-equivalent) workforce, by fund source
General campus and UC Health
Fall 2007 and 2014



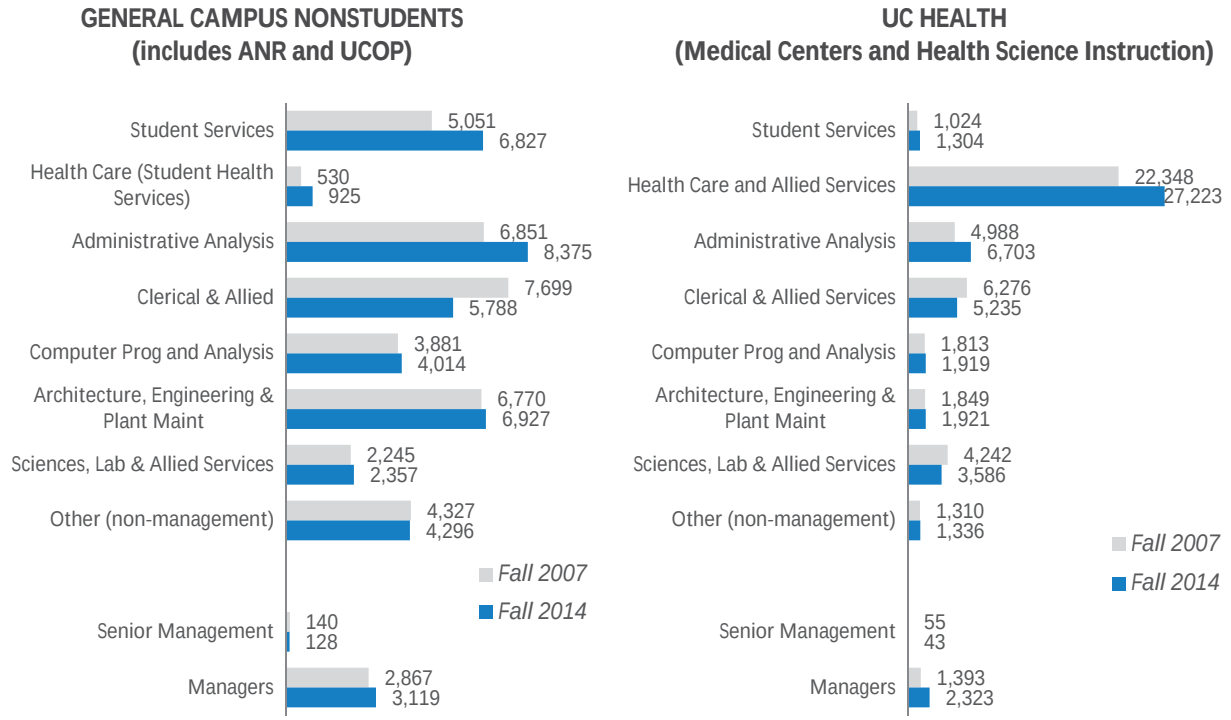
Source: UC Corporate Personnel System. Not shown are general campus staff who are also students (6,209 FTE in 2014).

Between October 2007 and 2014, staff growth was concentrated among teaching hospital employees, due to increasing demand for health care, most notably growth in Medi-Cal and other government programs. These employees are primarily supported by hospital and health science funds.

Most of the increase in campus employees is attributable to growth in numbers of staff supported by noncore funds, such as health science funds, research funds, federal support, auxiliaries and other sources.

Over the past 11 years, changing technology has led to a need for more staff with higher-level skills and fewer staff with lower-level skills.

6.1.3 Nonstudent staff FTE, by occupation group
Universitywide
Fall 2007 and 2014



Source: UC Corporate Personnel System.
Not shown are general campus staff members who are also students (6,209 FTE in 2014). Eighty-one and 9 Senior Management FTE are excluded from the Oct '07 General Campus and UC Health nonstudent staff figures, respectively, to provide consistent comparison between 2007 and 2014.

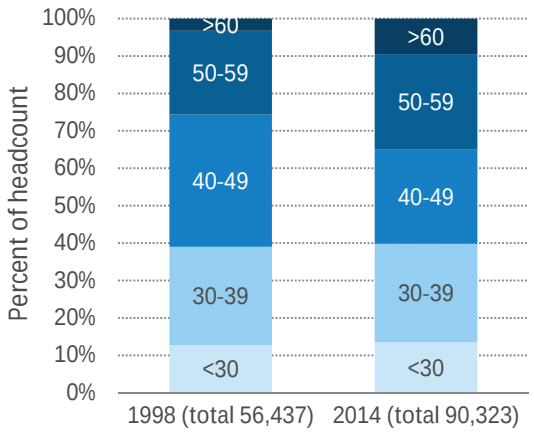
Technological advances have had a marked effect on staffing needs as computers increasingly perform tasks once requiring significant time and manual effort. Technology also has created a need for more staff with higher-level skills, such as information technology expertise and fiscal management experience. This is reflected above in the decline of clerical staff FTE and the growth of administrative analysis FTE.

In the past seven years, student enrollment has also grown, with a corresponding increase in staff supporting student services.

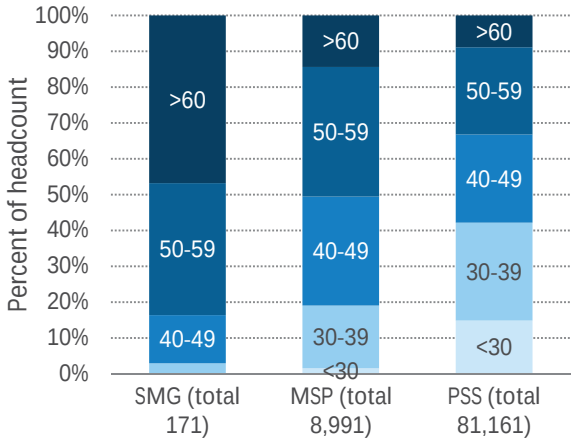
The number of health care employees has grown faster than any other group. Health care staff in the medical centers are funded from patient services revenues.

Overall, the average age of the UC staff career workforce was higher in 2014 than in 1998. In 1998, 26 percent of career staff were age 50 or older; in 2014, 35 percent of career staff were age 50 or older.

6.2.1 Age distribution of career staff
Headcount
Universitywide
Fall 1998 and 2014



6.2.2 Age distribution of career staff, by personnel program
Headcount
Universitywide
Fall 2014



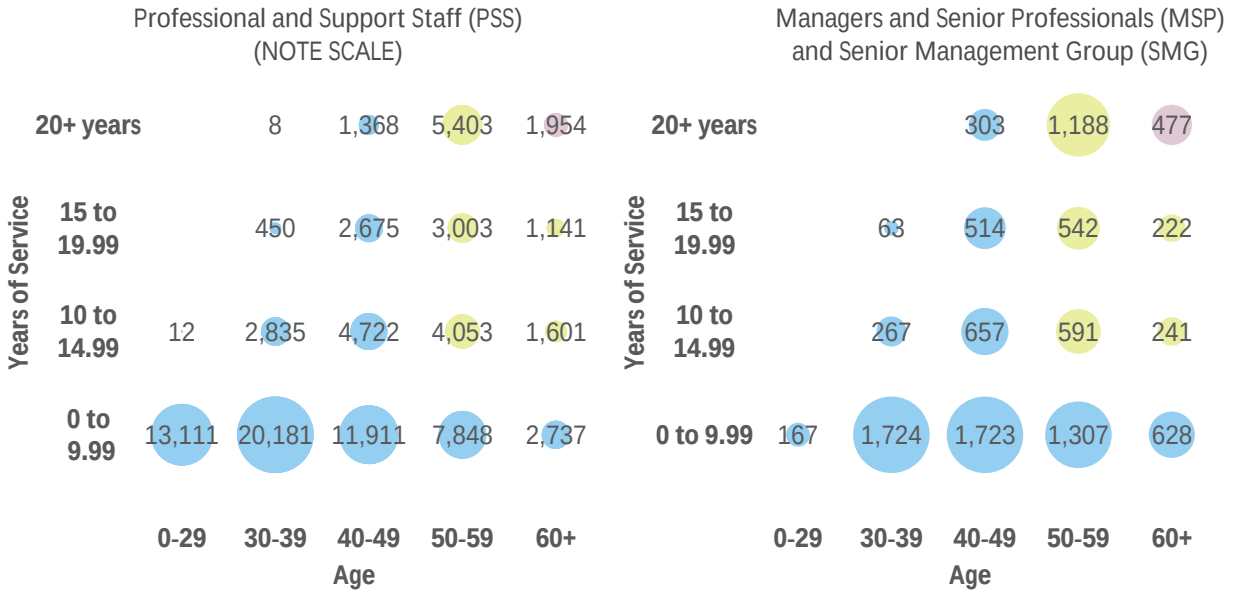
Source: UC Corporate Personnel System

Since 1998, the age distribution of UC's staff has shifted; previously, most career staff were between 40 and 49 years of age; by 2014 the number of staff in the 30 to 39 and the 50 to 59 year ranges had surpassed those in the middle. At the same time, the number of staff 60 and older has increased considerably. Questions of the preservation and transmittal of institutional memory and of succession planning have become more important in the current environment.

The Senior Management Group (SMG) and the Managers and Senior Professionals (MSP) group have higher average ages because positions in these personnel programs generally require more experience and entail a higher level of responsibility. The Professional and Support Staff (PSS) group contains a lower proportion of senior staff personnel. Within the PSS group, there is no significant difference in age distribution between union-represented and nonrepresented staff.

While many staff members are nearing retirement eligibility, less than 5 percent of staff have the combination of age and years of service to qualify for the maximum retirement benefit factors.

6.2.3 UC retirement program active career staff headcount, by age and years of service (YOS)
Universitywide (excludes Lawrence Berkeley National Laboratory)
Fall 2014



Source: UC Retirement System

LEGEND

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

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

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

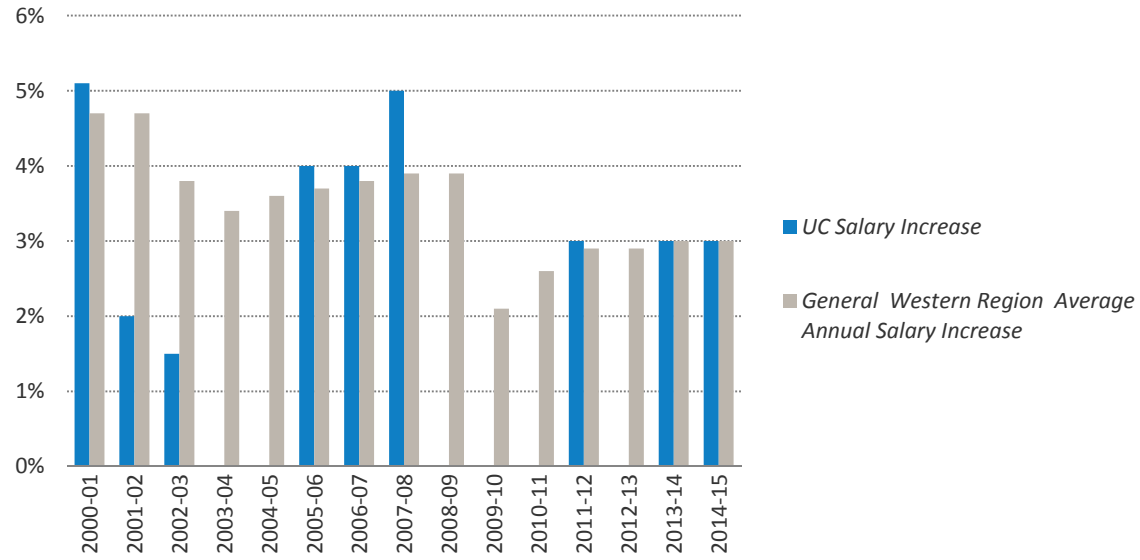
UC Retirement Plan benefits are designed so that highest benefits commence at age 60. Actual benefits depend on total years of service and highest average compensation. To be eligible for the maximum UC contribution for retiree health benefits, a retiring employee must have 20 years of service.

UC monitors the number and proportion of staff nearing or at retirement age because replacing experienced staff is a critical component of managing staff resources. About 2 percent of PSS staff and almost 5 percent of management staff are age 60 or above with 20 or more years of service. This is somewhat higher than the ratios of nine years ago.

The proportion of staff who are eligible to retire but with less than the maximum age factor and/or eligibility for UC retiree health benefit contribution has grown slightly since 2004.

Growth rates for staff salaries are below market rates in the Western region benchmark.

6.3.1 UC base salary increases compared with inflation and market averages
Universitywide
2000–01 to 2014–15



Source: UC Human Resources[1]

The growth rate of staff salaries at UC is below the "Western U.S. Region" benchmark set by the "WorldatWork Salary Budget Survey" conducted by the WorldatWork Human Resources Association. The gap has grown wider over time.

In recent years, staff salary increases have not grown as fast as market salaries. Going forward, UC employees will be contributing more to health care costs and to the UC retirement system, which could further erode the competitiveness of UC compensation compared with the regional labor market.

The chart above presents comparative data for cash compensation only.

[1] Excludes medical centers. Nonrepresented staff only.

Chapter 7. Diversity

Goals

The University of California is dedicated to fostering a university community that provides leadership for constructive participation in a diverse, multicultural world. The University has a long history of supporting initiatives that foster an inclusive living, learning and working environment.

In 2014, UC issued the following statement titled An Ethos of Respect and Inclusion:

> *"We seek to create and nurture in every corner of the University — in lecture halls and laboratories, in dormitories and dining halls, in work cubicles and maintenance shops, in our hospitals and other outposts of community engagement, in the public commons and the virtual meeting grounds of social media — an ethos of respect for others and inclusion of all.*
>
> *Such an ethos need not undermine the spirit of free speech and acceptance of differing ideas and attitudes that have long been the University's hallmark. Rather, respect and inclusion form the essential bedrock on which to build a community that cherishes and benefits from robust, constructive discourse and daily interactions among all its members.*
>
> *An ethos of respect and inclusion won't be achieved by any single pledge or policy handed down from leadership. It requires the constant attention and the enduring commitment of the entire UC community — every student, every professor, every administrator, every staff member, everybody, every day."*

Evaluating diversity and campus climate

UC's assessment of diversity and campus climate can be evaluated a variety of ways: current demographic characteristics and trends of its students, faculty and staff; policies and activities that promote equity and inclusion; and survey data that reveal perceptions of campus climate, respect and incidents of exclusionary behavior.

To that end, UC conducted a campus climate survey across 13 locations: the ten UC campuses, Lawrence Berkeley National Laboratory, Agricultural and Natural Resources, and UC Office of the President. The survey, conducted by Rankin and Associates Consulting, gathered a wide range of data related to institutional climate, inclusion and work-life issues. The survey complemented many current and ongoing efforts to evaluate and improve climate.

On the UC campus climate survey website (http://campusclimate.ucop.edu), the UC system and each location provide information on recent efforts or initiatives aimed at promoting equity and inclusion.

The indicators in this chapter present an overview of trends for incoming freshmen and transfer students, along with trends in graduate academic and professional programs. This information feeds into a broad overview of the University community — students, faculty and staff — by race/ethnicity and gender.

Trend data illustrate growing proportions of underrepresented and international students in the undergraduate population, more so for freshman than transfer entrants. Over the last 15 years, the proportion of Chicano/Latino undergraduates has grown tremendously, reflecting the growing number of Chicano/Latino students in California and improved high school graduation rates. Four UC campuses (Riverside, Santa Cruz, Merced and, most recently, UC Santa Barbara) are designated as Hispanic-Serving Institutions (HSIs). Two more UC campuses, Irvine and Davis, are emerging HSIs.

Among graduate academic students, underrepresented populations show slow and steady increases across disciplines, with growth in international students limited to physical science and engineering. Female students constitute the majority in all disciplines except for physical science and engineering. Graduate professional programs show similar growth patterns for underrepresented

and international students, with variation by discipline. Education programs have a larger proportion of underrepresented students, and business and other professional programs have growing international populations. The proportion of female students is trending slightly downward but remains around 50 percent or higher for all disciplines except business.

For staff, the proportions of nonwhites and females in Management & Senior Professional (MSP) and Senior Management Group (SMG) positions are smaller than their proportions in Professional & Support Staff (PSS) positions. The proportion of females among ladder-rank faculty is lower than proportions among other academic employee groupings.

Surveying populations about campus climate

This chapter introduces two types of survey data: responses to the UC Undergraduate Experience Survey (UCUES), conducted every two years to all undergraduates, and the UC Campus Climate Survey, administered between 2012 and 2013 to all populations and across all locations. The University's goal is to assure that all students are respected on campus, regardless of race/ethnicity, religious affiliation, gender, or sexual orientation.

UCUES data show most undergraduates feel students of their race/ethnicity are respected on campus, but the proportion of African American respondents sharing this perspective is lower than other groups. Among religious groups, Muslim students are less likely to feel respected. LGBQ students also are less likely to feel respected.

UC Campus Climate Survey findings tended to be positive but also highlighted areas for improvement. Overall, 79 percent feel comfortable or very comfortable with campus climate, but 24 percent reported experiencing exclusionary behavior (9 percent of whom indicated it affected their ability to work or learn).

Looking forward

Each location is delving deeply into its campus climate survey data. The information will be presented to local groups and associations to elicit ideas for improvement. Based on this data and local feedback, each location head is expected to develop action plans and strategic initiatives to improve the overall campus climate. This information will be shared at a future Regents' meeting.

For more information

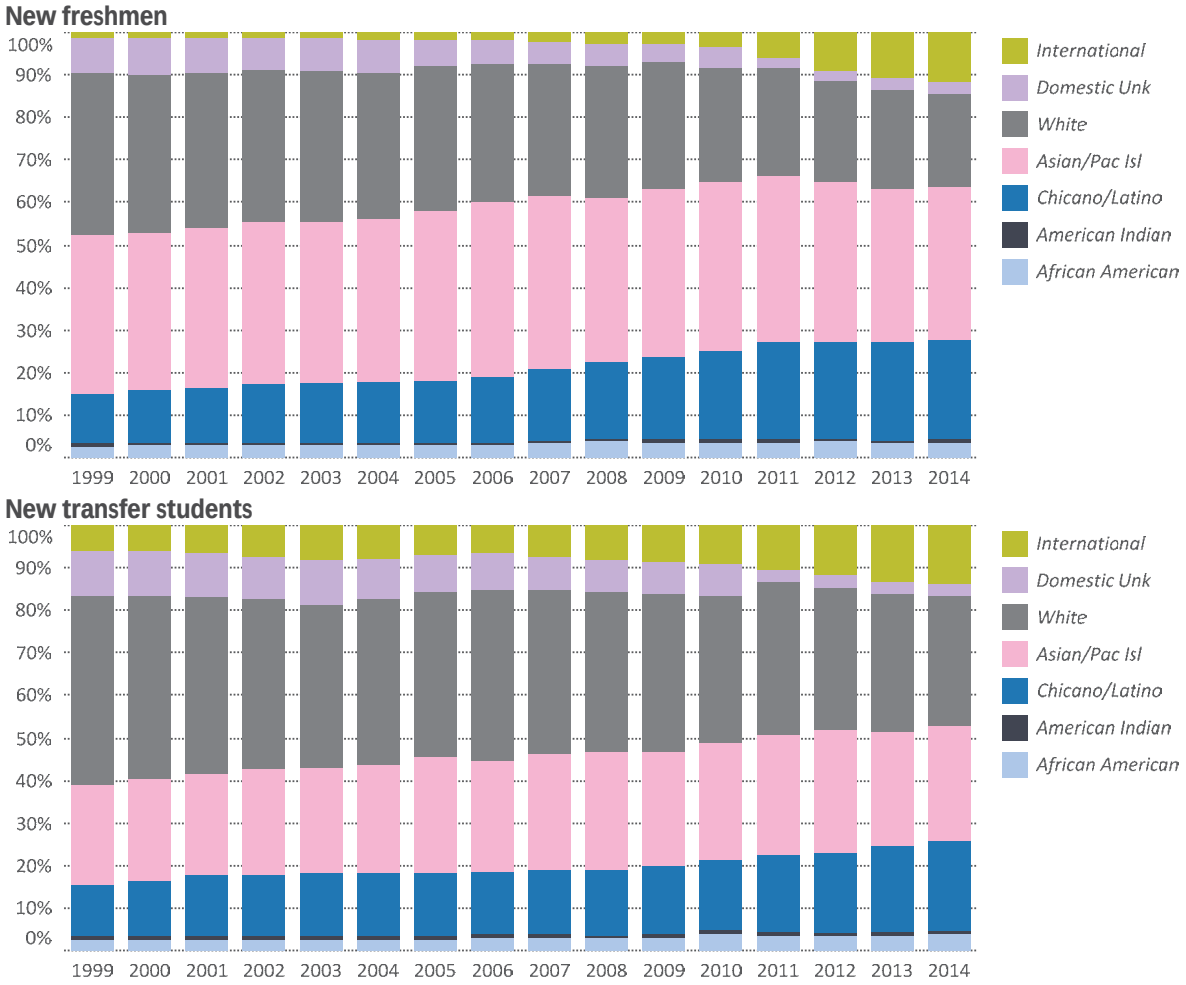
The UC Campus Climate survey website, including the systemwide and each location report:
http://campusclimate.ucop.edu

March 2014 UC Campus Climate Regents Item:
http://regents.universityofcalifornia.edu/regmeet/mar14/e2.pdf

The Moreno report is an independent report on accounts of discrimination and bias involving faculty at one UC campus. UC's response and recommendations to the report:
www.ucop.edu/moreno-report

Each year, UC enrolls a growing number of undergraduates from underrepresented groups (African American, American Indian or Chicano/Latino); entering freshmen are more likely to be from an underrepresented group than entering transfer students.

7.1.1 Racial/ethnic distribution of new undergraduates
Universitywide
Fall 1999 to fall 2014



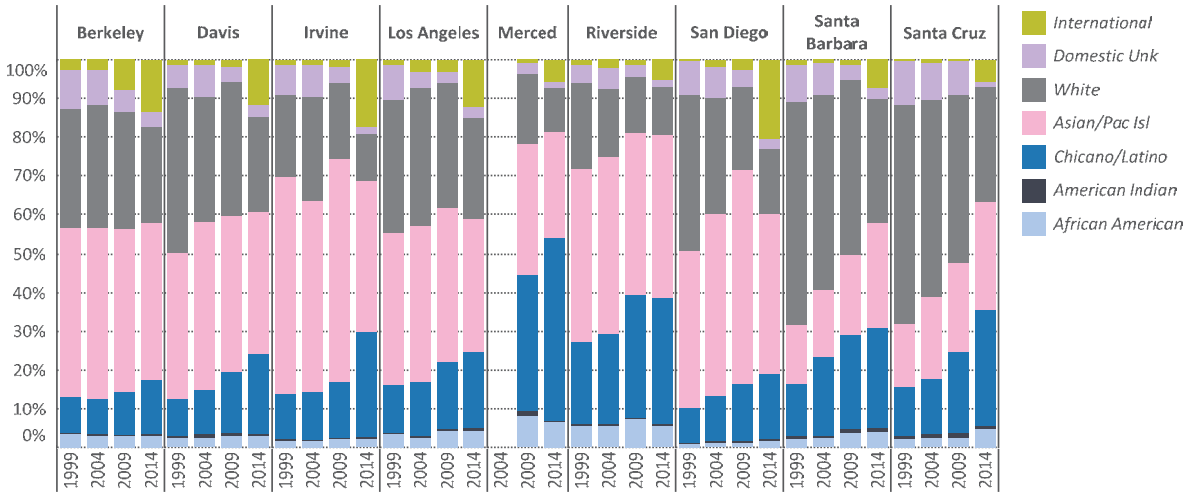
Source: UC Information Center Data Warehouse

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 Chicano/Latino students are more likely to choose UC. Part of the Transfer Action Team initiative's charge is to look for opportunities to expand outreach to California community colleges with greater diversity of transfer-eligible students who currently do not apply to UC.

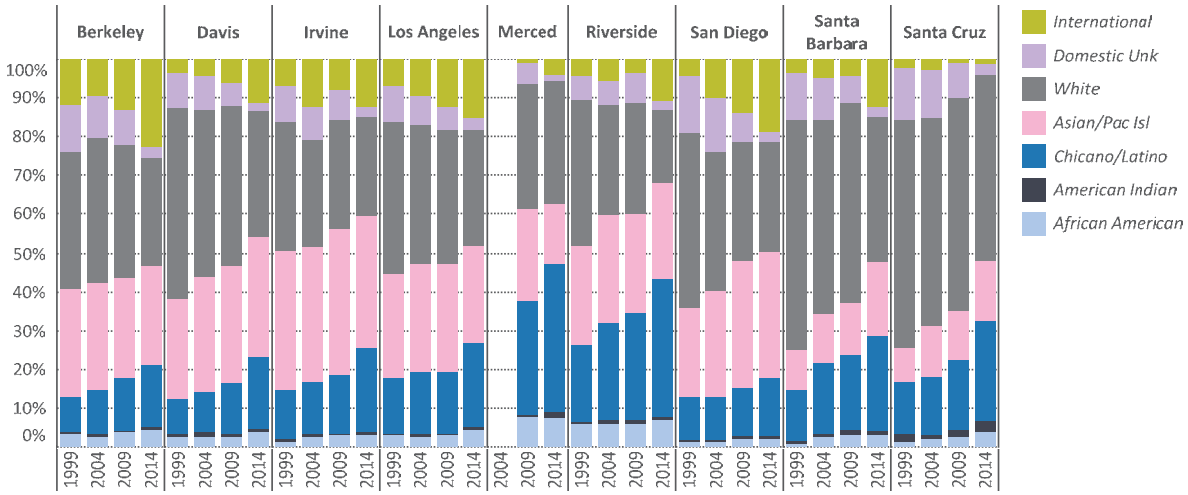
As shown on the next page, campuses vary in their racial/ethnic diversity.

7.1.2 Racial/ethnic distribution of new undergraduates
UC campuses
Fall 1999 to fall 2014 (selected years)

New freshmen



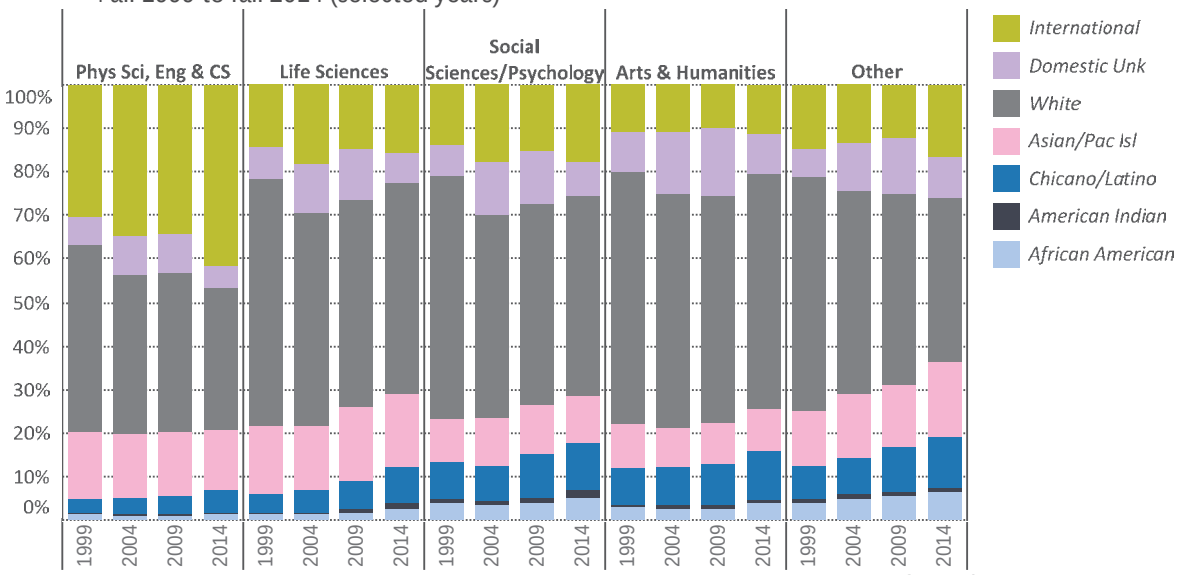
New transfer students



Source: UC Information Center Data Warehouse

UC is making slow but steady progress in diversifying the racial/ethnic makeup of its graduate academic students.

7.2.1 Racial/ethnic distribution of graduate academic students, by discipline
Universitywide
Fall 1999 to fall 2014 (selected years)



Source: UC Information Center Data Warehouse[1]

Enrollment of underrepresented race/ethnic groups (African American, American Indian and Chicano/Latino) in UC's graduate academic programs has grown over the past decade. In 2012–13, UC awarded academic doctoral degrees to underrepresented racial/ethnic groups at greater percentage rates than did its peers.

Proportion of underrepresented racial/ethnic groups receiving academic doctoral degrees

2012–13	UC	Other AAU Public	AAU Private
Social Sciences	13%	10%	7%
Arts & Humanities	11%	9%	7%
Life Sciences	10%	8%	8%
Physical Sciences	5%	4%	3%
Engineering & CS	5%	3%	4%

Source: IPEDS

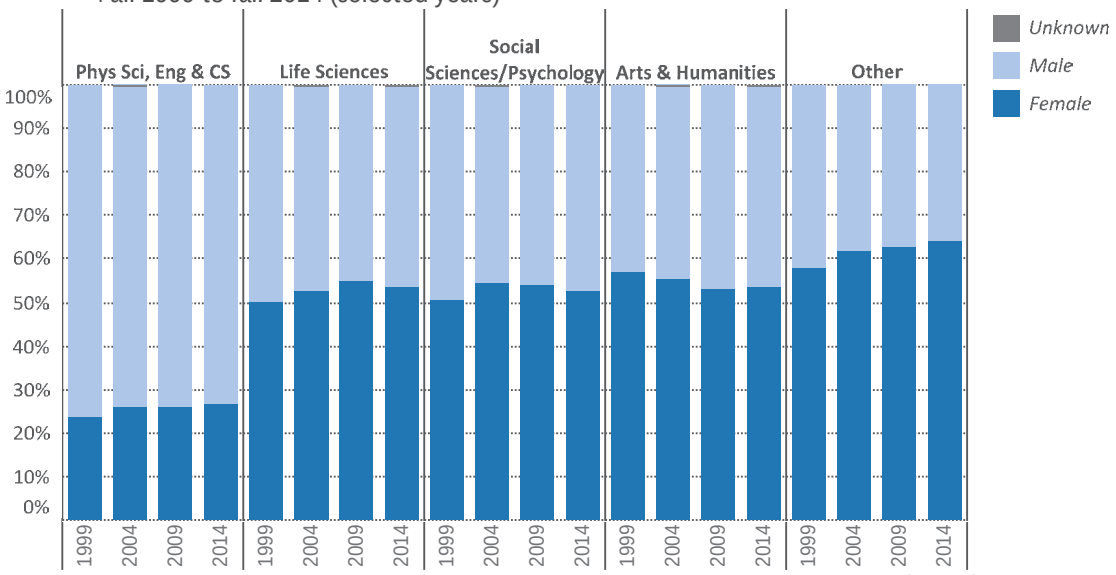
UC's graduate programs draw students from across the nation and around the world, including its own undergraduate students, who make up about a tenth of UC's graduate students. As a consequence, UC's efforts to diversify its undergraduate students can also help to diversify its graduate academic population.

Because 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.

[1] "Other" disciplines represent about 12 percent of degrees awarded and include interdisciplinary areas (3 percent), academic degrees in professional fields such as a Ph.D. in education (4 percent) or health sciences (3 percent) and miscellaneous areas such as criminology.

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

7.2.2 Gender distribution of graduate academic students, by discipline
Universitywide
Fall 1999 to fall 2014 (selected years)



Source: UC Information Center Data Warehouse[1]

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 with about one-quarter in the physical sciences, engineering and computer science.

Overall, the proportion of degree recipients who are women by broad discipline group is comparable to UC's AAU peers.

Proportion of women receiving academic doctoral degrees, 2012–13

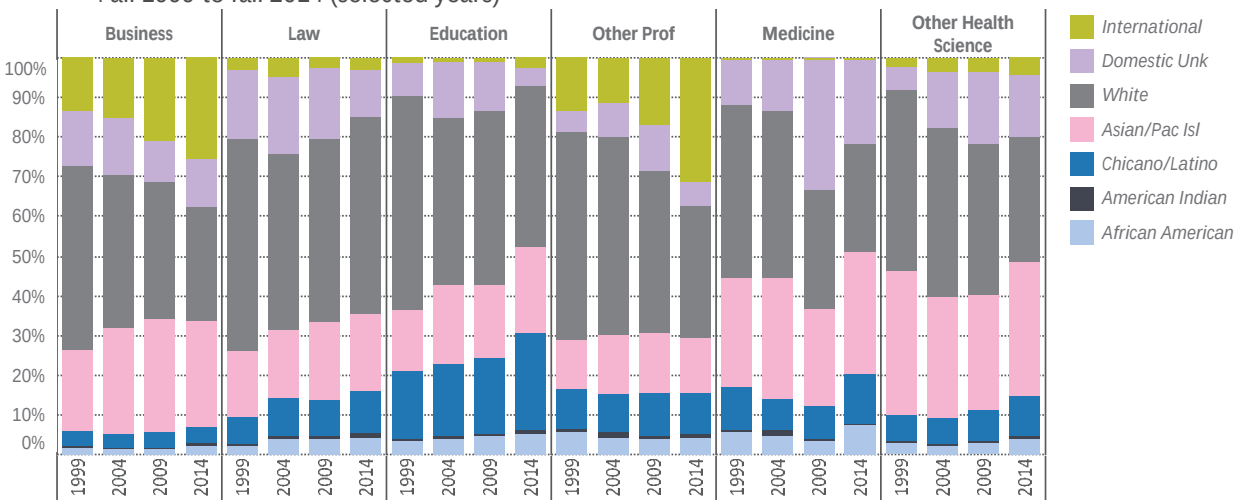
	UC	Other AAU Public	AAU Private
Life Sciences	54%	58%	51%
Social Sciences	56%	52%	52%
Arts & Humanities	54%	52%	54%
Physical Sciences	32%	31%	32%
Engineering & CS	21%	21%	25%

Source: IPEDS

[1] "Other" disciplines include interdisciplinary areas, miscellaneous fields such as criminology and academic degrees in professional fields such as a Ph.D. in business or law.

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

7.2.3 Racial/ethnic distribution of graduate professional degree students, by discipline
Universitywide
Fall 1999 to fall 2014 (selected years)



Source: UC Information Center Data Warehouse[1]

UC awards a greater share of its education, medicine and other health science professional degrees to students from underrepresented race/ethnic groups compared with its AAU peers, but a smaller share of its business degrees.

Proportion of underrepresented students receiving professional degrees, 2012–13

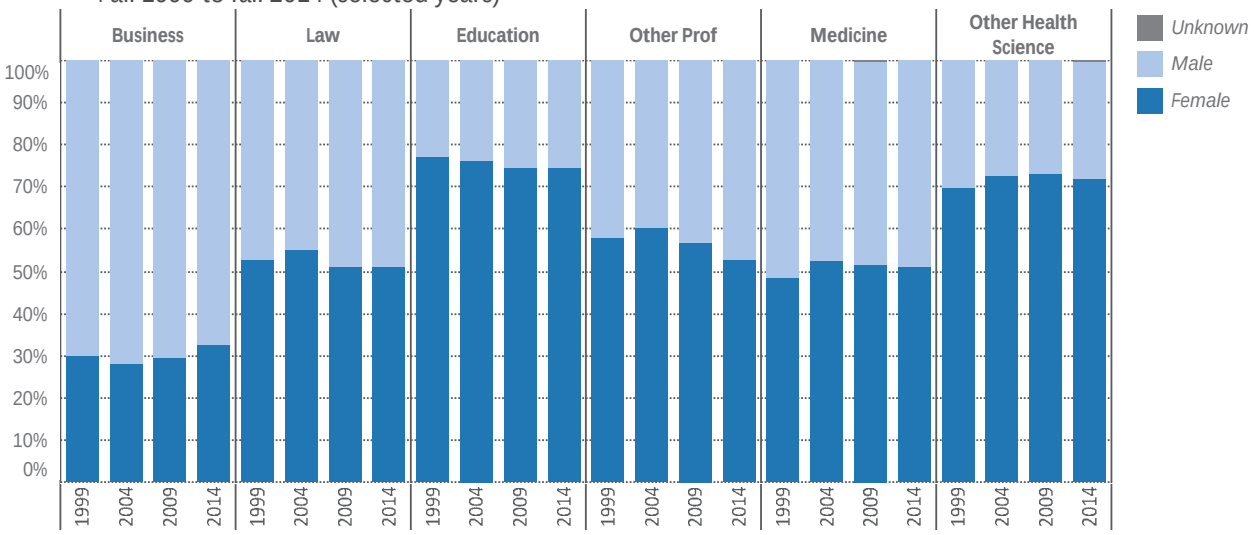
	UC	Other AAU Public	AAU Private
Education	23%	11%	19%
Law	16%	12%	15%
Other health sci	17%	9%	12%
Medicine	13%	9%	12%
Business	6%	7%	8%

Source: IPEDS

[1] "Other health sci" includes dentistry, nursing, optometry, pharmacy, public health and veterinary medicine; "Other prof" includes programs such as architecture, library and information science, public policy and social welfare, and other small programs. Medical residents are not included.

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

7.2.4 Gender distribution of graduate professional degree students, by discipline
Universitywide
Fall 1999 to fall 2014 (selected years)



Source: UC Information Center Data Warehouse[1]

The proportion of women enrolled in UC's professional degree programs has trended slightly downward in all discipline areas except for business.

As shown in the table to the right, UC graduated roughly the same proportion of women in professional degree programs as the comparison AAU peers — somewhat higher in law and nonmedical health sciences and somewhat lower in business.

Proportion of women receiving professional degrees, 2012–13

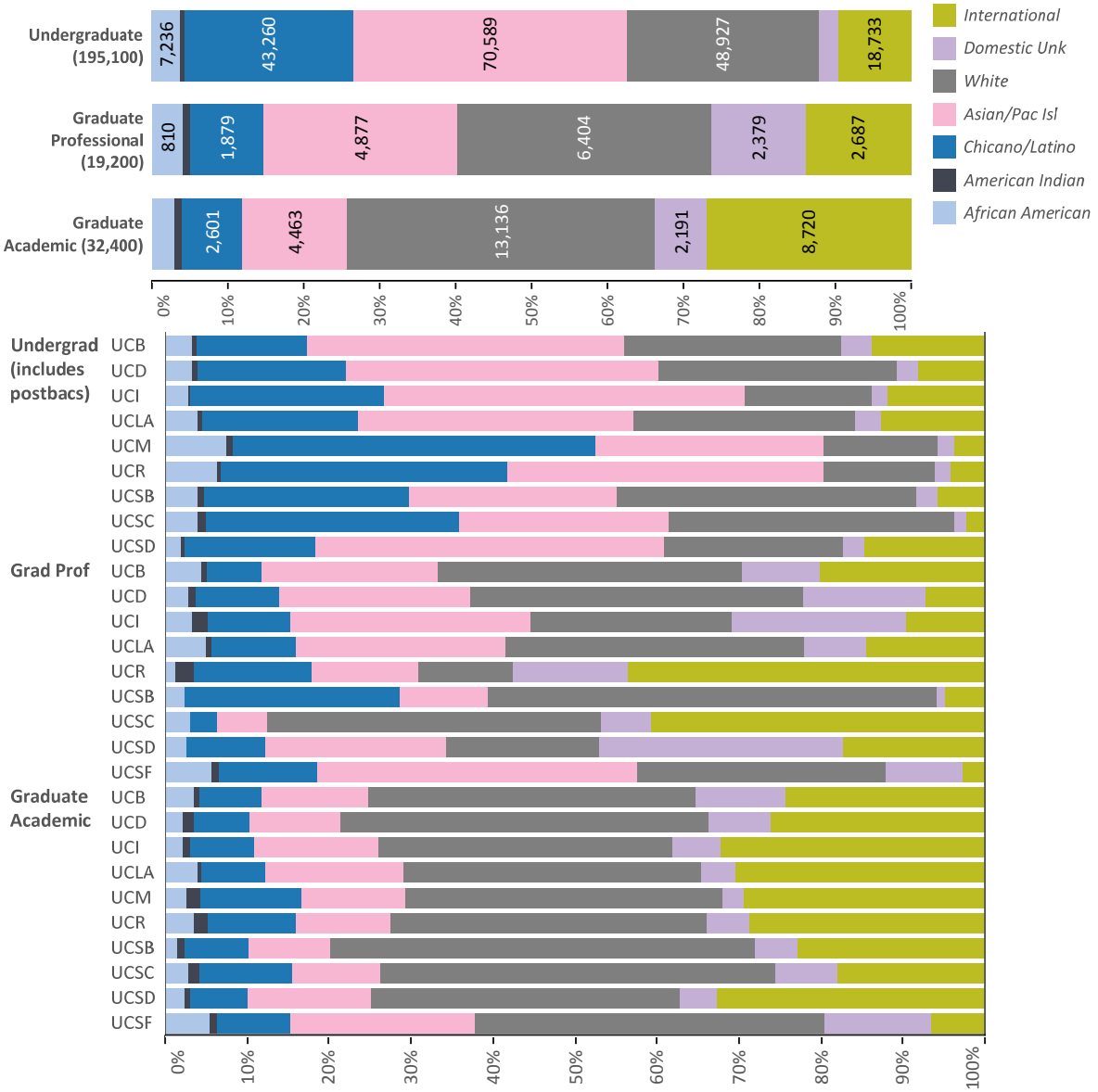
	UC	Other AAU Public	AAU Private
Education	76%	76%	75%
Other health sci	72%	71%	73%
Medicine	53%	50%	49%
Law	51%	43%	45%
Business	29%	36%	34%

Source: IPEDS

[1] "Other health sci" includes dentistry, nursing, optometry, pharmacy, public health and veterinary medicine; "Other prof" includes programs such as architecture, library and information science, public policy and social welfare.

Undergraduates have the highest proportion of underrepresented students. Graduate professional and academic populations have comparable representation of underrepresented groups but vary in their share of international students.

7.3.1 Racial/ethnic distribution of students
Universitywide and by campus
Fall 2014



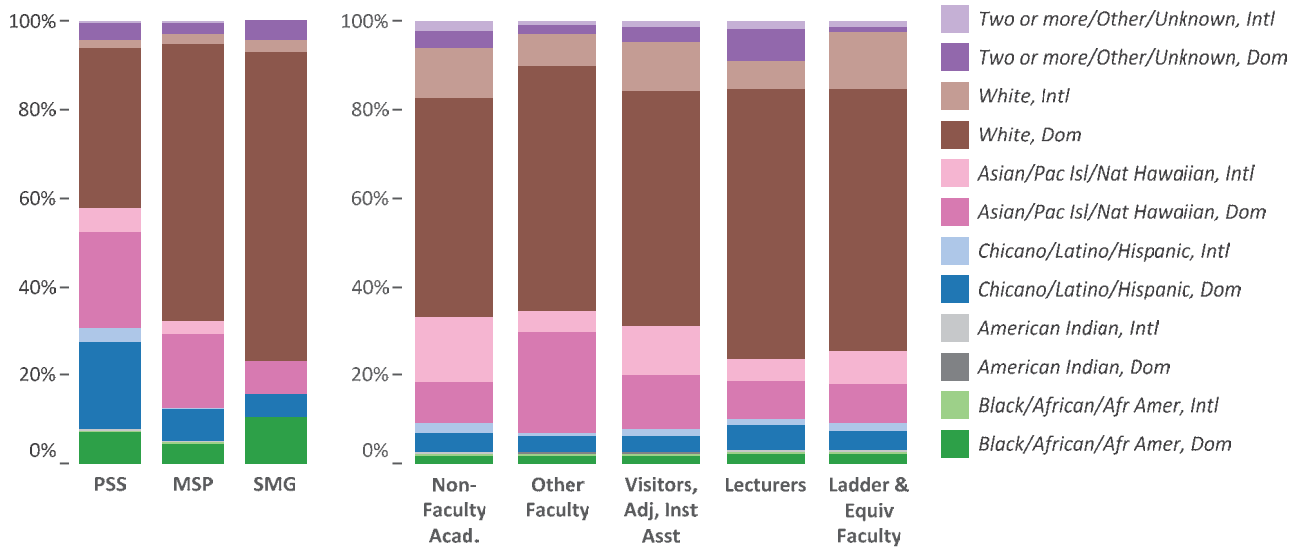
UC Merced does not have any graduate professional programs at this time. Undergraduates include approximately 300 postbaccalaureate teaching credential students.

UC systemwide data shows that almost a quarter of undergraduate students are from underrepresented groups.

About 12 percent of graduate academic and 15 percent of graduate professional students are from underrepresented groups. Campuses vary in the share of international students, who represent 27 percent of graduate academic and 14 percent of graduate professional students.

The proportion of nonwhite staff is lower among more senior positions, and the proportion of nonwhite academics is highest among nonfaculty academics.

7.3.2 Racial/ethnic distribution of staff, faculty and academic employees
Universitywide
Fall 2014



Source: UC Corporate Personnel System and UC Information Warehouse Data Center[1]

UC values cultivating a work and learning environment inclusive of all communities. The University seeks to improve representation of domestic racial/ethnic groups that have been historically underrepresented. As shown below, UC is especially challenged in improving the representation of these groups in senior staff (MSP and SMG), academic and faculty positions.

International employees contribute to the diversity of the UC workforce. These employees bring educational backgrounds and experiences that differ from those of domestic employees. As shown below, the highest proportion of international academics is in the nonfaculty academics category, primarily due to high numbers of international postdoctoral scholars.

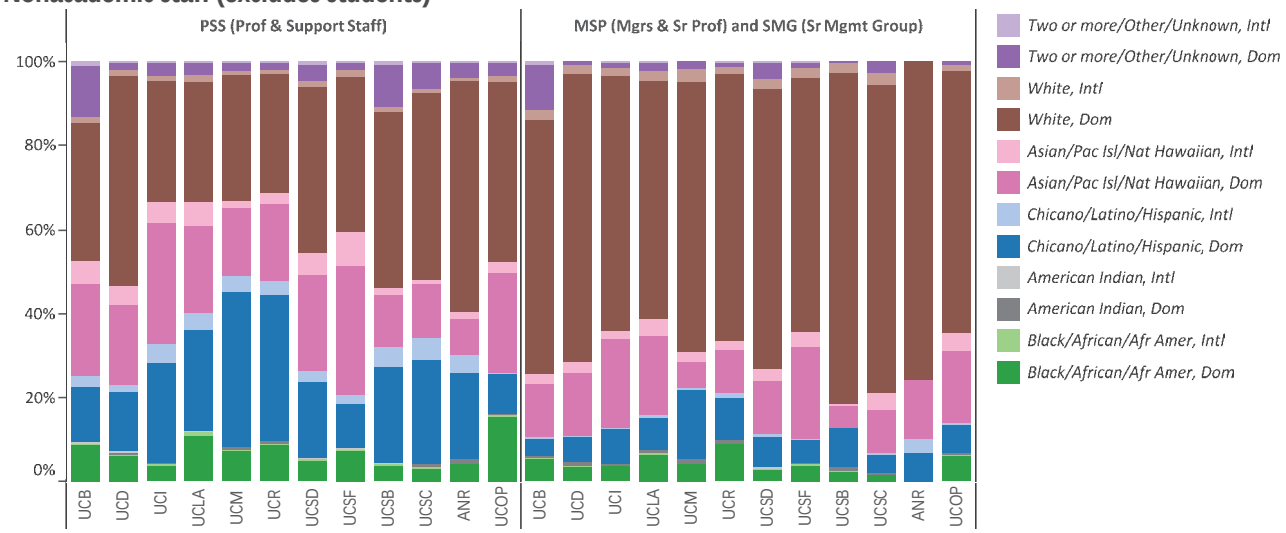
	Domestic		International
	Black/African American, American Indian, or Chicano/Latino/Hispanic	Asian, Pac Isl, or Nat Hawaiian	All races/ ethnicities
PSS (Professional and Support Staff)	27.1%	22.0%	10.5%
MSP (Managers and Senior Professionals)	12.0%	16.6%	6.1%
SMG (Senior Management Group)	15.8%	7.6%	2.9%
Nonfaculty Acad.	6.6%	9.2%	30.9%
Other Faculty	5.8%	22.8%	13.7%
Visitors, Adj, Inst Asst	5.7%	12.5%	24.8%
Lecturers	8.3%	8.8%	14.5%
Ladder & Equiv Faculty	7.2%	8.8%	23.0%

All percentages use the total (both domestic and international) as the denominator.

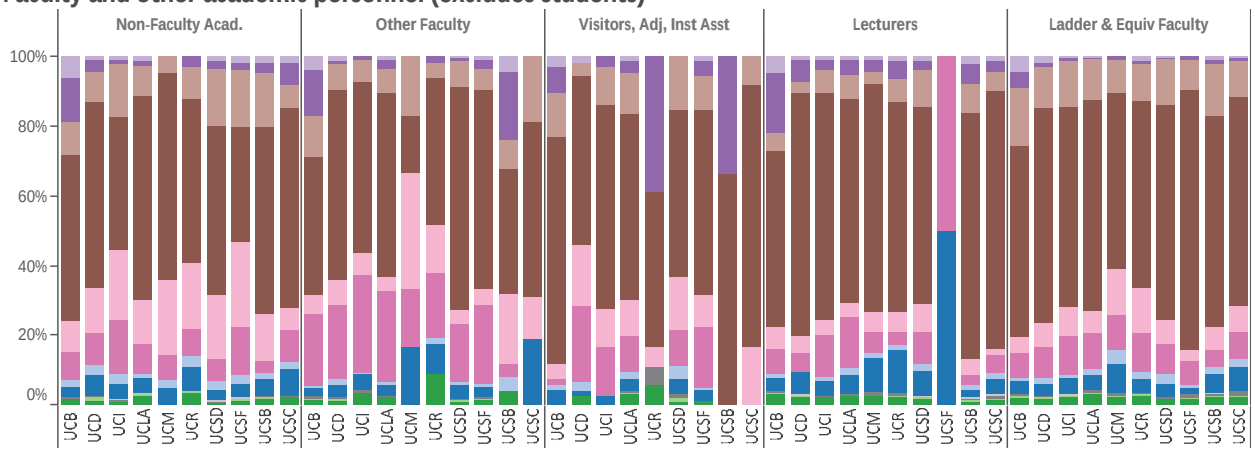
[1] International status for faculty and staff is based on citizenship status instead of IRS tax status, which was used in the 2012 Accountability Report. For more information, please see http://regents.universityofcalifornia.edu/regmeet/jan13/e1.pdf. The "Other Faculty" group includes professors in residence, professors-clinical and health science clinical faculty. The "Non-Faculty Acad" group includes only nonstudent employees and comprises many positions (e.g. librarians and administration categories) as well as academic researchers. Students are excluded in all groups.

7.3.3 Racial/ethnic distribution of staff, faculty and academic employees
By location
Fall 2014

Nonacademic staff (excludes students)



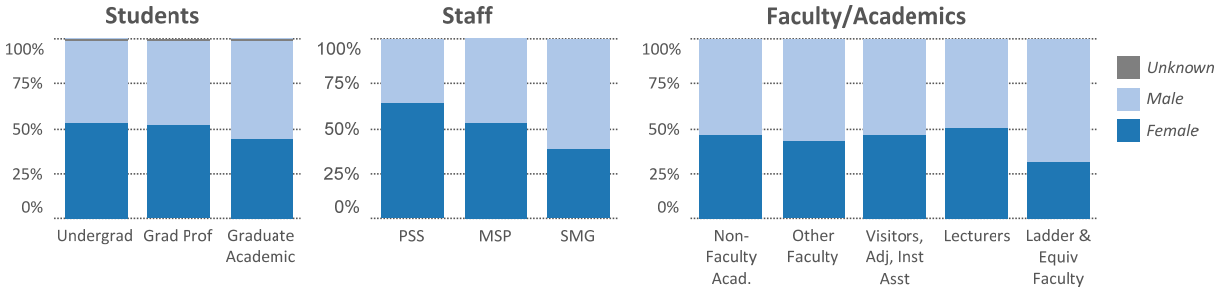
Faculty and other academic personnel (excludes students)



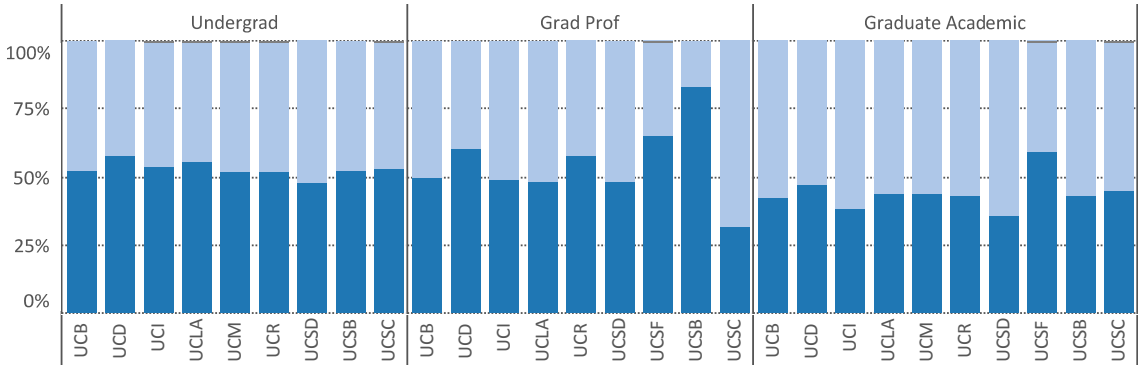
Source: UC Corporate Personnel System and UC Information Warehouse Data Center. Note: ANR stands for Agriculture and Natural Resources. UCOP is UC Office of the President.

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

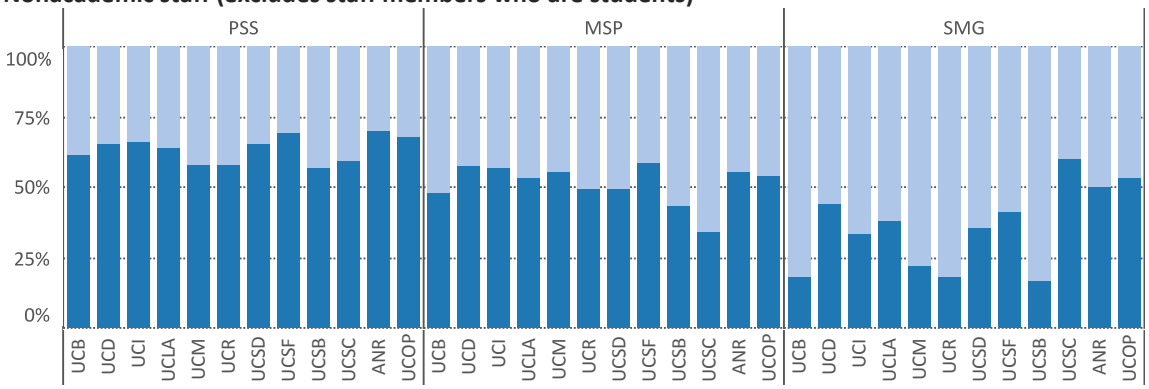
7.3.4 Gender distribution of the University community Universitywide and by location; Fall 2014



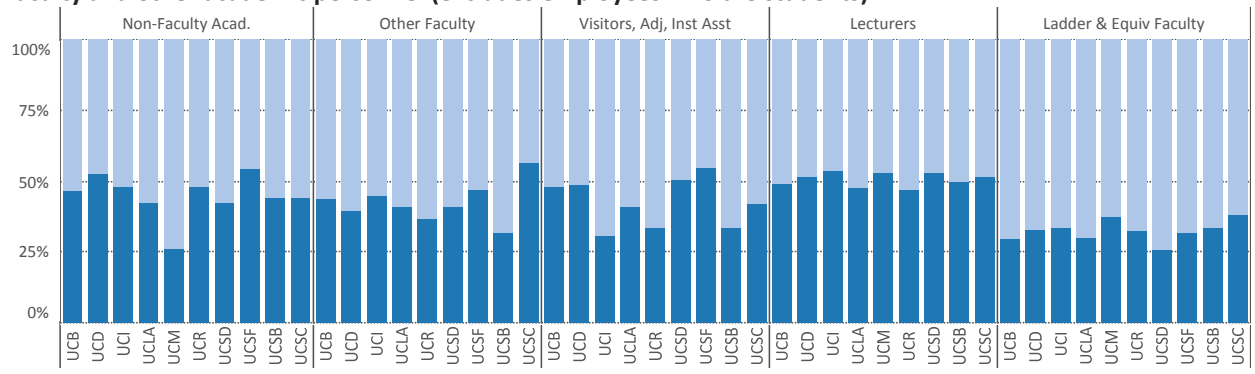
Students



Nonacademic staff (excludes staff members who are students)



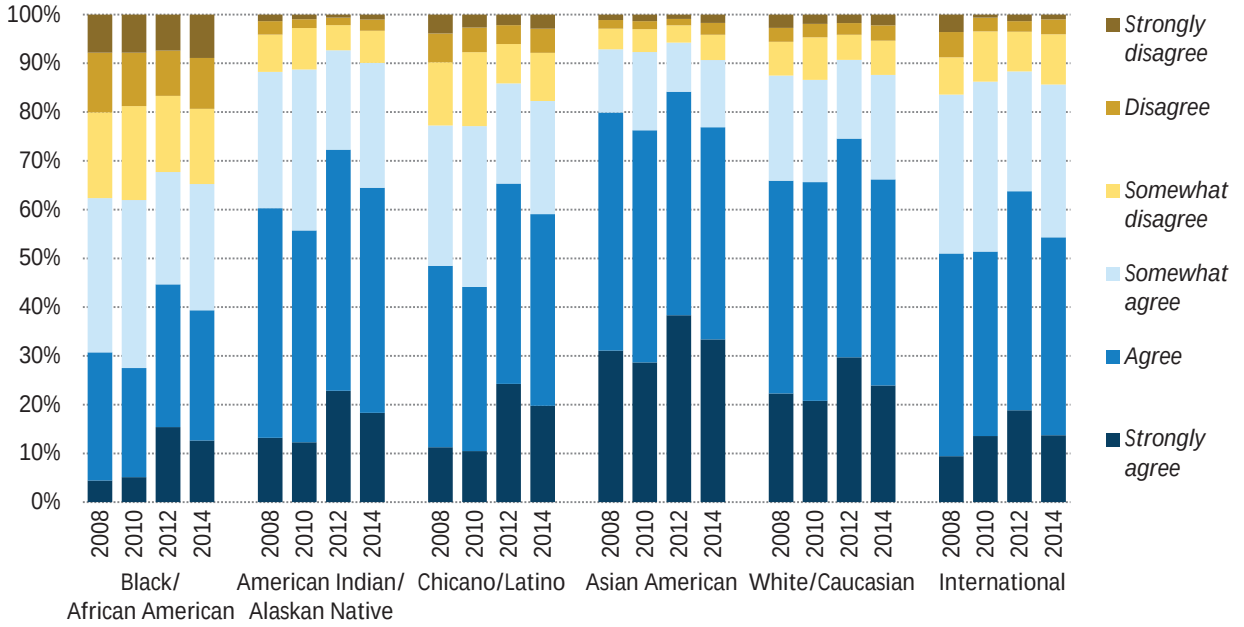
Faculty and other academic personnel (excludes employees who are students)



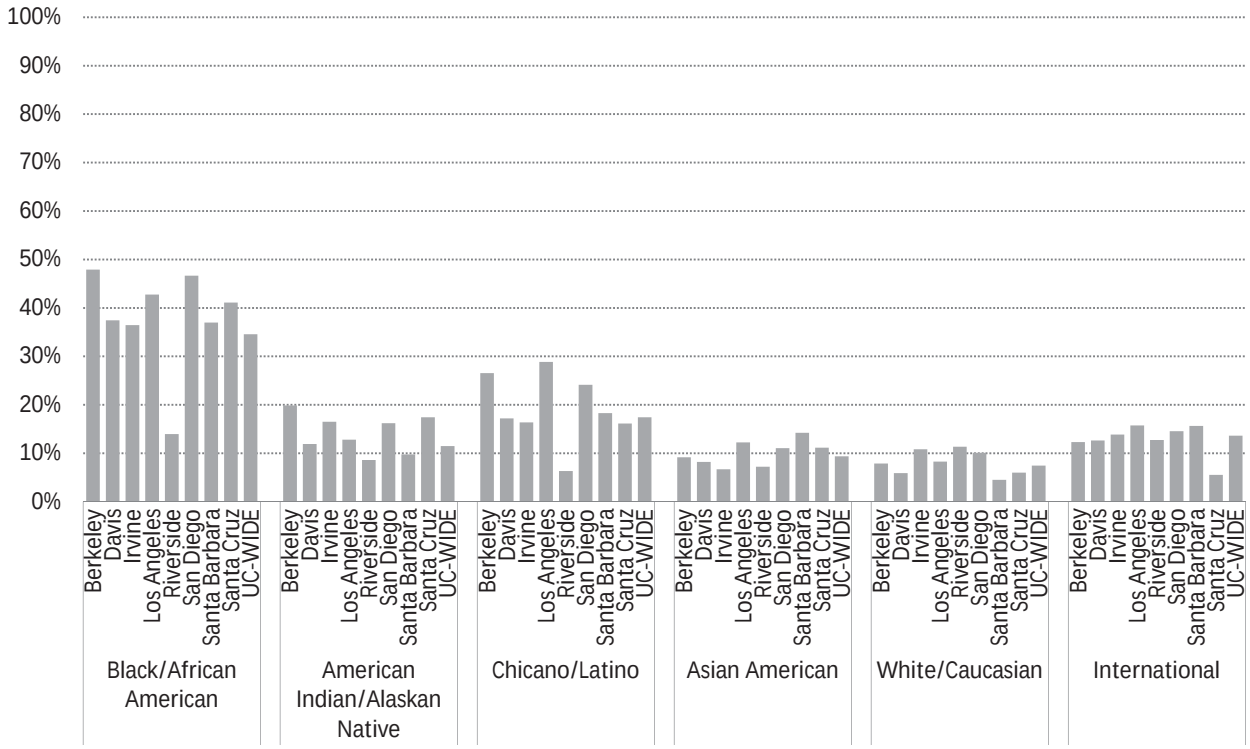
Source: UC Corporate Student and Personnel Systems. ANR is Agriculture and Natural Resources. UCOP is UC Office of the President.

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

7.4.1 Response to "Students of my race/ethnicity are respected on this campus"
Universitywide and UC campuses
Spring 2008, 2010, 2012 and 2014



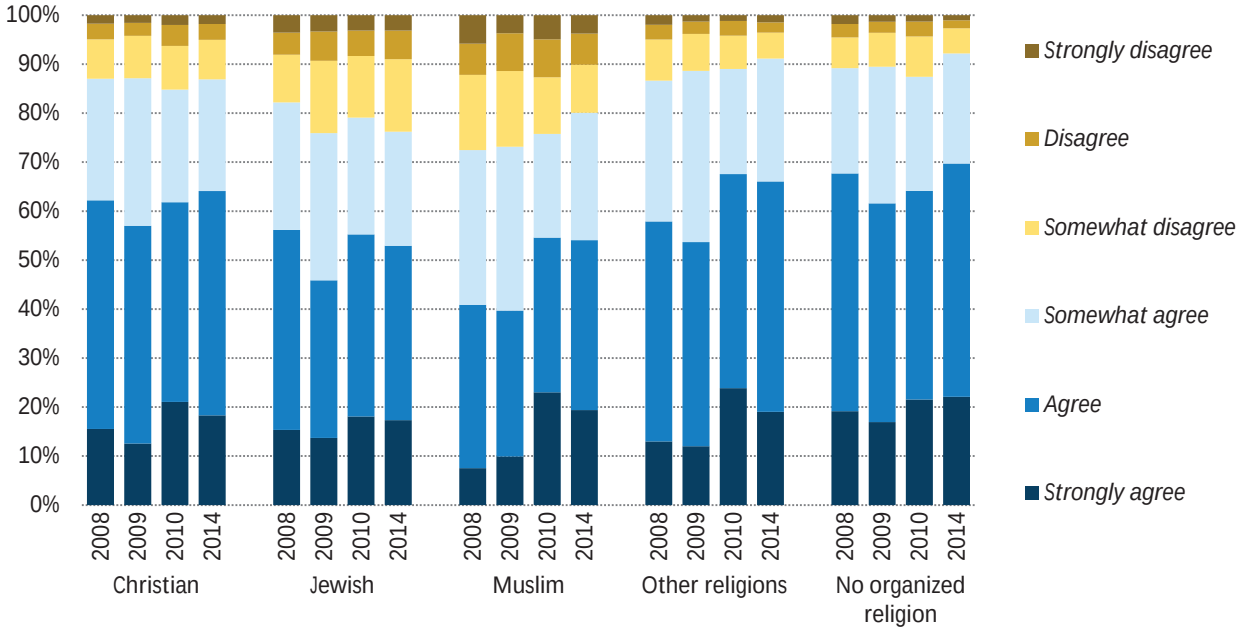
Percent that **somewhat disagree**, **disagree** or **strongly disagree** (2008 – 2014 combined)



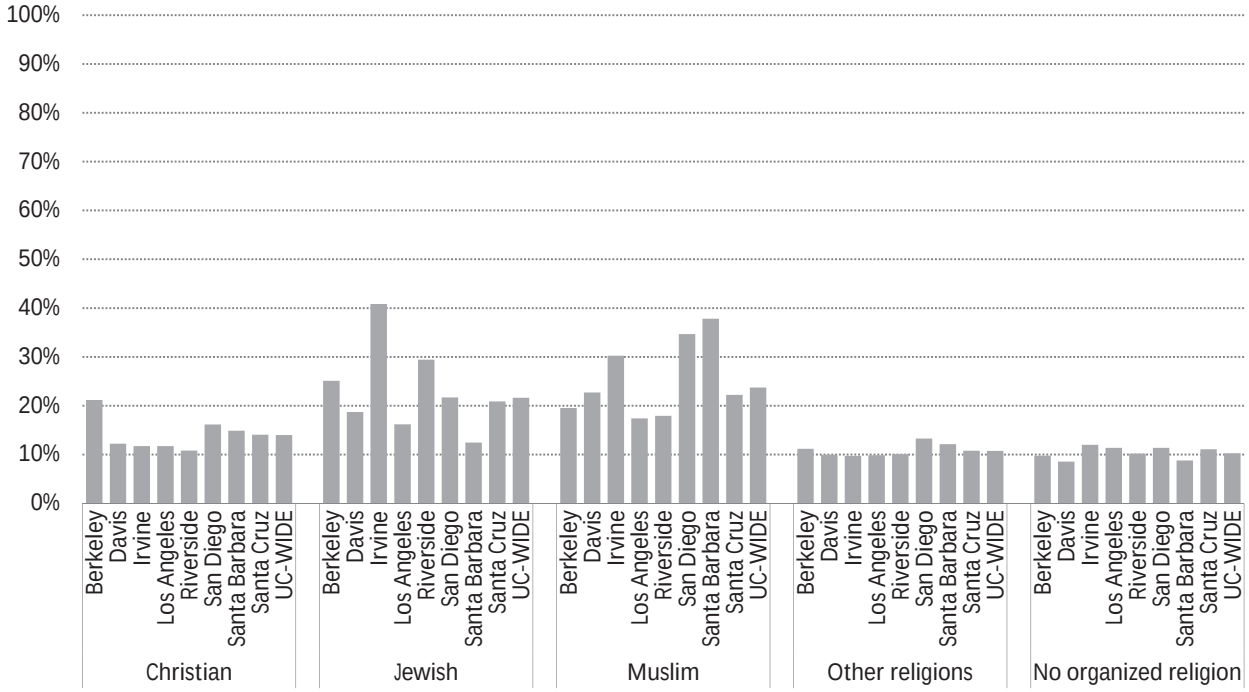
Source: UCUES

More than 70 percent of students from major religious groups feel that students of their religions are respected.

7.4.2 Response to "Students of my religion are respected on this campus"
Universitywide and UC campuses
Spring 2008, 2010, 2012 and 2014



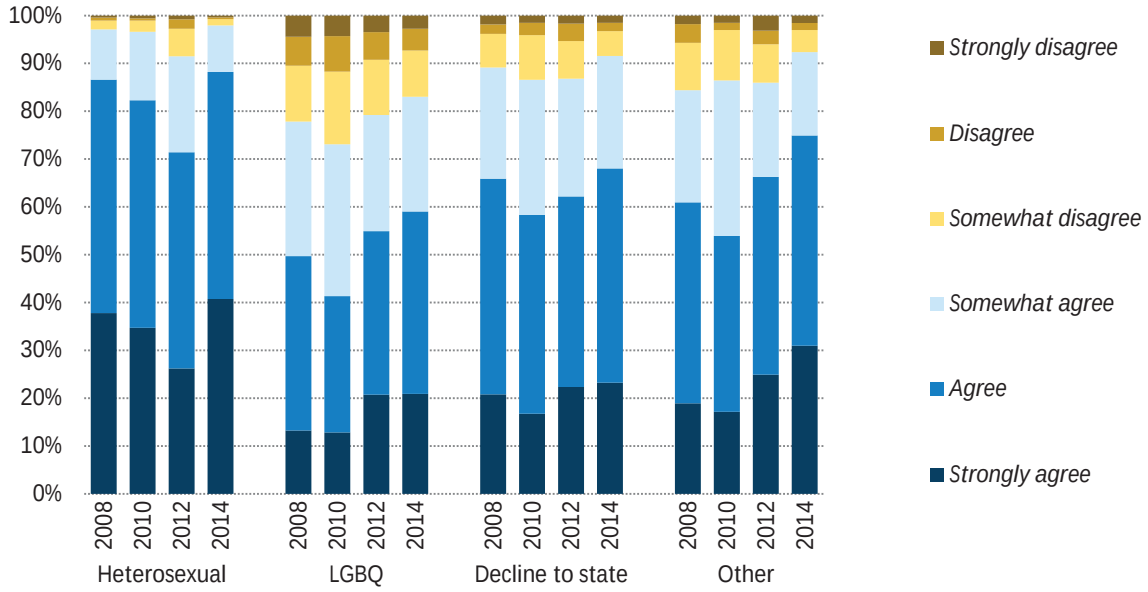
Percent that **somewhat disagree**, **disagree** or **strongly disagree** (2008 – 2014 combined)



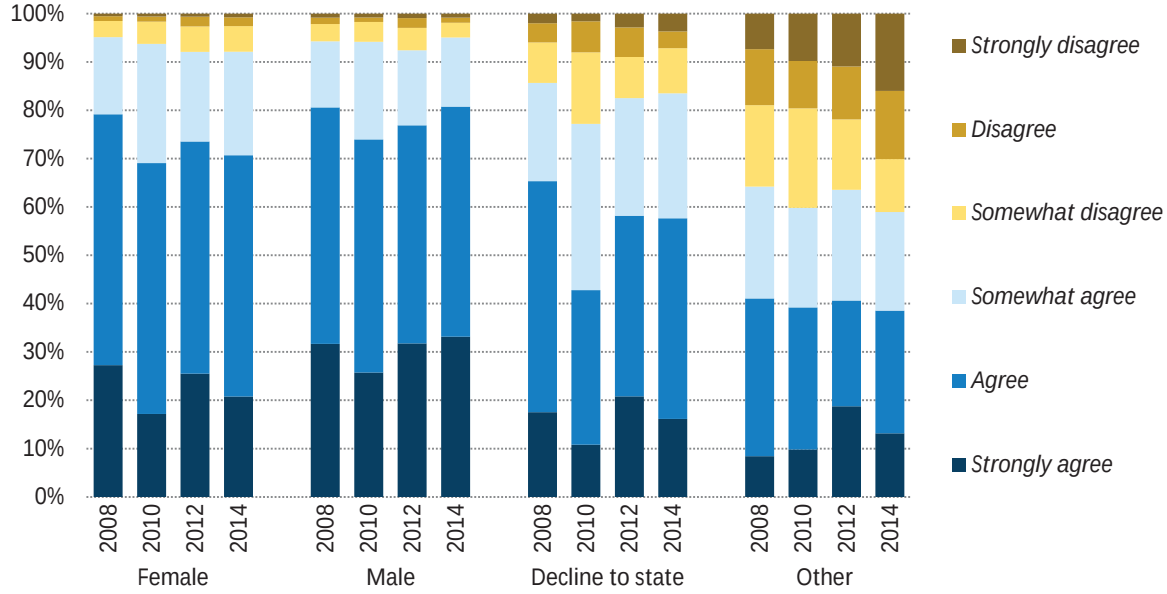
Source: UCUES

Undergraduates who identify as LGBQ and those who identify as other than male or female are less likely to feel respected on campus than those who do not.

7.4.3 Response to "Students of my sexual orientation are respected on this campus"
Universitywide
Spring 2008, 2010, 2012 and 2014



7.4.4 Response to "Students of my gender are respected on this campus"
Universitywide
Spring 2008, 2010, 2012 and 2014

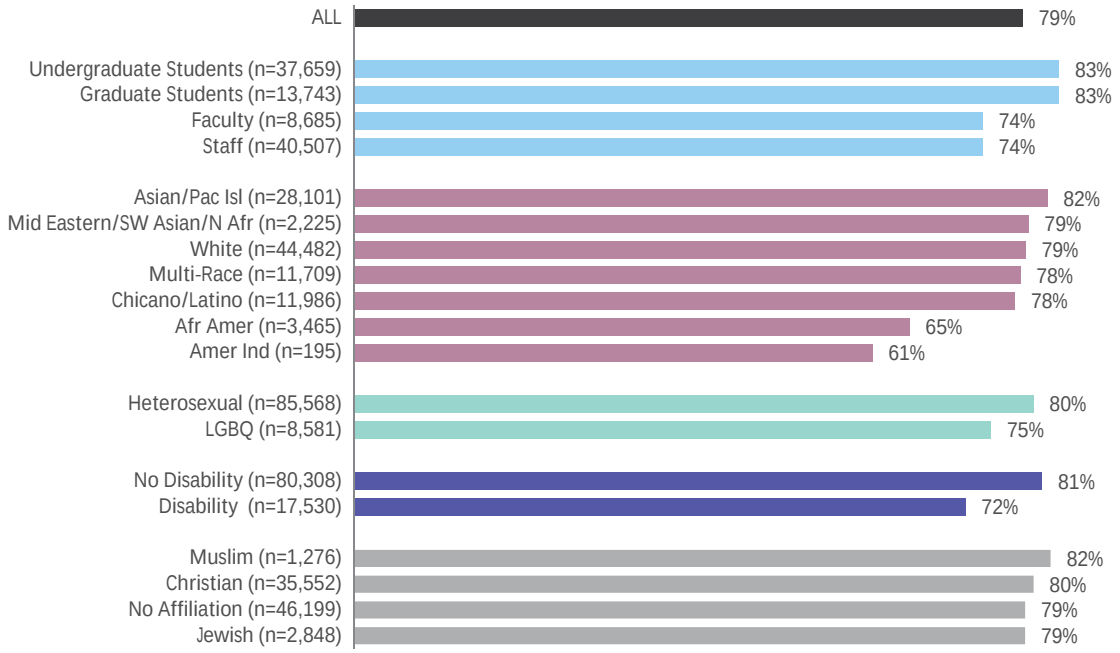


Source: UCUES[1]

[1] 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.

Overall, 79 percent of respondents in the UC community feel comfortable with the climate at their location, with some variation by positions and demographic groups.

7.5.1 Percent "Comfortable" or "Very Comfortable" with climate on campus or at location
Universitywide
2013



Source: UC Campus Climate Survey[1]

Recognizing the importance of gauging campus climate in creating more inclusive and welcoming environments, in 2010, then-University of California President Mark G. Yudof formed a President's Advisory Council on Campus Climate, Culture, and Inclusion. The Council was charged with monitoring campus progress and metrics, and examining campus practice and policy. Each of the chancellors at UC's campuses and location heads at UCOP, LBNL and ANR created similar councils. In May 2010, the Regents created the Ad Hoc Committee on Campus Climate.

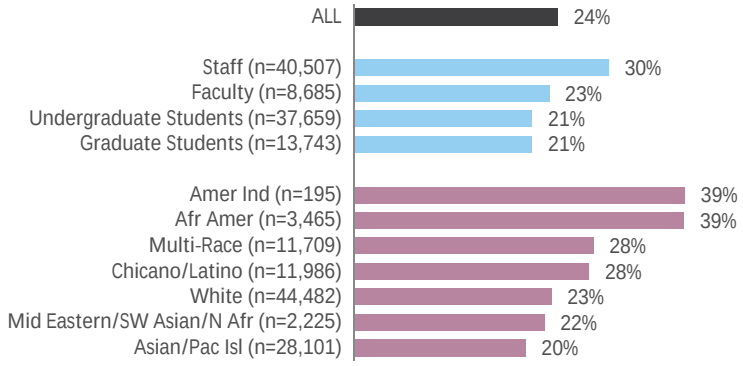
In 2012, the UC Office of the President commissioned a systemwide campus climate study across the ten UC campuses and three UC locations (Lawrence Berkeley National Laboratory, UC Division of Agriculture and Natural Resources, and UC Office of the President).

All students and employees were given the opportunity to take the survey. Seventy-nine percent of all respondents (n = 81,939) were "comfortable" or "very comfortable" with the climate at UC, while 7 percent (n = 7,510) were "uncomfortable" or "very uncomfortable."

[1] http://campusclimate.ucop.edu/

About 24 percent of the UC community experienced exclusionary behavior within the last year.

7.5.2 Percent experiencing exclusionary behavior within last year
Universitywide
2013



Source: UC Campus Climate Survey

Twenty-four percent of respondents (n=25,264) recently experienced exclusionary behavior; 16 percent said it did not affect their ability to work or learn, but 9 percent said it did. A greater percent of staff and respondents from underrepresented populations experienced this type of behavior.

Most commonly (nearly 50 percent) of the reported exclusionary behaviors were being "isolated," "ignored" or "intimidated or bullied."


ZONE

Chapter 8. Teaching and Learning

Goals

The University of California provides its students with a rich learning environment that is created by faculty who are actively engaged in both teaching and academic research. Student learning experiences at UC involve small classes, seminars and lab sections, enhanced by opportunities to collaborate in hands-on research projects alongside experienced faculty and researchers. Through these activities, faculty and students engage in a continuous learning process that helps students develop critical thinking, communication and problem-solving skills, as well as domain-specific knowledge that future employers value.

Educating students and the public

UC's faculty fulfill the instructional mission of the university and are principally responsible for maintaining UC's academic excellence and achieving student success. Crucial measures of faculty effectiveness in teaching are student graduation and retention rates, presented in detail in Chapter 3. This chapter focuses on the composition and workload of instructional staff — full-time permanent faculty, lecturers, visiting faculty, adjuncts and other instructors — across different academic disciplines and professional programs. This chapter also considers the learning experience of UC's undergraduate students, reporting on their interactions and engagement with faculty, and on their self-evaluations of their UC learning experience. Overall, a majority of students report improving their academic skills and gaining a deeper understanding of their chosen field of study during their stay at UC.

UC is charged by the California "Master Plan" with the responsibility to prepare professional and doctoral students. This chapter describes UC's faculty involvement in awarding doctoral degrees in various fields and provides comparisons with other public and private universities that are member institutions of the Association of American Universities (AAU).

Expanding learning opportunities beyond its regular student population is an important contribution of UC and demonstrates the interconnection between the teaching and the public service missions of the university. Currently, UC Extension serves many additional students through its adult professional and continuing education programs — in 2013–14, there were 420,000 registrants in UC Extension courses and programs.

The future of instruction

The University of California is committed to continuous improvement of instructional quality, employing a broad range of pedagogical approaches to expand learning opportunities for all students and to promote student success. For example, UC is expanding its summer course offerings to reduce students' time to degree and enrich their academic experience. UC also offers bridge experiences and orientation activities during summer to help incoming students make smoother transitions into campus life and prepare them for the rigorous introductory courses in their fields of study.

UC continues to offer a growing number of online courses and online programs expanding learning opportunities for UC and non-UC students. Through UC cross-campus enrollment, UC provides undergraduates increased access to high-demand courses and the opportunity to reduce their time to degree. UC online courses are developed and taught by UC faculty at campuses across the system and allow undergraduates to earn general education, pre-major or major UC unit credit based on specific departmental and programmatic requirements.

For non-UC students seeking to start college or to further their education, UC online education provides a wide range of options. For students who are not quite ready to enroll at a four-year university or those who are taking first steps toward getting back in school, UC offers online courses to earn college credits from the UC system that may also transfer to other colleges and universities. For those seeking to advance their education and enhance

their professional skills, UC Extension's online offerings include continuing education courses, professional certificates and post-baccalaureate programs. There are currently seven fully online graduate programs at UC with more in development.

In addition to online courses, UC leverages instructional technology to enhance instruction and promote student success. UC continues refining and developing high-quality hybrid courses using multimedia resources, high-quality videos and audio recordings, e-books, and other technology-based tools to enrich students' learning experiences. UC follows best instructional practices for incorporating technology innovations into course design and focuses on creating online spaces that encourage collaborative learning and maximize faculty-student and peer-to-peer interactions. For example, some UC courses utilize a flipped model of instruction where lectures and other traditional classroom elements are provided online, and classroom time is used to hold group discussions and work through problem-solving activities and experiential exercises.

Data-driven learning and assessment are an integral part of UC's use of technology tools to enhance instruction. Several UC campuses have adopted web-based assessment systems that use online conceptual models and adaptive learning tools to determine students' knowledge quickly and accurately. Based on student responses to a series of questions, the software determines specific concepts or topics where each student needs the most support. The Assessment and LEarning in Knowledge Spaces, ALEKs, uses one of these web-based adaptive tools to provide undergraduates with individualized feedback and guidance in entry-level math and chemistry courses.

Providing assessment

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 external reviewers during program reviews that are conducted every five years or so. In recent years, academic objectives and assessments have become a major focus of reviews conducted by the Western Association of Schools and Colleges (WASC), as well as by many other professional accrediting and related bodies. Information about program learning objectives is available on departmental websites, and each campus posts materials related to accreditation.

For more information

Campus websites: www.universityofcalifornia.edu/uc-system/parts-of-uc

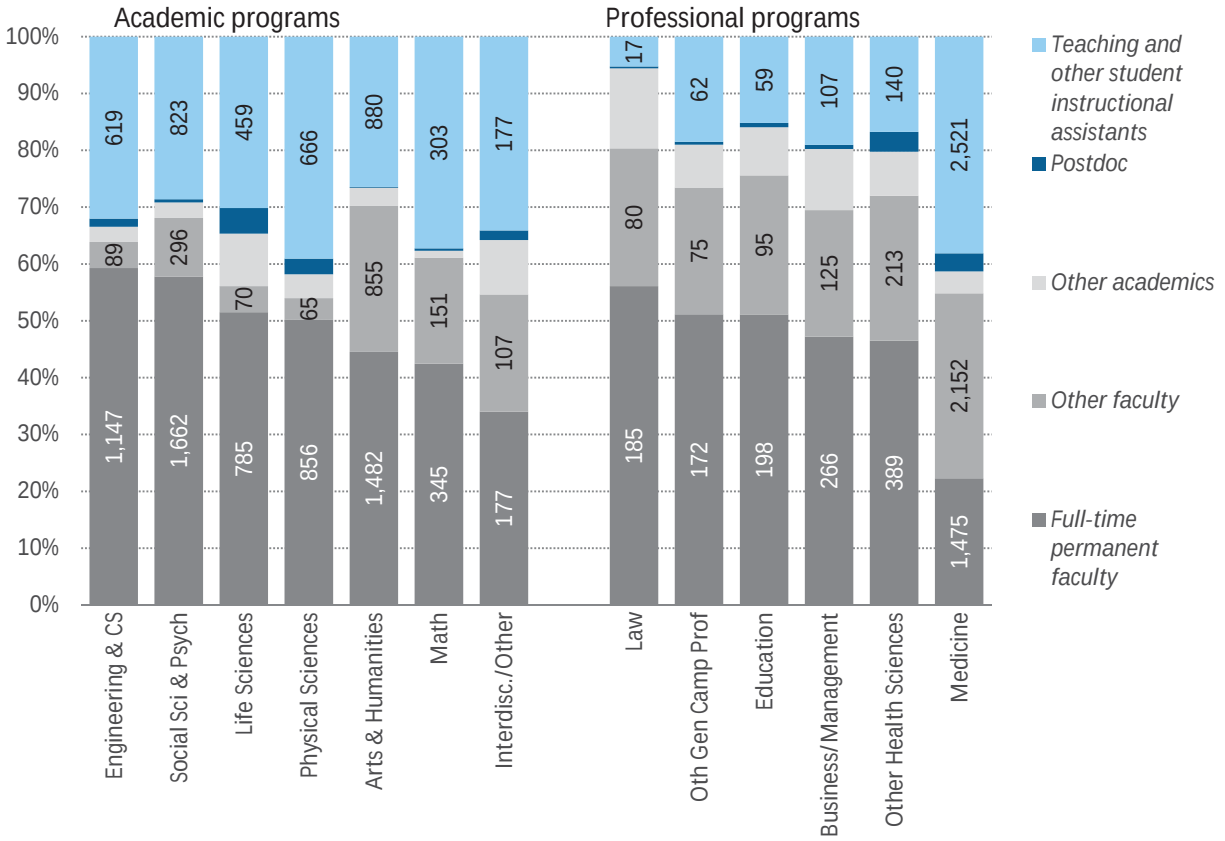
Presentations to the Regents on online education: http://regents.universityofcalifornia.edu/regmeet/jul13/e1.pdf (July 2013)

http://regents.universityofcalifornia.edu/regmeet/jan14/e3.pdf (July 2014)

Interactive Storyboard on undergraduate research experiences: www.universityofcalifornia.edu/infocenter/uc-undergraduate-student-research-expectations-experience-and-aspirations

In most disciplines, full-time permanent faculty constitute more than half of the instructional workforce.

8.1.1 Instructional workforce FTE composition, by employee type and discipline
Universitywide
2013–14



Source: UC Corporate Personnel System[1]

In most disciplines at UC, full-time permanent faculty constitute half or more of the instructional workforce. Some fields, however, require a different composition. Medical education, for example, relies more heavily for instruction on faculty who also have clinical roles; other faculty play a greater instructional role in the arts and humanities (e.g., writing and languages).

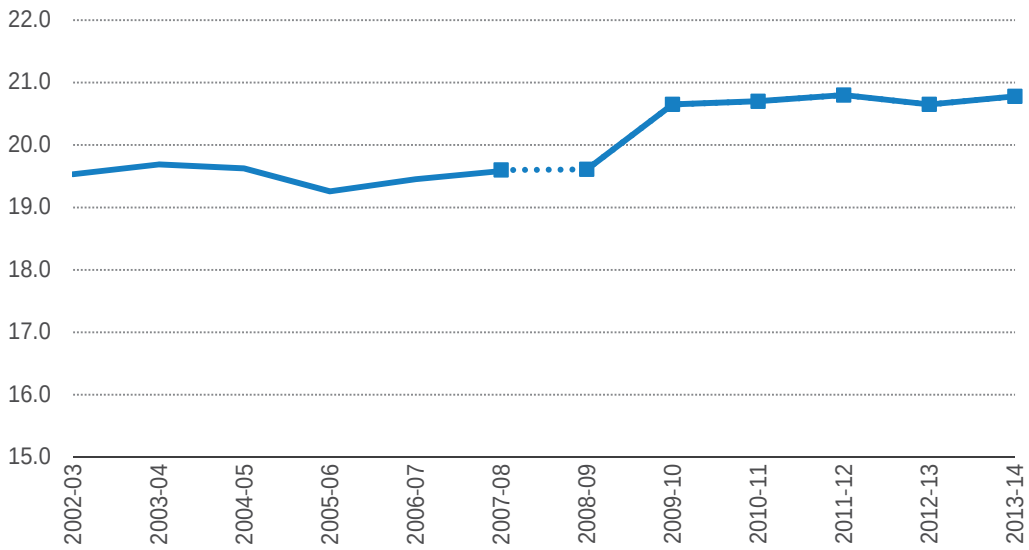
"Other faculty" in this indicator includes clinical faculty, most lecturers, adjuncts, faculty in residence and visiting faculty. "Student instructional assistants" refer to students acting in supporting roles, such as teaching assistants, readers and tutors. They are more commonly found in academic disciplines, and typically lead labs and discussion sections for large lecture courses.

Because full-time permanent faculty have demonstrable scholarship and research experience, their instruction is a valuable part of a student's learning experience. When faculty incorporate their pre-publication research results into their courses, UC students gain access to insights and discoveries even before they are presented to the wider research community.

[1] Academic support staff, such as clerical staff, administration and advisers, including students working in these titles, are excluded. The "Other academics" category includes administrators and researchers who have instruction functions. Data are for full-time-equivalent number of academic employees paid with instructional funds.

The student-faculty ratio has increased because faculty hiring has not kept pace with the increase in student enrollment.

8.1.2 General campus student-faculty ratio
Universitywide and UC campuses
2002–03 to 2013–14*



*A revised methodology for calculating the student-faculty ratio is used beginning in 2008–09. Previously, UC calculated this ratio by including only faculty supported by core funds (comprising state general funds, UC general funds, and tuition and fees). Starting with 2008–09, the ratio calculation includes faculty paid through all fund sources (other than self-supporting program fees). This change in methodology better reflects recent increased flexibility in use of fund sources to pay faculty.
Source: UC Information Center Data Warehouse

One widely used measure of academic quality is the student-faculty ratio. The student-faculty ratio reflects resources available for instruction and the average availability of faculty members to every student. Thus, lower ratios are preferable for students in terms of focused resources for instruction.

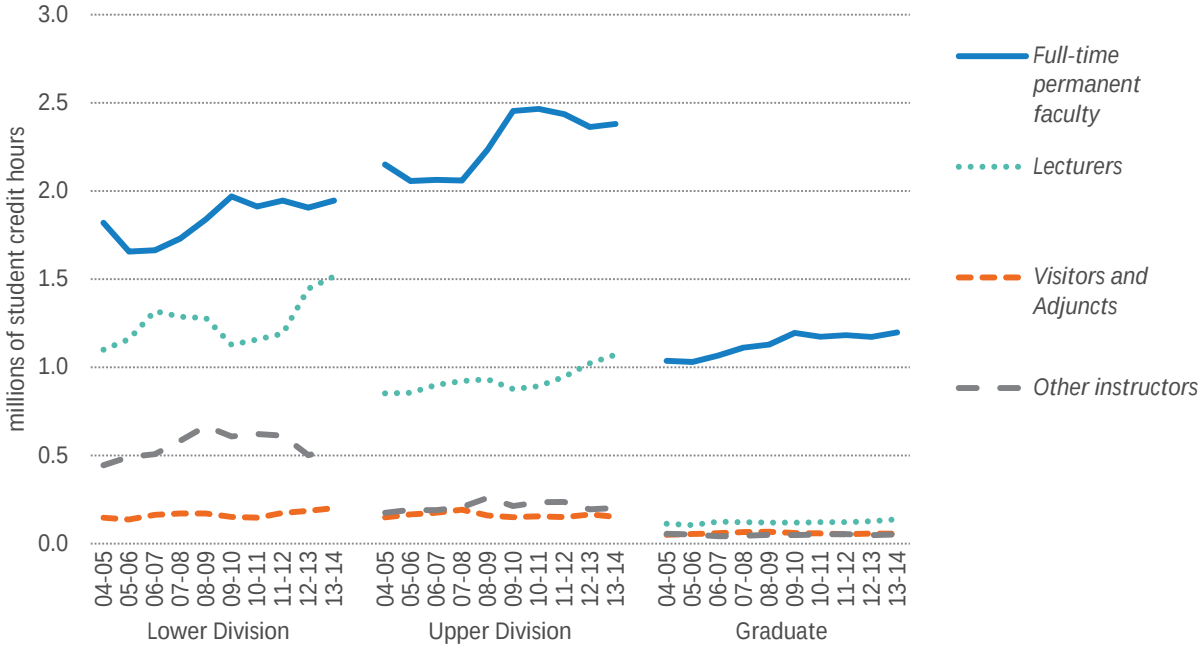
Because the student-faculty ratio varies considerably by instructional level (lower-division, upper-division and graduate), by degree and by major, student experiences will vary as well. Indicator 8.1.3 on student credit hours (SCH) provides additional insight into the student experience.

The student-faculty ratio has increased at various times in the University's history and particularly in the last decade. During the most recent recession, campuses responded to uncertainty in state funding by delaying faculty hiring, or made decisions not to fill vacant faculty positions on a permanent basis.

UC's student-faculty ratio is at the highest level it has ever been and is also high relative to research universities of comparable quality.

As a group, full-time permanent faculty are teaching increasing numbers of student credit hours in both undergraduate and graduate levels.

8.1.3 Student credit hours, by instructional staff and class type
Universitywide
2004–05 to 2013–14



Source: UC Faculty Instructional Activities dataset[1]

Student credit hours (SCH) represents the number of student enrollments in a course multiplied by the number of credits earned from that course. For example, a 4-credit class with 50 students generates 200 SCH; a 2-credit class of 15 students generates 30 SCH. This measure gives an indication of the relative teaching load across different types of instructors at different levels of instruction.

Over time, the full-time permanent faculty at UC have increased their teaching and maintained contact with more undergraduate and graduate students. Overall, a larger number of student credit hours performed by full-time permanent faculty means students have additional opportunities to be taught by the leading scholars in their disciplines.

Lower-division courses, such as writing, language and other required courses, are most often taught by lecturers; introductory courses to the major are most often taught by full-time permanent faculty. Upper-division courses, which are core to the student's major, are more likely taught by full-time permanent faculty, as are graduate courses.

[1] 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.

As students progress through their academic careers and enroll in upper-division and graduate classes, they receive more consistent exposure to full-time permanent faculty, regardless of class size.

8.1.4 Student credit hours, by faculty appointment, class type and class size
Universitywide
2004–05 to 2013–14

Lower-division classes (scale 0–1.5m)

Upper-division classes (scale 0–1.2m)

Graduate classes (scale 0–1.2m)

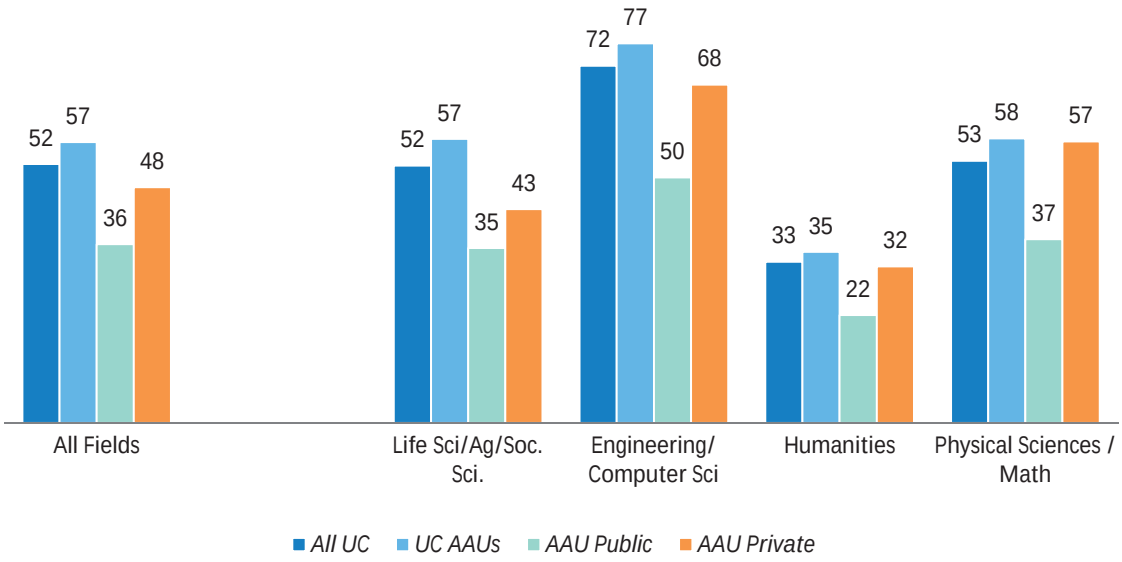
Source: UC Faculty Instructional Activities dataset

In the lower division, full-time permanent faculty generally teach large lecture classes; nonpermanent faculty, such as lecturers, generally teach lecture sections and smaller classes. In the upper-division, student contact with full-time permanent faculty is fairly evenly distributed across classes of all sizes.

Graduate academic students are almost uniformly taught by full-time permanent faculty in classes with fewer than 50 students.

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

8.2.1 Doctoral degrees awarded per 100 faculty (annual average)
UC and comparison institutions
2007–08 to 2011–12



Source: IPEDS and 24 non-UC Public and 16 Private AAU Institutions[1]

Doctoral degree production is an important measure of an academic research university's strength in teaching and research. Each doctoral degree awarded represents one more highly skilled professional added to the workforce contributing to the economic, cultural and social development of California, the nation and the world.

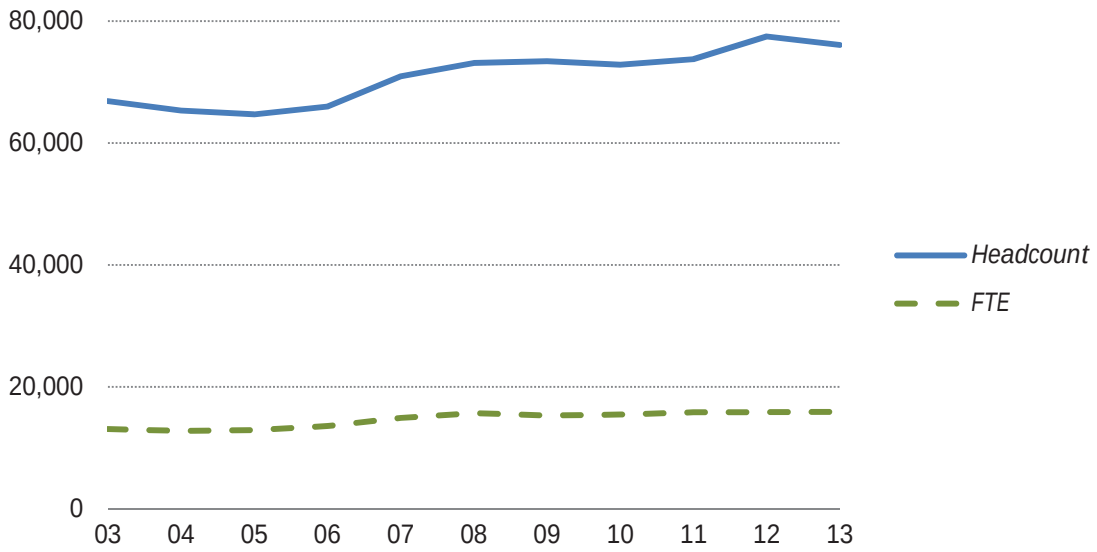
The current data reflect very favorably on UC faculty's effectiveness in conferring doctoral degrees. Between 2007 and 2012, UC awarded 52 doctoral degrees per 100 faculty each year. In comparison, to AAU public universities awarded 36 degrees per 100 faculty, and AAU private universities awarded 48 degrees per 100 faculty. In engineering and computer science, UC awarded 72 doctoral degrees per 100 faculty, while AAU public universities awarded 50 degrees per 100 faculty, and AAU private universities awarded 68 degrees per 100 faculty. Comparisons for the six AAU-member UC campuses are even more favorable.

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

[1] UC campus data excludes UC San Francisco, an exclusively graduate health sciences campus.

Summer enrollment has increased since 2003.

8.3.1 Summer enrollment
Universitywide
2003 to 2013



Source: UC campuses

Over a decade ago, the University of California began expanding summer instruction programs with full support and funding from the state. From 2003 to 2013, headcount and FTE summer enrollment increased by 14 percent and 22 percent, respectively. Summer enrollment growth has kept pace with UC overall enrollment, which grew by 17 percent over that ten-year period.

Across all UC campuses, many students enroll in summer session to finish the coursework required for graduation. Expanded summer sessions have contributed to notably increased four-year graduation rates, with some campuses experiencing improvements from 4 to 12 percentage points.

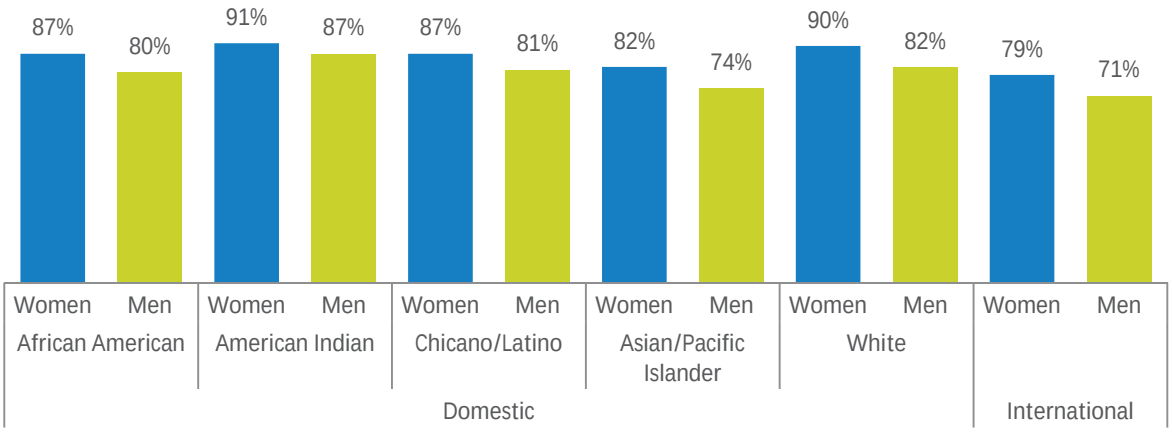
The federal government does not provide Pell Grant funding for summer enrollment. Because 42 percent of UC students rely on Pell support, these students may find it difficult to take advantage of summer classes and maintain timely progress to degree.

However, in an effort to eliminate financial hurdles and increase summer session access for all students, campuses continue to set aside a portion of summer revenues for financial aid. In summer 2013, the last year for which complete financial aid data for summer enrollments is available, campuses provided 29,551 students with $81 million in need-based financial aid, including $59 million in grants and scholarships.

In addition, another 11,000 non-UC students, including CSU and CCC students, were enrolled during summer session.

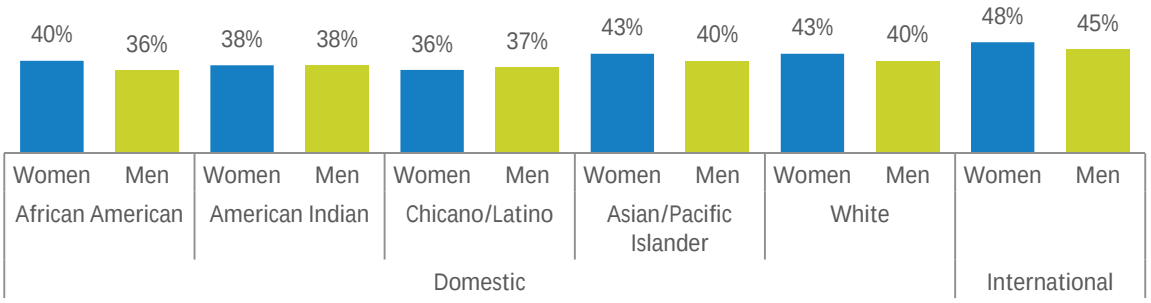
Research participation is high among UC's graduates across racial/ethnic and gender groups.

8.4.1 Students completing a research project or research paper as part of their coursework
Universitywide graduating seniors
Spring 2014



Source: UCUES

8.4.2 Students assisting faculty with research
Universitywide graduating seniors
Spring 2014



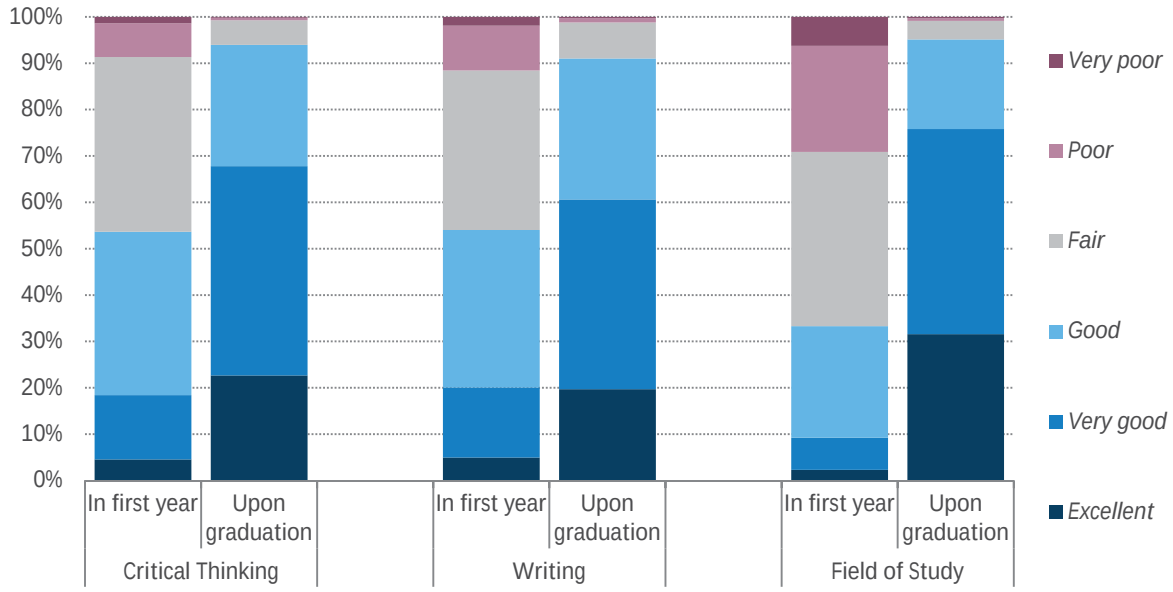
Source: UCUES

One of the benefits of attending an academic research university is the opportunity for students to conduct research, both through class research projects and by assisting faculty with their ongoing research.

Overall, undergraduate students self-report participating in research activities at a high rate. Data from the UC Undergraduate Experience Survey show that underrepresented minority undergraduates are involved in these activities at rates comparable to other groups. Women tend to be slightly more involved in research than men.

UC students report experiencing significant improvement between their freshman and senior years in their critical thinking skills, writing skills and understanding of their chosen field of study.

8.4.3 Self-reported skill levels from first year to graduation
Bachelor's degree recipients who entered as freshmen
Universitywide
Spring 2014



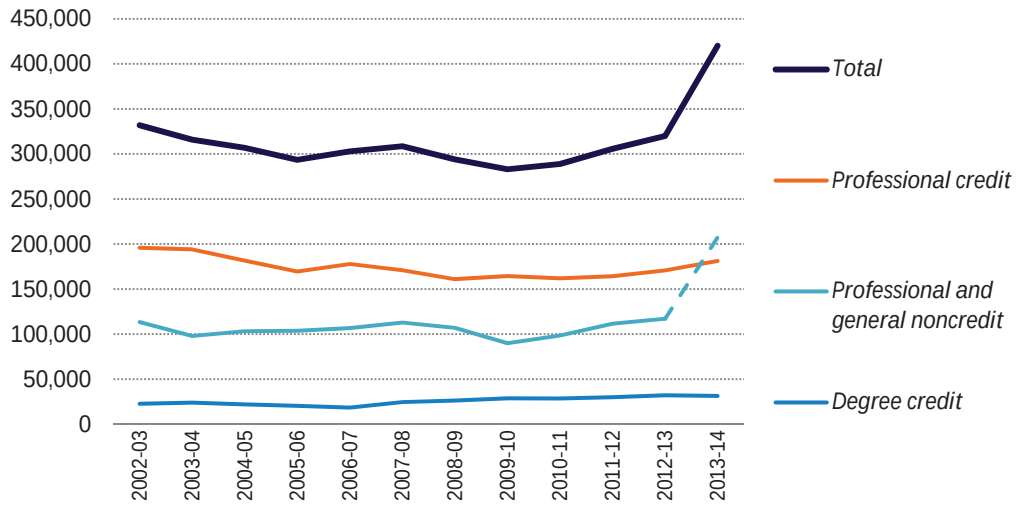
Source: UCUES

The University of California Undergraduate Experience Survey (UCUES), conducted every two years, provides a valuable source of information on how UC undergraduates view their educational experience.

Reflecting on their skill levels between their freshman and senior years, UC bachelor's degree recipients self-report significant improvements with respect to critical thinking ability, writing and understanding of their chosen field of study.

UC is a significant provider of post-college continuing education to Californians.

8.5.1 Continuing education enrollments
Universitywide
2002–03 to 2013–14



Source: UC Extension Financial Statements[1]

UC Extension, the largest continuing education program in the nation, provides courses to individuals who want to continue their education beyond their undergraduate studies, advance in their professions, change careers, engage in further academic pursuits and improve their skills in current or new endeavors. Extension's highly diverse range of courses offers specialized programs of study, and provides certificates in both credit and noncredit programs.

UC Extension is completely self-supporting. Each campus extension division addresses the particular educational needs of its geographic area. For example, UC Riverside Extension offers a Turfgrass Management Certification program; UC Davis Extension offers a Winemaking Certificate Program.

Extension enrollment fluctuates with the economy; enrollment numbers decreased during the 2007–09 recession and have increased since 2010–11. The steep increase in noncredit enrollment in the most recent year occurred because outreach in-service courses were included for the first time. These programs may satisfy continuing-education requirements of public agencies and professional associations but do not convey UC Senate-approved credit.

[1] "Degree credit" courses lead to formal UC degree credit, developed and presented in partnership with campus faculty and degree programs. "Professional credit" courses provide Academic Senate-approved academic credit but are not associated with a specific UC degree program. "Professional and general noncredit" courses are high-quality continuing education courses and workshops.

PUBLIC TRANSIT

UC research results in five new inventions every day—like this exoskeleton that helps people with spinal cord injuries to walk again.

Chapter 9. Research — Increasing Public Knowledge

The broad scope of UC research

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

UC has more than 800 research centers, institutes, laboratories and programs that span ten campuses, five medical centers, three national energy laboratories and numerous research facilities. It has established an unparalleled international reputation for research. All forms of intellectual inquiry are represented in the research enterprise, from the three-dimensional folding of proteins in cells to the many-dimensional nature of the universe; the translation of ancient texts to the creation of more capable computer languages; the conservation of fragile art works to the development of more drought-resistant crops. The extraordinary diversity and quality of research at UC is reflected in the high rankings assigned to UC campuses (see Chapter 14).

Evaluating the research enterprise

UC's research may be assessed in a variety of ways: research expenditures; the academic quality and impact of UC's research; the enhancement of UC students' educational experience; the contribution of research findings to public knowledge; and the economic and societal benefits that flow from research. This chapter focuses on quantitative measures of research activity, such as amounts spent, individuals employed, and books and journal articles published.

However, these measures do not present a comprehensive account of UC's diverse research portfolio. They significantly underrepresent research achievements in the arts, humanities, social sciences and theoretical sciences, because work in these fields leaves less of a financial footprint. Nonetheless, UC research in these fields makes a profound contribution to the quality of a UC education and the quality of life in California.

Sources of research funding

One indicator of research activity is the amount expended each year. Research expenditures provide a basis for charting trends over time and allow comparisons to other private and public institutions, indicating UC's contribution to nationwide academic research. In comparison with its peers, UC excels in the dollars expended on research per ladder-rank faculty member.

Direct research activity at UC nearly doubled over the last 15 years, to about $4.3 billion. Most of this growth was fueled by federal funds. Private, nongovernmental support is a growing component of UC's research enterprise, funding research in health, life sciences, high technology, data science, materials engineering, education and many other fields. Private support, however, accounts for only about 23 percent of research awards — 12 percent from corporations and 11 percent from nonprofit organizations. This leaves UC's research enterprise susceptible to fluctuations in federal budgetary appropriations.

Significant projects that received funding during 2013–14 include the following:

- UC Berkeley was awarded $134 million by NASA's Goddard Space Flight Center for ionospheric research as part of the Ionospheric Connection Explorer (ICON) project.
- UC Davis received $14.6 million from the California Department of Public Health for research into emergency responses to communicable diseases.
- UC Irvine received $9.4 million in education research grants from the John D. and Catherine T. MacArthur Foundation for the Research Network on Connected Learning and the Digital Media and Learning Hub.
- UCLA's Clinical and Translational Science Institute received research funding of $14.3 million from the National Institutes of Health's National Center for Advancing Translational Science.

- UC Merced was awarded $4.9 million from the National Science Foundation to fund research on the effects of climate change at the Southern Sierra Critical Zone Observatory.
- UC Riverside received $1.8 million from the U.S. Department of Agriculture's National Institute of Food and Agriculture for research in reducing losses from potato and tomato late blight.
- UC San Diego received $77 million from Eli Lilly and $33 million from Toyama Chemical Company for clinical trials of treatments for Alzheimer's disease.
- UC San Francisco was awarded $40 million by Daiichi Sankyo for research on neuro-degenerative diseases.
- UC Santa Barbara received $6.8 million from the National Science Foundation to support the Center of Excellence for Materials Research and Innovation.
- UC Santa Cruz was granted $4 million for stem cell genomics research by the California Institute of Regenerative Medicine.

These research awards represent only a small sample of the great diversity of research projects for which the University receives award funding.

Research activities

Research funding principally pays for researchers' time. More than half of the research expenditures in 2013–14 went to salaries and benefits. Only 18 percent went to faculty; the majority supported staff researchers, and nearly one-quarter went to students and postdoctoral researchers.

Research results — enhancing instruction

UC's research enhances the educational experience provided to students. Faculty often incorporate their research results into their courses, including findings that have not yet been published. This provides UC students with access to insights and discoveries even before they are available to the global research community. UC students also participate in research projects; the 2014 UC Undergraduate Experience Survey (UCUES) found that about half of seniors had been directly involved in faculty-directed research projects or creative activities.

Participation in research defines graduate education, and graduate student researchers make up a significant portion of the research workforce. In 2013–14, of UC's 50,000 graduate students, about 15,000 were employed at least part-time as paid research assistants. UC also provides postdoctoral training to about 5,800 scholars.

Research results— spurring the economy

The economic benefit of UC's research enterprise to the state of California is significant. A recent economic impact study determined that for every dollar spent by UC, the state's economy directly increases by about two dollars. The $4.3 billion spent by UC on research multiplies to nearly $9 billion in statewide economic activity. This number does not take into account the secondary economic impact of businesses that are based on technology developed by UC researchers or that rely on the skills of UC graduates.

Research leads to technologies and processes that become public knowledge through the patent process. These innovations enhance industries, stimulate economies, and improve health and well-being worldwide. Over the past two decades, UC has secured more licensable patents for its inventions than any other U.S. research university. Since 1976, more than 840 startup companies have been founded around UC inventions, and about 85 percent of them are based in California.

Research results — diffusing knowledge

Perhaps the most visible results of UC research take the form of publications: the journal articles, books and other research reports available through an ever-growing repertoire of print and electronic media. This chapter includes an analysis of the Web of Science publication database, with the understanding that such compilations significantly underrepresent faculty research contributions in the arts, humanities and social sciences. Also included is a recent study by academic publisher Elsevier of the impact of UC research publications, which attributes one out of every 12 research publications in the United States to the University of California.

Research results — improving global health

During 2013–14, about 2,800 clinical trial research projects were underway at UC. Clinical trials occupy a unique position in academic research. Unlike basic research, clinical trial research projects represent the final stage in the journey from a scientific discovery to an effective treatment. Of all the research dollars that came to UC from businesses during 2013–14, about 40 percent was directed toward clinical trials.

Research results — addressing climate change

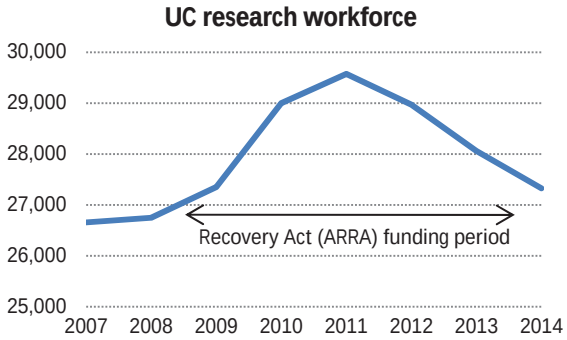
UC is a leader in research on energy technologies and practices that will reduce carbon emissions and their impact. In addition to energy research appropriations by the U.S. Department of Energy to Lawrence Berkeley National Laboratory, UC campuses secured about $440 million over a five-year period for work on ways to achieve carbon neutrality through reduced fossil fuel consumption and other means.

Research workforce changes

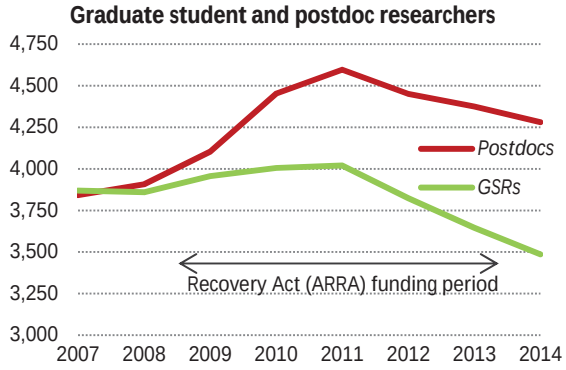
UC faces numerous challenges in pursuing its research mission. These include recruiting and retaining world-class faculty, remaining competitive in attracting graduate and postdoctoral students, and fully funding the research enterprise because the University does not recover the full costs of research from either governmental or private research sponsors.

A critical issue facing academic research nationwide is the lack of adequate federal support for basic research and development. For more than a decade, federal research support, adjusted for inflation, has been essentially flat — with the exception of the years when American Recovery and Reinvestment Act stimulus funds were available. Between late 2009 and 2011, the Recovery Act provided UC with over $1 billion for research. But since then, no new federal or private sources of research funding have arisen that can entirely take the place of the stimulus funds. Moreover, during 2012–13, congressionally mandated cutbacks in federal agency spending reduced UC's research awards to about where they were in the early 2000's.

The effects of the Recovery Act funding increase, followed by the congressionally mandated cutback in agency R&D appropriations, are clear. The workforce rose to a peak of nearly 29,600 FTE (full-time equivalent personnel) in 2011 and since then has declined to about 27,300, a drop of 8.2 percent.



The effect of these cutbacks on the research workforce has varied by campus and by discipline, with more of an impact on fields such as medical research, which depend on funding from UC's largest federal research sponsor, the National Institutes of Health. This has also impacted the University's instructional mission, as research funding provides support for graduate student researchers and postdoctoral researchers in many fields.



Since 2011, the number of graduate student researchers has dropped 13.2 percent, from over 4,000 FTE to under 3,500. The total number of UC's academic doctoral students has remained about the same, which indicates that graduate students, overall, are spending less time as compensated researchers.

The number of postdoctoral researchers increased more dramatically than the number of GSRs under the influx of Recovery Act funds. Their numbers also declined as Recovery Act fund expenditures tapered down, but not as sharply as GSRs — from 4,600 FTE to 4,300, representing a drop of 6.5 percent.

Recent increases in research sponsorship, however, suggest that the research enterprise may be entering a period of improvement. Research awards to UC are a leading indicator of research expenditures and research activity. During 2013–14, research awards to UC ended a three-year decline and rose to nearly the levels seen when stimulus funds were available. These trends, if they continue, could bring stability, and perhaps modest growth, back to UC's research enterprise.

The long-term prospects for federal research sponsorship, though, remain uncertain. To help offset some of this uncertainty, research universities are increasingly looking to private sources of research support, hopeful that a burgeoning economy will spur both foundation grants and corporate investment. Initiatives to develop new forms of partnership with private sponsors are underway.

For more information

UC's Budget for Current Operations 2015–16 contains information on the contributions and impacts of UC's research enterprise on the California economy. It can be found at www.ucop.edu/operating-budget/budgets-and-reports/current-operations-budgets/index.html.

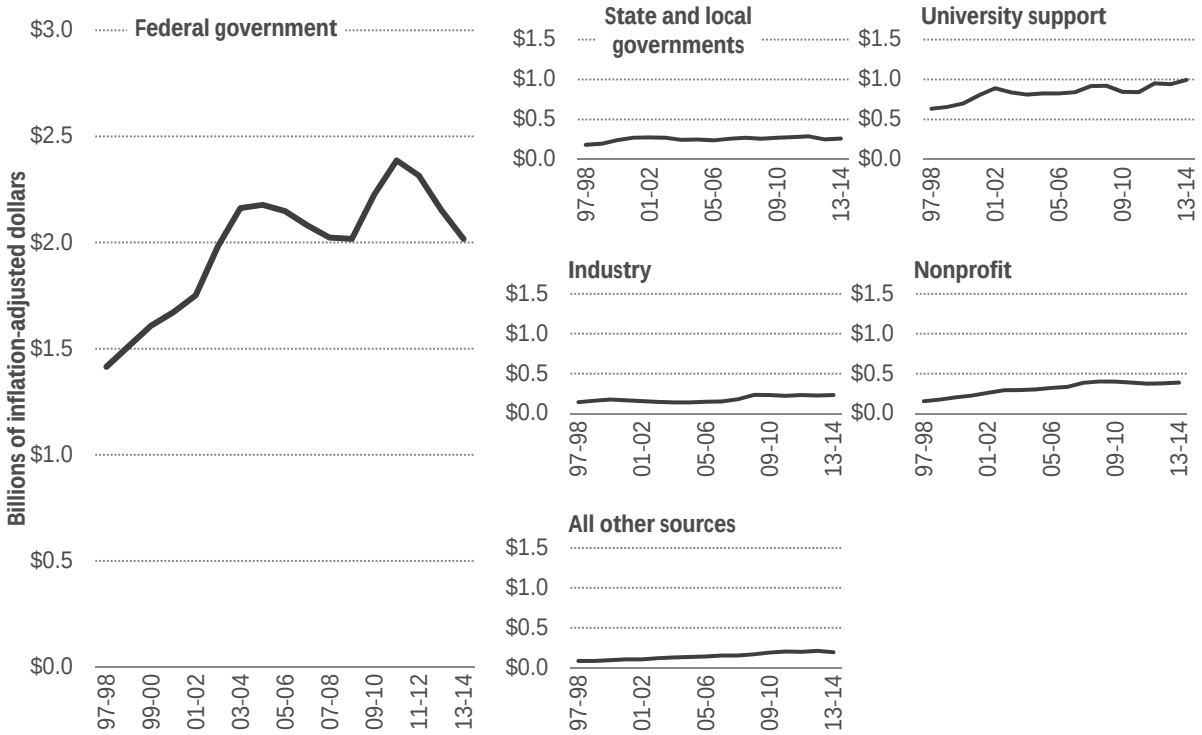
The Technology Commercialization Report is at www.ucop.edu/innovation-alliances-services/innovation/innovation-impact/technology-commercialization-report.html.

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

An interactive storyboard on research sponsorship is here:
http://universityofcalifornia.edu/infocenter/research-sponsorship-uc

Federal funds support most of the research work done at UC.

9.1.1 Direct research expenditures by source
Universitywide
1997–98 to 2013–14



Source: UC Corporate Financial System[1]

Forty-nine percent of UC's research expenditures in 2013–14 came directly from federal agencies, the lowest percentage in 15 years. A further 8 percent of expenditures represents federal flow-through funds that came to UC as sub-awards from state and private sources, including other research universities. Together, about 57 percent of UC's research expenditures started out as federal funds.

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

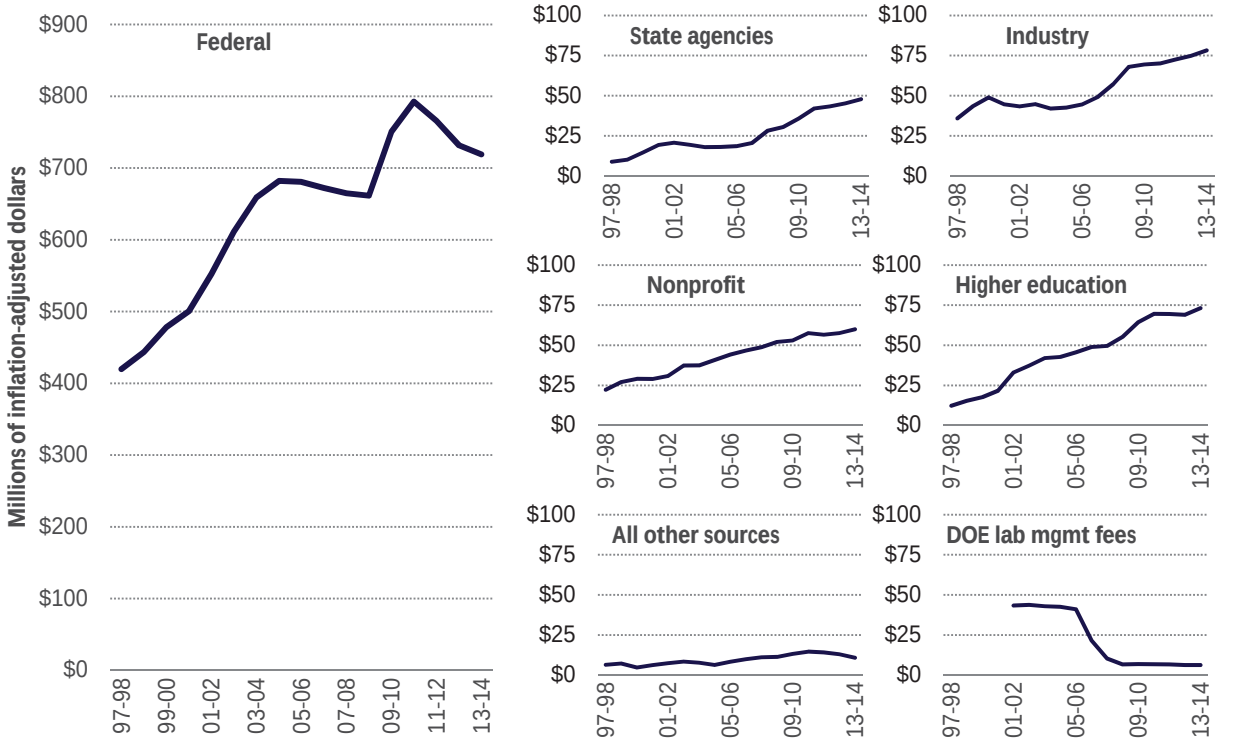
Fluctuations in federal appropriations have a major impact on UC's research. Cutbacks at key federal agencies, starting in 2006, ended a long period of growth and resulted in a decline in research expenditures. This downturn was briefly reversed in 2009–10 by the American Recovery and Reinvestment Act, which provided over $1 billion in research funds to UC. The recent round of reductions in federal appropriations for research and development has also had a significant impact on UC's research enterprise, which remains heavily dependent on federal agency funding.

University support, accounting for 24 percent of all 2013–14 direct research expenditures, derives from a variety of sources. These institutional funds include UC general funds (including a portion of the recovered indirect cost amounts), student tuition, state government specific appropriations, endowment income and gifts.

[1] Amounts have been adjusted for inflation and do not include accrual funds for postemployment retirement benefits or indirect cost recovery funds.

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

9.1.2 Research indirect cost recovery by source
Universitywide
1997–98 to 2013–14



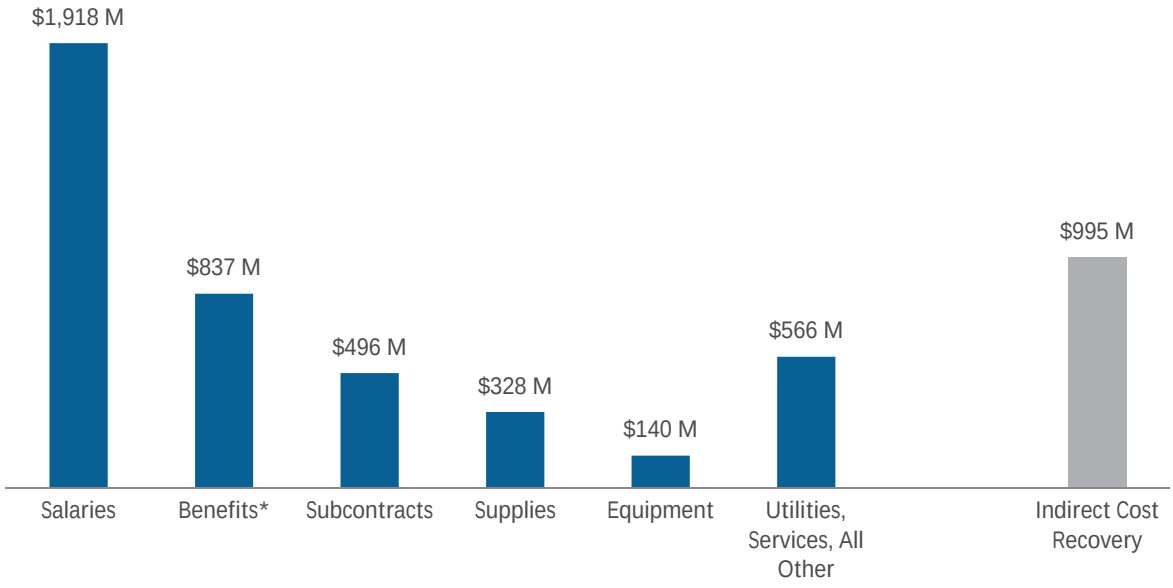
Source: UC Corporate Financial System

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 an additional 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, at about 52–56 percent, but are nonetheless estimated to run between 5 and 18 percentage points below the true indirect costs of conducting research. Nonfederal research sponsors, including many corporations, most nonprofit organizations and the state of California, have policies that may limit indirect cost recovery to well below federal rates. UC estimates that the true costs of its research exceed direct and indirect cost recovery by as much as $600 million annually, and it must make up for this deficit from other sources. One of UC’s long-term financial goals is to increase indirect cost recovery by up to $300 million annually.

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

9.1.3 Research expenditures by type
Universitywide
2013–14



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

Total research expenditures of about $5.3 billion during 2013–14, which include about $1 billion in recovered indirect costs, represent about one-fifth of UC's total expenditures.

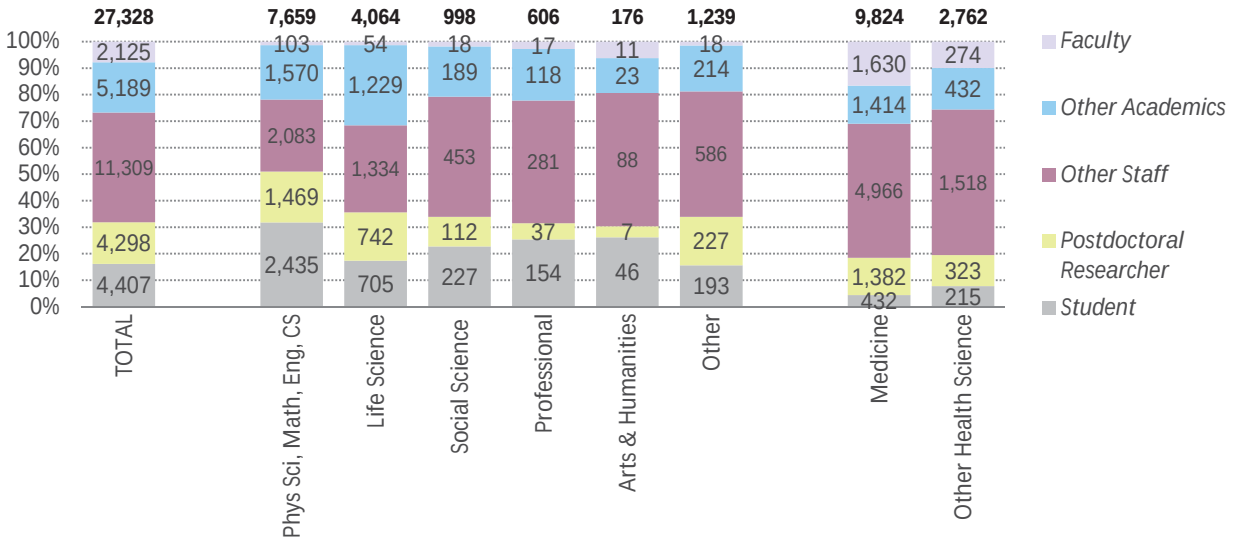
About 18 percent of the salaries paid to support research went to ladder-rank and other faculty. Twenty-three percent went to postdoctoral researchers and students, primarily graduate students, providing a critical source of support.

Research salary distribution

	($ millions)	
Faculty	346	18%
Academic researchers	425	22%
Other staff	716	37%
Postdoctoral researchers	227	12%
Students	203	11%
Total	**1,918**	100%

In 2013–14, funded research projects provided employment for about 27,300 full-time-equivalent personnel. This represents 30 percent[1] of the total UC full-time-equivalent workforce, including student employees.

9.2.1 Research workforce by discipline
Universitywide
2013–14



Source: UC Corporate Personnel System[2]

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

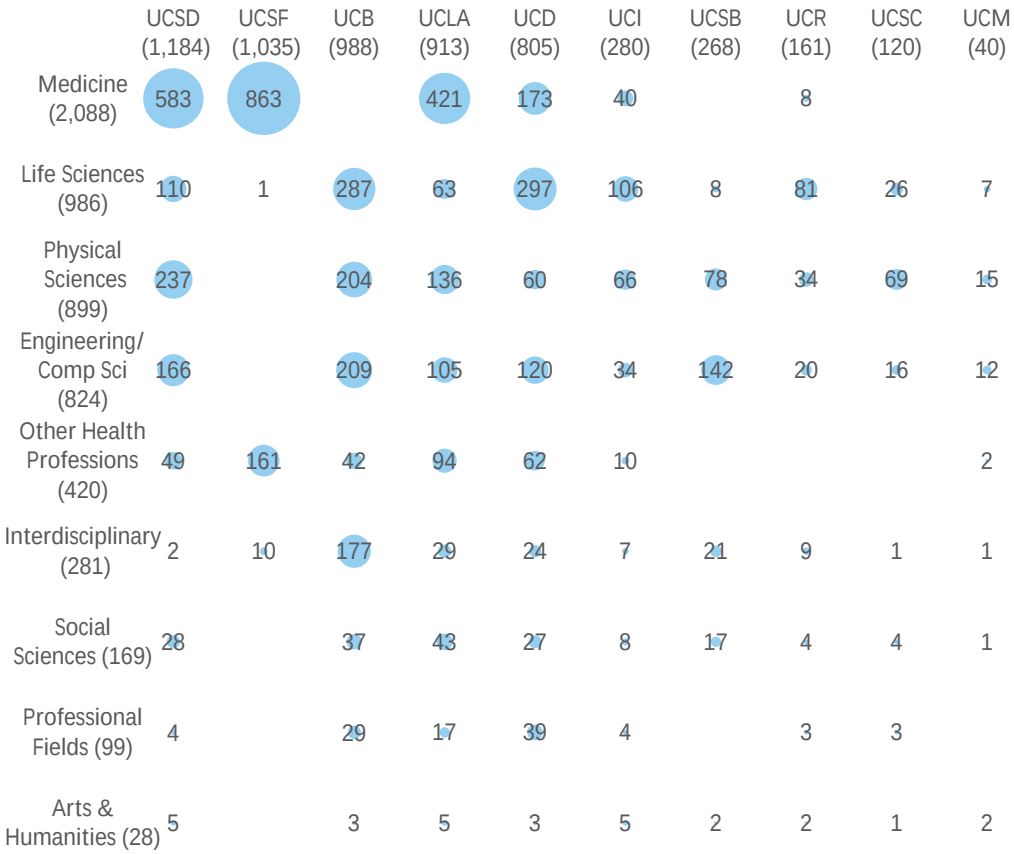
The 2013–14 research workforce is about 2.6 percent smaller than it was last year, due principally to declining federal funding. During 2013–14, however, UC's research funding from both federal and private sources increased, returning to roughly pre-recessionary levels. If this federal funding trend continues, UC's research workforce is likely to stabilize and possibly increase over the next several fiscal years.

The employment figures shown above include only staff and students paid through an externally funded research program or by UC's own research funds. This tabulation does not capture the effort of faculty and students who engage in research in the normal course of their work, or the staffers 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 constitutes the lion's share of the total research effort.

[1] UC has about 98,000 full-time-equivalent employees.
[2] Data shown here represents full-time-equivalent personnel receiving earnings from research accounts.

Postdoctoral scholars ("postdocs") are an integral part of the research function in many fields, and the training they receive at UC helps to create the next generation of scholars and researchers.

9.2.2 Postdoctoral scholars by discipline
UC campuses
Fall 2014



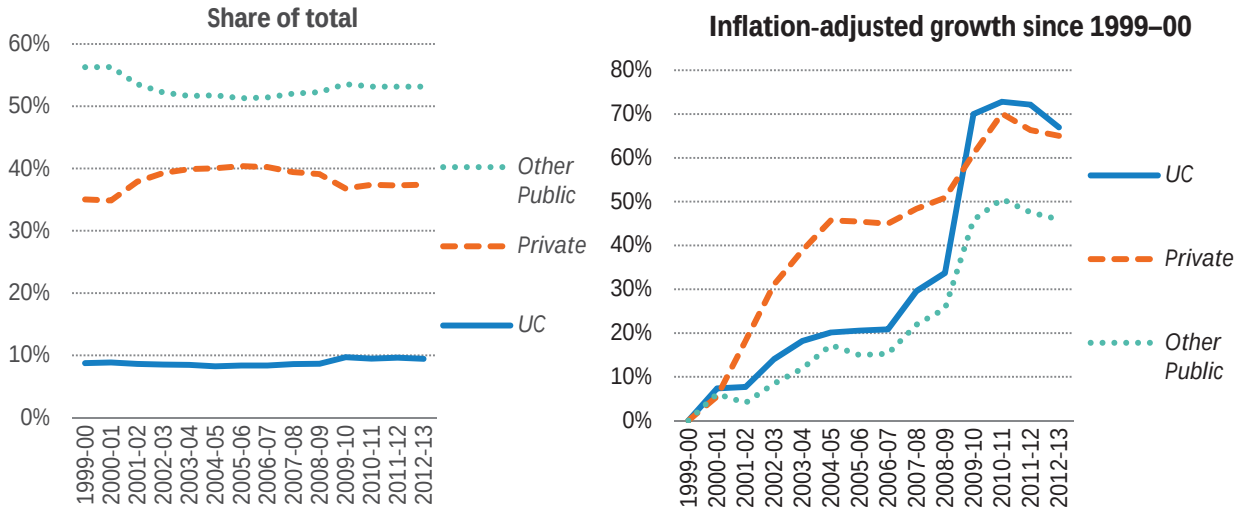
Source: UC Information Center Data Warehouse, October 2014 Payroll Data[1]

There are nearly 5,800 postdoctoral scholars at UC. Not all have full-time appointments. Most if not all postdoctoral scholars are paid from research grants and for this reason are more prominent in fields with greater external research funding. Postdoctoral scholars contribute to instruction in the laboratory sciences by working side by side with graduate students. They may also have a formal supervisory function in the laboratory, depending on arrangements made by the faculty member in charge.

[1] Includes all postdoctoral scholar titles: employee, fellow and paid direct. Includes those who may hold concurrent titles in other academic or staff categories. Professional Fields include architecture & environmental design, business & management, communications, education, home economics, law, library science and social welfare. Other health professions & clinical sciences include dentistry, nursing, optometry, other health professions, other health sciences, pharmacy, public health and veterinary medicine.

The University of California performs nearly one-tenth of all the academic research and development conducted in the United States.

9.3.1 UC share of U.S. research expenditures
Universitywide
1999–2000 to 2012–13



Source: IPEDS

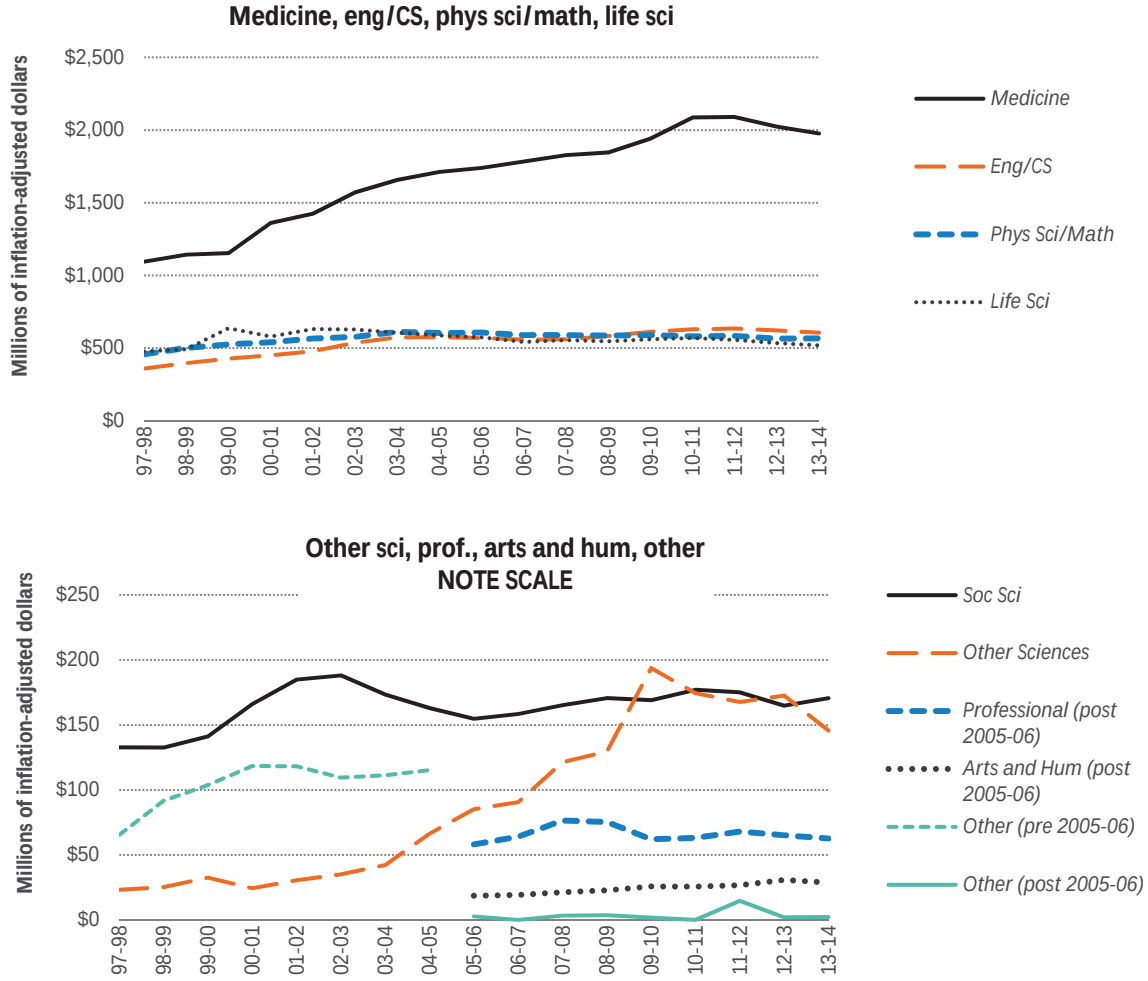
UC's contribution to the academic research and development activity in the U.S., as reported through IPEDS, has remained constant over the last decade, at between 9 and 10 percent. Over this period, the rate of growth in UC's research enterprise exceeded the average pace at other public universities. This reflects not only UC's competitiveness in securing federal awards — which provide the great majority of research funds — but also UC's success in forging productive research relationships with the private sector.

UC is the largest single recipient of research funding from the two federal agencies principally responsible for sponsoring academic research: the National Institutes of Health and the National Science Foundation. UC generally receives 5 to 6 percent of NIH's annual appropriations for research and 7 to 8 percent of NSF's annual appropriations.

As shown in indicator 9.1.1, the most recent round of cutbacks in federal research funds has been partially offset by increases in research contracts with corporate and nonprofit sponsors.

Inflation-adjusted expenditures for research in the medical fields have increased by 84 percent since 1997–98, compared to 40 percent for all other disciplines.

9.3.2 Direct research expenditures by discipline
Universitywide
1997–98 to 2013–14



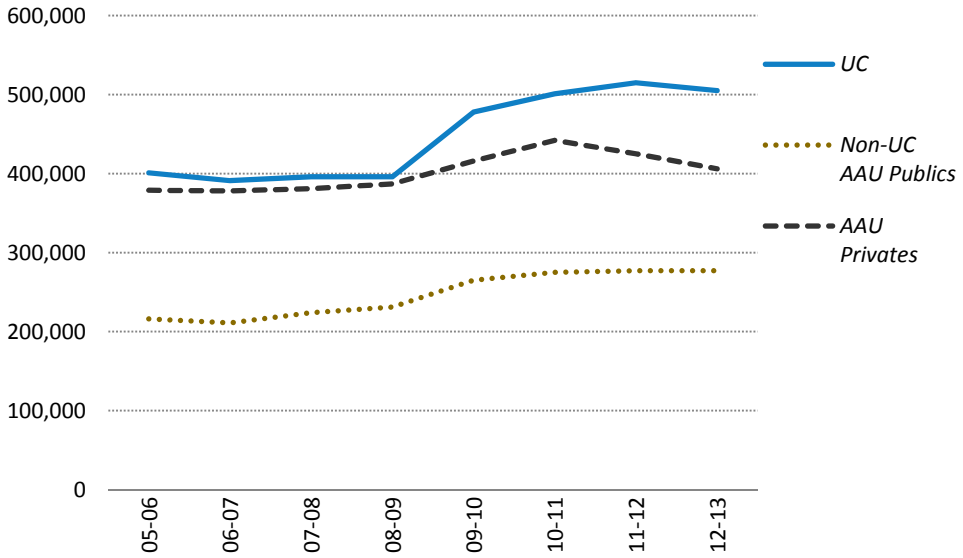
Prior to 2005–06, "Other" included professional and arts and humanities. Source: UC Corporate Financial System

Research expenditures in all STEM (Science, Technology, Engineering and Mathematics) and medical fields represented over 90 percent of total research expenditures each year during the past decade. This reflects the availability of research funding and parallels the nationwide pattern of academic research activity.

Measures based on research expenditures substantially underrepresent research activity in the arts and humanities, social sciences and professional disciplines, which make important contributions to scholarship and the quality of life, yet have relatively little access to external research funding.

Annual research expenditures per ladder-rank faculty are higher at UC than its comparison peers.

9.3.3 Average inflation-adjusted research expenditures per ladder-rank faculty
UC and AAU comparison universities
2005–06 to 2012–13



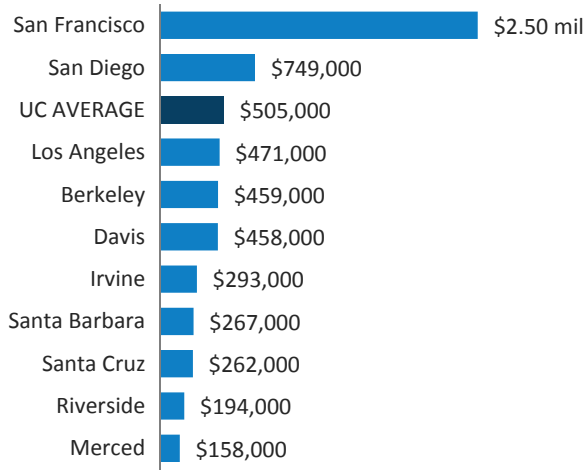
Source: IPEDS

UC faculty are extremely successful at attracting research support from both government and private sponsors. On average, UC conducts more than $505,000 in research per tenured and tenure-track faculty member, which surpasses the average of about $406,000 per faculty member for American Association of Universities (AAU) private institutions, and about $277,000 for AAU public institutions.

For UC campuses, the presence of a medical school greatly increases access to research funds. The largest single source of research sponsorship is the National Institutes of Health, and campuses with the facilities to conduct medical research are in the best position to compete for these limited federal funds.

UC's second-largest source of research support is the National Science Foundation.

9.3.4 Average research expenditures per ladder-rank faculty
UC campuses
2012–13



UCSF is an exclusively health science campus, where many faculty who are not ladder-rank conduct a significant portion of the research.

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

A crucial component of UC's research mission is the diffusion of knowledge, and publication of research results in journals, books and other media remains among the most important, and certainly the most visible, means of achieving this goal. With vast publication databases now available, it is possible to mine these data sources for information about publications by UC researchers, and develop quantitative measures of publication output.

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

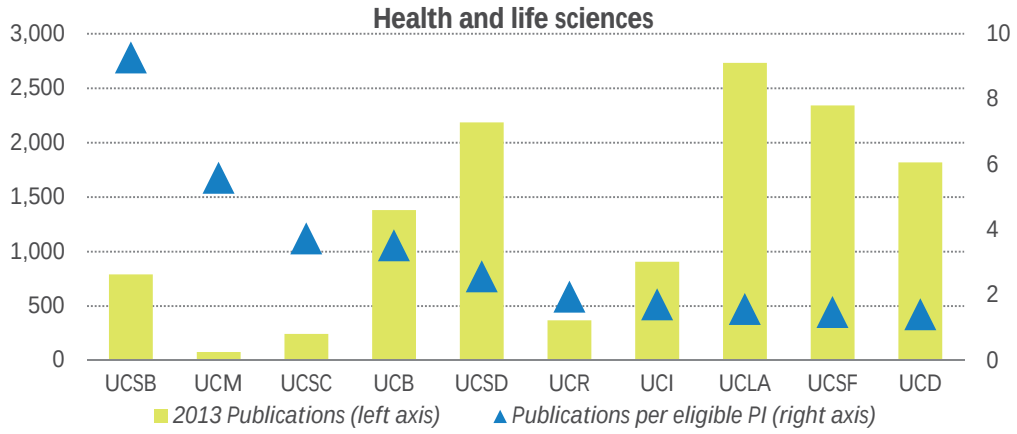
Within a given academic discipline, differences in the level of faculty publications are due to a number of factors, among them the nature of scholarship in a given field, size of departments and the number of faculty at each campus working in a particular field. Davis, Irvine, Los Angeles, San Diego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

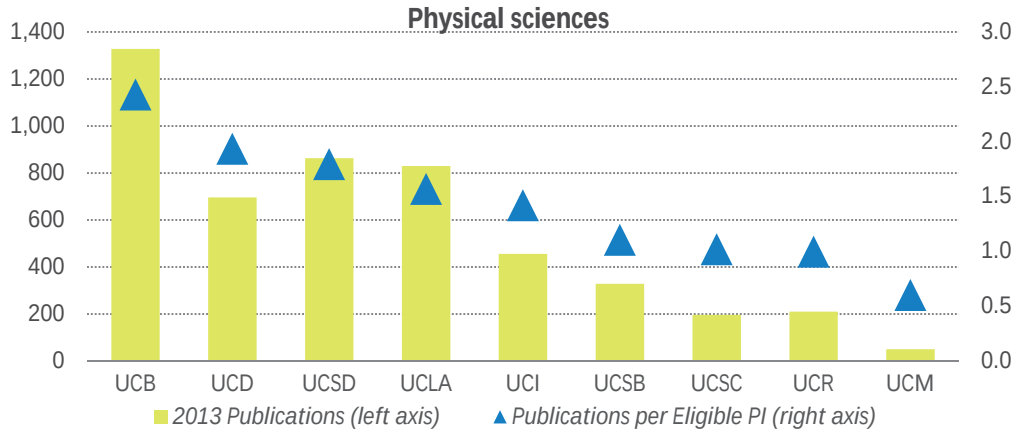
Published outputs cannot be used to compare faculty research productivity across disciplines. The range of types, frequency and venues for the dissemination of research varies greatly among academic disciplines. In addition, the number of newly hired faculty and researchers can affect a campus's measure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

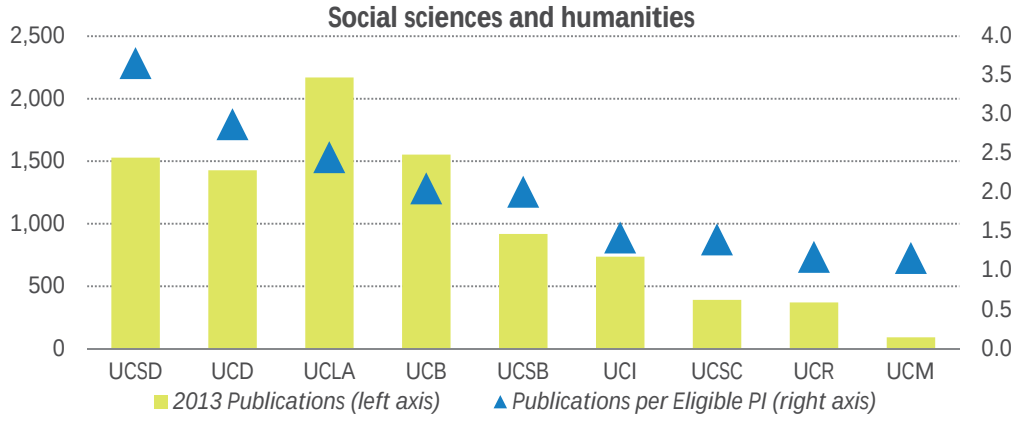
Some disciplines favor shorter, multiauthored publications, while other disciplines favor longer, sole-authored publications. Co-authorship, for example, is more common in the life and physical sciences, where credit may be shared with a team of researchers, than in the social sciences and humanities, 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 2013 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, humanities and social sciences.

9.4.1 Publications by broad discipline and per eligible principal investigator (PI)[1]
UC campuses
2013





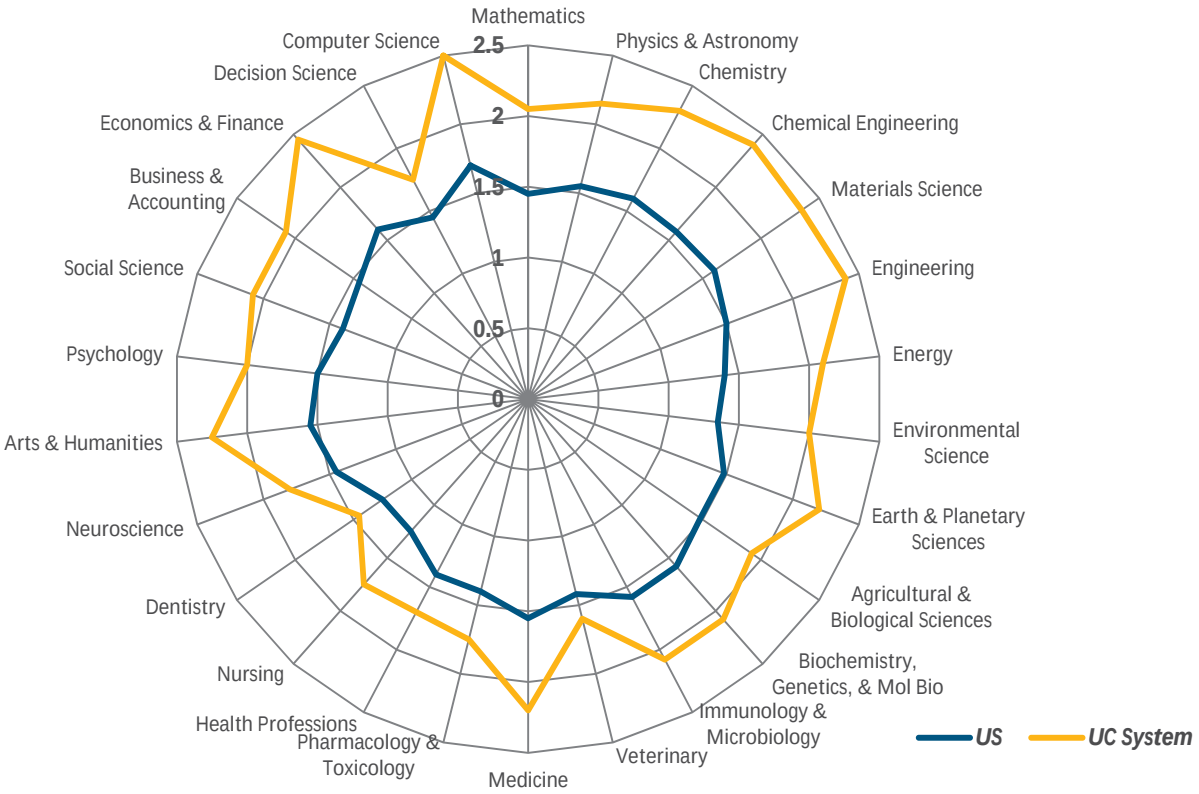


Source: Web of Science and UC Corporate Personnel System. All UCSF publications are included in health/life sciences. Eligible PI count is from winter 2012–13.

[1] A principal investigator is a person authorized by the Academic Personnel Manual to apply for and receive grants. Nearly all are faculty, professional researchers or academic administrators. For more information see the Glossary.

The University of California is a major research presence at both the state and national levels, producing about one-twelfth of the nation's research publications.

9.5.1 Total UC research publication impact within the national context, by field-weighted citation impact and discipline
Universitywide
2009 to 2013



Across all disciplines, the UC FWCI average is 2.15; the U.S. FWCI average is 1.48.

Source: Elsevier, "Research Performance of the UC System," March 2015.

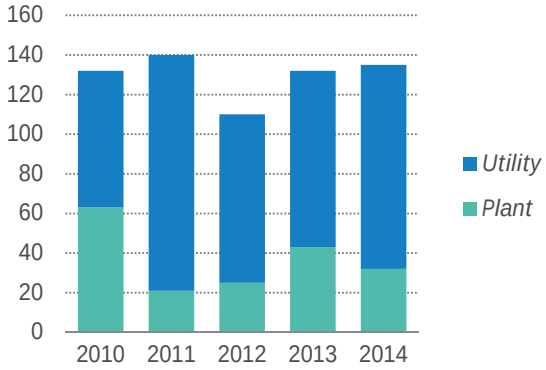
Comprehensive publication databases can be mined and analyzed to develop quantitative measures of the publication output and impact of UC researchers. A recent Elsevier study showed that UC research publications accounted for 8.3 percent of all research publications in the United States between 2009 and 2013.

In assessing research output, it is important to consider not only publication volume but also publication quality. Using a field-weighted citation impact (FWCI), we can compare publication citation data across disciplines and compare the quality of UC research publication output to the state, national and global levels. The FWCI for the UC System as a whole is 2.15 across all disciplines, higher than both the world average (1.0) and the U.S. average (1.49) between 2009 and 2013.

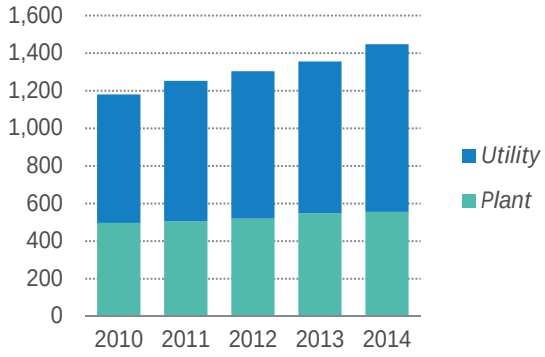
In all fields, the impact of UC publications significantly exceeded U.S. national averages. UC's publication impact is particularly high in the fields of arts and humanities, economics, computer science, engineering and medicine.

Licenses issued in California contribute to successful businesses. The number of active plant and utility licenses in California is growing.

9.6.1 Licenses for UC technology issued annually to California businesses
2009–10 through 2013–14



9.6.2 Active licenses for UC technology in California
2009–10 through 2013–14



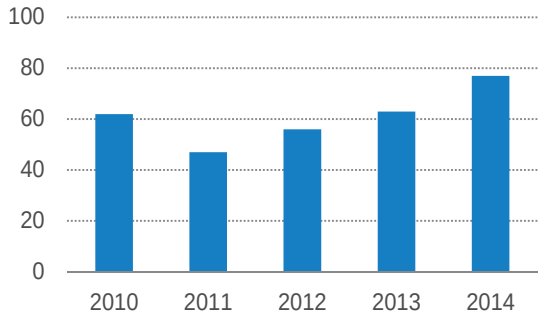
Research is part of the mission of the University of California, and much of this research is basic, foundational research. However, some UC research leads directly to new inventions and innovations; bringing those innovations from the lab to the marketplace is an intrinsic part of UC's public service mission.

Innovations from UC take two paths to the marketplace: they may be licensed to an existing company or they may become the cornerstone of a new startup company. Both pathways ultimately benefit the economy of the state of California.

University inventions are classified as utility licenses or plant licenses. Utility licenses cover inventions protected by utility patents, such as processes, machines, manufactured items or compositions of matter. Utility licenses are often exclusive to the licensee. Plant licenses cover sexually and asexually reproducing plant varietals, and are often licensed via nonexclusive licenses to nurseries and distribution centers. From the high-tech centers of San Diego and Silicon Valley to the agriculture of the Central Valley, UC technology is licensed throughout California.

UC startups are independently operating companies that formed to commercialize a UC technology. The vast majority (over 85%) of these startups were founded in California and have stayed in California. As of 2014, 430 UC startups are actively operating in California. These startups employ 5,178 people in California and bring in a combined $654 million in annual revenues.

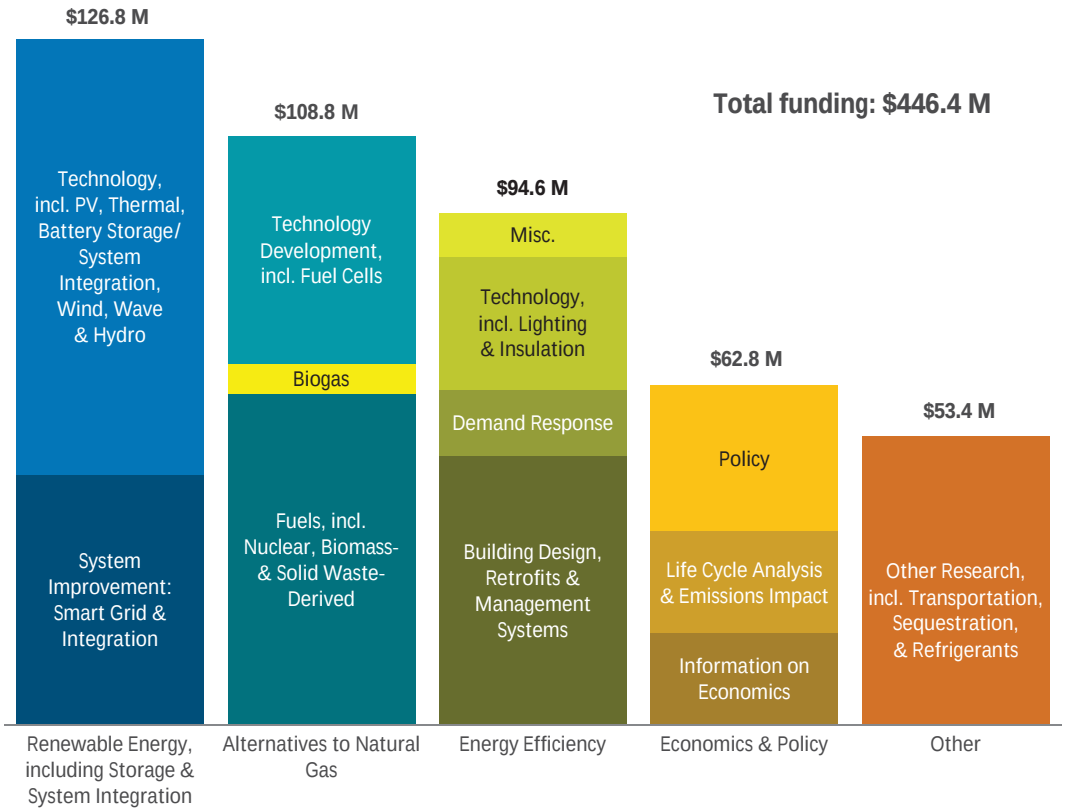
9.6.3 UC startups formed in California
2009–10 through 2013–14



Source: UC Innovation Alliances and Services

Over a five-year period, UC researchers secured over $440 million to develop technologies and management practices aimed at achieving the goals of UC's Carbon Neutrality Initiative and addressing global climate concerns.

9.7.1 UC strengths in carbon-neutrality research topics
Universitywide
Q4 2008–09 to Q3 2013–14



Source: UC Contracts & Grants System

In 2007, all ten UC campuses pledged to achieve carbon neutrality by 2050, establishing a timeline that would make UC the first public university to achieve this ambitious goal. In 2013, UC President Janet Napolitano strengthened that commitment by announcing the University of California Carbon Neutrality Initiative and advancing the carbon neutrality goal to 2025. To identify research strengths, gaps and areas where further investment would have the greatest impact, the Office of Research & Graduate Studies at the UC Office of the President compiled an inventory of all research awards to UC PIs over a five-year period on topics relevant to UC's Carbon Neutrality Initiative.

Although the distribution of research activity among the major topic areas appears to be well-balanced, the subcategories within these areas reveal gaps. Most notably, research on the development of biogas from organic waste received relatively low support, with approximately $5 million total funding over the five-year period. This is particularly important, given the need to substitute alternative biogas fuels for the large quantities of natural gas currently used on campuses with large, natural-gas-fired co-generation facilities for heating and on-site electricity generation.

PUBLIC SERVICE

Like this student-run mobile clinic that treats pets of the homeless, UC brings a mission of service to the places where it's needed most.

Chapter 10. UC in the Community

UC's statewide impact

UC's direct impact on the state of California extends well beyond its campuses and laboratories, and touches every community throughout the state. UC contributes significantly to the state's growth and the well-being of its population through its public service mission, which has been a fundamental and defining feature of UC throughout its history.

The faculty, students and staff at the University of California are engaged in a wide variety of public service activities connecting them with children, youth and adult residents across every region of the state. This chapter highlights some key aspects of life in California where UC's impact has been and continues to be profound: agriculture, environmental stewardship, health, education at all levels and the overall economy.

The public service mission at UC

Since its founding in 1868, UC's public service mission has been closely connected to its other two missions of teaching and research. The University's origins can be traced to the Morrill Land-Grant Act of 1862, which enabled states to use federal lands to establish colleges "to teach such branches of learning as are related to agriculture and the mechanical arts," along with scientific and classical studies. UC was chartered as California's only land-grant university. Subsequent federal legislation expanded the mission of the nation's land-grant institutions to conduct research in agricultural experiment stations and to connect that research with local communities throughout each state.

In the early 1900s, the Division of Agricultural Extension was established in the College of Agriculture at UC Berkeley, and the Cooperative Extension system began developing as extension agents were posted in counties across California. Since then, their goal has been to advance California's agriculture sector by promoting innovation and scientific discovery, and by diffusing research results and expertise throughout the state.

Agricultural extension and research

Today, agricultural research activities at UC are managed through the Agricultural Experiment Station (AES), a multi-campus organized research unit located on the Berkeley, Davis and Riverside campuses, and coordinated systemwide through the Division of Agriculture and Natural Resources. AES scientists are one of the driving forces behind California's $46 billion agriculture sector. The AES also provides worldwide leadership in promoting agricultural and environmental sciences, nutrition and youth development.

UC's statewide Cooperative Extension (CE) system continues its applied research and outreach activities, and has local offices working in nearly every county in California. CE encompasses a national, nonformal education system that links educational and research activities and resources of the U.S. Department of Agriculture (USDA), the nation's land-grant universities, and county administrative units. CE activities focus on identifying critical and emerging needs in agricultural, natural and human resources, and on working with campus partners to develop research-based approaches to local problems.

These two divisions, the Agricultural Experiment Station and the Cooperative Extension, merged in 1975 under the leadership of the systemwide Division of Agriculture and Natural Resources (ANR). Using federal, state, county and nongovernmental funding, AES and CE implement close to 1,500 local partnership programs. In addition, ANR encompasses nine research and extension centers, and 57 offices throughout California, housing 700 academic researchers.

ANR serves as the bridge between local agricultural and environmental issues and the power of the University of California. ANR works hand in hand with communities and industry to enhance agricultural markets, address environmental concerns, protect plant health, offer hands-on science-based learning for youth, promote youth development and provide farmers with scientifically

tested production techniques. In addition, ANR manages six statewide programs and other local programs designed to promote healthy families and communities, including programs focused on sustainable, safe and nutritious food production and delivery.

Environmental stewardship

UC's public service mission has evolved well beyond its agricultural origins over the last century, and UC's extensive portfolio of environmental stewardship activities is a natural outgrowth of this legacy. ANR manages a wide network of conservation and sustainability programs addressing critical issues of our time, such as climate change, drought and food insecurity. In addition, within ANR, two of the UC Research and Extension Centers contain over 10,000 acres of oak woodland/annual grassland dedicated to research and education in both managed and undisturbed environments.

The University of California directly manages natural reserve lands that represent most state ecosystems. The UC Natural Reserve System comprises 39 sites with more than 756,000 acres across California. These lands enhance the University's mission of teaching and research by providing undisturbed environments for students and faculty members to conduct research and enhance students' opportunities to engage in meaningful educational experiences. The Merced Vernal Pools and Grasslands reserve next to UC Merced is the latest addition to the system.

Health

Promoting healthy outcomes for all Californians is an important element of UC's public service mission. Managed through ANR, UC has nearly 1,100 community partnership programs focused on understanding obesity and healthy choices. Their activities include designing nutrition workshops to help limited-resource clients gain the knowledge, skills and attitudes they need to choose sound diets and improve their well-being.

The intersection of UC's research and training missions is key when it comes to addressing health needs. Chapter 9 describes how UC research activities, particularly clinical trials, help improve health outcomes of all Californians by understanding disease processes and finding effective treatments. Chapter 11 describes UC's key role in training California's health care workforce and providing direct care to residents in the state.

Beyond these functions, UC's five medical centers serve as the state's fourth largest health care delivery system and engage in a wide range of activities to address the needs of specific populations. For example, UC's five medical centers maintain long-term institutional partnerships with regional Veterans Affairs Health Care systems. In addition to conducting research on health issues of concern to veterans, such as traumatic brain injury and post-traumatic stress disorder, UC faculty and medical students provide quality care for several thousand veterans annually through the VA.

UC also expands its health outreach efforts through telemedicine. In this way, UC health care experts provide care for patients living in rural areas or in areas where specialty medical experts are not available. Telemedicine activities include real-time video and phone consultations between UC health care specialists and staff in clinics, hospitals, emergency rooms and intensive care units located throughout the state.

Education partnerships

For more than 40 years, the University of California's Student Academic Preparation and Educational Partnership (SAPEP) programs have helped prepare California students for higher education and increase their access to post-secondary institutions. SAPEP programs such as the Early Academic Outreach Program (EAOP); the Mathematics, Engineering, Science Achievement (MESA) program; and the Puente project are designed to improve academic preparation for students in a variety of disciplines.

In addition to the activities UC undertakes to strengthen many K–12 students and community college students academically, UC plays an important role in preparing California's teacher workforce. UC's Teacher Education Programs prepare teacher candidates to engage students in rigorous, relevant and inquiry-based educational experiences. Located at eight UC campuses, Teacher Education Programs recruit, prepare and support pre-service educators who are committed to the principles of academic excellence, equity and integrity, and to cultivating the highest levels of achievement and opportunity for all students.

UC provides continued support to teachers already in the workforce through a variety of professional development programs. For example, the California Subject Matter Project (CSMP), a network of nine discipline-based statewide programs, provides professional development for teachers at about 5,000 schools and builds teacher leadership through about 120 teacher preparation programs across the state. CSMP also supports collaborative networks between K–12 educators and UC faculty.

UC's economic impact

As California's economy becomes increasingly dependent on highly educated workers, the role of the University of California in training the state's future workforce becomes ever more vital. Industries relying on skilled workers in the STEM fields (science, technology, engineering and mathematics) represent a major component of California's economy. UC awards half of the state's bachelor's degrees in STEM fields.

UC's operations also add significantly to the state's economy, as it is one of California's largest employers. With expenditures of about $26.7 billion, much of that in the form of salaries, wages and benefits, UC annually generates more than $46 billion in economic activity in California. UC contributes more than $32 billion to the gross state product and attracts over $8 billion in annual funding from outside the state.

True to its land-grant mission, the UC system touches most aspects of what matters to us as a society. The UC public service mission has evolved in tandem with the changing needs of our state and our local communities, and has developed innovative programs and partnerships that improve the lives of all Californians.

For more information

Interactive map application: includes Assembly districts and campus info – http://arcgis.cisr.ucsc.edu/ucop

Division of Agriculture and Natural Resources: http://ucanr.edu

Natural Reserve System: http://nrs.ucop.edu/index.htm

MESA Programs: http://mesa.ucop.edu/our-programs

California Subject Matter Project: http://csmp.ucop.edu

UC's role educating California's workforce: www.universityofcalifornia.edu/infocenter/degrees-awarded-glance

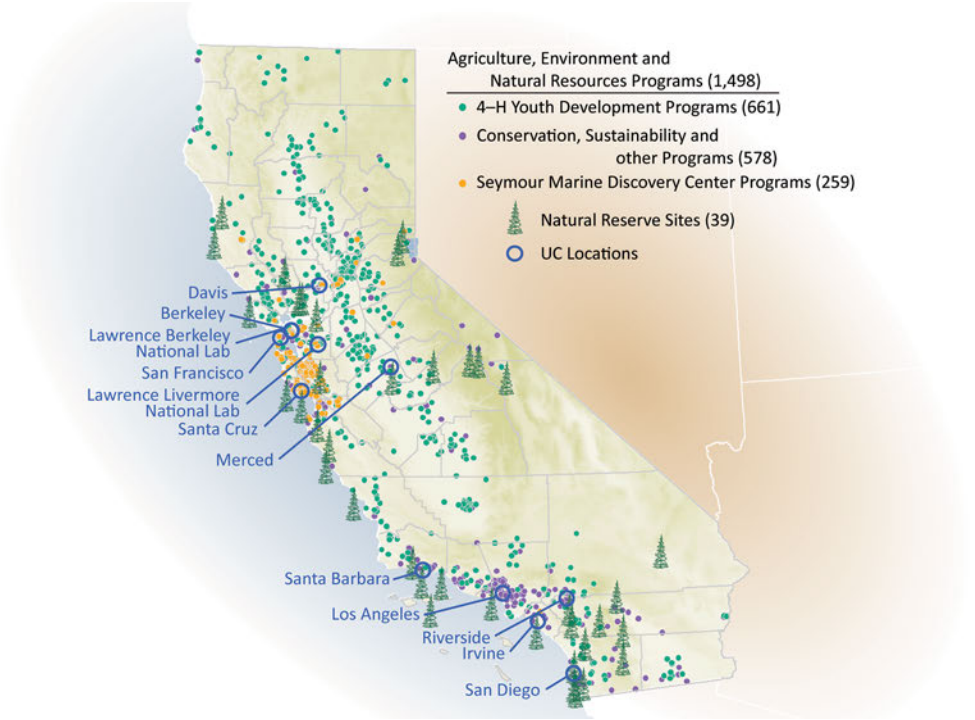
www.universityofcalifornia.edu/infocenter/uc-stem-degree-pipeline

UC's alumni employment outcomes: www.universityofcalifornia.edu/infocenter/uc-undergraduate-alumni-outcomes

UC's faculty and staff: www.universityofcalifornia.edu/infocenter/personnel-data

A snapshot of the programs and activities of UC's Division of Agriculture and Natural Resources illustrates their impact throughout California.

10.1.1 UC agriculture, environment and natural resources programs, and UC natural reserve sites
Fall 2014



Source: UC campuses

UC is California's only land-grant institution, and its Division of Agriculture and Natural Resources (ANR) assumes the responsibility of focusing on the agricultural needs of the state and its communities. ANR's infrastructure includes 200 locally based Cooperative Extension advisers and specialists, 57 offices throughout California, 130 campus-based specialists, nine Research and Extension Centers, and 700 affiliated AES academic researchers.

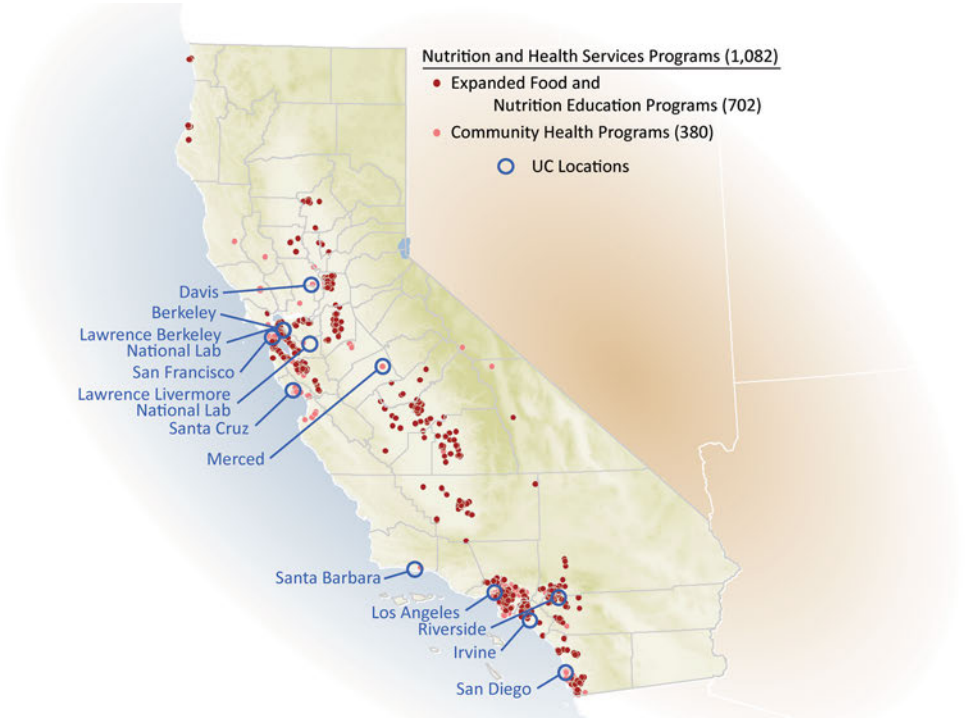
ANR plays a key role in addressing pressing issues related to climate change and drought conditions. For example, ANR's California Institute of Water Resources conducts research that informs public policy and provides advice to growers and residents on how to conserve the state's water supply.

There are 1,498 partnership programs related to agriculture, environmental conservation and natural resource management. These include the 4-H Youth Development Programs, which serve more than 130,000 California youth, as well as programs run by the UC Santa Cruz Seymour Marine Discovery Center, the Center for Agroecology and Sustainable Food Systems, and the Master Gardener Program, among others. ANR's 4-H programs provide research-based curriculum and staff training to community and youth-serving agencies, supporting education for children ages 5 to 19 in a variety of areas, including environmental, plant and animal sciences.

Honoring UC's environmental stewardship role, the UC Natural Reserve System (NRS) manages a network of protected natural areas throughout California. Its 39 sites include more than 756,000 acres, making it the largest university-administered reserve system in the world.

UC promotes healthy outcomes across the state by leveraging partnerships with local communities.

10.1.2 UC nutrition and health programs
Fall 2014



Source: UC campuses

ANR manages 1,082 nutrition and health services partnership programs focused on addressing economic, obesity and food insecurity challenges. ANR nutrition research and education programs annually receive awards of nearly $30 million from USDA and nonfederal sources. These programs include the Expanded Food and Nutrition Program (EFNEP), a federal extension program currently operating nationwide through land-grant universities, and the CalFresh program, providing nutrition education to 140,000 Californians.

Through these programs, UC nutrition educators present the main messages of the Dietary Guidelines for Americans and share strategies for meal planning, food shopping, food preparation and food safety.

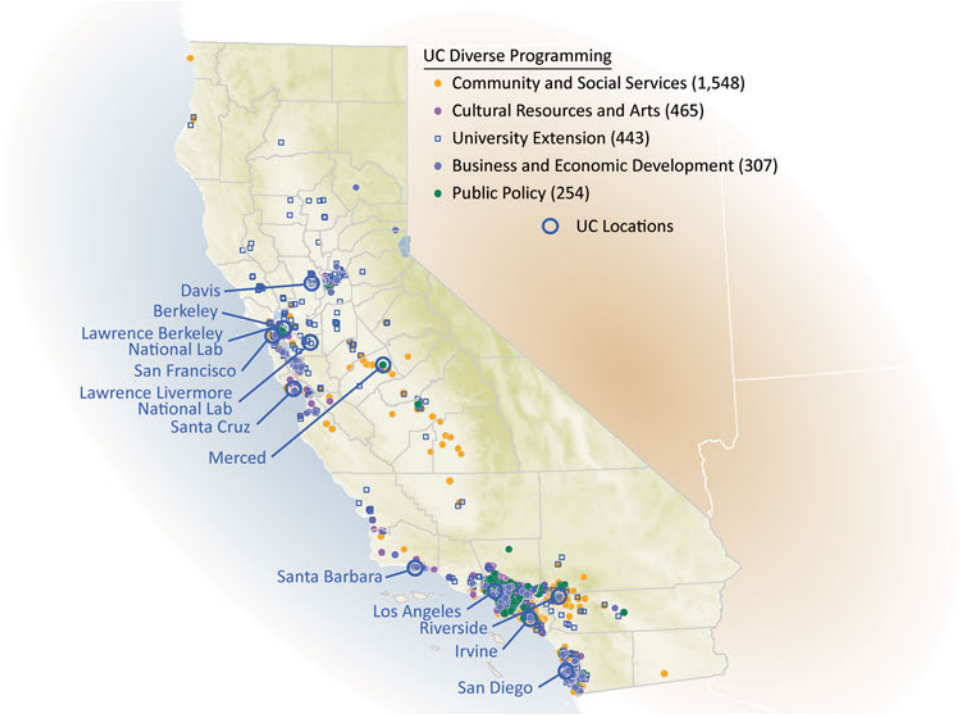
As part of UC's efforts to improve nutrition in California and beyond, the University recently launched a Global Food Initiative, which seeks to address food insecurity issues and challenges associated with sustainably and nutritiously feeding our growing population. The initiative involves all ten campuses, UC's Division of Agriculture and Natural Resources, and the Lawrence Berkeley National Laboratory.

The Global Food Initiative illustrates the power of partnerships between UC and local communities in promoting healthy nutrition across California. These activities take place at many sites. To cite just a few examples:

- The Ocean View Growing Grounds site in southeastern San Diego, a 20,000 square-foot garden where UC faculty and students work with local neighbors in cultivating community gardens and food forests.
- UC Santa Barbara's Sustainable Fisheries Group provides scientific expertise that helps to align economic incentives for fishermen with ocean stewardship principles, creating implementable changes to ensure the long-term health of coastal ecosystems.
- UCLA's Resnick Program for Food Law and Policy studies is a national think tank focused on developing legal and policy strategies, research and practical tools to foster a food system that benefits both consumers and the environment.

UC is involved in communities across California through a wide range of local-level service programs.

10.1.3 UC community and social services, cultural resources and arts, university extension, business and economic development, and public policy
Fall 2014



Source: UC campuses

UC administers 1,548 programs providing community and social services throughout the state. These programs include internship and field study programs that connect students and alumni with their communities, and volunteer centers working on such issues as domestic violence, fair housing advocacy and employment training.

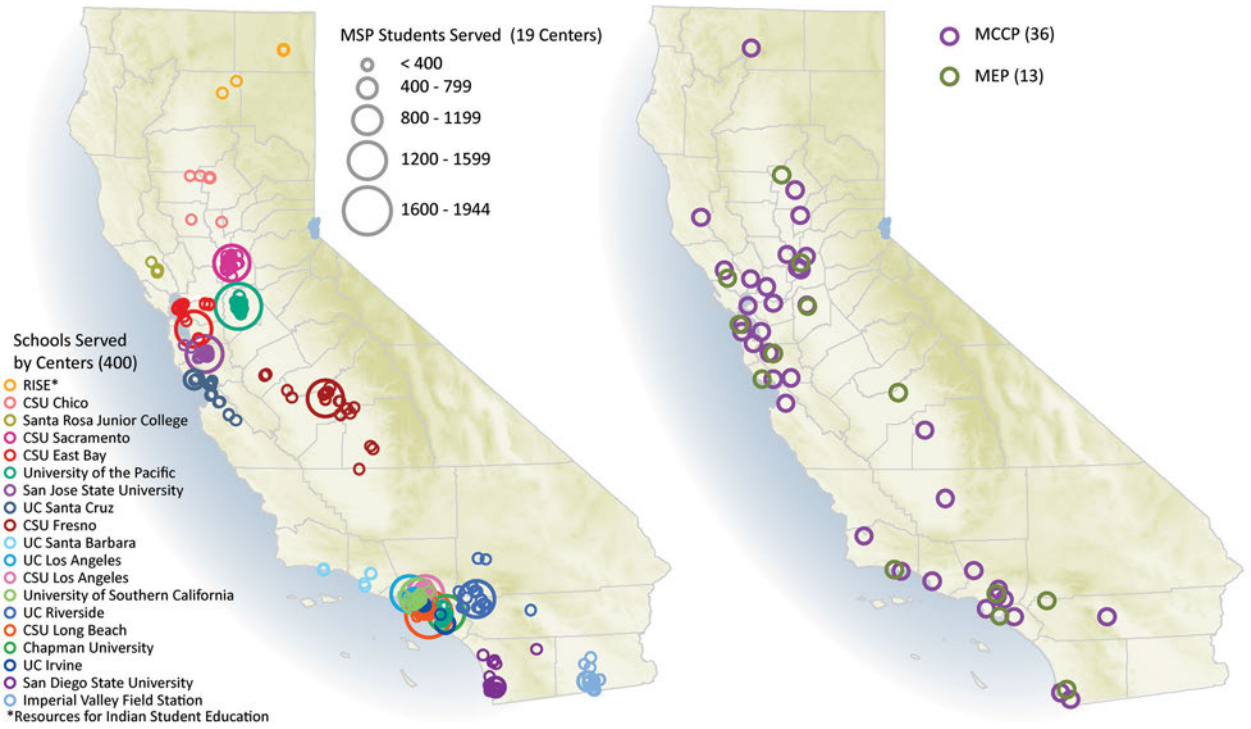
UC manages 465 arts education and outreach programs that teach art, dance, drama, music and digital arts in the community. These programs expose students and community members to art and culture through performing arts, theater, cultural events and other activities.

Additionally, UC's public service mission incorporates a focus on local business and economic development. The University operates about 300 business-related programs statewide. These include internships offered in partnership with local companies, where students gain both UC credits and professional experience. Other programs focus on bringing local high-tech and green-tech companies together with motivated individuals to foster student participation in community economic development.

Serving about 420,000 course registrants, there are 443 UC University Extension programs encouraging lifelong learning for all Californians. Addi ionally, there are 254 public policy programs dedicated to engaging the community and raising awareness on public policy issues.

UC helps prepare and train students in STEM fields at every school level.

10.2.1 Mathematics, Engineering, Science Achievement (MESA) partnership programs Fall 2014



Source: MESA programs

The UC Mathematics, Engineering, Science Achievement (MESA) partnerships integrate UC's core missions of teaching and public service by focusing on the academic preparation of students at K–12 schools, community colleges and four-year universities. Through its three core programs — the MESA Schools Program (MSP), the MESA Community College Program (MCCP) and the MESA Engineering Program (MEP) — MESA serves about 28,000 California students.

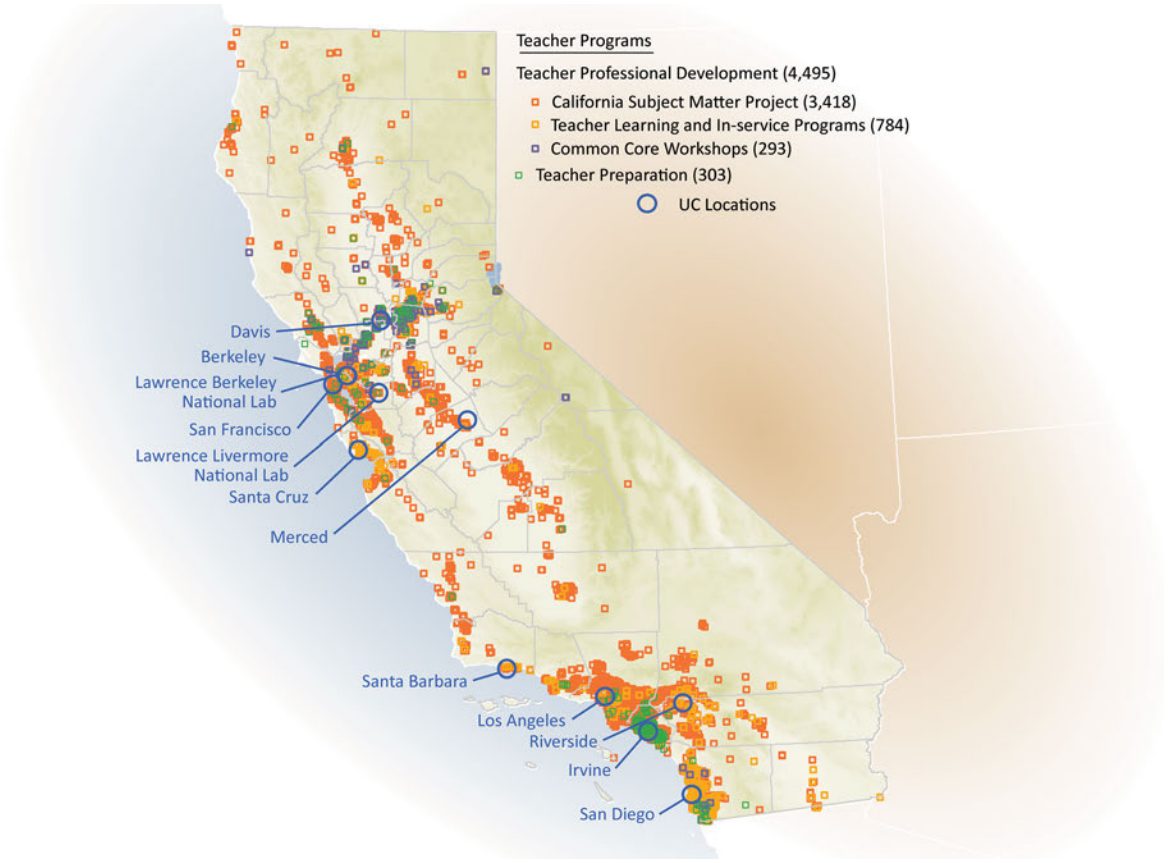
MESA Schools Program (MSP) centers are housed in 19 locations and serve about 400 K–12 schools. Centers offer classes before, during and after school, focused on activities that reinforce math and science content standards. MESA activities include workshops aimed at strengthening students' study skills and monitoring students' individual progress.

MESA manages 36 community college centers (MCCPs). These centers provide academic excellence workshops, orientation courses, academic advising and counseling activities dedicated to help community college students develop multiyear plans to transfer to a four-year university in a timely manner.

There are 13 MESA Engineering Programs (MEPs) located in public (UC and CSU) and private universities across the state. Centers assist college students in attaining four-year degrees in engineering and computer science by providing tutoring and academic skills workshops. In partnership with local industry leaders, MEP centers also provide career and professional development opportunities for students.

UC prepares California's teacher workforce and strengthens the skills of teachers throughout their career.

10.2.2 UC's teacher professional development and teacher preparation programs
Fall 2014



Source: UC Campuses

The University of California plays an important role in preparing teachers and providing teacher professional development. UC manages nearly 4,500 teacher professional development programs and about 300 teacher preparation programs.

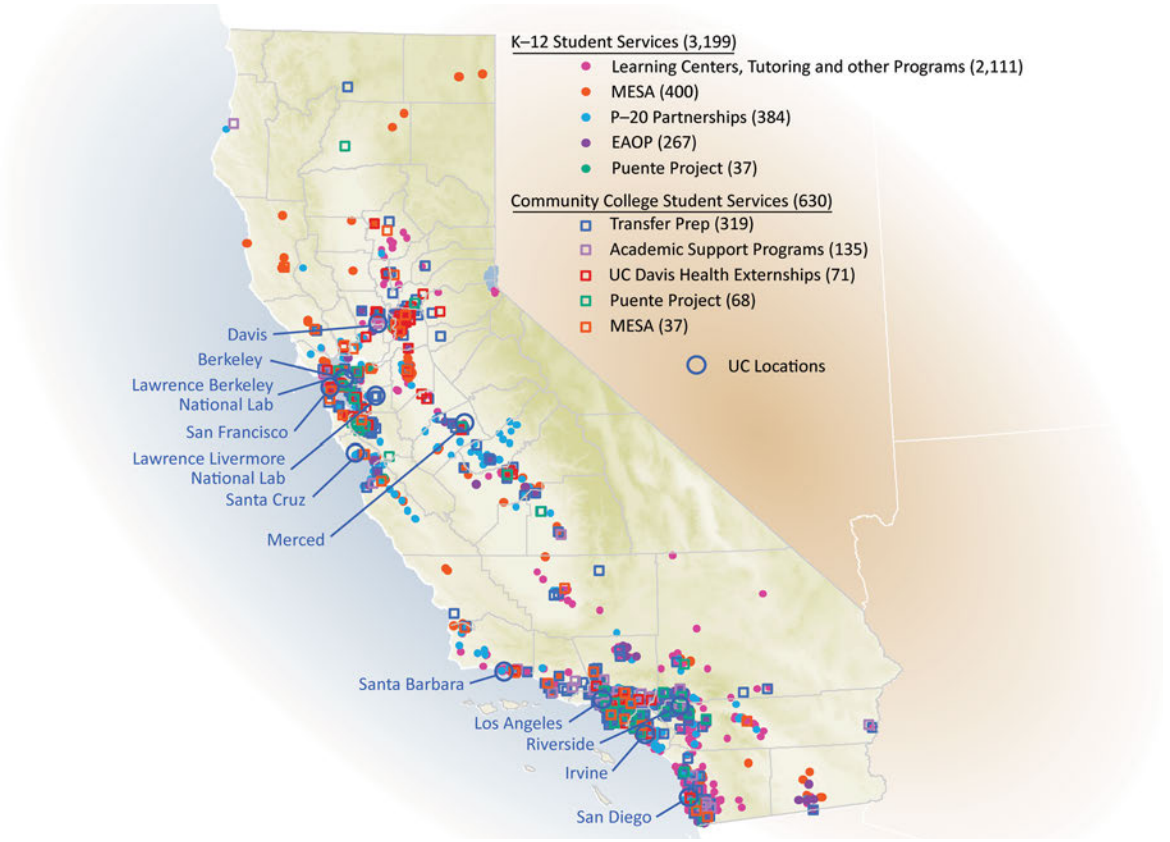
The California Subject Matter Project, for example, works to create sustainable teacher learning communities throughout California. Its network of nine discipline-based statewide projects supports quality professional development to improve instructional practices and student achievement across a variety of academic disciplines.

Teacher professional development activities include teacher workshops in areas related to Common Core State Standards, writing, mathematics and in-service teacher training.

Teacher preparation programs include CalTeach, a component of the Science and Mathematics Initiative (SMI). Through this program, UC recruits and prepares students majoring in mathematics and science for teaching careers, and provides special coursework and field experiences in K–12 schools. Since its inception in 2005, CalTeach has prepared close to 8,000 students to become teachers.

UC programs improve academic skills of K–12 and community college students across California.

10.2.3 UC's K–12 and community college student services
Fall 2014



Source: UC campuses

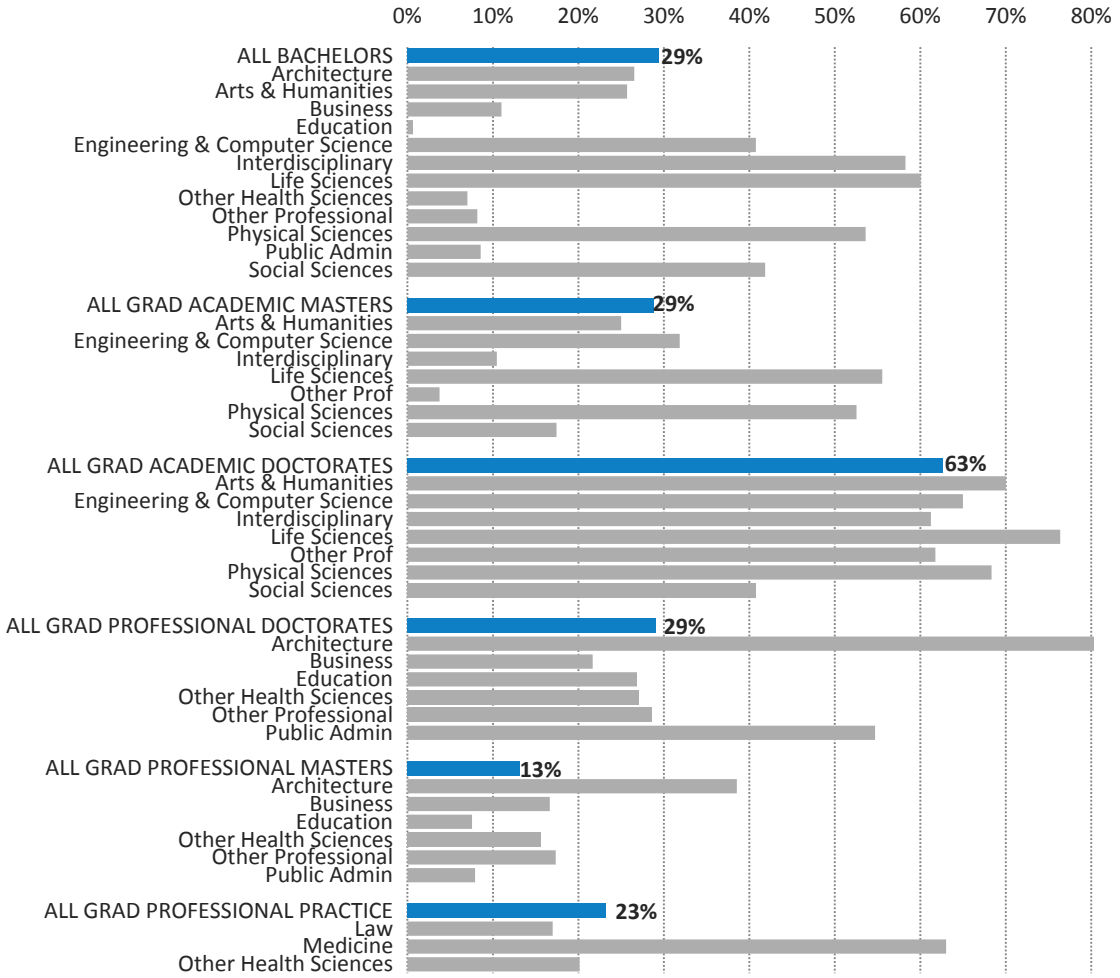
UC engages with K–12 and community college students in California through Student Academic Preparation and Educational Partnership (SAPEP) programs. Activities are centered on providing student academic preparation, community college articulation support, school and community partnerships, and online and technology-assisted services.

The goal of these programs is to promote student achievement by supporting academic preparation and college readiness activities. Programs include the Mathematics, Engineering, Science Achievement (MESA) program; the Early Academic Outreach Program (EAOP); the P-20 partnerships; the Puente Project, focusing on college-preparatory English skills; and the community college transfer programs (Transfer Prep), among others.

Collectively, SAPEP programs serve 960 K–12 public schools and over 77,000 students. Students who participate in SAPEP programs are more likely to complete their "a–g" course requirements (a pre-requisite for admission to UC and CSU) (77 percent of SAPEP participants vs. 39 percent of California high school graduates) and attend California public 2- and 4- year universities than those who do not participate (67 percent of SAPEP participants vs. 41 percent of California high school graduates).

UC produces nearly a third of all bachelor's degrees awarded in California each year.

10.2.4 UC's share of degrees awarded in California, by discipline
Universitywide
2012–13



Source: IPEDS[1]

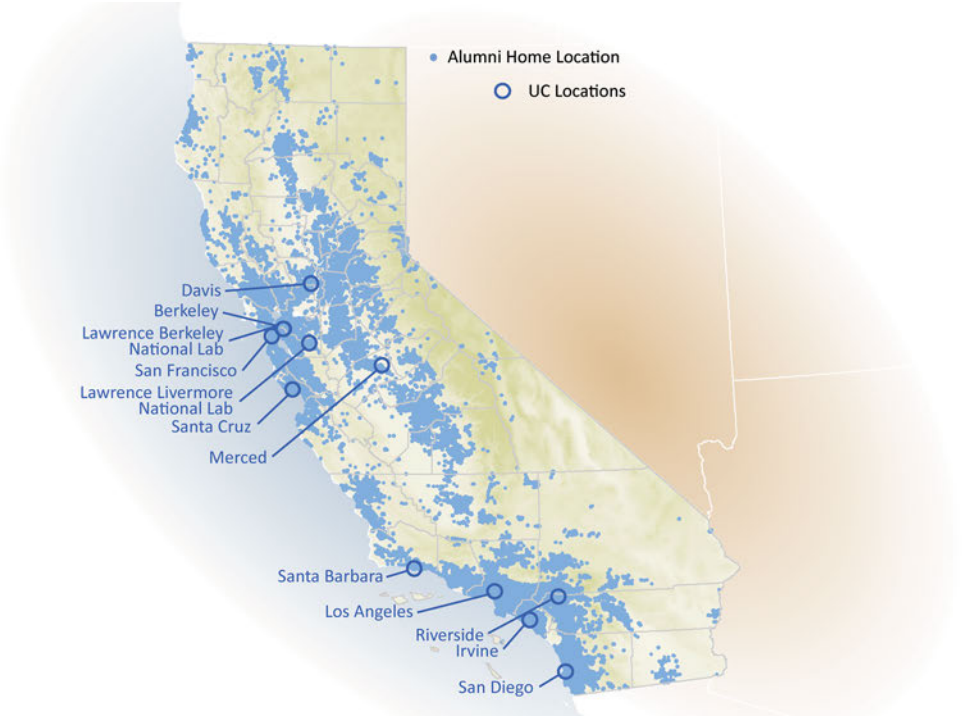
As California's economy becomes increasingly dependent on technology-dependent industries, the University of California plays an important role in educating the state's highly skilled workforce. UC contributes significantly to Science, Technology, Engineering and Mathematics (STEM) degrees, awarding 60 percent of the state's Life Sciences and more than 55 percent of the Physical Sciences bachelor's degrees.

In addition, UC awards more than 60 percent of statewide graduate medical professional practice degrees. Within public higher education, UC has exclusive jurisdiction for doctoral degrees (with the exceptions of CSU's doctorates of education and physical therapy, and joint doctorates with UC and independent institutions).

[1] Excludes for-profit and specialized institutions.

Of UC's more than 1.6 million living alumni, many reside within California.

10.3.1 Home residence of UC alumni
Fall 2014



Source: UC campuses

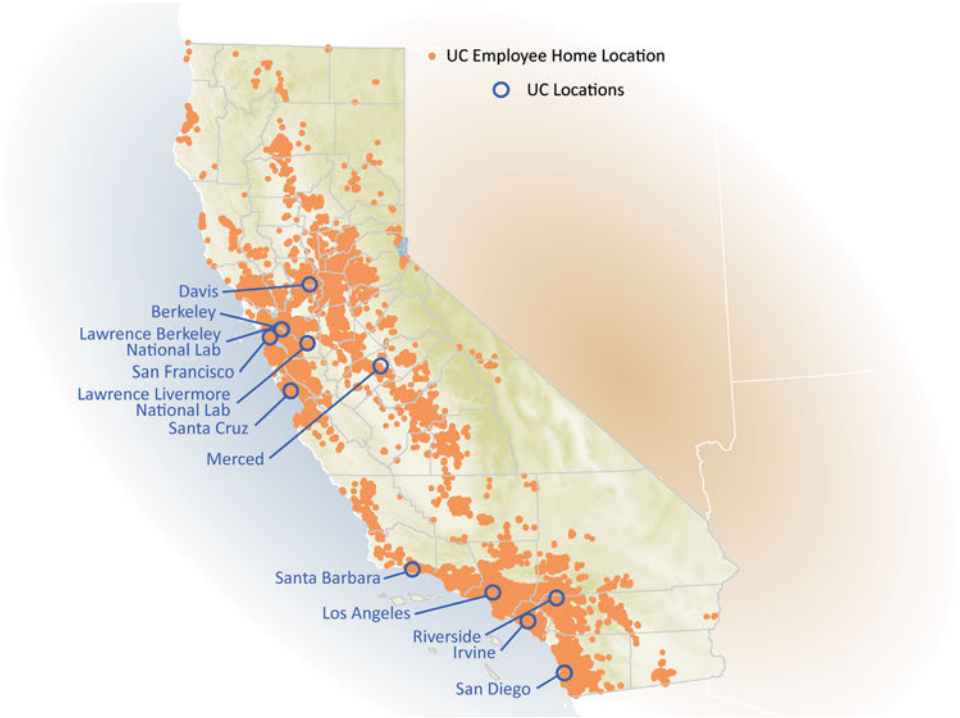
More than 1.2 million UC alumni live and work in California. They are leaders, volunteers and contributors to the vitality of our communities, our businesses and our culture.

UC alumni are an integral part of the state's workforce after graduation. Of the most recent graduating cohort, more than 70 percent of in-state students, about half of domestic nonresidents and one-fourth of international students were found working in California after two years.[1]

[1] These data are based on CA Employment Development Department data and exclude federal employees and those who are self-employed.

UC is one of California's largest employers, with close to 200,000 employees.

10.3.2 Faculty, academics and staff employees
2013–14



Source: UC Information Center Data Warehouse

The University of California employs approximately 200,000 faculty, academics and staff, making it one of the largest employers in California. With its employees residing throughout the state, UC's economic impact goes well beyond its ten campus locations. Members of its workforce purchase goods and contribute to local economies across the state.

All told, the ripple effect of UC's operations generates more than $46 billion in economic activity statewide. In addition to the current employees shown on this map, 40,000 of UC's retirees continue to reside in California.


PUBLIC
DEFENDER
Treatments developed at UC, like this hepatitis B vaccine, have saved millions of lives and improved millions more.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Chapter 11. UC Health

Goals

Under California's "Master Plan for Higher Education," the University of California is delegated the 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 private 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 are national and international leaders in teaching, research and clinical care. In support of these programs, UC provides leadership and strategic direction to advance the missions of the University's 17 health professional schools and 12 hospitals, referred to collectively as UC Health.[1]

UC's mission of instruction, research and public service is carried out across the entire system, but a great portion of the service activity, measured in terms of operating expenditures, occurs under the auspices of UC Health. In 2013–14, operating expenditures for UC Health rose to about $12 billion, almost 45 percent of the University's total operating expenditures. Of this amount, $2.4 billion represented instructional activities, $1.8 billion was spent on research, and $7.3 billion was expended by the medical centers in the delivery of health care services.

[1] Data in this chapter exclude UCSF Benioff Children's Hospital Oakland except where noted.

In fall 2014, about 35 percent of all UC faculty worked in health science disciplines. These faculty made up about one-sixth of all ladder-rank faculty and more than one-half of all other faculty across the UC system. Ladder-rank faculty have duties primarily focused on teaching and research. Other faculty are primarily clinical faculty; other academics are primarily researchers.

In fall 2014, 43 percent of postdoctoral fellows were in health science disciplines.[2]

Educating health care professionals

The University of California operates the largest health sciences instructional program in the nation, enrolling more than 14,000 students annually. The systemwide instructional program includes six schools of medicine and three smaller medical education programs (located in Berkeley, in Fresno and at the Charles R. Drew University of Medicine and Science in Los Angeles); three schools of nursing (and one program in nursing science at Irvine); two schools each of dentistry, pharmacy and public health; and one school each of optometry and veterinary medicine. The long-standing medical education program that operated jointly between UC Riverside and UCLA for more than 30 years transitioned in 2013 to an independent UC medical school.

A focus on medical research

Health science research expenditures represent the single largest disciplinary focus of UC's research enterprise. Half of UC's total research expenditures were for medical research, including related fields such as public health and veterinary medicine. More than half of the funding for this medical research was provided by federal agency awards to UC.

Clinical trial research is an increasingly important component of UC's medical research enterprise. During 2013–14, there were more than 2,800 clinical

[2] 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.

trials underway systemwide, and of the $2.3 billion UC received that year in medical research awards, about 17 percent of the total was targeted for clinical trials. More than 80 percent of these clinical trial projects were sponsored by businesses.

These clinical trials occupy a unique position in UC's research enterprise. They represent the final stage in the journey from a scientific discovery or innovation to an effective therapy or treatment that could significantly enhance global health.

Keeping California healthy

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; they catalyze major advances in biomedical and clinical research; and they serve as California's fourth-largest health care delivery system, with about 42,000 employees, including approximately 12,000 nurses. UC operates or staffs five major trauma centers, providing half of all transplants and one-fourth of extensive burn care in the state. UC hospitals are also designated as Ebola treatment centers for the state. UC medical centers manage more than 159,000 inpatient admissions, 334,000 emergency room visits and 4.2 million outpatient visits each year. Nearly 60 percent of UC patients are covered by Medicare or Medi-Cal, or lack health insurance. 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 subject areas. For example, indicators related to students enrolled in UC professional degree programs are also included in Chapter 4 (Graduate Academic and Graduate Professional Degree Students). Chapter 5 (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 7. Research workforce indicators for medicine and health sciences, as well as indicators for general funding and expenditures, are included in Chapter 9 (Research — Increasing Public Knowledge).

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 sciences instruction and research expenditures, and the health sciences 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 by the Department of Finance to grow 39 percent from 2012 to 2060. Statewide shortages and maldistribution of health providers already exist in many health professions. These challenges will grow as health care reforms drive increasing demand for quality and accountability in the delivery of health services. At a time of unprecedented budgetary challenges, the financial success of UC medical centers has been an important resource for helping to back-fill diminishing state support for UC schools of medicine. However, the changing environment for health care signals changes that threaten this financial success and the ability of the medical centers to help support the academic mission of UC medical schools. Among these financial challenges are 1) reductions in federal and state spending for programs such as Medicare, Medi-Cal and the National Institutes of Health; and 2) challenges associated with the implementation of health care reform.

Notwithstanding these challenges and the uncertainties related to health reform, UC Health is working to support new initiatives and developments to help meet current and future health care needs. Within the health professions, these include the opening of the Betty Irene Moore

School of Nursing at UC Davis; the creation of new programs, at each UC medical school, in medical education focusing specifically on the needs of medically underserved communities; and the opening of a new medical school at UC Riverside, concentrating on the needs of California's Inland Empire, making UCR the first new allopathic (M.D.-granting) medical school to open in California in more than 40 years.

To recognize and accelerate implementation of innovative practices in clinical care, UC Health launched the UC Center for Health Quality and Innovation in 2010. The center promotes 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.

Leveraging Scale for Value

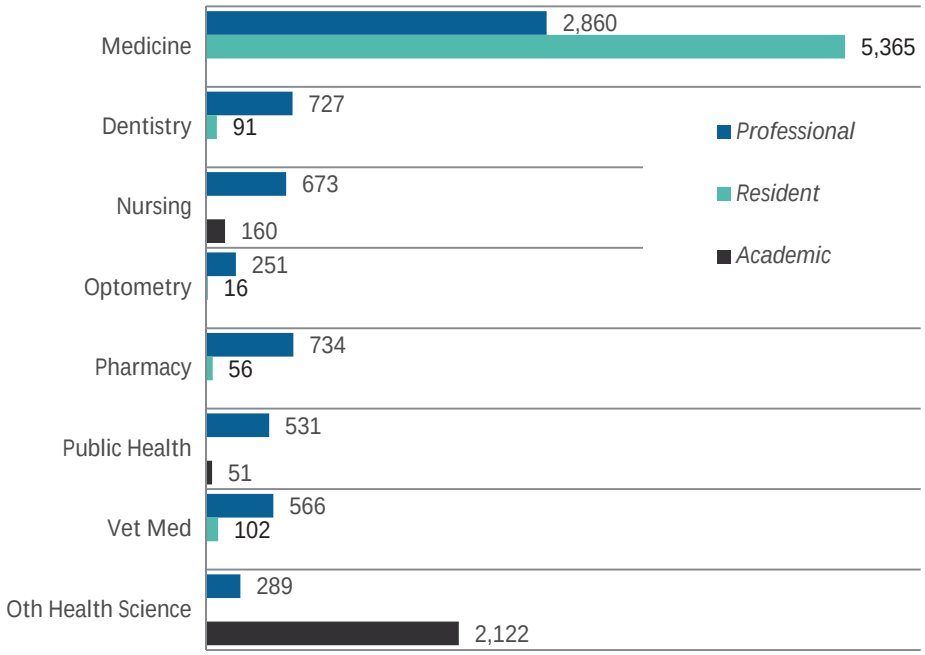
The Leveraging Scale for Value initiative is the systemwide approach to cost reduction in the UC Health clinical enterprise. The activity focuses on four areas — supply chain, revenue cycle, clinical laboratories and information technology — with a goal of achieving a $150 million to $200 million reduction in expenses each year for five years. UC Health is on target for a $50 million decrease in supply chain expenses for fiscal year 2015. The revenue cycle activities are on target for a yearly recurring benefit of $108 million to $143 million.

For more information

UC Health:
http://health.universityofcalifornia.edu

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

11.1.1 State-supported graduate health sciences students, by discipline
Universitywide
Fall 2014



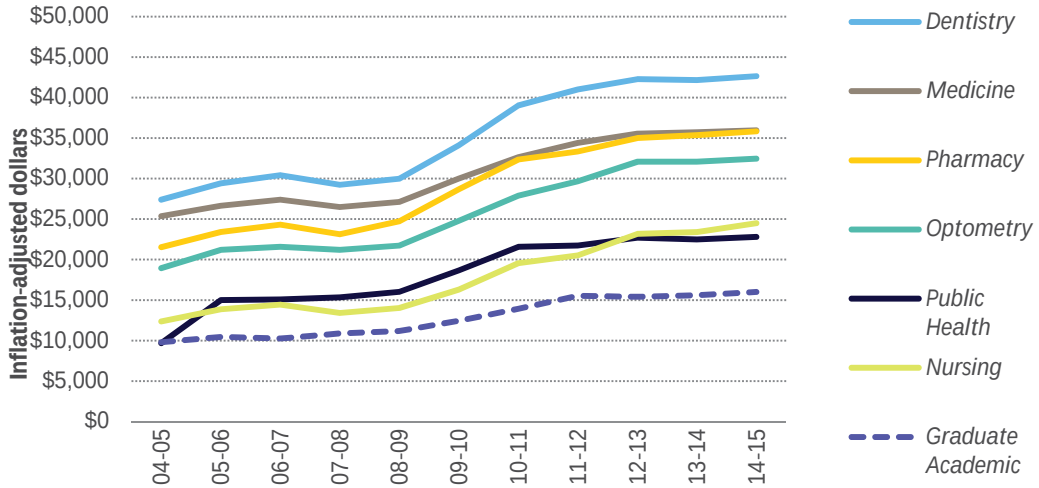
Source: UC Information Center Data Warehouse

Health sciences students are in one of three program categories: professional degree programs, academic programs or residency programs. Professional degree programs lead to degrees such as M.D., D.D.S or D.V.M. Academic programs lead to a master's or 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.

The other UC health science students shown above are in health-related life science disciplines, such as biomedical science, bioengineering, pharmacology, neuroscience and epidemiology.

Health science professional degree fees have leveled off after incurring sharp increases during years of declining state support.

11.1.2 Average total charges[1] for UC health professional degree students
Universitywide
2004–05 to 2014–15



Source: UC Budget Office and UC campuses

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.

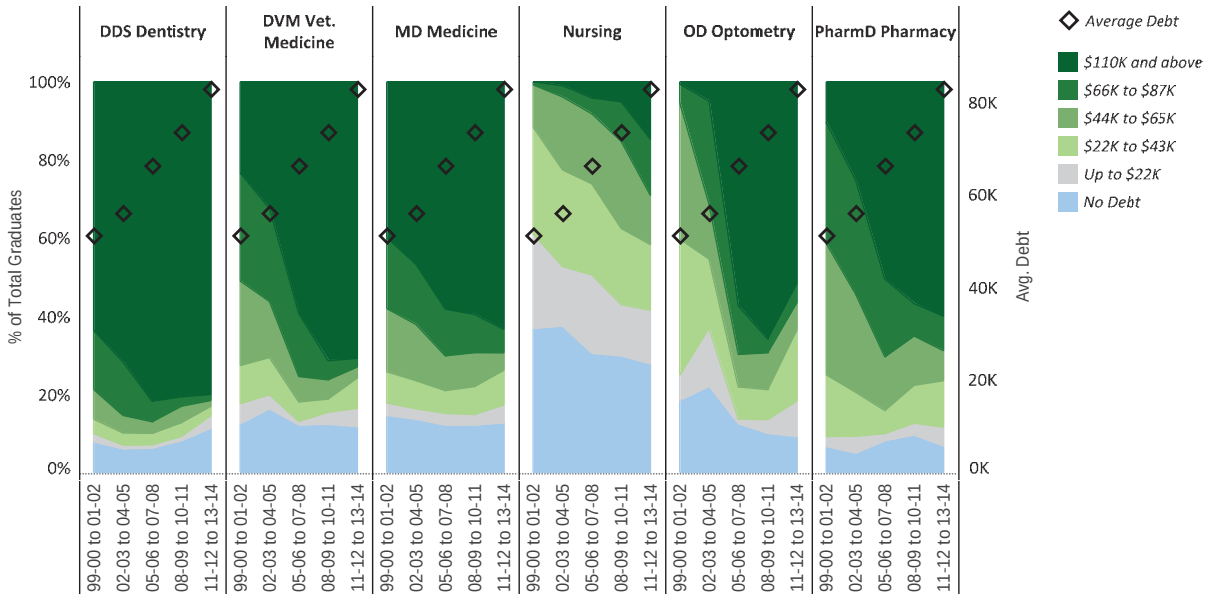
Professional degree fees (now referred to as professional degree supplemental tuition) vary across programs and across campuses; the figures shown above are the averages across all campuses with the associated programs.

State support for UC's professional schools declined significantly during recurring state fiscal crises. 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. Total charges now often exceed those of comparison public institutions and in some cases may be equal to or greater than the average for comparison private institutions.

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

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

11.1.3 UC health student debt at graduation
Universitywide
1999–2000 to 2013–14



Source: UC Corporate Student System[1]

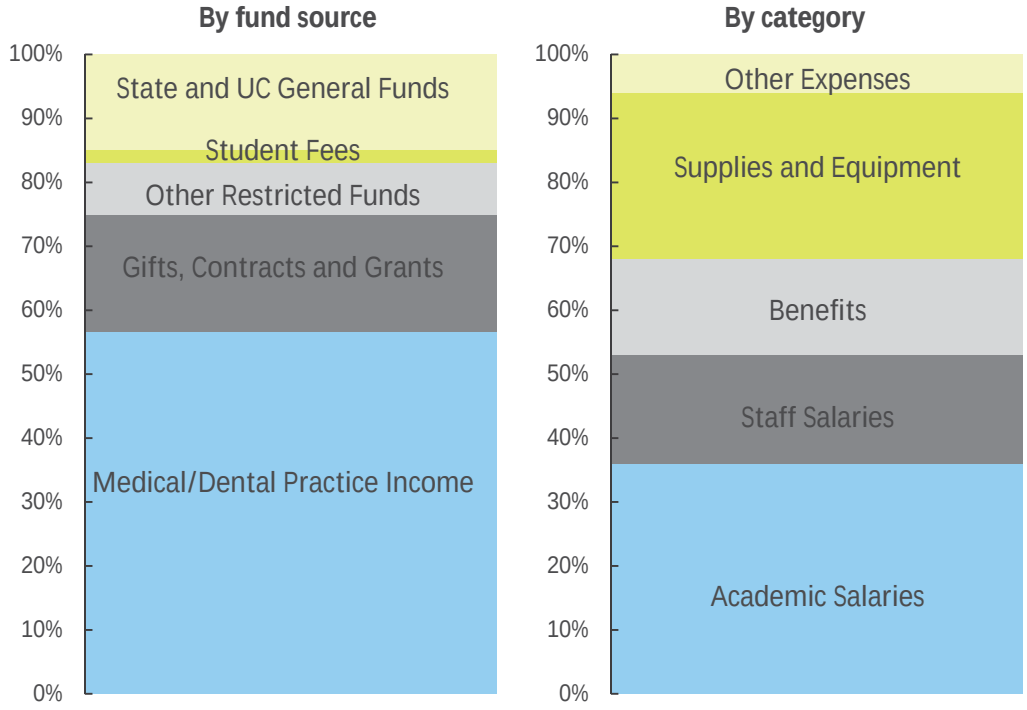
Increases in tuition over the past decade have increased the debt burden of UC health professional degree students. Rapid increases in the average student debt of graduates of UC schools of dentistry, medicine and veterinary medicine are illustrated in the figure shown above, and are representative of 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. 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 students. Anticipated debt levels are also identified as a major concern by students who have previously expressed interest in primary-care careers and/or practicing in a medically underserved community or health professional shortage area.

[1] Average debt is for those with debt.

Medical and dental practice income supported over half of the instructional expenditures in the health sciences in 2013–14 (primarily for their respective educational programs).

11.1.4 Health sciences instructional expenditures
Universitywide
2013–14



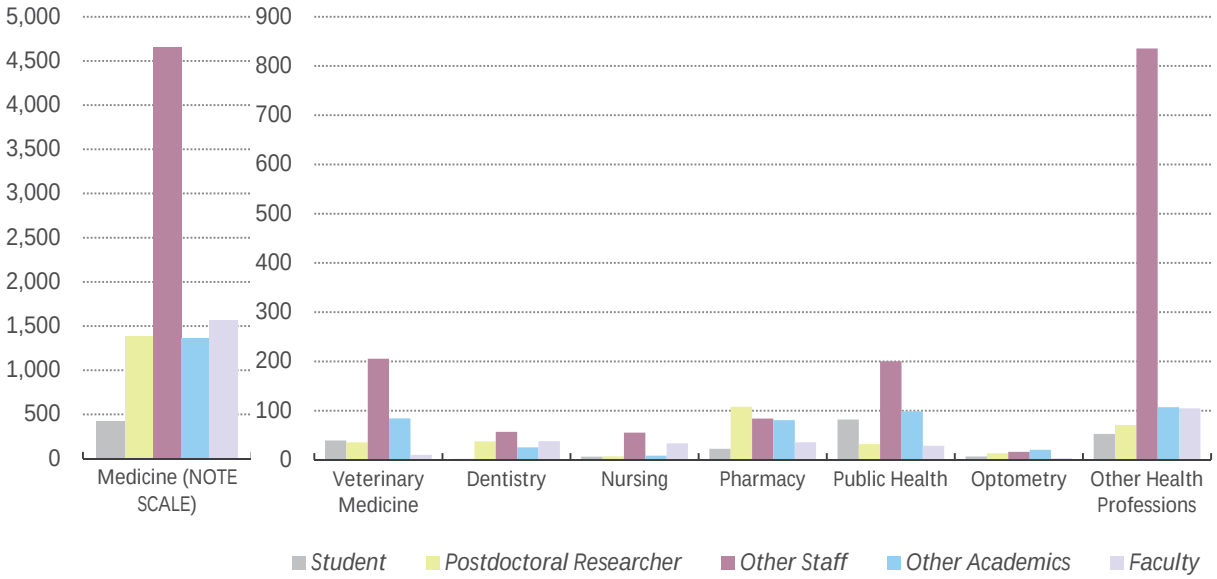
Source: UC 2015–16 Budget for Current Operations and UC Budget Office

Academic and staff salaries and benefits constitute nearly three-quarters of all health sciences instructional expenditures.

UC general funds provided about one-fourth of expenditures in health sciences instruction. Student fees, primarily professional school fees (i.e., professional degree supplemental tuition) also contributed to funding health sciences instruction.

Research in medicine constitutes the bulk of health science research and involves by far the largest number of faculty, staff and students.

11.2.1 Health science research workforce FTE [NOTE SCALES]
Universitywide
2013–14



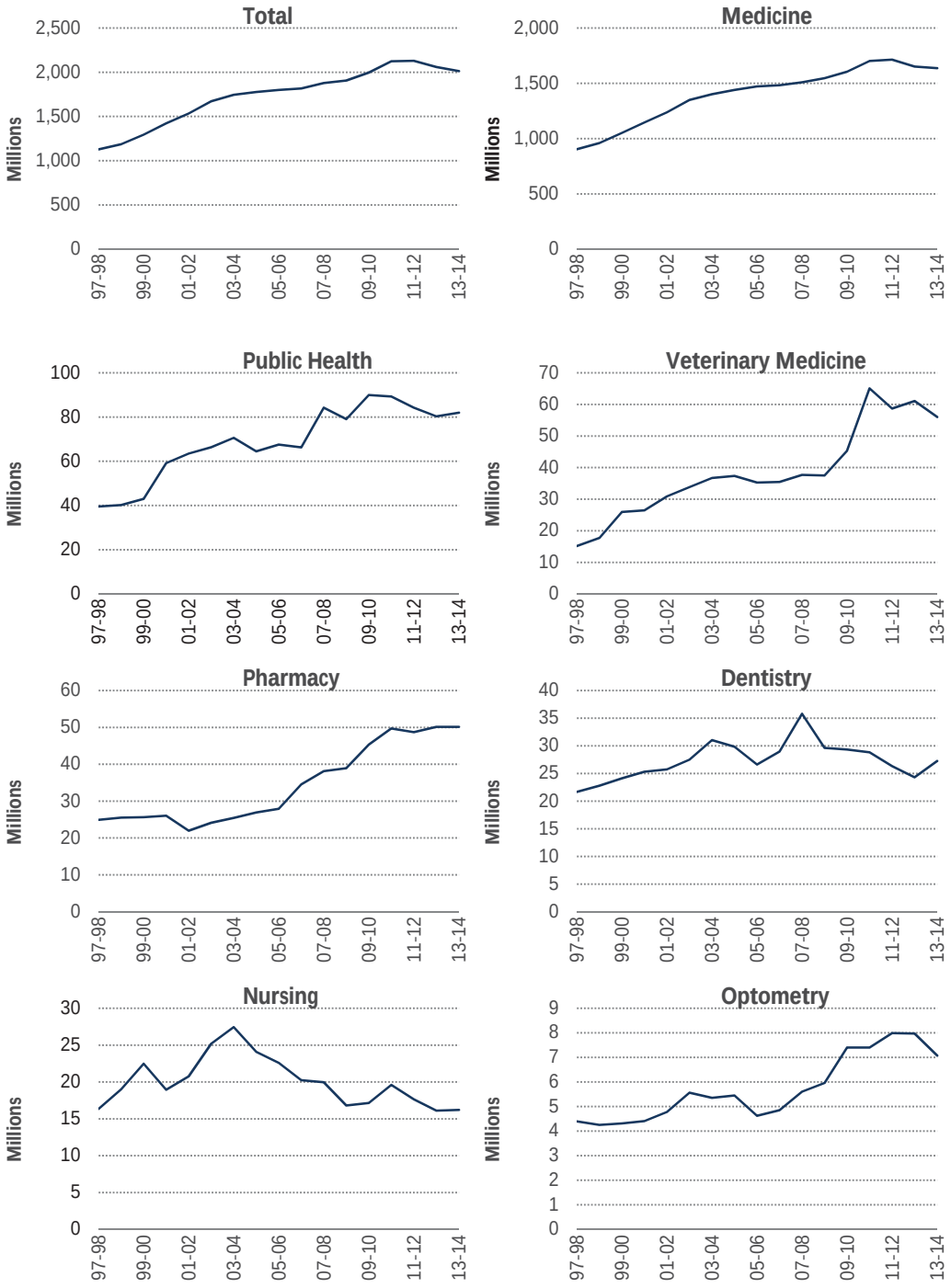
The approximately 12,000 FTE shown above represent about 27,000 headcount personnel. Students and staff assistants often have part-time appointments. Faculty and academics, in addition to their research duties, have joint appointments as instructors, administrators and clinical service providers.

Other academics are primarily project scientists, professional researchers, specialists, and medical interns and residents. Other staff includes research associates, technicians, laboratory services, computer programmers/analysts, social services and administrative support.

Source: UC Corporate Personnel System. Categories are based on UAS discipline assignment.

The general decline in federal research funding over the past few years has also affected health science research.

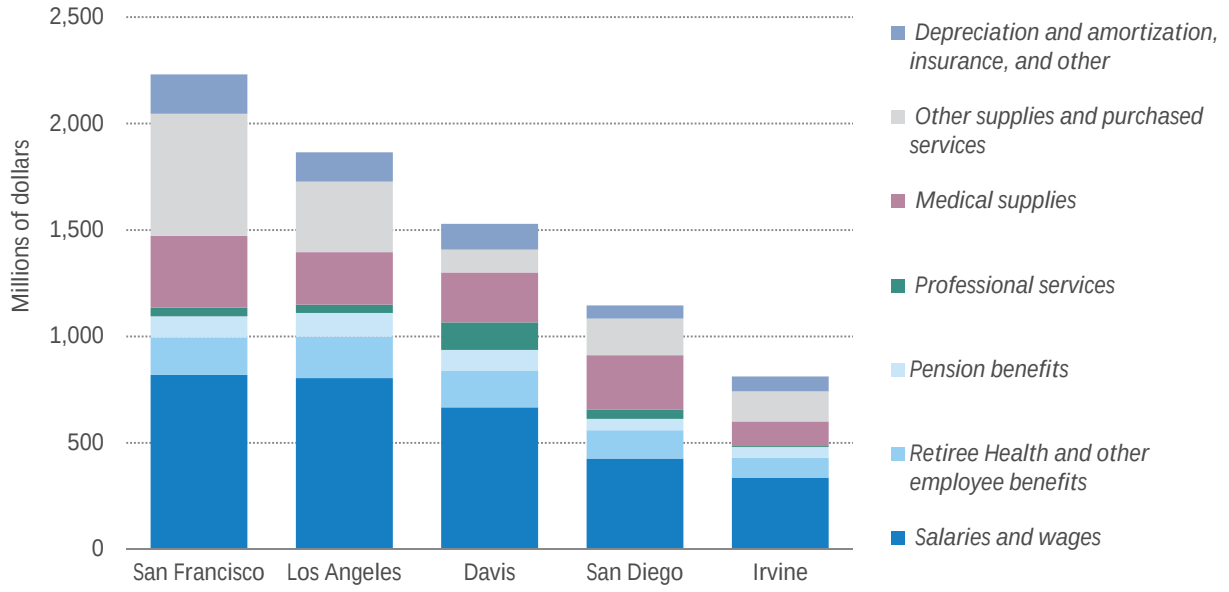
11.2.2 Research expenditures, by health science discipline [NOTE SCALES]
Universitywide
1997–98 to 2013–14



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

UC's five medical centers represent an enterprise of nearly $8 billion.

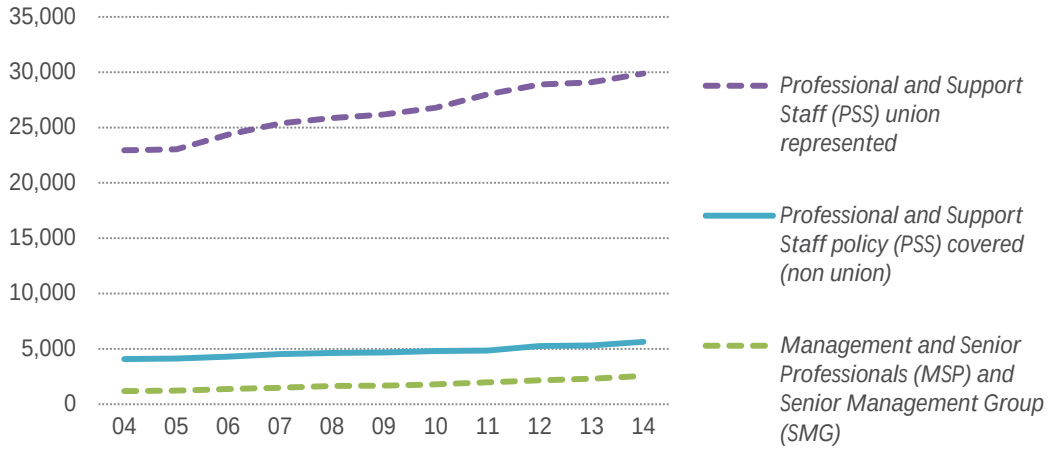
11.3.1 Medical center operating expenses
Universitywide
2013–14



Source: UC Medical Centers Audited Financial Statements. Due to new accounting standards implemented in 2014, prior-year data are not comparable. Children's Hospital and Research Center Oakland (CHRCO), which became a discrete unit of the University of California on January 1, 2014, is not shown.

The majority of medical center staff members 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 fall 2014

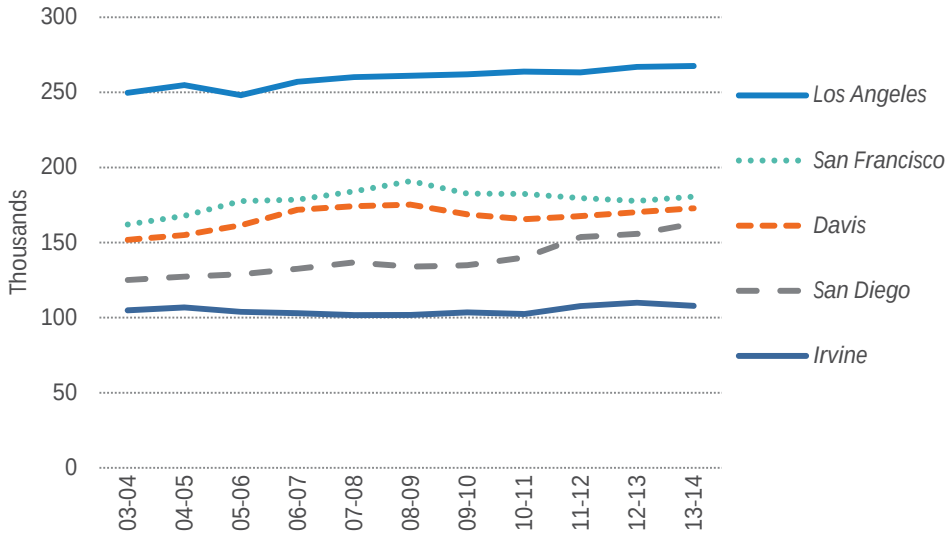


Source: UC Corporate Personnel System

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.

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

11.3.3 Hospital inpatient days
UC medical centers
2003–04 to 2013–14



Source: UC Medical Centers' Audited Financial Statements[1]

The University's academic medical centers operate in highly dense areas located throughout the state, including Orange, Sacramento, San Diego and Los Angeles counties, as well as the San Francisco Bay Area. Three of the five centers are former county hospitals. Each medical center has several primary care and specialty clinics distributed across 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.

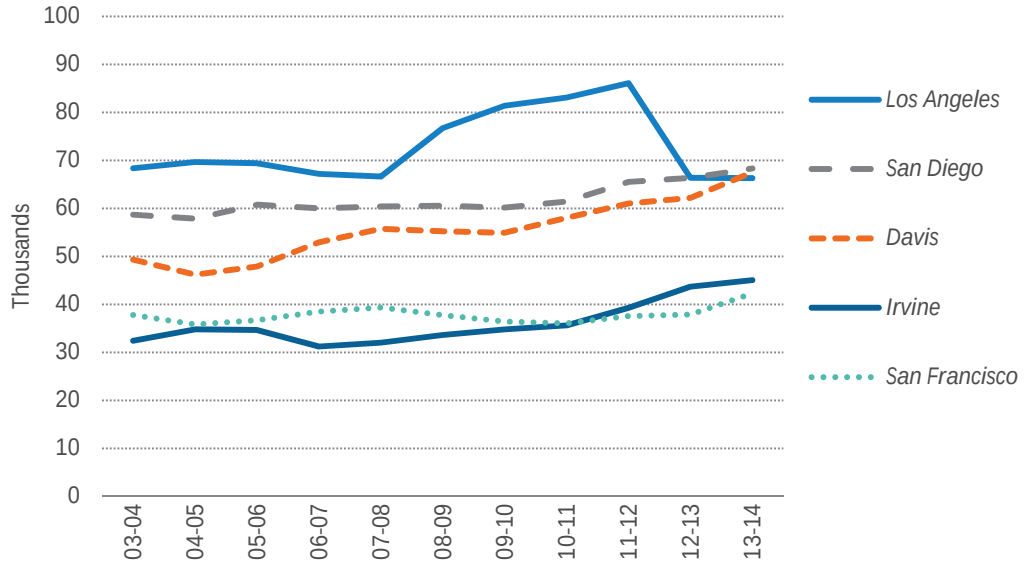
"Inpatient days" represents the total number of days that all patients spend in a hospital bed. The graph presented here displays the total number of inpatient days at the five UC medical centers.

[1] UCLA Medical Center = UCLA Medical Center, Ronald Reagan, Santa Monica and Resnick Neuropsychiatric
UCSD Medical Center = UCSD Medical Center, Hillcrest and Thornton
UCSF Medical Center = UCSF Medical Center, Parnassus and Mount Zion

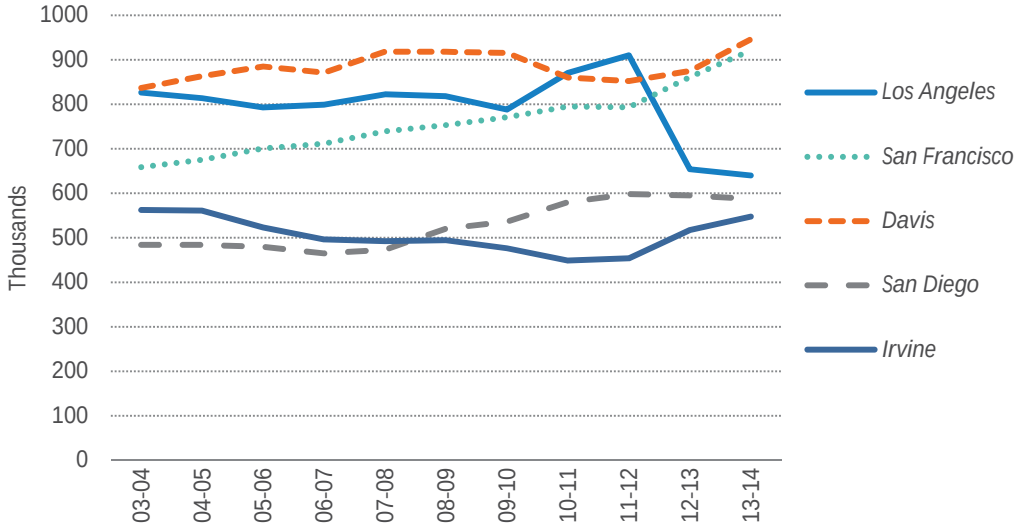
UC medical centers handle almost 4.2 million outpatient visits per year.

11.3.4 Outpatient visits
UC medical centers
2003–04 to 2013–14

Emergency visits (SCALE 0 to 100,000)



Other outpatient visits (includes home health, clinic and other visits) (SCALE 0 to 1 million)



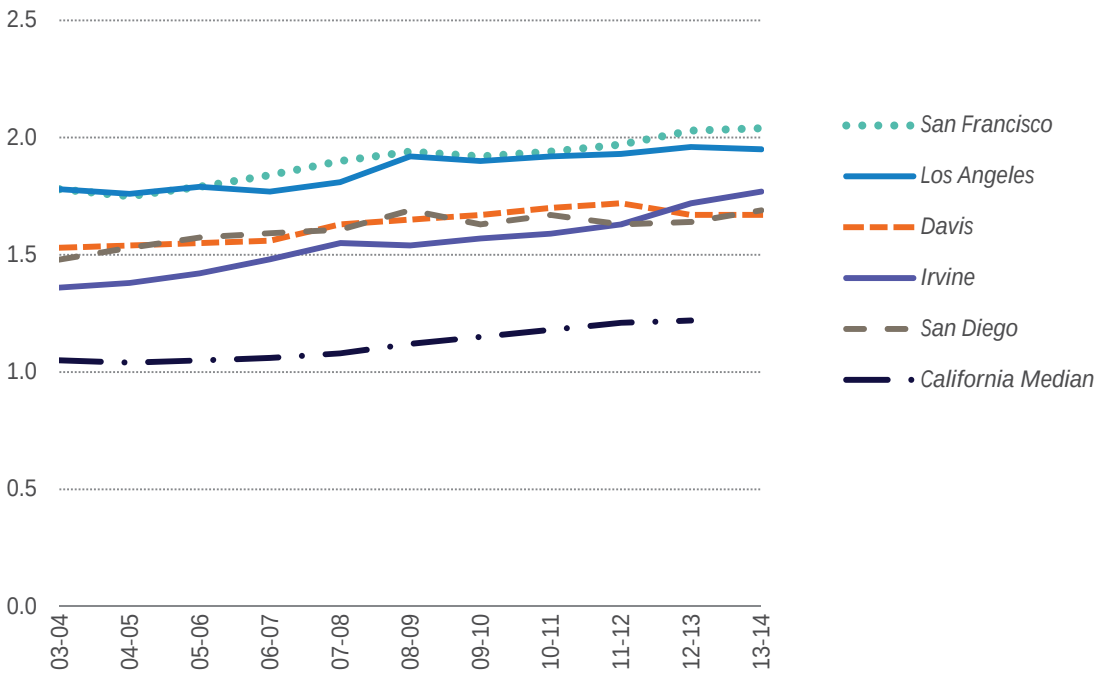
Source: UC Medical Centers Audited Financial Statements. Note that methodology changes at Los Angeles make year-over-year comparison problematic.

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.

The cases treated by UC medical centers tend to be more complicated than is typical for medical centers and hospitals in California.

11.3.5 Patient complexity
UC medical centers and California median
2003–04 to 2013–14



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 into 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 Finances and Private Giving

Background

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

This chapter summarizes the financial challenges that the University has faced through the 2013–14 fiscal year. Revenue and expenditure data show changes in both the amounts generated (or expended) over time and their distribution across areas of activity. Trends in private support are shown.

Funding trends

Totaling about $25 billion in 2013–14, the University's revenues fund its core mission and a wide range of support activities, including academic medical centers, the Lawrence Berkeley National Laboratory, UC Extension, and housing and dining services.

Prior to 2010–11, state funding was the largest single source of support for the education function of the University. Over the past ten years, state educational appropriations have fallen more than $1 billion in inflation-adjusted dollars despite UC's enrollment growth. State educational appropriations constituted only 10 percent of UC's operating budget in 2013–14 compared to 23 percent in 2001–02.

Tracking expenditures

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

What this means for students and families

Even though the actual, inflation-adjusted cost of educating a student at UC has dropped by 22 percent since 1990, the state's share of expenditures has fallen even more steeply. As a result, students and their families must bear a growing proportion of the cost of education. Even these increases in student fees have not made up for all of the reductions in state support.

Looking forward

The November 2012 passage of Proposition 30 by California voters, combined with improvements in the California economy, promise to bring some stability to the state budget and thus to the UC budget. UC met the recent budget challenges by reducing operating costs and identifying alternative sources of revenues.

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

UC will face additional financial challenges in the years to come as a result of demographic and social policy changes occurring nationwide. The population in the United States is aging and living longer. The University has adopted a series of measures designed to preserve the long-term viability of its pension and retiree health benefits while still providing attractive post-employment benefits for employees.

Similarly, as health care costs and insurance premiums continue to rise, UC will encounter mounting costs in providing subsidized health care coverage for its students, employees and retirees.

In addition, the Affordable Care Act is likely to have a profound effect on the finances of UC medical centers. Not only will there be a larger number of individuals with coverage requesting health care services, but certain reimbursements for Medicaid patients will also be reduced. These changes will affect all of American society, and UC, as a major employer and provider of health care services in the state of California, will not be exempt.

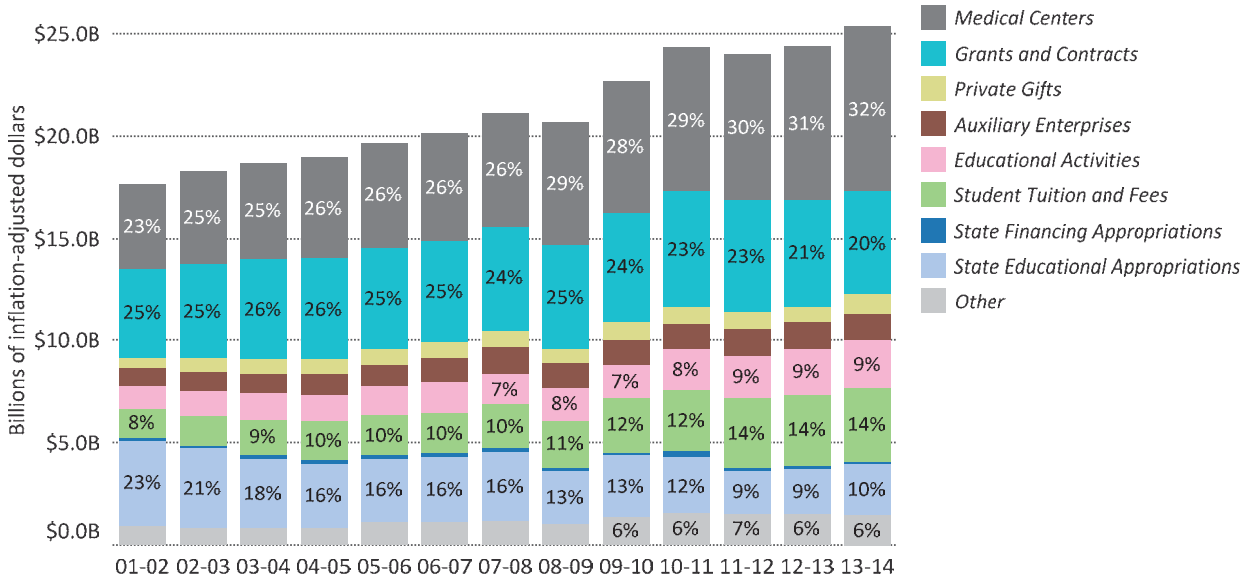
For more information

UC's operating budget:
www.ucop.edu/operating-budget/budgets-and-reports/index.html.

Annual Reports on University Private Support:
www.ucop.edu/institutional-advancement

Between 2001–02 and 2013–14, state educational appropriations decreased from 23 percent of UC revenues to 10 percent.

12.1.1 Revenues, by source
Universitywide
2001–02 to 2013–14

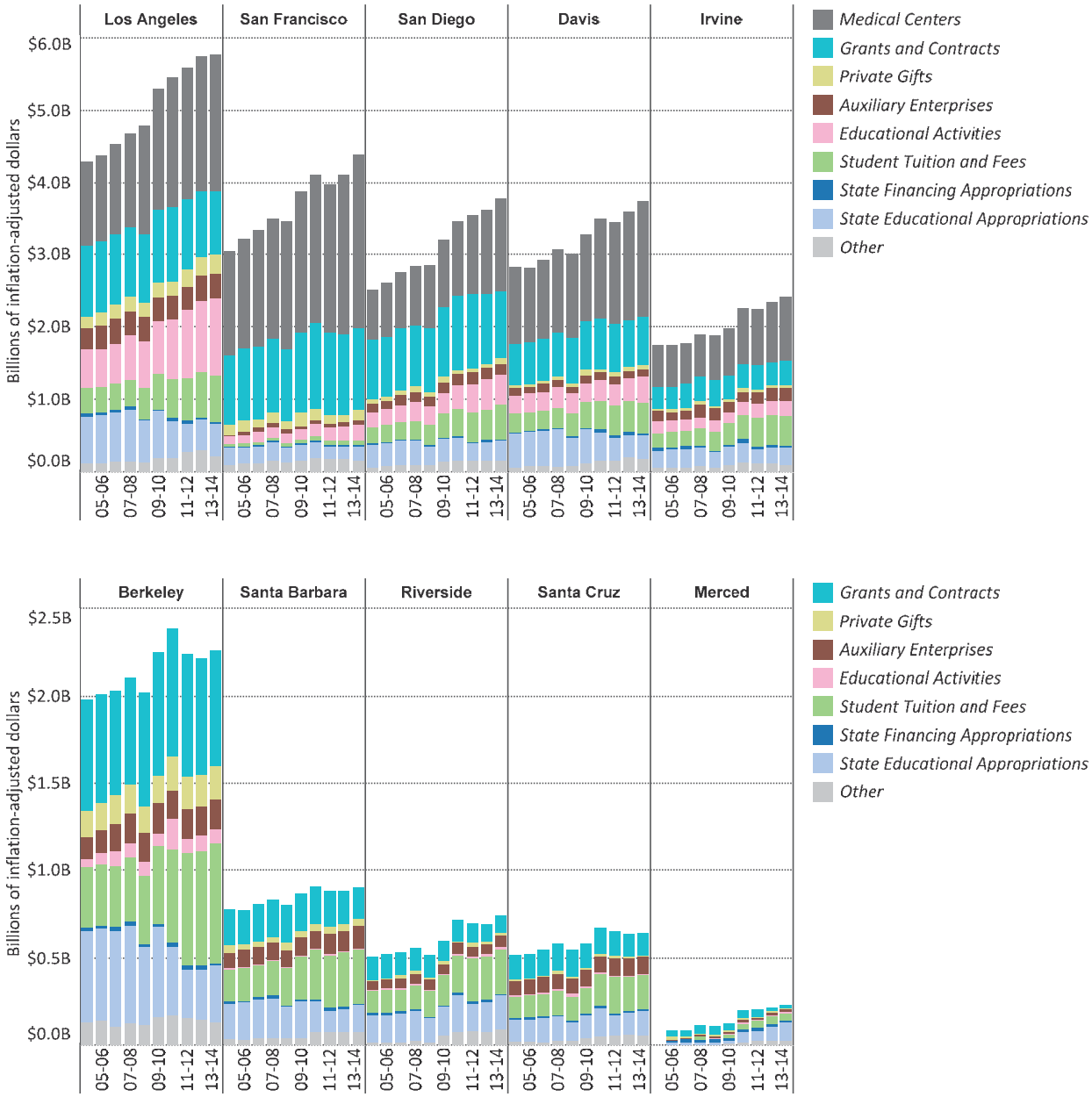


Source: UC Corporate Financial System (see footnote on following page)

The steep decline in state educational appropriations as a proportion of UC's total revenues over the past decade is a function of two trends: first, a long-term decline in state support from $4.1 billion to $2.4 billion in inflation-adjusted dollars; second, an increase in revenues from other sources, such as medical centers, contracts and grants, and student tuition and fees.

Private gift funding shown in the chart above does not include gifts to UC foundations ($897 million in 2013–14) that are reported in the foundations' audited financial statements and not in the UC-wide statements.

12.1.2 Revenues, by source
UC campuses
2004–05 to 2013–14

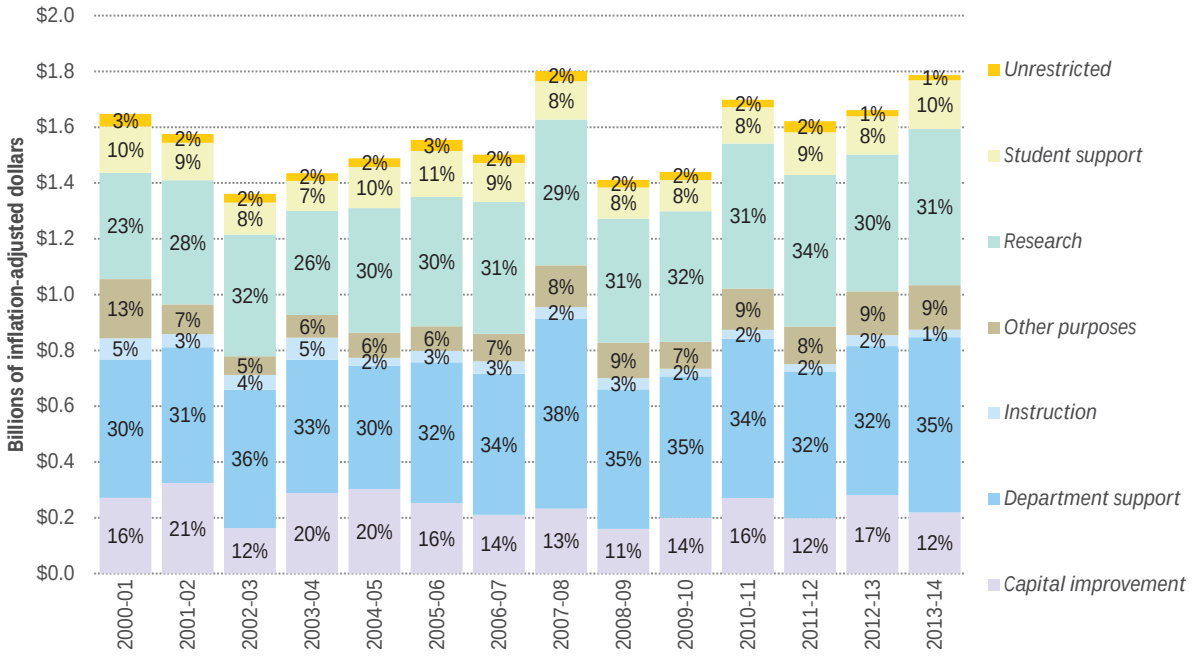


Source: UC Audited Financial Statements[1]

[1] Figures are in billions of inflation-adjusted 2013–14 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.

Virtually all gift funds (99 percent) are restricted by donors in how they may be used.

12.2.1 Current giving, by purpose
Universitywide
2000–01 to 2013–14



Source: UC Institutional Advancement, figures are adjusted for inflation

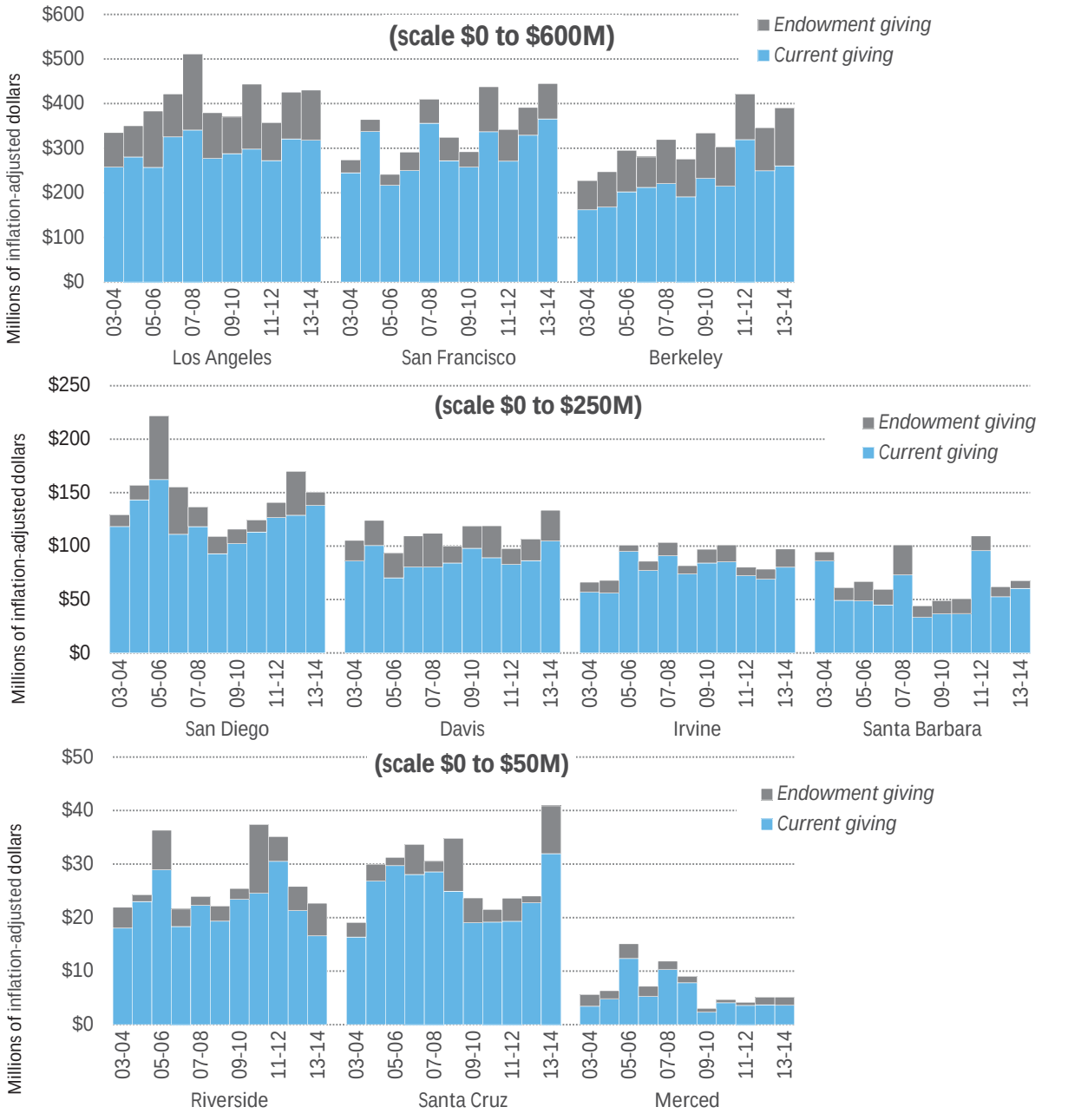
In 2013–14, new gifts to the University totaled more than $1.78 billion, an increase of approximately 9 percent over the prior year. Virtually all of these funds are restricted for specific purposes and are not available to support general operating costs. In addition, approximately $410 million was designated for endowment, so only the income/payout is available for expenditure.

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

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

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

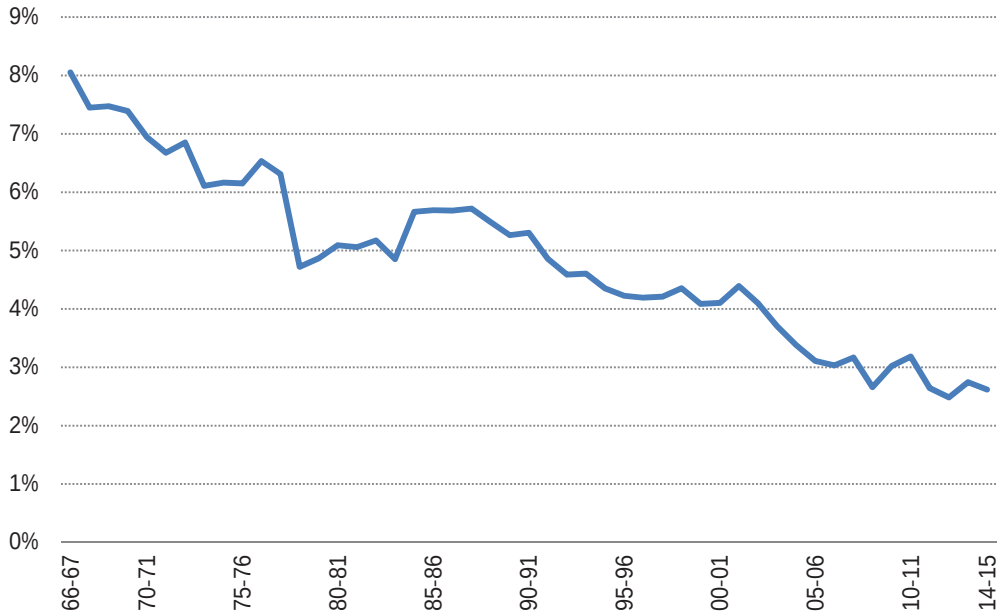
12.2.2 Total giving, by type
UC campuses
2003–04 to 2013–14



Source: Council on Aid to Education (CAE). Current giving includes all giving except for endowment giving.

The University's share of the state's general fund dropped from 8.1 percent in 1966–67 to 2.7 percent in 2014–15.

12.3.1 UC share of the state budget
1966–67 to 2014–15



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[1] and student fee revenue, state funding has provided relatively stable funding for faculty salaries and benefits, academic and administrative support, student services, facilities operation and maintenance, and student financial aid.

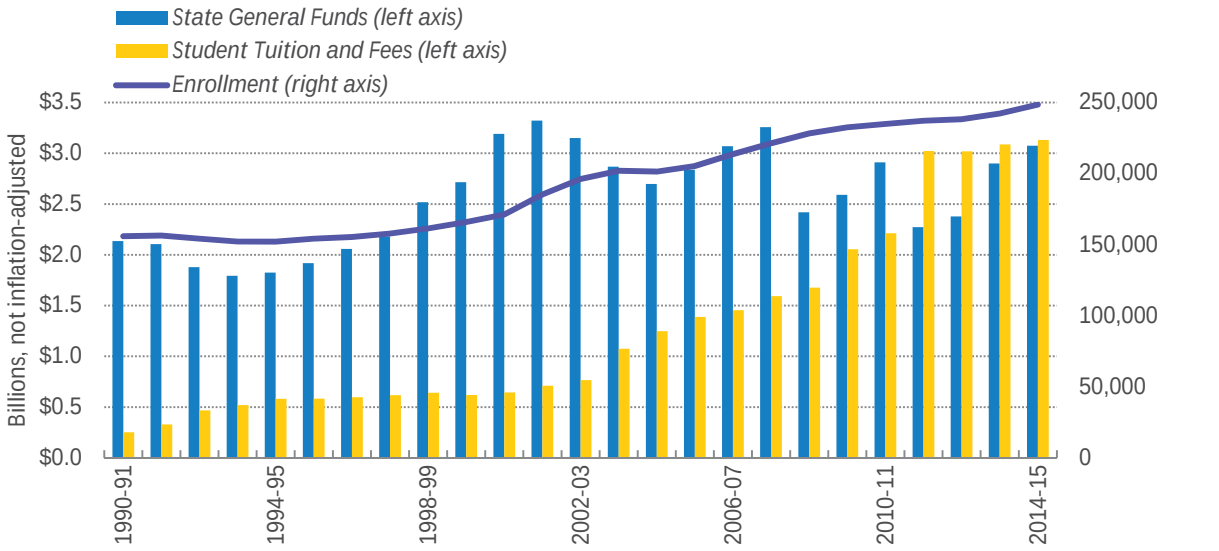
State support has fallen more than $1 billion in inflation-adjusted dollars since 1990–91. To compensate, the University has raised student tuition and fees, but these increases have only partially compensated for the loss of state support (indicator 12.3.2).

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

[1] UC general funds are composed mostly of nonresident tuition revenue and indirect cost recovery from research grants and contracts.

Tuition and fees have risen in response to cuts in state funds.

12.3.2 Revenues and student enrollment over time
Universitywide
1990–91 to 2014–15



Source: UC Budget Office

Since 1990–91, total student enrollment has increased by nearly 60 percent, primarily driven by the University's continuing commitment to accommodate eligible California resident undergraduates. While state support has not kept pace, student tuition and fees have risen to partially backfill the loss of state general funds.

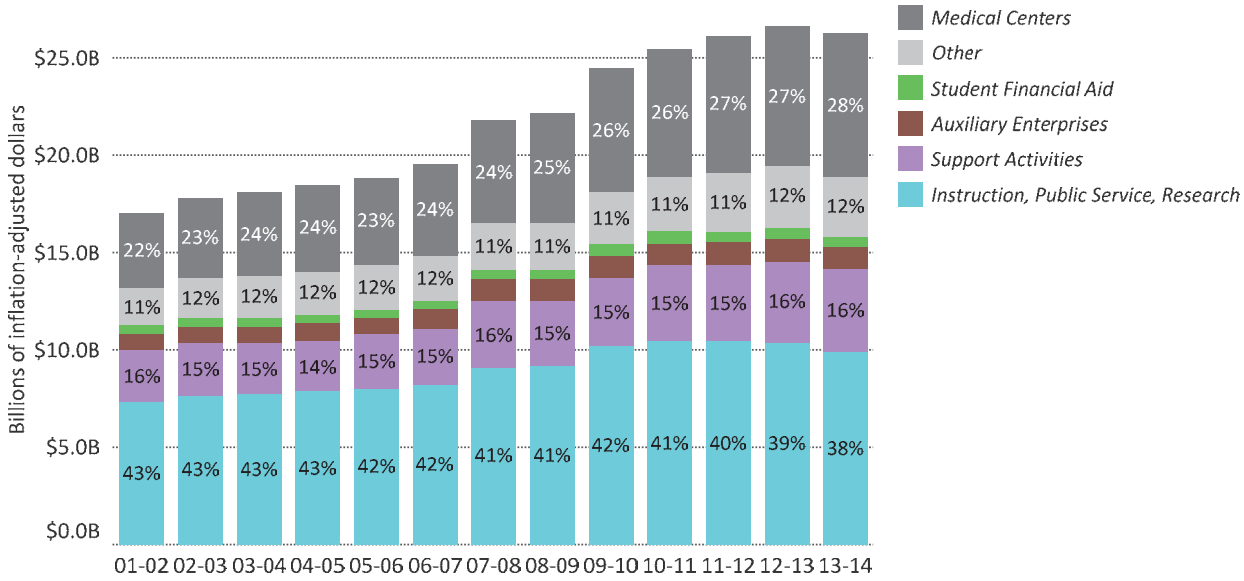
During the recession of the early 1990s, the University lost the equivalent of 20 percent of its state support. Later in the decade, as the economy recovered, significant funding increases were provided for enrollment growth, to avoid student fee increases and to maintain quality.

Another state fiscal crisis during the early 2000s resulted in reductions in state support during a time of rapid enrollment growth. Beginning in 2005–06, UC entered a six-year compact with the state. The state's budget shortfalls and the onset of the most recent financial crisis led the state to renege on the compact and resulted in significant reductions in state support. For two years, no funding was provided for enrollment growth, and UC's base budget was reduced. After partially restoring earlier cuts to UC's budget in 2010–11, the state reduced support to UC by $750 million in 2011–12. The University received $105.9 million in new state funding in 2012–13, including $89.1 million toward the state's share of employer contributions to the University's retirement plan.

In 2013–14, the University received $256.5 million in new state funding for operating purposes, including $125 million for a deferred tuition and fee buy-out for 2012–13. Additional one-time funding from debt restructuring provided $85.5 million in temporary state funds that was used to cover pension costs. In 2014–15, the state provided a $142.2 million, adjustment, equivalent to 5 percent of the base budget.

Total expenditures have increased by about 50 percent in the last decade, with medical centers representing an increasing share.

12.4.1 Expenditures, by function
Universitywide
2001–02 to 2013–14



Source: UC Audited Financial Statements[1]

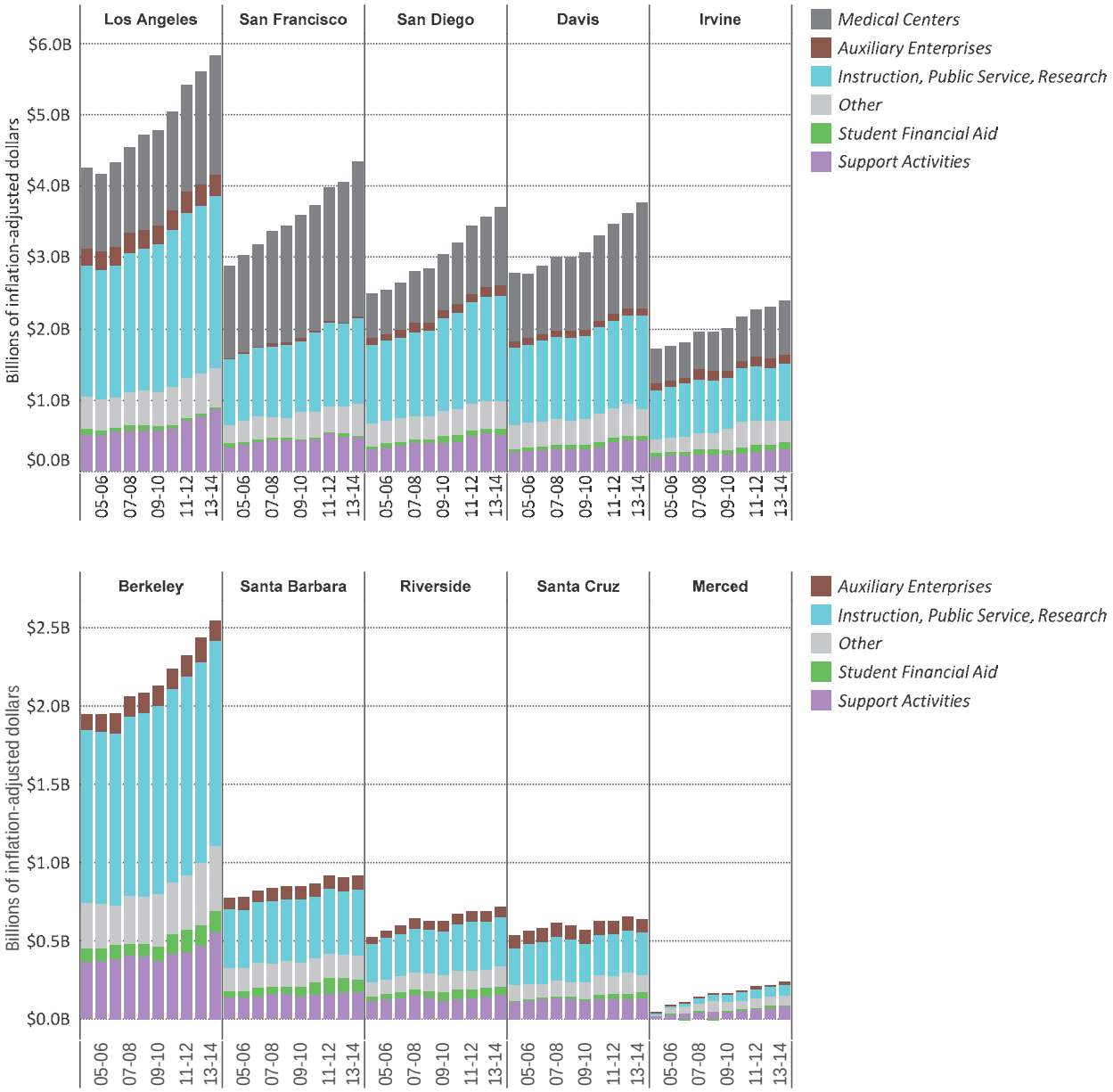
Instruction, research and public service accounted for 38 percent of total expenditures during 2013–14.

Medical centers accounted for 28 percent of operating expenditures in 2013–14.

Libraries and other academic support services, such as instructional technology, student services, administration, and operation and maintenance of plant, accounted for 16 percent of total expenditures.

[1] Figures are in billions of inflation-adjusted 2013–14 dollars. Medical centers refer to UC's teaching hospitals; auxiliaries include student housing and dining, and parking garages; other expenses include interest, depreciation and other miscellaneous expenses. Support activities include student services, institutional support and academic support. Department of Energy laboratories, including the Lawrence Berkeley National Laboratory, are not included in the data above. Audited financial statements are at www.universityofcalifornia.edu/reportingtransparency.

12.4.2 Expenditures, by function
UC campuses
2004–05 to 2013–14

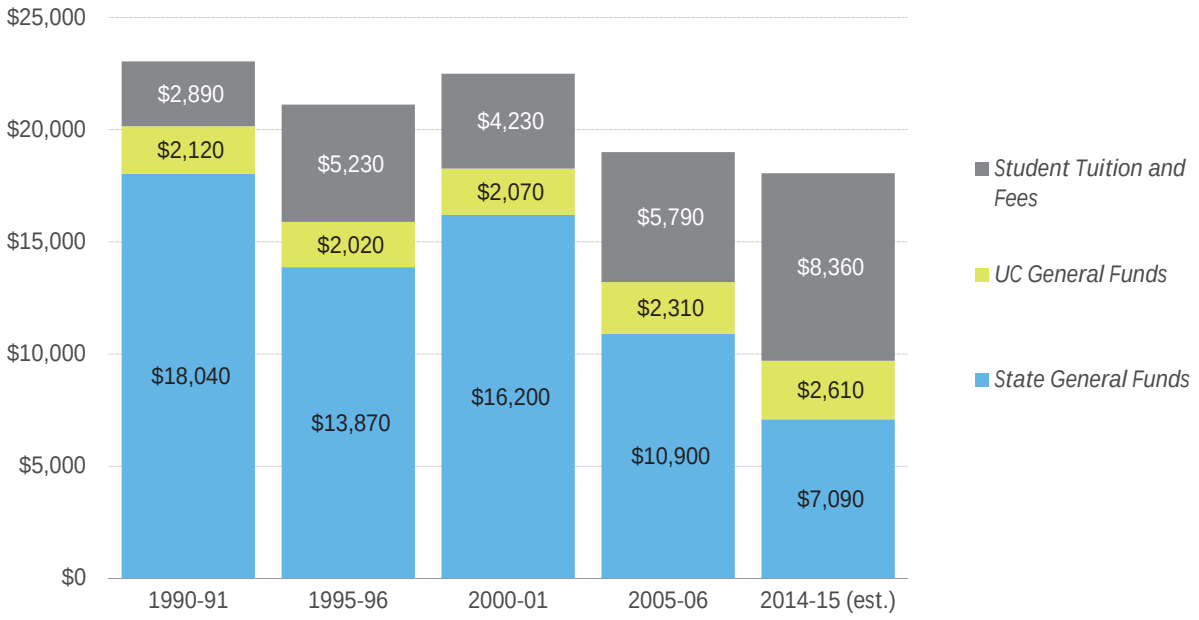


Source: UC Audited Financial Statements[1]

[1] Figures in billions of inflation-adjusted 2013–14 dollars. The Davis, Irvine, Los Angeles, San Diego and San Francisco campuses operate both 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.

Since 1990–91, the total cost of a UC education has declined by 22 percent per student. Students and their families have borne an ever-increasing share of that cost.

12.5.1 General campus per-student average expenditures for education
Universitywide
1990–1991 to 2014–15, selected years



Source: UC Budget Office

Since 1990–91, average inflation-adjusted expenditures for educating UC students have declined 22 percent. During the same time period, the state's share of expenditures has fallen even more steeply, by 61 percent. The share of expenditures borne by students in the form of fees has more than tripled, from 13 percent to 46 percent.

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


STOP

Chapter 13. Capital Program and Sustainability

UC's capital program

The University maintains more than 5,800 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.

Sources of capital funding

Historically, the majority of UC's core academic infrastructure projects were funded by the state. However, over the past decade, the state's contribution has fallen to about 15 percent, and external financing now plays the dominant role. Approximately half of UC's existing space is eligible for maintenance using state funds; the other half is occupied by self-supporting enterprises, such as parking and housing. Since the mid-1980s, state funding for capital renewal and deferred maintenance has been minimal and unpredictable, significantly affecting the University's limited resources and its ability to maintain its facilities.

Capital expenditures

During FY 2013–14, UC spent about $1.3 billion on capital projects, with nearly two-thirds of this amount funded from external financing. The majority of these projects, as well as those going back to at least 2009–10, were for projects aimed at core academic programs and aging facilities.

An expanding infrastructure

Since 2003, the space available to UC for program uses has increased by 15.7 million square feet. Even more space must be added to accommodate enrollment growth and expanding programs. In addition, UC must maintain and upgrade its facilities, more than half of which are at least 35 years old. Capital requirements for just the next five years are estimated at $6.7 billion, the great majority of which will be met through external financing.

UC's sustainability program

The University of California is a national leader in sustainability. The University affirmed its leadership position in 2007 when all ten chancellors signed the American College & University Presidents' Climate Commitment. Furthering this leadership, in November 2013, UC announced an initiative to achieve carbon neutrality by 2025. This initiative will make UC the first major research university to achieve carbon neutrality.

The initiative builds on UC's work on climate and carbon neutrality research (as detailed in Chapter 9) and furthers its leadership in sustainable business practices. UC is improving its energy efficiency, developing new sources of renewable energy and enacting a range of related strategies to cut carbon emissions.

The University's Policy on Sustainable Practices, updated in 2013, has multiple areas of focus: Climate Action, Green Building, Clean Energy, Transportation, Recycling and Waste Management, Environmentally Preferable Procurement and Sustainable Food Services. These efforts demonstrate the University's commitment to wise stewardship of its resources and the environment. UC continues to lead higher education in sustainability as demonstrated in the 2014 annual report on sustainable practices: http://ucop.edu/sustainability/_files/annual-sustainability-report2014.pdf

Successes noted in this year's report include $138M in cumulative avoided energy costs via Energy Efficiency Partnership projects; 23 megawatts of on-site renewable electrical generation (installed or under contract); and 191 LEED certifications, the most of any higher education institution in the country.

The University has formed an Energy Services Unit (ESU) to implement large systemwide renewable energy strategies using the University's capability to finance projects at favorable rates. The ESU is pursuing four strategies to achieve carbon neutrality:

1. Expand the highly successful statewide Energy Efficiency Partnership program.
2. Develop a wholesale power procurement strategy that provides a steadily increasing amount of renewable power.
3. Procure large quantities of biomethane (biogas) in lieu of natural gas.
4. Proactively manage UC's carbon allowances and offsets in compliance with California's cap-and-trade program.

For more information

Additional information about UC's capital program is on the Capital Projects Portal: www.ucop.edu/capital-resources-management/capital-projects-portal/index.html

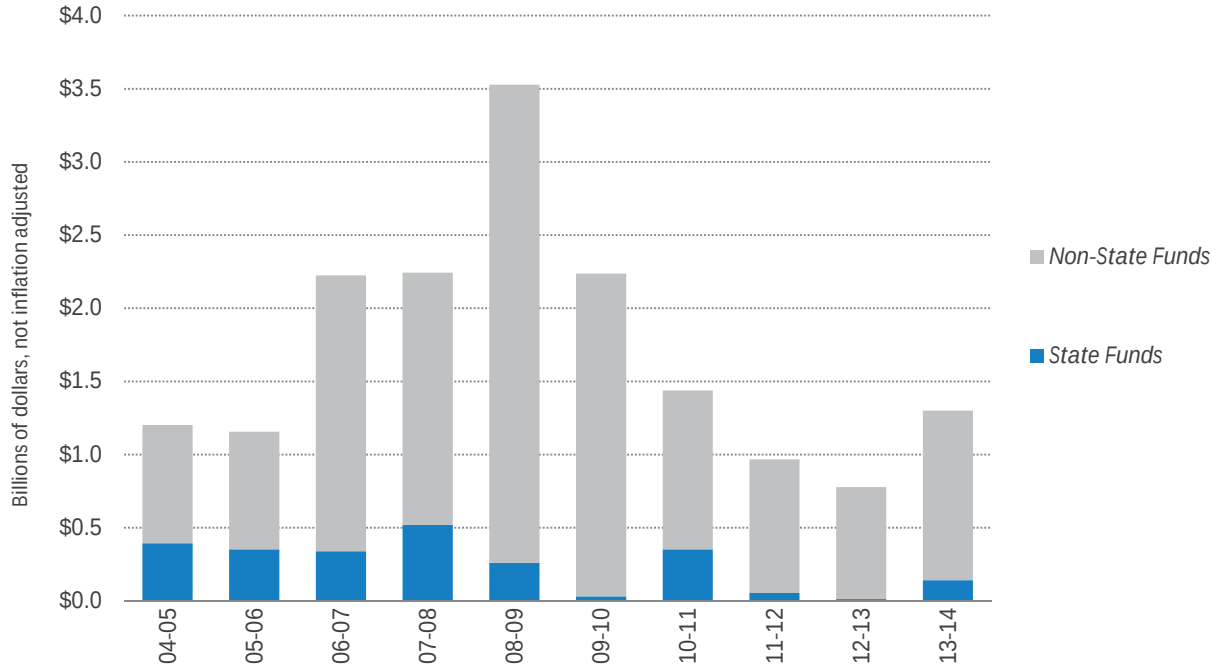
Information on UC's sustainability is at www.universityofcalifornia.edu/sustainability/

The UC Capital Resources Management office provides an annual report on major capital projects implementation: www.ucop.edu/design-services/_files/major-cap-reports/majcap1314.pdf

The office also develops the Capital Financial Plan, which outlines each campus's capital plan, lists proposed projects and their budgets, and provides background on campus strategic goals and priorities. Reference: www.ucop.edu/capital-planning/resources/2013-23-capital-financial-plan.html

The major portion of UC's capital project funding over the last ten years derives from nonstate fund sources.

13.1.1 Sources of capital spending
Universitywide, based on budgets approved each year
2004–05 to 2013–14



Source: UC Capital Programs

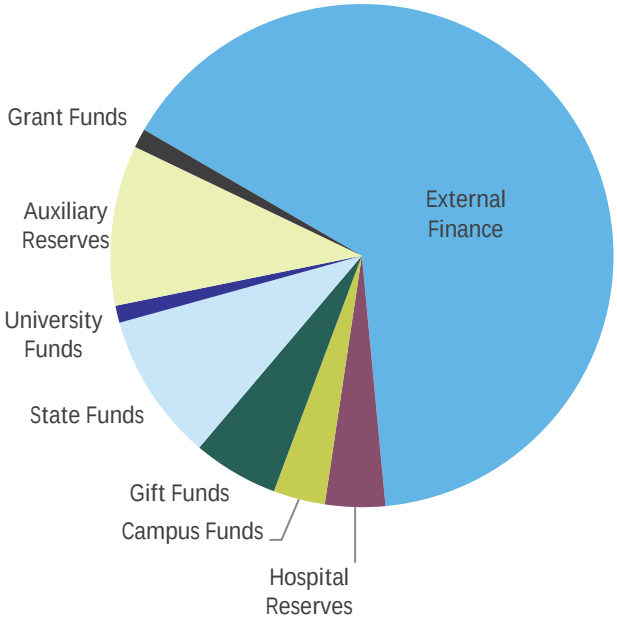
UC's capital program is funded by a combination of state and nonstate funds. State funds were historically the primary source of funding for core academic facilities. Nonstate sources fund self-supporting enterprises, such as housing, parking, athletics and medical enterprises, which are generally not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

State funding for the University's capital improvement projects has been unpredictable over the last five years as a result of the economic downturn and the state's objective to reduce its overall bond debt. The University had anticipated approval of general obligation bond measures in the past few voting cycles, yet these measures were never placed on the ballot. The last general obligation bond measure passed in November 2006. Over the past decade, nonstate funds, which include gifts, grants, bonds and other sources, have accounted for almost 85 percent of UC's capital program funding.

Nonstate funding represents a diverse set of fund sources to support the capital projects. The use of long-term debt has played an increasingly pivotal role in supporting the University's capital program.

Nearly two-thirds of the cost of capital projects during 2013–14 was met through external financing.

13.1.2 Sources of capital spending detail
Universitywide
2013–14



2013-14 Fund Sources (thousands)		
External Finance	$847,628	65.2%
Hospital Reserves	$50,158	3.9%
Campus Funds	$43,306	3.3%
Gift Funds	$71,469	5.5%
State Funds	$123,807	9.5%
University Funds	$14,267	1.1%
Auxiliary Reserves	$134,157	10.3%
Grant Funds	$15,828	1.2%
Total	**$1,300,260**	

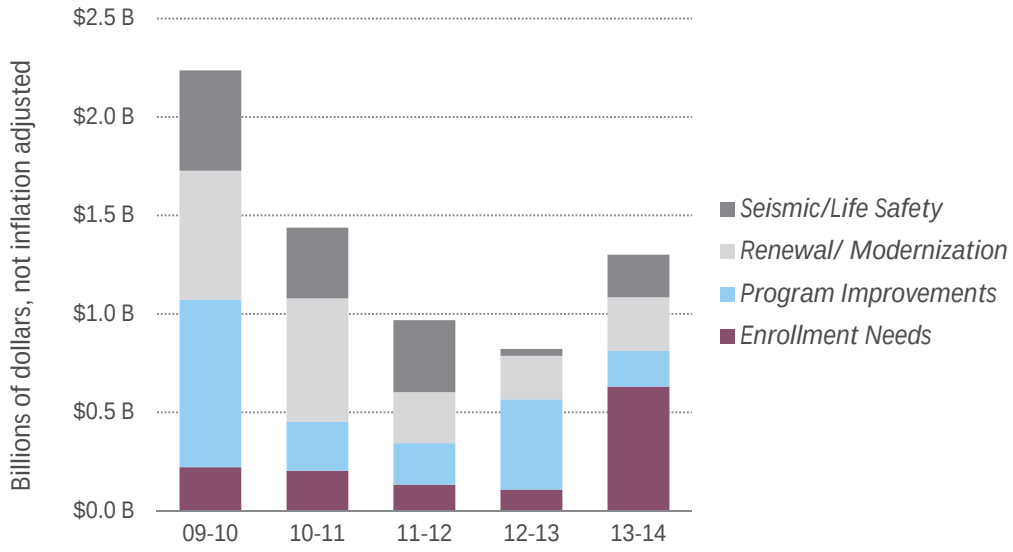
Source: UC Capital Programs

With state funds playing a declining role in UC's capital program, reliance on external financing has increased, and a new debt service model has emerged in response. The 2013–14 state legislative session saw a major change in how UC manages its debt service on capital outlay, which has a significant impact on capital programs. Assembly Bill No. 94 shifted this debt service from the state to the University. This allowed the University to refinance under more favorable terms than were available to the state.

More broadly, this legislation provided unprecedented and exceptional fiscal flexibility to the University of California. The University is now able, under certain conditions, to use its State General Fund allocation to finance a variety of capital needs: designing, constructing and equipping of academic facilities; addressing seismic and life safety needs; accommodating enrollment growth; modernizing out-of-date facilities; and expanding infrastructure to serve academic programs.

The majority of capital funds approved for expenditure between 2009–10 and 2013–14 went to projects addressing core academic programs and aging facilities.

13.1.3 Types of capital projects
Universitywide
2009–10 to 2013–14



Source: UC Capital Programs

Continuing enrollment growth has largely driven the University's requirement for new laboratories, classrooms, student housing and recreational facilities.

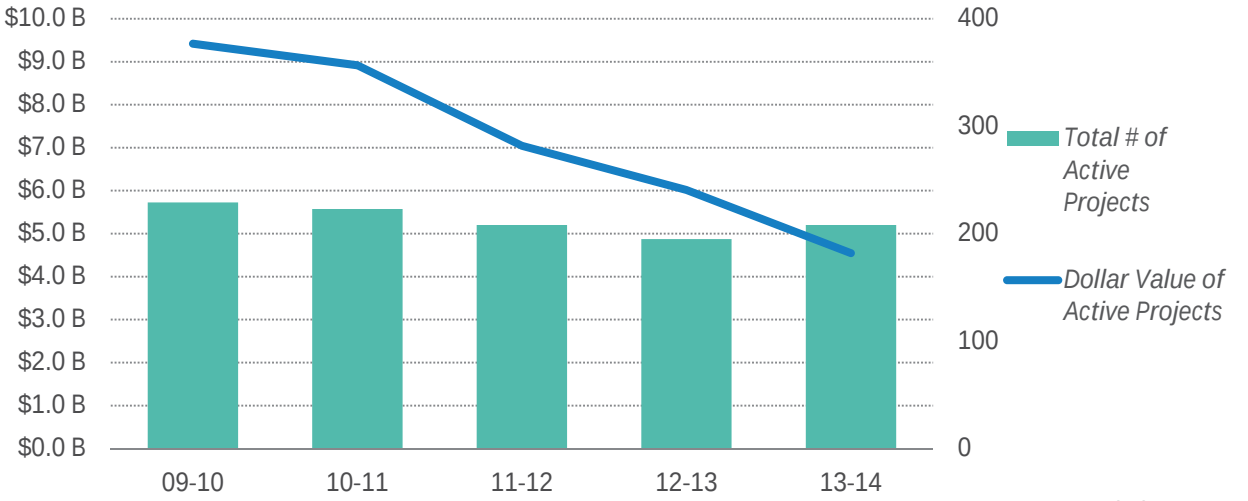
Academic, research and clinical priorities change over time. New program initiatives require specialized space, involving renovation of existing infrastructure or construction of new facilities.

From 2009–10 to 2013–14, the University devoted $1.5 billion to seismic and life-safety corrections to buildings. The University continues to review the seismic safety of its facilities, prioritize buildings for remediation and implement seismic upgrades.

Additionally, as campus facilities age, they must be renewed and modernized to ensure safety, extend the useful life of the buildings and improve energy efficiency. Heating, ventilation, electrical and plumbing systems, elevators, and roofs need periodic replacement and renewal during the lifespan of a building. Due principally to declining state support, the University has a substantial backlog of deferred maintenance.

The University's capital portfolio has declined slightly, reflecting the economic downturn in California.

13.1.4 Active projects
Universitywide
2009–10 to 2013–14



Source: UC Capital Programs

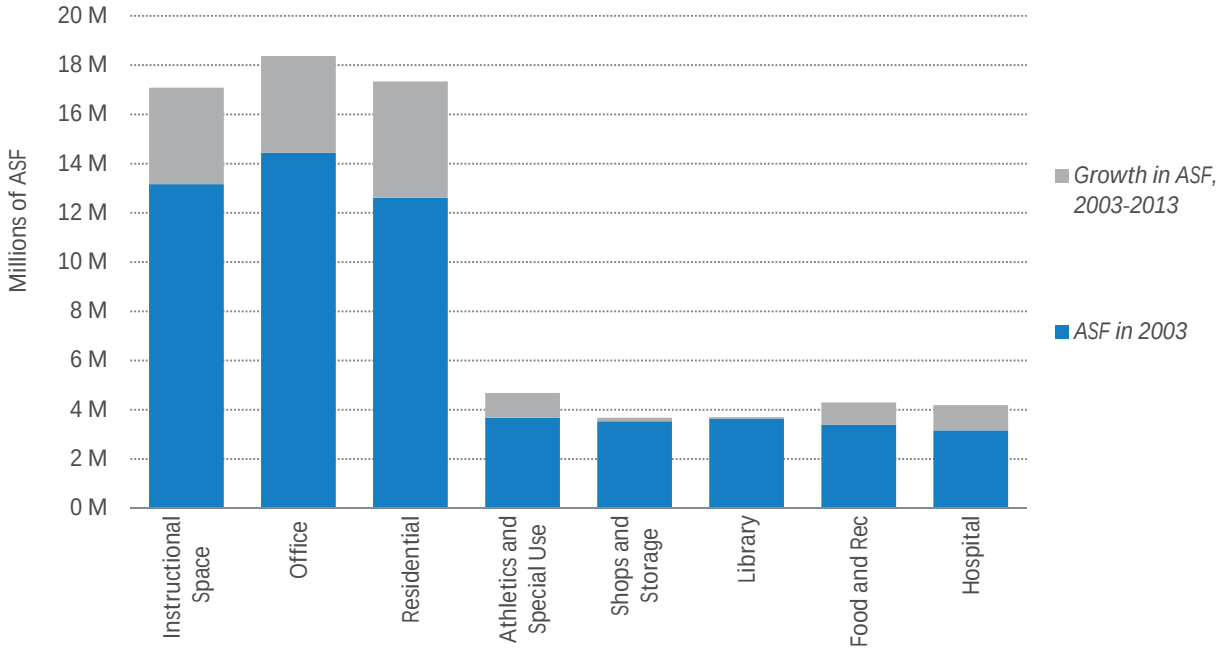
Active projects are those with approved budgets that are under design or construction at the end of each fiscal year. Because capital projects typically take from three to five years to design and construct, the data for any single year present a snapshot of a cumulative process going on over several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

The University continues to develop and implement efficiency strategies for facility design and construction. New models for planning office space, such as the Faculty Office Building at UCSF's Mission Bay, reorganize floor plans to reflect modern work patterns of group collaboration by eliminating many private offices, clustering open workspaces and providing ample shared meeting spaces in a variety of sizes.

The University has expanded its use of construction contracting, enabling campuses to match the needs of different types of projects with the most efficient construction delivery for that project, considering cost efficiency, speed of delivery, local business climate and other factors that vary by location, current market conditions and project type.

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)
Universitywide
2003 to 2013



Source: UC Capital Programs

Assignable square footage (ASF) is the space available for program uses. It does not include corridors, bathrooms or building infrastructure. Systemwide, space has increased by 15.7 million ASF since 2003, driven by several related growth factors.

Increases in the student population have required significant additions to athletic, recreational and food service space. Residential space has grown as campuses strive for more on-campus student housing to reduce environmental impacts from commuting, to improve air quality and to improve student life in living/learning communities. This is especially important for first-year students, many of whom are the first in their families to attend college.

Instructional, research and office space has also increased over the last ten years. In addition, UC Merced, the newest UC campus, continues to grow, and other campuses have experienced growth in specific disciplines or programs.

The University will need $6.7 billion over the next five years to address its most critical facility needs.

13.1.6 Infrastructure needs
Universitywide
2013–14 to 2017–18

University of California Infrastructure Report: 2014–15 to 2018–19 (millions)

Capital Infrastructure Needs	14–15	15–16	16–17	17–18	18–19	Total
Infrastructure Deficiencies	$433	$443	$448	$373	$465	**$2,162**
Renewal/Modernization	$579	$538	$543	$393	$665	**$2,718**
Enrollment/Program	$125	$213	$1,004	$110	$340	**$1,792**
Total	**$1,137**	**$1,194**	**$1,995**	**$876**	**$1,470**	**$6,672**

Source: UC Capital Programs

The University's Statewide Infrastructure Report: 2014–15 Through 2018–19 estimates that UC will need approximately $1.33 billion in capital funding on average each year over the next five years to address its most pressing facilities needs for academic-related space. Three major factors determine these needs:

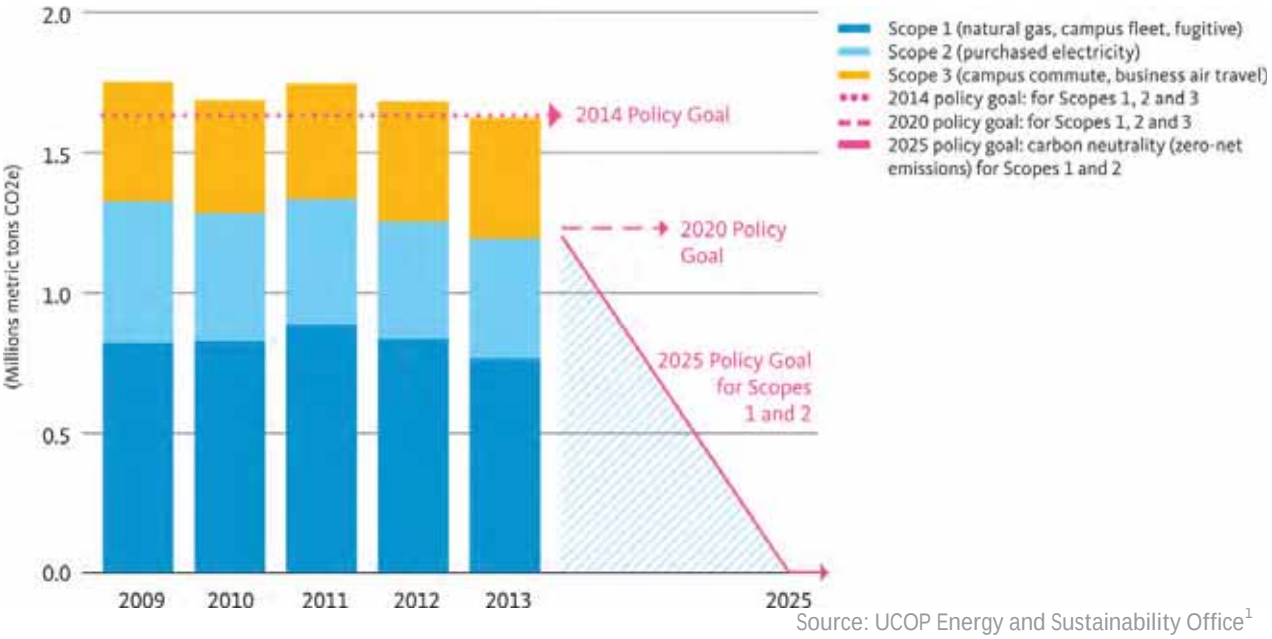
1) **Critical infrastructure deficiencies**. UC's planned program of seismic corrections is one of the University's highest priorities. With an estimated cost of approximately $2 billion, the program will be implemented over the next 10 to 15 years, depending on availability of funding. The University also has fire and other life-safety upgrades planned to meet updated code requirements.

2) **Systematic renewal and modernization of existing space to address obsolescence**. Even with recent investments in new facilities, more than half of the University's state-supportable facilities are 35-plus years old and require renewal and modernization. The need for funding to support systematic renewal and replacement of building systems has significantly outpaced available funds. In addition, facility improvements are needed to accommodate changing programmatic requirements.

3) **Enrollment and programmatic growth**. The University enrolls more students than were provided for by state funds, and as a result, UC is currently overenrolled. The system continues to experience extremely high demand from qualified students.

UC has made consistent progress toward its greenhouse gas emission goals.

13.2.1 Greenhouse gas emissions
Universitywide compared to Climate Goals
2009 to 2013



Source: UCOP Energy and Sustainability Office[1]

The University's greenhouse gas (GHG) emissions totaled 1.6 million metric tons carbon dioxide equivalent (CO_2e) in 2013. Forty-seven percent of the total emissions come from Scope 1 sources — natural gas, campus fleet and fugitive emissions (such as refrigerants or certain gases used in research). Twenty-six percent come from Scope 2 sources — purchased electricity and steam. The final 26 percent comes from Scope 3 emissions — campus commute and business air travel. Despite continued growth in building space, total emissions have been declining over the past two years. UC's total emissions are on track to fall below 2000 levels when 2014 emissions are reported and verified in fall 2015.

In 2013, Davis, Riverside, San Francisco, Santa Barbara and Santa Cruz emitted fewer metric tons of GHGs than in 2000; these campuses are also expected to meet the policy goal when 2014 emissions are reported and verified in 2015. Berkeley has already achieved emissions below 1990 levels, surpassing the 2020 policy goal seven years early. UCLA expects to meet the 2020 policy goal for its 2014 emissions inventory as well, when emissions are verified in fall 2015. All campuses have a climate action plan identifying measures to reduce GHG emissions. Campuses are currently in the process of updating these plans to include the 2025 carbon neutrality goal.

[1] Emissions in the graph above account for Scope 1 and Scope 2 emissions, consistent with the Carbon Neutrality Initiative. Scope 1 encompasses emissions that result directly from campus activities, primarily fossil fuel combustion. Scope 2 covers emissions associated with electricity and steam generated by a third party and sold to a campus.

Energy efficiency upgrades will result in cumulative net avoided costs for the University of $170 million by the end of 2015.

13.2.2 Energy efficiency cost avoidance
Universitywide
2005 to 2015

Source: UCOP Energy and Sustainability Office. Dollars are net of debt services and not inflation-adjusted.

Ten years ago, the University formed a unique Statewide Energy Partnership program with the California State University system and the state's four investor-owned utilities to improve the energy performance of existing buildings. The energy efficiency projects implemented through the Partnership have been the main strategy utilized by campuses to meet the 2014 policy goal for greenhouse gas emissions reductions.

In 2014, the University received approximately $7.1 million in incentives from the Partnership to implement 80 projects. Those projects are projected to save approximately 27 million kilowatt-hours (kwh) of electricity and 1.3 million therms of natural gas annually.

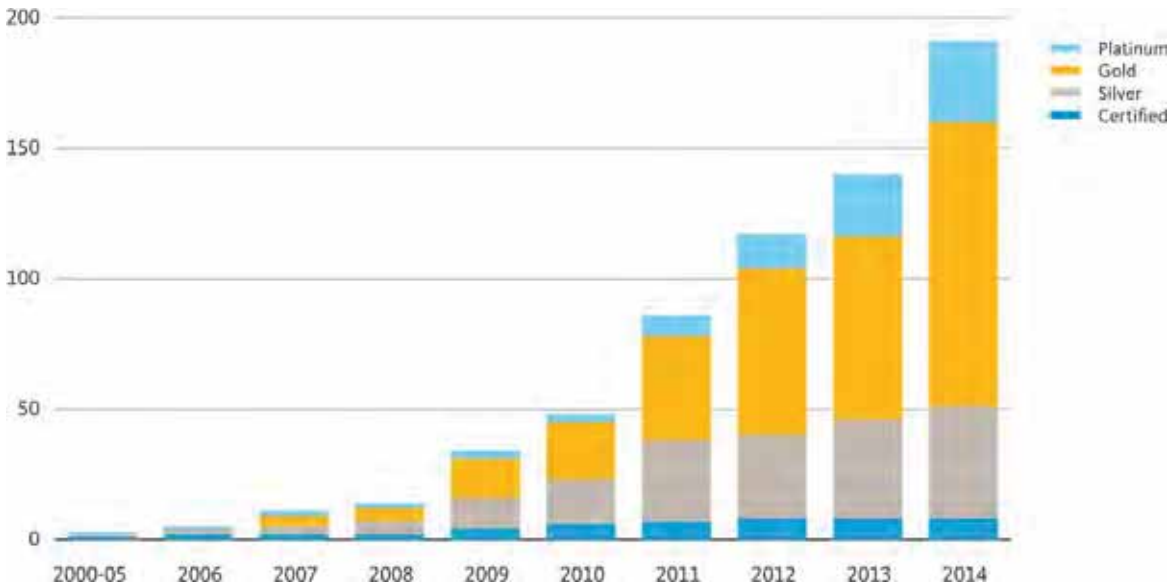
Energy efficiency projects since the program began in 2004 allow UC to avoid over $28 million in additional energy costs annually; UC's annual energy costs would be 10 percent higher if these projects had not been implemented. This program's cumulative avoided costs reached $138 million by the end of 2014.

Projects completed in 2014 will increase these cumulative savings to approximately $170 million by the end of 2015. While campuses have used a portfolio approach to balance projects with shorter and longer paybacks, they have now implemented most of the "low-hanging fruit."

The future focus on deeper energy efficiency retrofits to achieve climate goals will likely result in lower levels of net avoided costs because of larger up-front investments.

By the end of 2014, UC had achieved 191 LEED® certifications, more than any other university in the country.

13.2.3 LEED® certifications
Universitywide
2000 to 2014 (cumulative)



Source: UCOP Capital Resources Management

Leadership in Energy & Environmental Design (LEED)® standards, developed by the nonprofit U.S. Green Building Council, has emerged as an internationally recognized benchmark for sustainable design. UC's sustainability policy requires all new construction projects and renovation projects over $5 million to achieve a minimum of LEED® Silver certification.

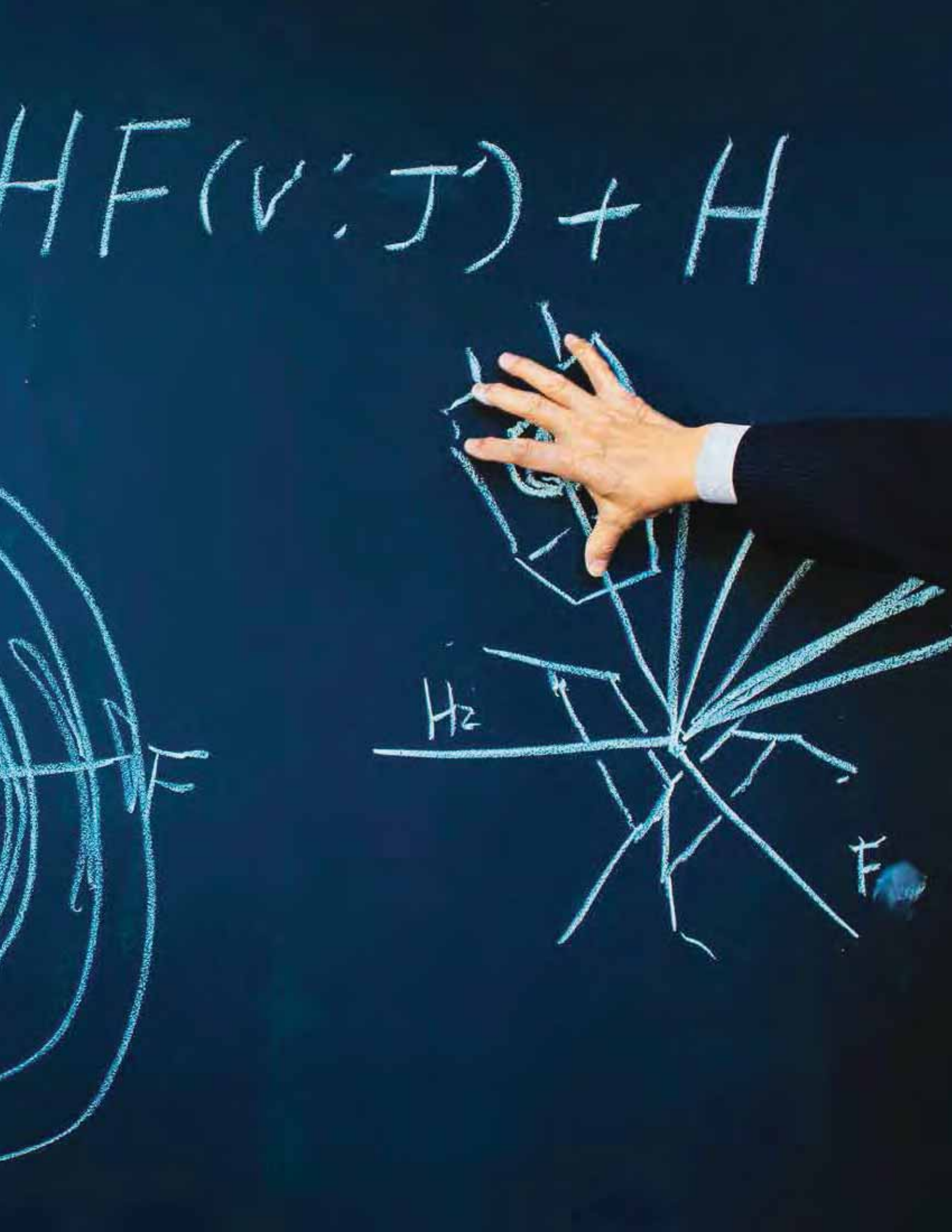
By the end of 2014, the University of California had 191 LEED® certified projects (new construction, renovation, homes and existing building certifications), the most of any university in the country. Fifty-one of these projects were certified in 2014, with seven earning Platinum certification, 39 earning Gold, and five earning Silver.

UC LEED® certifications are listed at http://ucop.edu/sustainability/programs-initiatives/green-building/uc-leed-certified-projects.html.

Beyond sustainability in new construction, UC has also adopted LEED® for Existing Buildings, Operations and Maintenance (LEED®-EBOM), to "green" the day-to-day, ongoing environmental performance of its existing facilities. UC buildings have received 22 LEED®-EBOM certifications, and 16 additional projects are in progress or in planning. Santa Barbara leads the nation with 10 certifications, more than any other university.

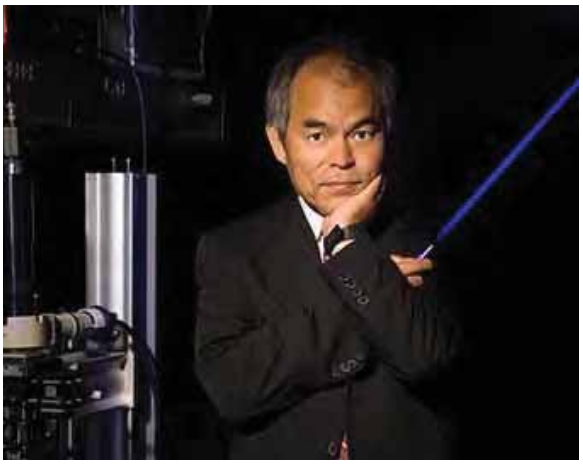
PUBLIC FIGURES

Yuan Lee, a Nobel laureate and renowned chemist at UC, uses formulas like this one to achieve big breakthroughs with small molecules.


HF(v;J)+H
H2
F

Chapter 14. Honors and Rankings

One of the points of pride for the University of California is providing undergraduate and graduate students, many of them low-income, with access to an educational and research environment that is equivalent to the Ivy League. This high-quality experience comes in large part from the excellence of UC's faculty. Over the last decade, UC has celebrated a faculty member receiving a Nobel Prize on an almost annual basis with 61 Nobel recipients in total for the UC system, ranking it fifth in comparison to other countries.



Shuji Nakamura, professor of materials and of electrical and computer engineering at UC Santa Barbara, and co-winner of the 2014 Nobel Prize in Physics for the invention of efficient blue light-emitting diodes.

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. However, we recognize that these rankings, although limited in scope, can give an indication of institutions' overall academic quality and allow an assessment of an institution's performance relative to peers in a public way. UC campuses are visible in these rankings, with some near or at the top for public institutions.

UC Merced was founded too recently to be reflected in these national ranking systems.

This chapter provides information on rankings of the UC campuses across four national and two international ranking schemes. Each ranking scheme uses different criteria to rank colleges and universities, combining criteria in different ways to produce a ranking that is unique to each. In addition, differences in rankings over time can be due to changes in methodology, making it difficult to assess changes in rankings across indices and across years.

Two organizations — U.S. News and World Report (USNWR) and the Washington Monthly — both rank undergraduate institutions, but they define academic quality very differently. USNWR, 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. One ranking system, USNWR, looks 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 World University Rankings — provide global rankings of institutions, primarily using measures of faculty research productivity.

The five rankings selected for publication are

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

Washington Monthly: National University Rankings

U.S. News: Graduate Program Rankings

Shanghai Ranking Consultancy: Academic Ranking of World Universities

Times Higher Education: World University Ranking

Of the top ten national public universities in the U.S. News and World Report ranking, five are UC campuses.

First published in 1983, the U.S. News and World Report college rankings are the oldest and best 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 2015[1]

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Harvard	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**2**	**2**
Yale	3	3	3	3	3	3	3	3	3
Stanford	4	4	4	4	5	5	6	5	4
MIT	4	7	4	4	7	5	6	7	7
Berkeley	**21**	**21**	**21**	**21**	**22**	**21**	**21**	**20**	**20**
Los Angeles	**26**	**25**	**25**	**24**	**25**	**25**	**24**	**23**	**23**
U of Virginia	24	23	23	24	25	25	24	23	23
U of Michigan	24	25	26	27	29	28	29	28	29
San Diego	**38**	**38**	**35**	**35**	**35**	**37**	**38**	**39**	**37**
Davis	**47**	**42**	**44**	**42**	**39**	**38**	**38**	**39**	**38**
Santa Barbara	**47**	**44**	**44**	**42**	**39**	**42**	**41**	**41**	**40**
Irvine	**44**	**44**	**44**	**46**	**41**	**45**	**44**	**49**	**42**
U of Illinois	41	38	40	39	47	45	46	41	42
Santa Cruz	**76**	**79**	**96**	**71**	**72**	**75**	**77**	**86**	**85**
SUNY at Buffalo	3rd	3rd	121	121	120	111	106	109	103
Riverside	**88**	**96**	**89**	**96**	**94**	**97**	**101**	**112**	**113**

14.1.2 U.S. News: America's Top National Public Universities 2007 to 2015

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Berkeley	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Los Angeles	**4**	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**2**
U of Virginia	2	2	2	2	2	2	2	2	2
U of Michigan	2	3	4	4	3	4	4	4	4
San Diego	**8**	**8**	**7**	**7**	**7**	**8**	**8**	**9**	**8**
Davis	**13**	**11**	**12**	**11**	**9**	**9**	**8**	**9**	**9**
Santa Barbara	**13**	**13**	**12**	**11**	**9**	**10**	**10**	**11**	**10**
Irvine	**12**	**13**	**12**	**14**	**11**	**13**	**12**	**14**	**11**
U of Illinois	10	8	10	9	15	13	13	11	11
Santa Cruz	**33**	**35**	**45**	**29**	**29**	**31**	**32**	**36**	**35**
SUNY at Buffalo	-	-	-	-	-	54	51	53	48
Riverside	**39**	**45**	**40**	**43**	**41**	**41**	**46**	**55**	**55**

[1] U.S. News labels its undergraduate rankings for the prospective year; the 2015 rankings were published August 2014. UC San Francisco is not included in U.S. News' "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.

UC is highly rated in the Washington Monthly rankings, which focus on contributions to the public good. In the 2014 listing, four of the top five universities are UC campuses.

Washington Monthly developed its ranking system in 2005 as an alternative to U.S. News's America's Best Colleges rankings. Unlike U.S. News, which ranks institutions on their prestige, resources and selectivity, Washington Monthly ranks institutions on their contributions to the public good.

Its rankings are based on three broad factors: how well each institution fosters social mobility (e.g., percentage of students receiving Pell Grants); furthers research (e.g., faculty awards and Ph.D. production); and serves the country (e.g., student participation in ROTC and the Peace Corps).

14.2.1 Washington Monthly: National University Rankings 2005 to 2014

	2005	2006	2007	2008[1]	2009	2010	2011	2012	2013	2014
San Diego	**8**	**6**	**4**	**n/a**	**2**	**1**	**1**	**1**	**1**	**1**
Riverside	**-**	**22**	**15**	**n/a**	**16**	**40**	**5**	**9**	**2**	**2**
Berkeley	**3**	**2**	**3**	**n/a**	**1**	**2**	**3**	**5**	**5**	**3**
Los Angeles	**2**	**4**	**2**	**n/a**	**3**	**3**	**2**	**6**	**10**	**5**
Stanford	5	7	13	n/a	4	4	4	3	6	6
Harvard	16	28	27	n/a	11	9	6	11	8	10
U of Michigan	10	18	6	n/a	18	7	10	13	12	13
MIT	1	1	27	n/a	12	15	11	15	11	14
Santa Barbara	**-**	**57**	**36**	**n/a**	**21**	**11**	**13**	**14**	**22**	**15**
Davis	**17**	**10**	**8**	**n/a**	**10**	**6**	**8**	**17**	**23**	**16**
U of Illinois	13	16	11	n/a	24	27	38	22	19	26
Yale	15	12	38	n/a	23	33	39	41	54	57
U of Virginia	22	20	16	n/a	26	59	53	48	51	60
Santa Cruz	**-**	**68**	**76**	**n/a**	**56**	**93**	**70**	**67**	**65**	**79**
Irvine	**-**	**72**	**49**	**n/a**	**44**	**50**	**60**	**117**	**84**	**83**
SUNY at Buffalo	-	203	111	n/a	101	121	160	202	204	162

[1] Washington Monthly did not publish rankings for 2008.

UC's graduate and professional programs are consistently highly rated in comparison to its peer institutions.

U.S. News has ranked American universities' graduate programs in business, education, engineering, law and medicine since 2000. Like its college rankings, USNWR's graduate program rankings are controversial. The absence of an institution from a top ranking does not necessarily imply it received a lower ranking: Berkeley, Santa Barbara and Santa Cruz, for example, do not offer M.D. degrees and thus are not ranked in medicine while Riverside's M.D. program is too new to be ranked.

14.3.1 U.S. News: Graduate Program Rankings 2007 to 2015

	Campus	2007	2008	2009	2010	2011	2012	2013	2014	2015
Business	Stanford	2	1	2	1	1	1	1	1	1
	Harvard	1	1	1	1	2	1	1	1	2
	MIT	4	4	4	3	3	4	4	5	5
	Berkeley	**8**	**7**	**7**	**7**	**7**	**7**	**7**	**7**	**7**
	U of Virginia	12	14	15	13	13	13	12	11	10
	U of Michigan	11	12	13	12	14	13	14	11	11
	Yale	14	13	10	11	10	10	13	13	13
	Los Angeles	**16**	**11**	**14**	**15**	**14**	**15**	**14**	**16**	**15**
	U of Illinois	38	38	42	42	37	37	47	35	47
	Davis	**44**	**40**	**42**	**42**	**28**	**36**	**40**	**41**	**48**
	Irvine	**44**	**nr**	**36**	**36**	**40**	**49**	**49**	**45**	**53**
	San Diego							**73**	**60**	**63**
	SUNY at Buffalo	nr	nr	nr	nr	75	89	75	74	79
	Riverside	**nr**	**nr**	**nr**	**nr**	**nr**	**97**	**nr**	**nr**	**nr**
Education	Harvard	3	6	6	3	2	2	3	3	2
	Stanford	2	1	2	5	4	4	5	4	3
	U of Michigan	6	9	14	14	9	12	11	8	11
	Los Angeles	**5**	**3**	**5**	**6**	**6**	**6**	**8**	**11**	**13**
	Berkeley	**8**	**7**	**7**	**10**	**12**	**13**	**12**	**14**	**17**
	U of Virginia	31	24	21	21	22	23	22	22	22
	U of Illinois	25	48	25	25	23	22	19	26	24
	Irvine	**nr**	**nr**	**nr**	**nr**	**48**	**43**	**37**	**36**	**31**
	Davis	**nr**	**nr**	**nr**	**nr**	**58**	**63**	**60**	**45**	**38**
	Santa Barbara	**nr**	**nr**	**nr**	**nr**	**58**	**63**	**40**	**64**	**67**
	Riverside	**nr**	**nr**	**nr**	**nr**	**66**	**67**	**74**	**77**	**76**
	San Diego								**98**	**99**
Engineering	MIT	1	1	1	1	1	1	1	1	1
	Stanford	2	2	2	2	2	2	2	2	2
	Berkeley	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
	U of Illinois	5	5	5	5	5	5	5	6	6
	U of Michigan	9	9	9	8	9	8	9	8	6
	Los Angeles	**16**	**13**	**14**	**15**	**14**	**16**	**16**	**16**	**14**
	San Diego	**13**	**11**	**12**	**13**	**14**	**14**	**14**	**14**	**17**
	Harvard	23	22	18	19	18	19	23	24	20
	Santa Barbara	**19**	**19**	**18**	**19**	**21**	**21**	**20**	**19**	**23**
	Davis	**32**	**33**	**32**	**32**	**31**	**31**	**33**	**31**	**33**
	Yale	39	40	39	39	35	34	34	34	35
	Irvine	**37**	**35**	**36**	**36**	**39**	**39**	**37**	**38**	**37**
	U of Virginia	38	37	39	39	39	39	38	40	39
	SUNY at Buffalo	nr	nr	nr	nr	52	54	61	60	59
	Riverside	**nr**	**nr**	**nr**	**nr**	**66**	**64**	**67**	**69**	**71**
	Santa Cruz	**nr**	**nr**	**nr**	**nr**	**78**	**87**	**87**	**81**	**88**

	Campus	2007	2008	2009	2010	2011	2012	2013	2014	2015
Law	Yale	1	1	1	1	1	1	1	1	1
	Harvard	2	2	2	2	2	2	2	2	2
	Stanford	2	3	3	3	3	3	2	3	2
	Berkeley	**8**	**6**	**6**	**7**	**9**	**7**	**9**	**9**	**8**
	U of Virginia	10	9	10	10	9	7	7	8	8
	U of Michigan	8	9	9	9	7	10	9	10	11
	Los Angeles	**15**	**16**	**15**	**15**	**16**	**15**	**17**	**16**	**16**
	Irvine							**nr**	**nr**	**30**
	Davis	**44**	**35**	**28**	**28**	**23**	**29**	**38**	**36**	**31**
	U of Illinois	25	27	23	21	23	35	47	40	41
	Hastings	38	39	42	42	42	44	48	54	59
	SUNY at Buffalo	100	85	third tier	third tier	84	82	86	100	87
Medicine: Primary Care	**San Francisco**	**8**	**6**	**5**	**5**	**4**	**3**	**4**	**4**	**3**
	U of Michigan	45	17	7	14	20	8	8	8	5
	Los Angeles	**18**	**12**	**10**	**14**	**16**	**10**	**11**	**13**	**7**
	Harvard	13	7	15	17	15	15	14	11	12
	Davis	**26**	**35**	**20**	**20**	**41**	**24**	**19**	**16**	**19**
	San Diego	**35**	**26**	**28**	**28**	**33**	**27**	**39**	**38**	**19**
	Stanford						63	62	38	25
	U of Virginia	38	35	29	39	20	19	18	29	40
	Yale	nr	nr	nr	nr	67	74	72	68	57
	Irvine	**nr**	**nr**	**nr**	**nr**	**nr**	**86**	**66**	**61**	**62**
	SUNY at Buffalo	nr	nr	nr	nr	86	nr	79	nr	nr
Medicine: Research	Harvard	1	1	1	1	1	1	1	1	1
	Stanford	7	8	6	11	5	4	2	2	2
	San Francisco	**5**	**5**	**5**	**4**	**5**	**5**	**4**	**4**	**3**
	Yale	8	9	6	6	5	7	7	7	7
	U of Michigan	10	11	11	6	10	10	8	12	10
	Los Angeles	**13**	**9**	**11**	**11**	**13**	**13**	**13**	**12**	**13**
	San Diego	**14**	**14**	**15**	**16**	**15**	**16**	**15**	**14**	**17**
	U of Virginia				25	22	25	26	26	26
	Davis	**48**	**48**	**47**	**47**	**42**	**42**	**42**	**40**	**43**
	Irvine	**43**	**45**	**47**	**47**	**42**	**44**	**42**	**43**	**45**
	SUNY at Buffalo	nr	nr	nr	nr	55	57	64	71	nr

Notes: "nr" denotes the program was not rated in that year. Professional programs are listed here by what U.S. News calls the "edition" year, which is one year after the "ranked in" year. For example, the 2015 rankings above were published in the 2015 edition but ranked in 2014.

In the Academic Rankings of World Universities, only four public universities in the world appear in the top 20, and all four are UC campuses.

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.shanghairanking.com/ARWU2014.html.

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.

14.4.1 Shanghai Ranking Consultancy: Academic Rankings of World Universities 2006 to 2014

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Harvard	1	1	1	1	1	1	1	1	1
Stanford	3	2	2	2	3	2	2	2	2
MIT	5	5	5	5	4	3	3	4	3
Berkeley	**4**	**3**	**3**	**3**	**2**	**4**	**4**	**3**	**4**
Yale	11	11	11	11	11	11	11	11	11
Los Angeles	**14**	**13**	**13**	**13**	**13**	**12**	**12**	**12**	**12**
San Diego	**13**	**14**	**14**	**14**	**14**	**15**	**15**	**14**	**14**
San Francisco	**18**	**18**	**18**	**18**	**18**	**17**	**18**	**18**	**18**
U of Michigan	21	21	21	22	22	22	22	23	22
U of Illinois	25	26	26	25	25	25	25	25	28
Santa Barbara	**35**	**35**	**36**	**35**	**32**	**33**	**34**	**35**	**41**
Irvine	**44**	**45**	**46**	**46**	**46**	**48**	**45**	**45**	**47**
Davis	**42**	**43**	**48**	**49**	**46**	**48**	**47**	**47**	**55**
Santa Cruz	**102–150**	**102–150**	**102–150**	**102–150**	**102–150**	**102–150**	**102–150**	**102–150**	**93**
Riverside	**102–150**	**102–150**	**102–150**	**102–150**	**102–150**	**102-150**	**102–150**	**102–150**	**102–150**
U of Virginia	102–150	102–150	95	91	96	102–150	102–150	102–150	102–150
SUNY at Buffalo	201–300	203–304	201–302	201–302	201–300	201–300	201–300	201–300	201–300

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

The top two public institutions in the Times Higher Education rankings are UC Berkeley and UCLA.

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

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

14.5.1 Times Higher Education World University Rankings 2010–11 to 2014–15

	Reputational Ranking					Overall Ranking				
	2011	2012	2013	2014	2015	2010–11	2011–12	2012–13	2013–14	2014–15
Harvard	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**4**	**2**	**2**
Stanford	5	4	6	3	5	4	2	2	4	4
MIT	2	2	2	2	4	3	7	5	5	6
Berkeley	**4**	**5**	**5**	**6**	**6**	**8**	**10**	**9**	**8**	**8**
Yale	9	10	10	8	8	10	11	11	11	9
Los Angeles	**12**	**9**	**8**	**10**	**13**	**11**	**13**	**13**	**12**	**12**
U of Michigan	13	12	12	15	19	15	18	20	18	17
U of Illinois	21	23	24	23	30	33	31	33	29	29
Santa Barbara	**51–60**	**51–60**	**51–60**	**61–70**	**61–70**	**29**	**35**	**35**	**33**	**37**
San Diego	**30**	**36**	**34**	**40**	**41**	**32**	**33**	**38**	**40**	**41**
Davis	**38**	**44**	**48**	**51–60**	**44**	**54**	**38**	**44**	**52**	**55**
Irvine						**49**	**86**	**96**	**93**	**88**
Santa Cruz						**68**	**110**	**122**	**136**	**109**
U of Virginia						72	135	118	112	130
Riverside						**117**	**143**	**154**	**148**	**150**
SUNY at Buffalo								198	176	191
San Francisco	**34**	**31**	**40**	**32**	**38**					

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

Glossary

AAU — Association of American Universities. The AAU is a highly selective membership organization of preeminent public and private research universities. AAU currently has 60 American and two Canadian member institutions. In this report, the Canadian institutions are excluded from calculations. Of the ten UC campuses, six are AAU members: Berkeley, Davis, Irvine, Los Angeles, San Diego and Santa Barbara.

AB 540 — AB 540 is an Assembly bill passed in 2001. It allows undocumented high school students who meet certain requirements to pay in-state, instead of nonresident, tuition at California's public higher education institutions.

Academic Senate — The Academic Senate represents the faculty in the shared governance of the University of California.

API — Academic Performance Index. API is the measure of a high school's academic performance and may affect a student's success in college.

ARRA — American Recovery and Reinvestment Act, passed by Congress in 2009, was an economic stimulus package intended to ameliorate the effects of the 2007–09 recession.

Auxiliary enterprises — Auxiliary enterprises are campus services that charge fees for goods and services and therefore are self-supporting. Examples include student housing, meals and bookstores.

Climate — Climate is a term employed to measure diversity at UC campuses and the degree to which the campuses are welcoming and inclusive of different groups and affiliations.

Clinical faculty — Clinical faculty are instructors in medical and health sciences fields. They include professors in residence, professors of clinical __ (__ being the name of the discipline or specialty), and health science clinical professors. Clinical faculty are not members of the Academic Senate.

Comparison institutions; comparators — UC historically has used eight universities against which to benchmark faculty salaries. The comparison institutions — four public and four private — are: University of Illinois, University of Michigan, University at Buffalo and University of Virginia (all public); and Harvard, Massachusetts Institute of Technology, Stanford and Yale (all private).

FTE — Full time equivalent – a unit of measurement of employee or student workload or attendance. Two individuals each engaged in half-time employment constitute a single FTE. (See *headcount*.)

General campus — Used to distinguish the non-health science areas of a campus from the health science areas. Berkeley, Davis, Irvine, Los Angeles, Riverside and San Diego include both general campus and health science areas. Merced, Santa Barbara, and Santa Cruz are general campus only, and San Francisco is an exclusively health science campus.

General funds — General funds include State general funds, which are funds from the State of California, and UC general funds, which are primarily indirect cost recovery and nonresident tuition.

Graduation rate — The proportion of students in a cohort who finish their degrees within a specified period. Undergraduate graduation rates are generally measured in four-, five- and six-year increments for entering freshmen, and two-, three- and four-year increments for transfer students.

Headcount — Headcount is the actual number of individuals without accounting for full- or part-time status. Two students each attending school half-time constitute a headcount of two. (See *FTE*.)

Health sciences instruction — Seven UC campuses offer health sciences instruction. Davis, Irvine, Los Angeles, San Francisco and San Diego have schools of medicine and other health sciences such as pharmacy, nursing and dentistry; Riverside has a school of medicine; Berkeley offers health sciences instruction in optometry and public health.

K-12 — Kindergarten through 12-grade instruction.

Ladder-rank — Ladder-rank faculty are faculty who are tenured or have potential to receive tenure, and generally are members of the Academic Senate.

Master Plan — The Master Plan for Higher Education establishes a system of public higher education in California that defines the roles of public institutions with the goal of making higher education available to all Californians. The Master Plan originally was drafted in 1960 and has been updated several times to accommodate changing circumstances.

Non-ladder-rank faculty — Non-ladder rank faculty are faculty who are neither tenured nor on track to receive tenure, and generally are not members of the Academic Senate. Non-ladder rank faculty includes lecturers, visitors, adjuncts, instructional assistants and clinical faculty.

Nonresident — Nonresident students come from outside California to attend a UC campus. They must meet higher admissions criteria and pay the full cost of attendance.

Pell Grant — The Pell Grant is a federal program that provides need-based grants to low-income individuals for the purposes of obtaining a college degree. The number and percentage of Pell Grant recipients is frequently used as a measure of an institution's accessibility for low-income students. A Pell Grant recipient is defined as a student who received a Pell Grant at any point while attending an institution.

Postbaccalaureate teaching credential — The postbaccalaureate teaching credential trains individuals to meet state standards for teacher certification.

Postdoctoral scholar — A postdoctoral scholar is engaged in further research or training in the field in which they obtained their doctoral degree for the purpose of gaining additional expertise and skills. Postdoctoral scholars may hold concurrent titles in other academic or staff categories.

Retention — Retention is the proportion of students in a cohort who remain enrolled or earn a degree at a specified time, such as after one year.

SCH, student credit hours – Student credit hours are a measure of faculty teaching workload. SCH is defined as the number of student enrollments in a course multiplied by the number of credits available from that course. For example, a 4-credit course with 50 students generates 200 SCH; a 2-credit course of 15 students generates 30 SCH.

Shared governance — At the University of California, faculty, operating through the Academic Senate, have a voice in the operation of the University and a measure of responsibility for the manner in which the University operates. This system is known as shared governance.

STEM — Science, technology, engineering and mathematics. In this report, includes physical sciences and mathematics, life sciences, engineering, computer science and health sciences.

TICAS — The Institute for College Access and Success. TICAS is an independent, nonprofit organization that conducts and supports nonpartisan research, analysis and advocacy with regard to access and affordability of higher education.

Tenure — Tenure is the right to continuous employment until ended by the tenure holder by retirement or resignation. A tenured appointment may not be terminated by the employer except for good cause.

Terminal master's degree — A master's degree that is not intended nor has the capability of leading to a doctoral program of study.

Transfer students — Transfer students enter UC after completing their freshman- and sophomore-level studies at a California Community College. The Master Plan calls for UC to admit as juniors all qualified California Community College students and specifies that the University maintain a 60:40 ratio of upper-division (junior- and senior-level) to lower-division (freshman- and sophomore-level).

UC Extension — UC Extension is a program of courses offered by UC campuses to working professionals to meet their continuing-education needs through both credit and non-credit programs. UC Extension does not award degrees; it offers only certificates and continuing education credit.

UCUES — University of California Undergraduate Experience Survey. UCUES is a biennial survey that solicits undergraduate opinions on all aspects of the UC experience. *See Data Glossary entry below for more information.*

VAI — Visitors, adjuncts and instructional assistants are types of faculty who do not have tenure or security of employment.

VERIP — Voluntary Early Retirement Incentive Program

WASC — Western Association of Schools and Colleges — WASC is UC's regional accrediting agency. It is recognized by the U.S. Department of Education as the accrediting agency for colleges and universities in the western United States and the Pacific Basin.

Data Sources

Association of American Universities (AAU)

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

American Association of University Professors (AAUP)

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

California State Department of Finance

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

Comparison 8 (Comp 8)

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

Consumer Price Index (CPI)

The CPI is a measure of inflation experienced by consumers, and an important indicator of the condition of the economy. It can be used to adjust other economic data for changes in price level and to convert them into inflation-free dollars. For example, retail sales and income data are "deflated" to assess their "real" movements over time. This report uses the calendar year average of the CPI-W (CA), which is the Consumer Price Index for Urban Wage Earners and Clerical Workers. For more information on the CPI-W (CA), visit www.dof.ca.gov/HTML/FS_DATA/LatestEconData/FS_Price.htm.

Council for Aid to Education (CAE)

The Council for Aid to Education (CAE) is a national nonprofit organization based in New York City. Initially established in 1952 to advance corporate support of education and to conduct policy research on higher education, today CAE also is focused on improving quality and access in higher education. CAE's Voluntary Support of Education (VSE) survey is the authoritative national source of information on private giving to higher education and private K-12 classrooms, consistently capturing about 85 percent of the total voluntary support to colleges and universities in the United States. CAE has managed the survey as a public service for over 50 years. For more information, visit www.cae.org.

Integrated Postsecondary Education Data System (IPEDS)

IPEDS is a system of interrelated surveys conducted annually by the U.S. Department's National Center for Education Statistics (NCES). IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs. The Higher Education Act of 1965, as amended, requires that institutions that participate in federal student aid programs report data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices and student financial aid. IPEDS provides basic data needed to describe — and analyze trends in — postsecondary education in the United States, in terms of the numbers of students enrolled, staff employed, dollars expended and degrees earned. IPEDS forms the institutional sampling frame for other NCES postsecondary surveys, such as the National Postsecondary Student Aid Study and the National Survey of Postsecondary Faculty. For more information, visit http://nces.ed.gov/ipeds.

National Postsecondary Student Aid Study (NPSAS)

The National Postsecondary Student Aid Study is the most comprehensive, nationally representative survey of student financing of postsecondary education in the United States. Since 1987, NPSAS has been conducted every three to four years by the National Center for Education Statistics (NCES) of the Institute of Education Sciences, U.S. Department of Education. Undergraduate and graduate students enrolled at all types of postsecondary institutions are represented. For more information, visit http://nces.ed.gov/surveys/npsas.

Survey of Earned Doctorates (SED)

The Survey of Earned Doctorates (SED) is a federal agency survey conducted by the National Opinion Research Center (NORC) for the National Science Foundation and five other federal agencies (National Institutes of Health, U.S. Department of Education, National Endowment for the Humanities, U.S. Department of Agriculture and the National Aeronautics and Space Administration). The SED gathers information annually from 45,000 new U.S. research doctorate graduates about their educational histories, funding sources and postdoctoral plans.

UC Alumni Survey 2010

UC undertook a survey of baccalaureate degree recipients five, ten and 20 years after receiving their degrees (in 2004, 1999 and 1989, respectively). Using addresses contributed by campus alumni associations and development offices, a total of 86,439 alumni who received their baccalaureate degrees in 1989, 1999 or 2004 were contacted and invited to respond to the survey instrument by email or by post. A total of 5,976 useable responses were received for an overall response rate of 8 percent, with individual campus response rates ranging from 5 percent to 10 percent. A comparison of respondents to the population of each of the three graduating cohorts revealed that there was no response bias related to gender, entry status, ethnicity, first-generation college status, first language, final UC GPA, campus, residency status at the time of admission and Pell Grant recipient status.[1]

[1] Response bias testing for the class of 1989 was limited to gender, entry status, ethnicity, final UC GPA and campus because data on the other variables was not collected when this cohort entered UC.

UC Audited Financial Statements

UC, like all public entities, is audited by an external auditing firm. UC's external audit is performed by Price Waterhouse Coopers, an external independent certified public accounting firm reporting to the Regents. UC's audited financial statements can be accessed at www.universityofcalifornia.edu/reportingtransparency.

UC Budget for Current Operations

UC budget documents can be found at www.ucop.edu/operating-budget/budgets-and-reports/index.html.

UC Corporate Contracts and Grants System (CGX)

The Corporate Contracts and Grants System (CGX) is a set of databases and processes that provides information about sponsored projects at the University of California. More information can be found at www.ucop.edu/irc/systems/cgx.html.

UC Corporate Financial System (CFS)

The Corporate Financial System (CFS) contains financial data for all UC campuses and is available to corporate functional offices for inquiry and reporting purposes. The primary source of data in the CFS is a monthly transmittal file from each of the ten UC campuses. Each campus file contains data reflecting current financial, budgetary and encumbrance balances and current month financial activity in the campus's general ledger. More information can be found at www.ucop.edu/irc/systems/cfs.html.

UC Corporate Personnel System (CPS)

The Corporate Personnel System (CPS) is a reporting system that provides Office of the President management and staff with demographic, personnel and pay activity data on employees paid at the ten campuses, the Office of the President, the Division of Agricultural and Natural Resources, the Lawrence Berkeley National Laboratory, Hastings College of Law and the Associated Students of UCLA (ASUCLA). More information can be found at www.ucop.edu/irc/systems/cps.html.

UC Corporate Student System (CSS)

The Corporate Student System (CSS) is a set of databases and processes that provides information to meet the management, analytical and operational needs of the UC Office of the President. The seven CSS databases contain information about enrollment, undergraduate and graduate admissions, financial support, degrees conferred, and health science resident and postdoctoral fellow appointees. The databases are created and/or updated with data received from the campuses and other sources. More information can be found at www.ucop.edu/irc/systems/css.html.

UC Faculty Instructional Activities dataset ("TIE" data collection)

UC conducts annual data collections from campuses on faculty instructional activities. This data collection was originally undertaken in response to a state reporting requirement which was not renewed. The 2007 annual report to the Legislature was the last mandated report; it can be found at www.ucop.edu/academic-planning-programs-coordination/_files/documents/fia/fia_annlrpt2007.pdf. Since that time, UC has continued to collect these data for management and accountability purposes.

UC Graduate Student Support Survey

The UCOP Student Affairs department conducts periodic surveys of the competitiveness of UC graduate student support. Reports on this survey can be found at www.ucop.edu/student-affairs/data-and-reporting/graduate-student-support/index.html.

UC Information Center Data Warehouse

The Information Center Data Warehouse project, currently ongoing, is developing integrated system wide reporting to support the mission of Institutional Research throughout UC.

UC Medical Centers Audited Financial Statements

The UC medical centers, like all public entities, are audited by an external auditing firm. The medical center audited financial statements are published separately from UC's external audit. UC's audited financial statements can be accessed at www.universityofcalifornia.edu/reportingtransparency.

UC Medical Schools

Six UC campuses include medical schools: Davis, Irvine, Los Angeles, Riverside, San Diego and San Francisco. More information on these schools can be found at http://health.universityofcalifornia.edu/medical-centers/.

UC Statistical Summary of Students and Staff (StatSumm)

Each spring, UC publishes the Statistical Summary of Students and Staff, which summarizes data supplied by all campuses and serves as the official record of student enrollment at the University of California. Additional information can be found at www.ucop.edu/ucophome/uwnews/stat.

UC Student Financial Support Annual Reports

These reports, produced by the UCOP Student Affairs department, can be found along with other financial aid information at www.ucop.edu/student-affairs/data-and-reporting/index.html.

University of California Undergraduate Experience Survey (UCUES)

The University of California Undergraduate Experience Survey (UCUES) biennially solicits student opinions on all aspects of the UC experience. UCUES content is broad and covers most aspects of students' academic and co-curricular experiences. Students evaluate such things as instruction, advising and student services. The systemwide response rate for UCUES was 38 percent in 2006, 39 percent in 2008, 42 percent in 2010, 36 percent in 2012 and 37 percent in 2014. More information can be found at http://studentsurvey.universityofcalifornia.edu/.

Table 1. UC Student Enrollment Classification Using UC Corporate Student System

Level	*UC Degree Level*	*UC Student Level Code*	*Disciplines (CIP Categories)*		
Graduate Academic			*Excludes Post-baccs in discipline breakdowns*		
Academic Doctoral	PhD	6, 7, 8	Visual/Performing Arts English Literature Engineering Computer Science Math Physical Science	Foreign Languages Philosophy Area Studies Psychology Social Sciences Agricultural Science	History Liberal Arts Bio/Life Sciences Conservation Science Interdisciplinary Other/Unknown
Academic Masters	MA, MS	5 or Post-bacc.			
Professional Doctoral	EdD, DEnv, DPh, DPT, DNS, etc.	6, 7, 8	Business Architecture Education	Public Admin. Law (non-J.D.) Communications	Criminology Health Sciences Library Science
Graduate Professional		*Includes self-supporting*			
Professional Masters	MBA, MPP, MPH, MSW, MLS, M. City Planning, MA/MS in Education, MEng, MFT, etc.	5	Business Architecture Education Arts (MFT only)	Public Admin. Law (non-J.D.) Communications	Criminology Health Sciences Library Science
Professional Practice	JD, MD, OD, DDS, PharmD, DVM, AudD, etc.	5 or 6	Law (JD only) Medicine (MD only)	Other Health Sciences	
Health Science Resident	--	R	Health Sciences		
Undergraduate	BA, BS	1-4	All Disciplines, grouped into broad disciplines		

Table 2. UC and Comparative Student Data Classification Using IPEDS Data

Enrollment Level	Degree Classification	IPEDS Degree	Disciplines (CIP Categories)		
Graduate & Professional	Graduate Academic				
	Academic Doctoral	Doctor's Degree (old) Doctor's Degree – research/scholarship (new)	Visual/Perf. Arts English Literature Engineering Computer Science Math Physical Science	Foreign Languages Philosophy Area Studies Psychology Social Sciences Agricultural Science	History Liberal Arts Bio/Life Sciences Conservation Science Interdisciplinary Other/Unknown
	Academic Masters	Master			
	Professional Doctoral	Doctor's Degree (old) Doctor's Degree – research/scholarship (new)	Business Architecture Education Military Science Homeland Security	Public Admin. Law (non-J.D.) Communications Parks & Recreation Agricultural Science	Criminology Health Sciences Library Science Theology
	Graduate Professional				
	Professional Masters	Master	Business Architecture Education Military Science Homeland Security	Public Admin. Law (non-J.D.) Communications Parks & Recreation	Criminology Health Sciences Library Science Theology
	Professional Practice	First Professional (old) Doctor's Degree – professional practice (new)	Law (J.D. only) Medicine (M.D. only)		Other Health Sciences Theology
Undergraduate	Undergraduate	Bachelor	All Disciplines, grouped into broad disciplines		

Table 3. Broad Discipline Classification

Broad Discipline	CIP Categories Included	
	When Using UC Corporate Data	When Using IPEDS Degree Data
Arts & Humanities	Visual/Performing Arts English Literature Foreign Languages Philosophy History Liberal Arts	Visual/Performing Arts English Literature Foreign Languages Philosophy History Liberal Arts
Life Sciences	Bio/Life Sciences Conservation Science Agricultural Science (select 01 CIPs)	Bio/Life Sciences Conservation Science Agricultural Science (select 01 CIPs)
Physical Sciences, Technology, Engineering and Mathematics (PSTEM)	Math Physical Science Engineering Computer Science	Math Physical Science Engineering Computer Science
Social Sciences	Area Studies Psychology Social Sciences (except UCSD Pacific Affairs, UCI Criminology) Agricultural Business/Production (select 01 CIPs)	Area Studies Psychology Social Sciences Agricultural Business/Production (select 01 CIPs)

Broad Discipline	CIP Categories Included	
	When Using UC Corporate Data	When Using IPEDS Degree Data
Other Disciplines	Interdisciplinary Other/Unknown Business Architecture Education Public Admin. Law (non-J.D.) Communications Criminology Health Sciences Library Science Social Sciences (UCSD Pacific Affairs and UCI Criminology)	Interdisciplinary Other/Unknown Business Architecture Education Public Admin. Law (non-J.D.) Communications Criminology Health Sciences Library Science Theology Parks & Recreation Military Science Homeland Security

Mapping Developed 1/7/2011
UC Institutional Research and Academic Personnel

Table 4. Inflation Adjustments

Unless otherwise noted, all inflation adjustments are to 2013 calendar year dollars using the consumer price index for urban wage earners and clerical workers, California (CPI-W) published by the California Department of Finance at www.dof.ca.gov/HTML/FS_DATA/LatestEconData/documents/BBFYCPI.XLS.

Calendar Year	Fiscal/ Academic Year	CCPI-W, CA (1982–84=100)	Calendar Year	Fiscal/ Academic Year	CCPI-W, CA (1982–84=100)	Calendar Year	Fiscal/ Academic Year	CCPI-W, CA (1982–84=100)
1993	1993–94	144.7	2000	2000–01	168.1	2007	2007–08	209.9
1994	1994–95	146.6	2001	2001–02	174.7	2008	2008–09	217.6
1995	1995–96	149.1	2002	2002–03	179.0	2009	2009–10	216.3
1996	1996–97	152.0	2003	2003–04	183.8	2010	2010–11	219.7
1997	1997–98	155.0	2004	2004–05	188.9	2011	2011–12	226.4
1998	1998–99	157.6	2005	2005–06	195.9	2012	2012–13	231.6
1999	1999–00	162.2	2006	2006–07	203.3	2013	2013–14	234.9

Table 5. Faculty Discipline Groupings

Discipline Grouping - Accountability	UAS Discipline	Discipline Grouping - Accountability	UAS Discipline
Arts & Humanities	Fine & Applied Arts	Medicine	Medicine
Arts & Humanities	Foreign Languages	Other General Campus Professional	Architecture & Environmental Design
Arts & Humanities	Letters		
Arts & Humanities	Theology	Other General Campus Professional	Criminology
Business/Management	Business & Management	Other General Campus Professional	Social Welfare
Education	Education	Other General Campus Professional	Communications
Engineering & Computer Science	Computer & Information Sciences	Other General Campus Professional	Library Science
		Other Health Science	Veterinary Medicine
Engineering & Computer Science	Engineering	Other Health Science	Dentistry
Interdisciplinary/Other	Interdisciplinary Studies	Other Health Science	Nursing
Interdisciplinary/Other	Physical Education	Other Health Science	Pharmacy
Interdisciplinary/Other	Military Sciences	Other Health Science	Public Health
Interdisciplinary/Other	Home Economics	Other Health Science	Optometry
Law	Law	Other Health Science	Other Health Professions
Life Sciences	Biological Sciences	Physical Science	Physical Sciences
Life Sciences	Agriculture & Natural Resources	Social Science & Psychology	Psychology
		Social Science & Psychology	Social Sciences
Math	Mathematics	Social Science & Psychology	Area Studies

Table 6. AAU Member Universities, as of June 2015 (United States only)

UC	Non-UC Public	Private
Berkeley	Georgia Institute of Technology — Main Campus	Boston University
Davis	Indiana University — Bloomington	Brandeis University
Irvine	Iowa State University	Brown University
Los Angeles	Michigan State University	California Institute of Technology
San Diego	Ohio State University — Main Campus	Carnegie Mellon University
Santa Barbara	Pennsylvania State University — Main Campus	Case Western Reserve University
	Purdue University — Main Campus	Columbia University in the City of New York
	Rutgers University — New Brunswick	Cornell University
	Stony Brook University	Duke University
	Texas A & M University	Emory University
	The University of Texas at Austin	Harvard University
	University at Buffalo	Johns Hopkins University
	University of Arizona	Massachusetts Institute of Technology
	University of Colorado at Boulder	New York University
	University of Florida	Northwestern University
	University of Illinois at Urbana — Champaign	Princeton University
	University of Iowa	Rice University
	University of Kansas	Stanford University
	University of Maryland — College Park	Tulane University of Louisiana
	University of Michigan — Ann Arbor	University of Chicago
	University of Minnesota — Twin Cities	University of Pennsylvania
	University of Missouri — Columbia	University of Rochester
	University of North Carolina at Chapel Hill	University of Southern California
	University of Oregon	Vanderbilt University
	University of Pittsburgh — Pittsburgh Campus	Washington University in St Louis
	University of Virginia — Main Campus	Yale University
	University of Washington — Seattle Campus	
	University of Wisconsin — Madison	

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