

# UNIVERSITY OF CALIFORNIA ANNUAL ACCOUNTABILITY REPORT

## PART II Key Themes and Trends

This section presents a number of highlights that emerge from the University indicators in Part III of this report. It has two aims:

- to identify strengths and challenges in key areas and flag trends that require our careful attention; and
- to identify weaknesses or gaps in institutional data that will focus our efforts to improve the report in the years to come.

The highlights are presented as brief essays, each focusing on a particular theme or topic.

There are, of course, many themes that may be addressed and there are many different ways to interpret the data in this report. We encourage readers to explore all possible avenues. Indeed, our hope is that routine publication of an annual accountability report will encourage just this kind of thinking and that it will stimulate discussion about the University's progress, its challenges and its contributions to California and the nation.

In this regard, it is not our intention here to constrain but to provide a jumping-off point; an entrée into a wealth of statistical material, and a model as to how that material may be utilized, interpreted and read.

**1. Undergraduate Student Success.** More than 80 percent of all UC freshmen graduate in six years, compared to 74 percent at the 34 public research and 89 percent at the 26 private research universities that make up the elite American Association of Universities. Differences in graduation rates between UC and other AAUs can be explained, in part, by the fact that UC attracts a somewhat different and more diverse student body than is typical of AAU public and private universities in general. Fully 37 percent of UC undergraduates are first-generation college-goers whose parents, lacking a college education, may only be able to offer limited assistance in advising their sons and daughters about how to navigate the course of their college careers. About half grew up in families where English was not the first or only language spoken at home. A third receive Federal Pell Grants which are reserved for low-income families earning less than \$45,000 a year. In addition, the University's entering freshman class is more diverse, racially and ethnically, when compared to peer public and private institutions. For example, 18 percent of all UC's undergraduates come from underrepresented groups, primarily African American and Chicano/Latino, compared with 13 percent for the AAU publics and 16 percent for the AAU privates. Nationally, students who come from wealthier families and whose parents are college-educated graduate from college in greater numbers than first-generation, low-income, minority and non-native English speakers. Yet the University of California educates a higher proportion of these students than many of its peers.

Also, unlike the private research universities which are able to restrict entry to applicants with the highest grade point averages and standardized test scores, UC is a public university with a commitment to serve California's high school graduates. Under the terms of the California Master Plan for Higher Education it offers a place to the top 12.5 percent of California high

school graduates. In this regard, UC is very much California's public research university (more than 90 percent of its undergraduates are California residents). As such, it serves both the state and an increasingly diverse student body well by ensuring its constituents' success in achieving an undergraduate degree in a timely fashion.

**2. Affordability of an Undergraduate Education.** The cost of a UC undergraduate education has increased over the past decade. Between 2000-01 and 2007-08, student fees grew by 59 percent in inflation-adjusted dollars. In the same period, the state's contribution to UC declined substantially when adjusted for enrollment growth and inflation. UC's total cost of attendance (including fees as well as expenses such as housing and books) was about \$22,000 in 2007-08. This is generally comparable to costs at UC's four public comparison institutions—the universities of Illinois, Michigan, Virginia and SUNY at Buffalo. The actual cost for most UC students and their families, however, is greatly reduced by the availability of scholarships and grants, which help make UC accessible to students at every income level without their having to amass extraordinary debt or to work an unreasonable number of hours. In 2007-08, over half of all UC undergraduates received scholarships and grants worth an average of \$10,300 to help cover fees and other expenses.

UC recently launched the Blue and Gold Opportunity Plan to address concerns about rising costs among prospective students from low-income families who may be unaware of UC's extensive financial aid programs. Under the Plan, UC undergraduates will receive, at a minimum, enough scholarship and grant aid to fully cover systemwide fees if they have incomes below \$60,000 and meet other basic eligibility requirements (see [www.universityofcalifornia.edu/blueandgold](http://www.universityofcalifornia.edu/blueandgold)).

The University, parents and policy-makers alike are concerned about rising costs. The University is carefully monitoring these trends and this annual progress report will continue to measure among other things the impact of federal, state and Universitywide policy and budget decisions on the cost and accessibility of a UC education.

**3. Undergraduate Education.** At UC, the undergraduate educational experience is enormously varied. It is shaped by many things: campus location, major emphasis of study, the combination of societies and athletic and other extracurricular activities in which a student chooses to participate. Some common features are nonetheless apparent. UC's faculty have intentionally designed a curriculum which builds foundational skills that enable a student to master a field of knowledge and progress systematically to where he or she is capable of engaging in critical and creative independent work. The curriculum purposely brings students into contact with pioneering research and the people who do it. It is also highly regarded by students; a significant majority of them report that their analytic and critical thinking skills, their ability to write clearly and effectively, and their understanding of a specific field of study have all increased significantly during their undergraduate years.

Indicators the University will continue to closely monitor include

- the student-faculty ratio (a measure of students contact with faculty);
- the use made, especially in freshman and sophomore classes, of lecturers and other adjunct instructors—that is, teachers on term-limited contracts who are neither tenured

- members of the Academic Senate nor on a track to becoming so. While many lecturers are excellent teachers, they do not normally participate in UC's research activity; and
- the proportion of students who have had an opportunity to engage with research-active faculty at some point during their undergraduate careers, a feature of a UC education much heralded by faculty and students alike.

Given that the undergraduate curriculum is oriented towards developing critical-thinking capacity and inspiring independent inquiry, it is not surprising that more than three-quarters of UC's undergraduates aspire to further professional or graduate school. How UC prepares undergraduates to participate in the workforce—where and in what sectors they are employed—is a subject requiring further investigation. We do not know exactly how many UC undergraduates complete graduate and professional programs and what careers they enter into, or create, for themselves. What little evidence we have suggests that the University succeeds as an engine of social mobility, gathering students from a wide variety of backgrounds and training them for careers in education, law, medicine and business, and as leaders in both public and private pursuits.

**4. UC's Graduate and Professional School Programs.** Almost 50,000 students enroll each year in UC's graduate and professional programs. They come from all over the United States and around the world. More than 90 percent of business (M.B.A.) and law (J.D.) students complete their degrees. The picture for academic Ph.D. students is somewhat different but comparable to that of Ph.D. students at other leading research universities. A total of 57 percent of UC Ph.D. students complete their degrees; on average, they take slightly less than six years to do so. After graduation, most take jobs in business and industry, teach the next generation of college students, and join the ranks of entrepreneurs and scientists upon which the state relies for new industries. UC awards nearly 70 percent of California's new science and engineering Ph.D.s, over 60 percent of all M.D. degrees, and a quarter of all master's degrees in engineering. In this regard, UC's graduate and professional school programs play a critical role in meeting California's workforce needs.

A number of challenges exist:

- the extent to which sufficient graduate-student financial support can be offered to enable UC to compete with other top universities and attract the very best graduate students;
- the diversity of graduate and professional students, which continues to fall short of our goals; and
- completion and time-to-degree rates among doctoral candidates, especially in the arts, humanities and social sciences.

**5. California's Public Research University.** UC is first and foremost California's public research university. It is, by any measure, a world-class research institution. Faculty are recruited from leading universities worldwide and they contribute disproportionately to the most highly regarded scholarly publications. Their work attracts a large proportion of the research funding that is available from federal and other agencies. And it attracts a sizeable portion of exceptionally well-qualified graduate students who come to UC to participate with faculty on

the cutting edge of their disciplines. The number and scope of UC inventions is large, as is the number of start-up companies that have emerged as a result of UC-based innovation.

Yet none of these facts even begin to convey the significance that UC research has for the people of California. We need better indicators that demonstrate how UC research stimulates economic development, creates jobs and fosters innovation that materially benefits the lives of Californians. We need to demonstrate more effectively the vital role that UC plays, along with only a very small handful of peer institutions, in carrying out the foundational science upon which governments and industry increasingly rely as they progressively abandon their bench scientists and their labs to the research university. And we need to document how research in the arts, humanities and social sciences contributes directly to the quality of life and the civil nature of our society.

The greatest single challenge, however, to the University's research capability is its ability to maintain a sizeable cadre of graduate students. Graduate students are essential to the research enterprise, making it possible to attract and retain good faculty and to enable faculty to acquire external grant funding. Too small a proportion of graduate students also threatens UC's distinctive, research-oriented, undergraduate instruction, since graduate students often give undergraduates first-hand exposure to research and evolve as their mentors. Despite this, the proportion of UC graduate students has dropped from about a third in 1966-67 to around 17 percent today. The decline reflects UC's success enrolling eligible undergraduates during a period when their numbers grew rapidly. It is also due in part to continuing funding constraints. If not reversed, the trend could challenge fundamentally UC's viability as a research university.

**6. Health Sciences and Services.** About half the University's operations are health related. They include 15 schools providing professional training (in medicine, nursing, dentistry, optometry, pharmacy, veterinary medicine and public health) and five medical centers (at Davis, Irvine, Los Angeles, San Diego and San Francisco).

UC's health science programs attract almost half of all private support the University receives, account for the lion's share of federally funded research and development expenditures annually at UC, and are responsible for leading-edge research in treatment, patient care and patient safety. Crucially, they also train 60 percent of California's M.D.s.

The medical centers constitute the fourth-largest health care delivery system in California. They record 3,500,000 outpatient visits and 850,000 inpatient days every year, and deal with cases that are far more complex than those seen by the average hospital. They play an important role treating the state's low-income patients and, owing to the quality and sophistication of their care, they treat patients transferred from other hospitals that have exhausted all efforts and consider UC medical centers to be hospitals of last resort.

The UC medical centers are financially self supporting, and, along with auxiliary services, they accounted for 30 percent of the University's total revenues in 2007-08. By way of comparison, research contracts and grants and student fees accounted for 28 percent and 25 percent, respectively, of the University's total revenues.

**7. Public Service.** Public service is a hallmark of UC and is built upon the very foundations that support research and instruction. Nine University extension programs, the oldest of which dates back to 1891, provide lifelong learning opportunities for 300,000 people annually. Cumulatively, the extension programs annually offer more than 20,000 courses and provide instruction to a diverse student body seeking career-related professional development, general interest courses, or credit toward a UC degree.

More than 100 libraries and museums have emerged in the University to support the academic enterprise. Most are open to the public, often making their holdings accessible to anyone with an active Internet connection. And the campuses have emerged as important cultural magnets in their respective regions with public programming that ranges from the visual and performing arts to public lecture series and sporting events.

Historically, the University's Cooperative Extension programs have developed and applied scientific research to protect and shepherd California's natural resources and to foster the state's emergence as a global leader in agricultural production, innovation, and economic value. While absent from this first edition of the annual accountability report, we plan to include a section on Cooperative Extension services and the Division of Agriculture and Natural Resources in which they are located in future reports. Future editions will also refer to work conducted at UC to prepare California's high school students for a college education and more generally to improve public education throughout the state.

**8. Staff.** UC is one of the largest employers in California, employing about 185,000 people in a great variety of academic and staff roles. The workforce is as complex as it is large. And while its ethnic and racial composition does not fully parallel that of the state of California, it is nonetheless diverse. In terms of academic employees, 41 percent are women and about 9 percent are from underrepresented minorities; in terms of staff, 63 percent are women and 25 percent are from underrepresented minorities. Figures for ladder rank faculty are 30 percent women and about 9 percent for underrepresented minorities.

While a great deal of information exists about the size and structure of the staff workforce, we need to systematically gather and analyze more data about the University as an employer. Job for job, how do UC salaries compare to those paid in other universities and in other sectors? What turnover rate exists? What opportunities are provided for staff development? What is the rate and pace of career progression? These are areas where the accountability framework needs to evolve in the coming years.

**9. Faculty.** UC's faculty are the bedrock of its academic excellence. Their quality is irrefutable—in terms of the research funding they have garnered, the publications they have produced and the national and international honors and awards they have received. In a very fundamental sense, the success of our students, our research and our health care system depend upon the quality of the faculty. Still, some long-term and slow-moving trends give cause for concern:

- Faculty salaries continue to lag the average compared to salaries at UC's comparison institutions.

- The average age of faculty continues to increase in a manner that suggests 40 percent turnover in the UC faculty by 2020.
- Average start-up costs for constructing laboratories for newly hired faculty to do their research are high. Five years ago, the average start up cost was about \$250,000. Today, it can average as much as \$340,000 or more at a single campus. Given the aging profile of UC faculty, the University needs to anticipate a substantial investment in faculty succession.
- Financial impacts could be mitigated to some extent, for example, by hiring more non-ladder-rank faculty or increasing faculty teaching loads. However, this would threaten UC's academic quality by undermining undergraduate education oriented toward regular contact with research faculty, and it would diminish the University's overall capacity to generate the external grant funding that supports the research and academic enterprise.

**10. Diversity.** In September, 2007, the Board of Regents adopted as a matter of policy a commitment “to the full realization of its historic promise to recognize and nurture merit, talent and achievement by supporting diversity and equal opportunity in its education, services and administration, as well as research and creative activity.” In particular, it “acknowledge[d] the acute need to remove barriers to the recruitment, retention and advancement of talented students, faculty and staff from historically excluded populations who are currently underrepresented.”

In addition to the University's annual accountability report, a more detailed sub-report on diversity will be published in September 2009, and will establish a baseline against which to measure progress in achieving the University's diversity goals. As these pages demonstrate, there is a great deal to do. UC's freshman class contains proportionately fewer underrepresented minorities—primarily African-American and Chicano/Latino students—than the general population of high school graduates. And these students are less likely to complete their degrees than Asian-American and white students. Underrepresented minority groups also contribute proportionately fewer students to UC's graduate and professional schools and to its faculty than Asian-American or white groups. Among UC staff, they are concentrated in professional and support staff positions. Gender balance is also a challenge, with proportionately fewer women among UC's faculty and senior management groups in particular.

The campus profiles that make up Part IV of this report show how campuses are responding to these challenges with strategies that deal specifically with very different local circumstances. Common to all is a commitment to the leadership, coordination and funding necessary in order to meaningfully address some of the profoundly challenging issues that contribute to the racial, ethnic and gender imbalances that are documented on these pages.

## **11. Budget and finance**

The University seeks to develop stable and growing sources of revenues and to utilize these in a strategic and cost-effective manner in order to maintain the quality of its teaching, research and public service activities, meet the state's workforce and other needs, and remain accessible to all eligible California students independent of their financial means.

Revenues are derived from a variety of sources—state appropriations, student fees, medical centers, research contracts and grants, and auxiliary enterprises, such as parking and student housing. Of these sources, the state appropriation is the most important. Totalling nearly \$3 billion annually, it is the largest single fund source, paying for almost 60 percent of the University's instructional needs. And it acts as seed money that attracts billions more in federal and private dollars that support research, public service and health care. For every state dollar specifically invested in research, UC leverages nearly \$5 more from the federal government and other sources. Without the state's core investment, the dollars that UC attracts from other sources would go elsewhere.

Despite this, the state's contribution to the University has declined precipitously and its overall share of the University's operating expenditures in inflation-adjusted dollars has plunged 40 percent since 1990. The results of diminished state investment are evident in the funding available to support education—the state's share of expenditures per student, for example, has fallen from \$15,860 per student in 1990 to \$9,560 in 2007 (figures for both years are in 2007-08 constant dollars). This decline in the state's funding at UC has been partially addressed by increases in student fees. As a consequence, the student share of the cost of education, net of financial aid, has more than doubled, from 13 to 31 percent. Inadequate capital funding, meantime, has resulted in a backlog of work necessary for addressing seismic and other life-safety issues on the one hand, and capital renewal and deferred maintenance on the other.

In response to diminished state investment, the University has also sought aggressively to increase revenues from other sources, such as private gifts from industry and individuals. Still, the gap is too wide to be closed with non-state fund sources. It is unrealistic to assume that cuts of this magnitude sustained over time will not undermine the University, the California economy, and individual students' chances for educational advancement.

For these reasons, this annual accountability report is doubly important. It establishes baseline measures that will help evaluate budgetary impacts on the University in the years to come. At the same time, it provides the public with a new level of transparency about the University's performance and gives elected leaders a clearer view of the return on their investment in the University.