

Section 5. Graduate Academic Students

GOALS

The California Master Plan for Higher Education charges the University of California with the responsibility for preparing graduate and professional students to help meet California's and the nation's work force needs.* Indeed, graduate education and research at the University of California have long fueled California's innovation and economic development, helping establish California as one of the 10 largest economies in the world. One of the most important methods of transferring research and innovation from UC into society occurs when a new Ph.D. or M.D. starts his or her new job. At the graduate academic level, Board of Regents' policy calls upon the University to attract a diverse pool of highly qualified students by providing a competitive level of support relative to the cost of other institutions.

MEASURES

At UC, graduate students include graduate academic or professional degree students. Graduate academic students (Section 5) are in masters and doctoral programs in the sciences, social sciences, humanities and engineering. Professional degree students (Section 6) participate in a wide range of programs that recruit directly into fields such as law (J.D.), medicine (M.D.) or business (M.B.A.). The indicators in these two sections show the size and diversity of graduate and professional school enrollment by broad academic discipline, types of degrees awarded, student outcomes and financial support measures. More detailed information is available from accountability sub-reports on graduate and professional education.

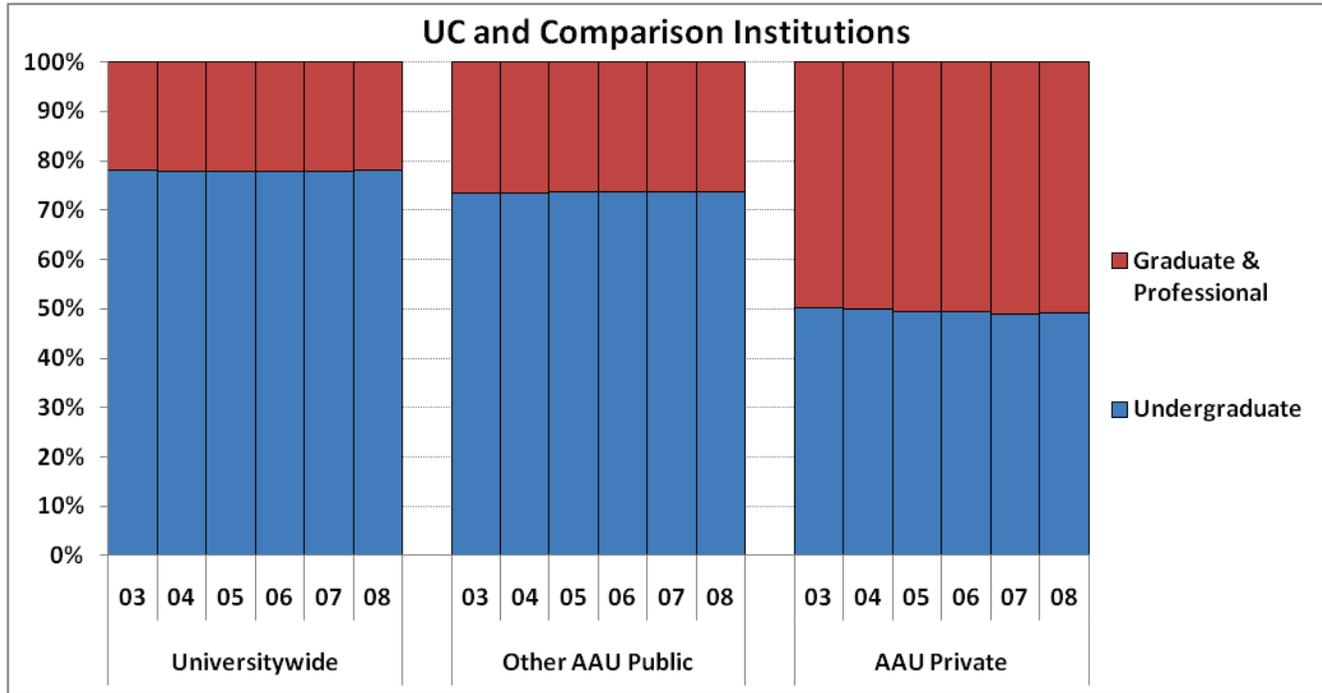
LOOKING FORWARD

Over the last 50 years, growth in undergraduate enrollments has far outpaced that in graduate enrollments as the University opened its doors to California's burgeoning number of high-school graduates. As a result, the proportion of graduate students at UC relative to undergraduates has decreased from about 29 percent of general campus enrollment in the mid-1960s to about 18 percent in 2008-09 (Section 1). At the same time, UC's role in graduate academic and professional education continues robustly. Three major issues will shape its future: 1) the maintenance of an exceptional research faculty able to recruit and train graduate academic students and to generate the research funding necessary to support them; 2) insufficient financial aid packages for recruiting top graduate students compared to peer institutions; and 3) completion and time-to-degree rates for Ph.D. students. This section presents data tracking each of these areas, showing where gains have occurred over time and where there is room for future improvements.

* The Master Plan gives UC exclusive jurisdiction for instruction in law, medicine, dentistry and veterinary medicine and, with two exceptions, for doctoral education as well; CSU may award education leadership doctorates (Ed.D.) independently and may award other doctorates jointly with UC or an independent institution.

Indicator 27

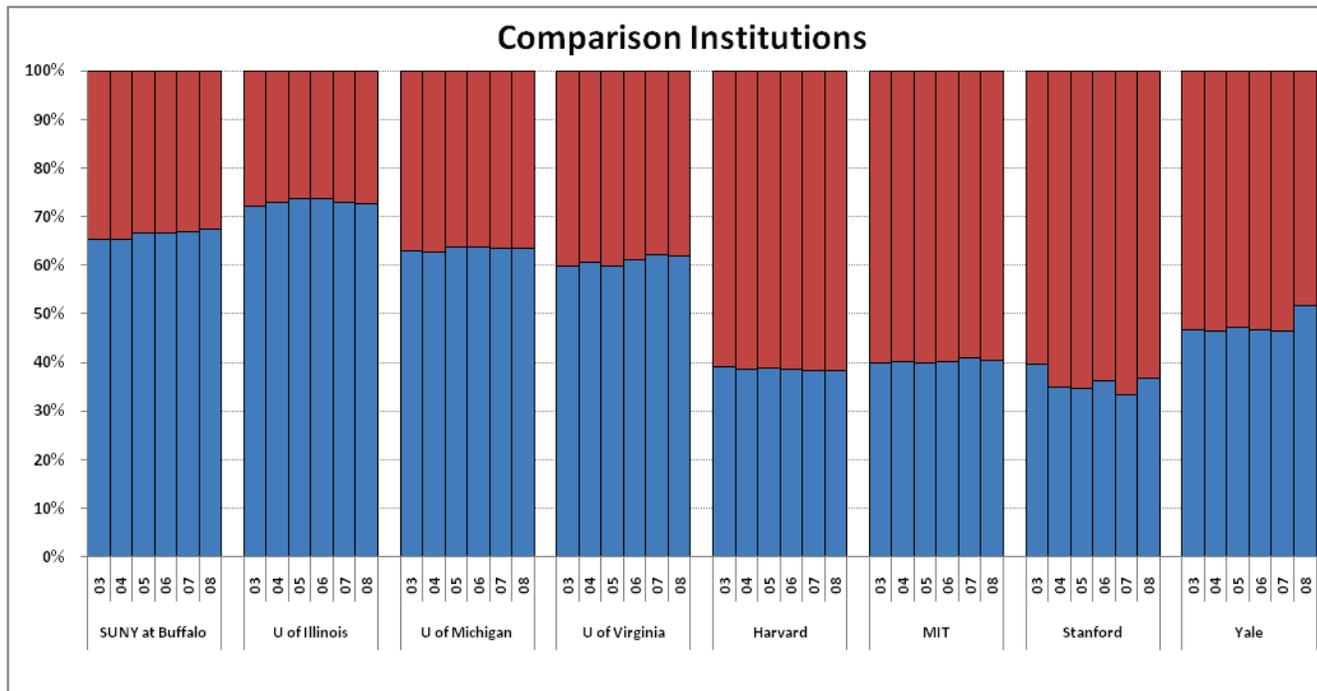
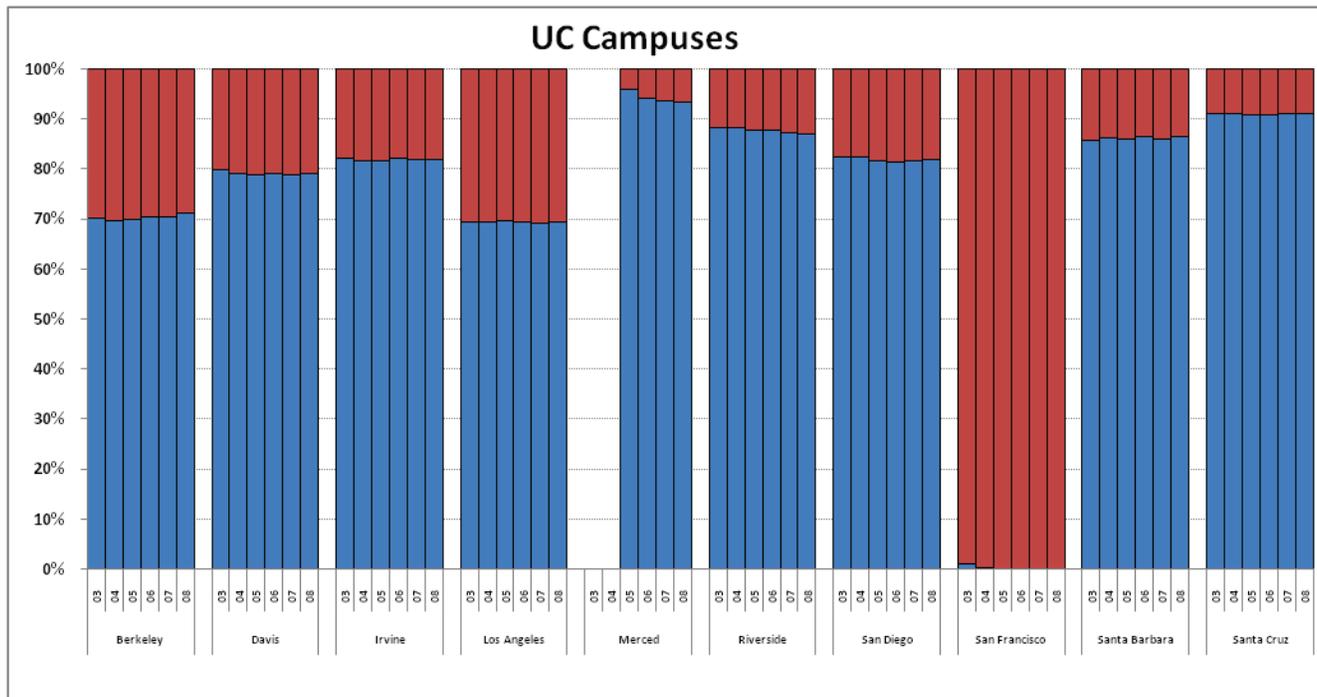
Graduate and Professional Enrollment Compared to Undergraduate Enrollment, UC and Comparison Institutions, Fall 2003 to 2008



- The proportion of graduate academic and professional degree students at UC is somewhat smaller than that at other AAU public universities and substantially smaller than that at AAU private universities.
- One reason for this difference is that graduate growth was held down in the 1980s and 1990s in order to ensure access to all eligible undergraduates who chose to attend UC.
- Graduate enrollment growth also has been slowed by the inability of graduate students or departments to secure adequate and competitive student financial support. Dramatic increases in graduate student fees in recent years have exacerbated this historic problem.

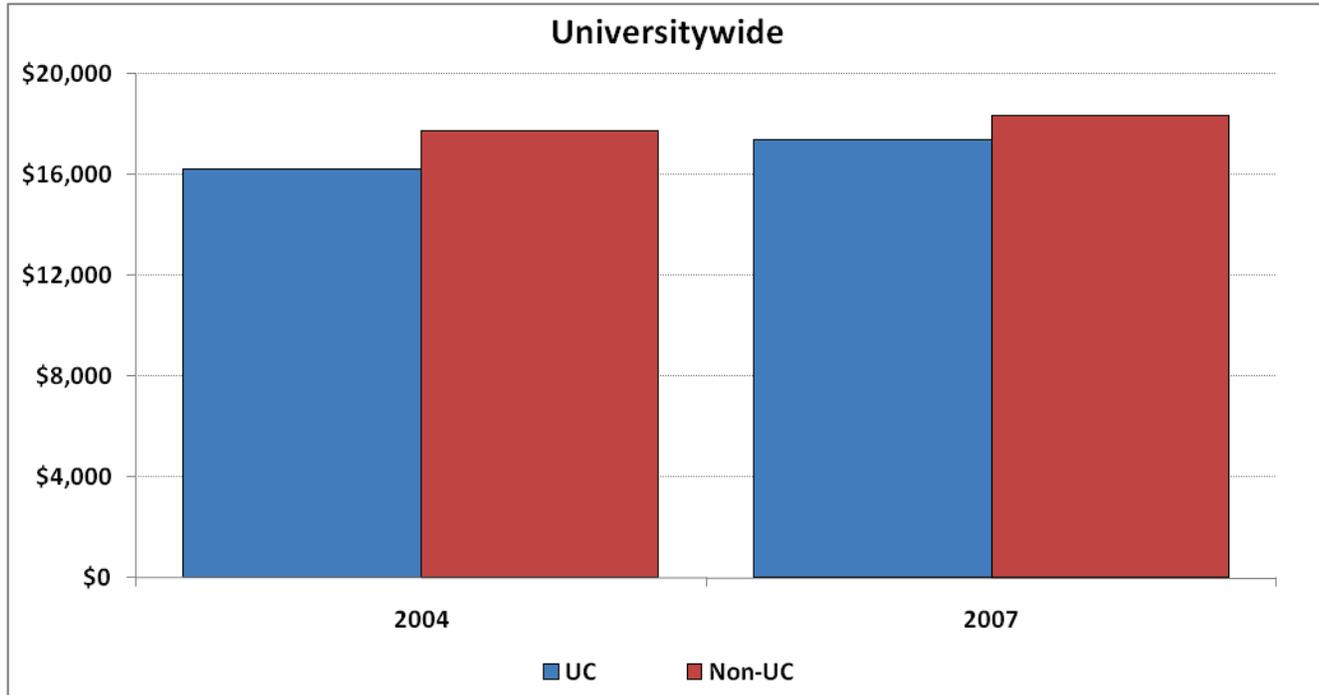
Source: National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) Fall Enrollment Survey

Indicator 27 (continued) Graduate and Professional Enrollment Compared to Undergraduate Enrollment, UC and Comparison Institutions, Fall 2003 to 2008



Indicator 28

Average Net Stipend Offered to Ph.D. Students Admitted to UC Compared to Their First-Choice Non-UC Schools, 2004 and 2007

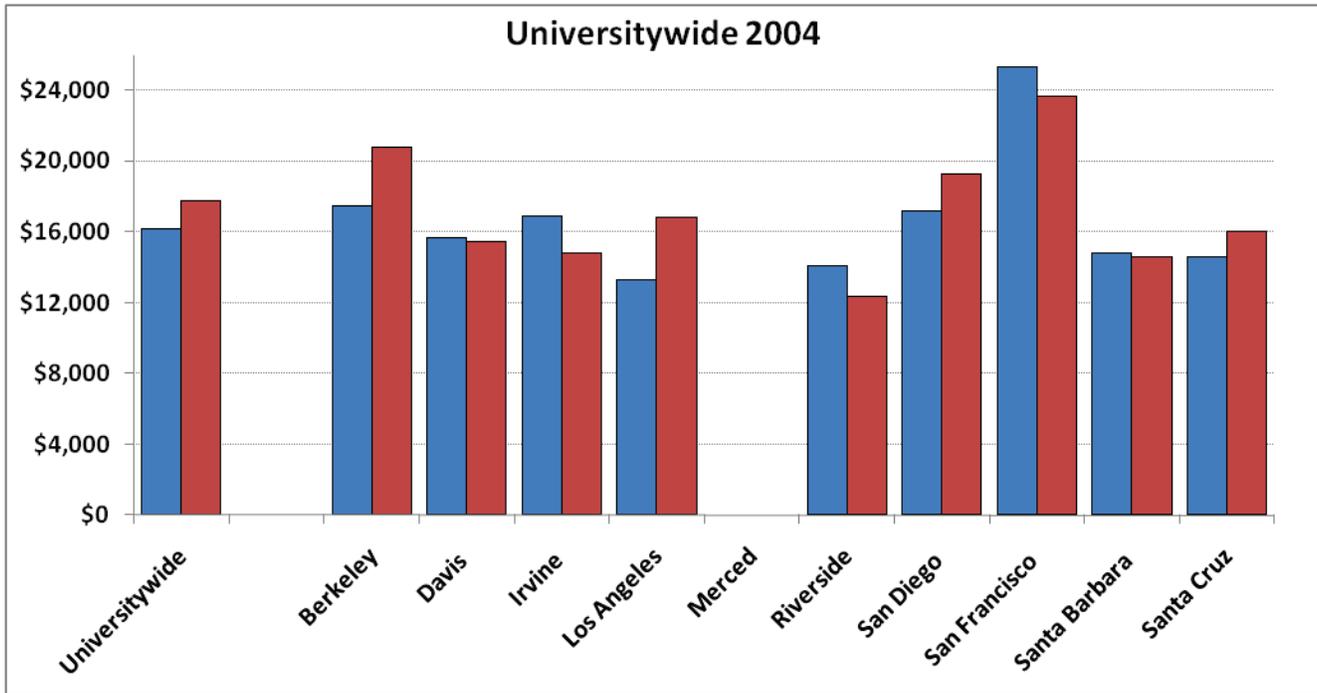


Note: Figures are in inflation-adjusted 2007 dollars.

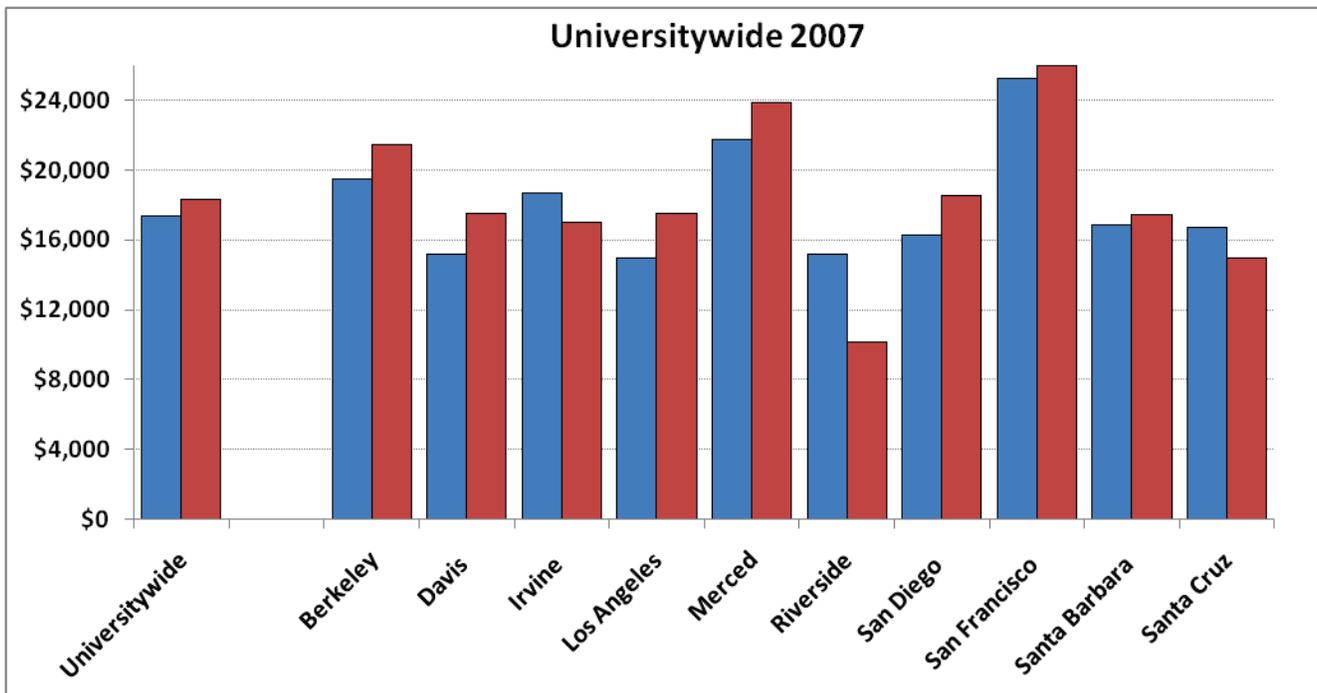
- Net stipend is the amount of competitive (non-need-based) aid that students have to live on after tuition and fees are paid. It is calculated by subtracting total tuition and fees from a student's support package (which includes both gift aid and teaching and research assistantships).
- Net stipend varies both by campus and by academic discipline.
- On average, in 2007 UC's per capita net stipend offer was \$1,000 lower than that of competing institutions. This represented an improvement over the \$1,500 competitiveness gap that existed between UC and competing institutions in 2004.
- The high cost of living in many California communities exacerbates the net stipend competitiveness gap between the UC campuses and a number of other non-UC schools.

Source: University of California Graduate Student Support Survey, Spring 2004 and Spring 2007

Indicator 28 (continued) Average Net Stipend Offered to Ph.D. Students Admitted to UC Compared to Their First-Choice Non-UC Schools, 2004 and 2007



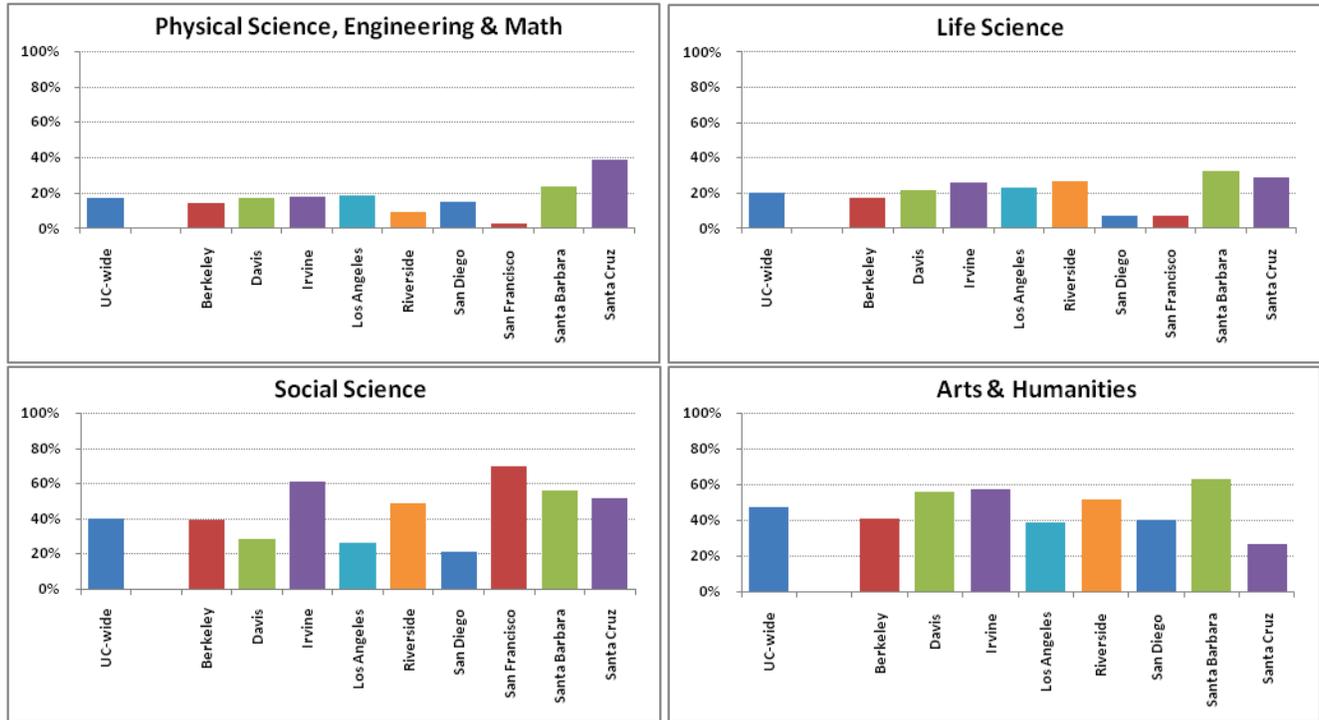
Note: Figures are in inflation-adjusted 2007 dollars.



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Indicator 29

Percent of Ph.D. Students Graduating with Loan Debt, by Discipline, UC Campuses, 2007-08

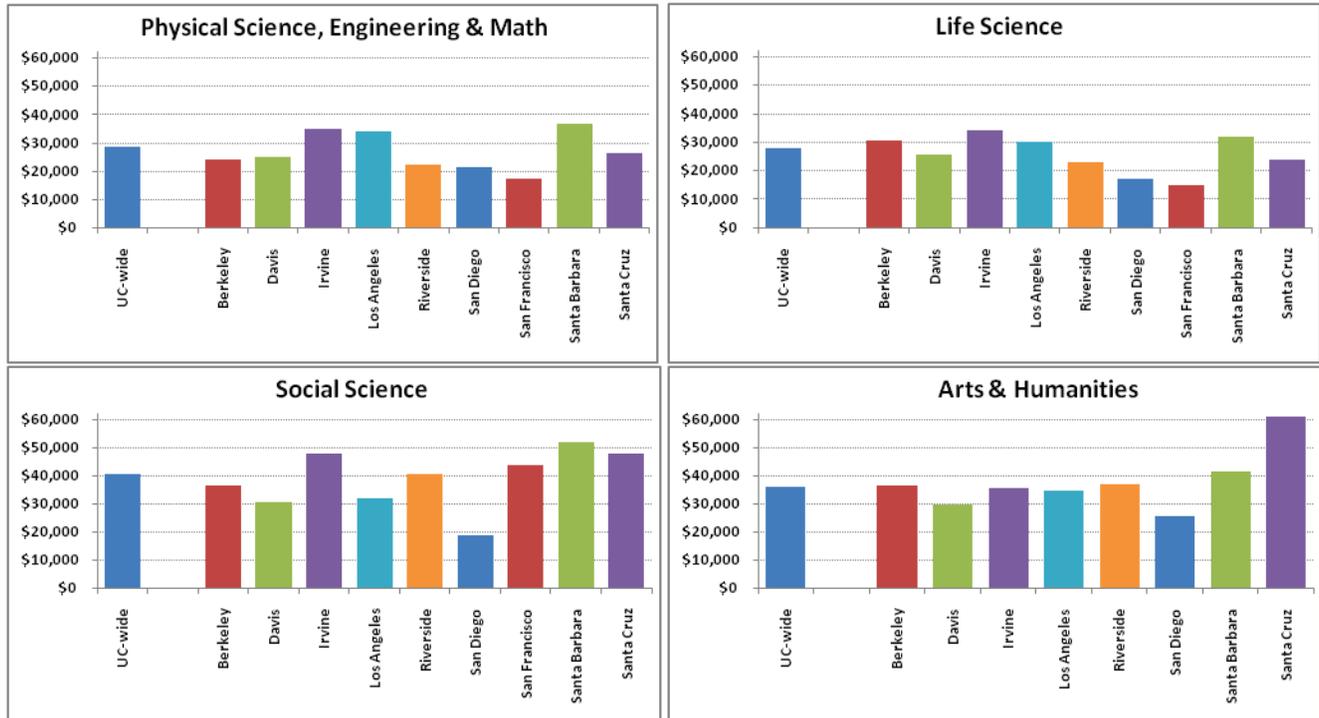


- The percent of Ph.D. students graduating with loan debt varies by campus and by discipline.
- In general, Ph.D. students in the social sciences, arts and humanities are more likely to graduate with loan debt than students in the STEM (science, technology, engineering and math) fields.
- A number of factors may account for this, most notably the fact that doctoral students in the STEM fields are more likely to be supported by federal research grants than students in the social sciences, arts and humanities.
- Doctoral students in the social sciences, arts and humanities also take longer to complete their degrees, which tends to increase their debt levels as well.

Source: UCOP Graduate Student Support Survey

Indicator 30

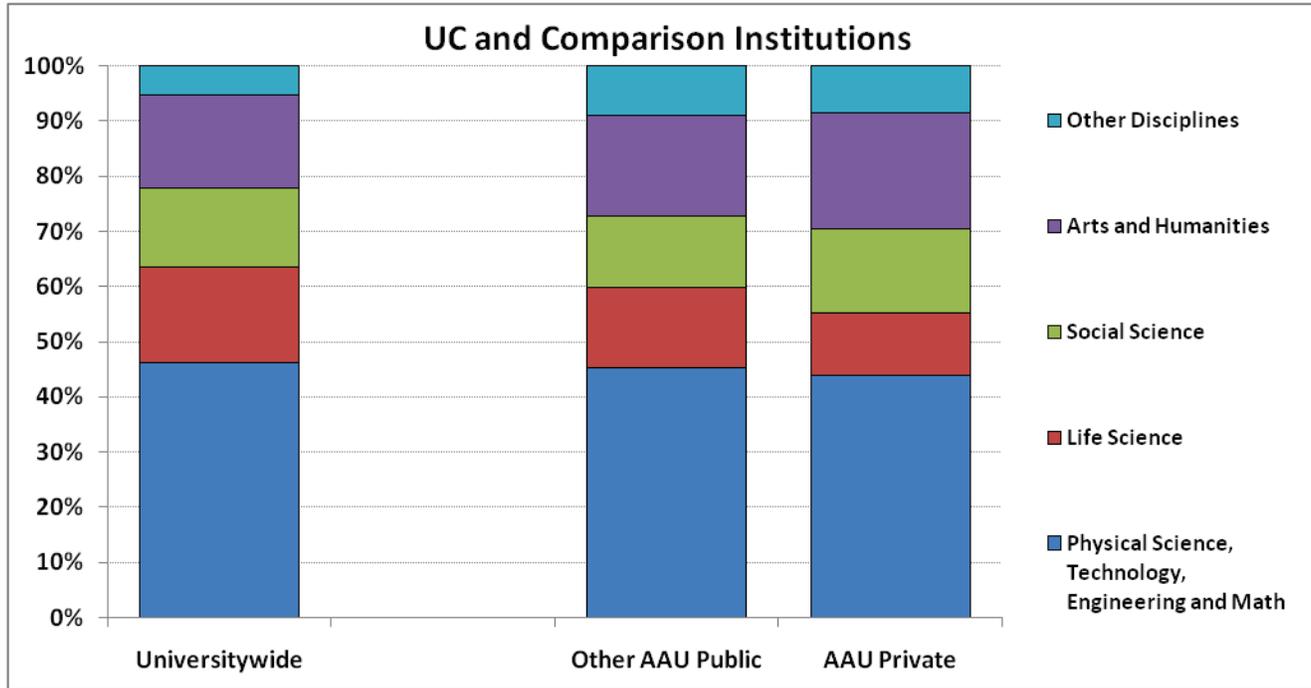
Cumulative Indebtedness of Ph.D. Student Borrowers at Graduation, by Discipline, Universitywide and UC Campuses, 2007-08



- The cumulative indebtedness of doctoral students who graduate with student loan debt varies by campus and by discipline.
- Universitywide, doctoral students in the social sciences, arts and humanities who have taken out student loans to finance their education graduate with more debt than students in the STEM (science, technology, engineering and math) fields.
- This may, in part, be due to the fact that time-to-degree rates are longer for doctoral students in the social sciences, arts and humanities than for students in STEM fields.

Indicator 31

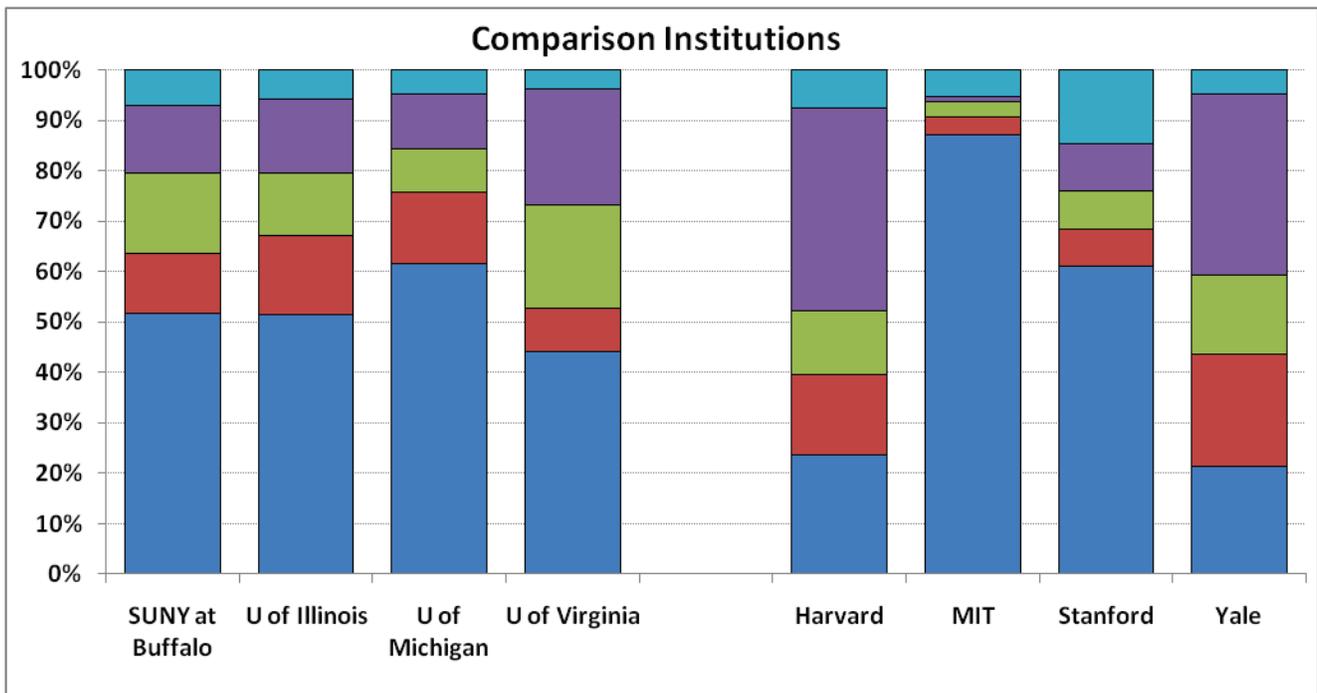
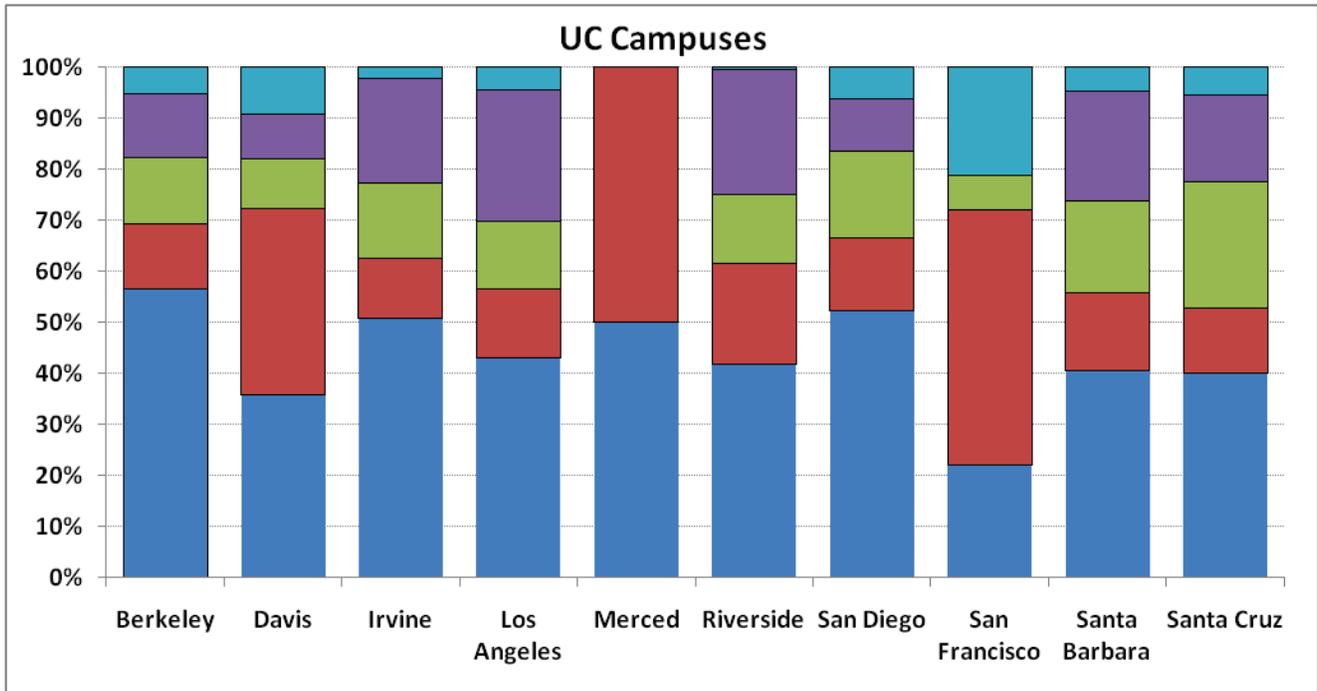
Graduate Academic Degrees Awarded by Discipline, UC and Comparison Institutions, 2007-08



- UC awards 7 percent of the nation's Ph.D.s.

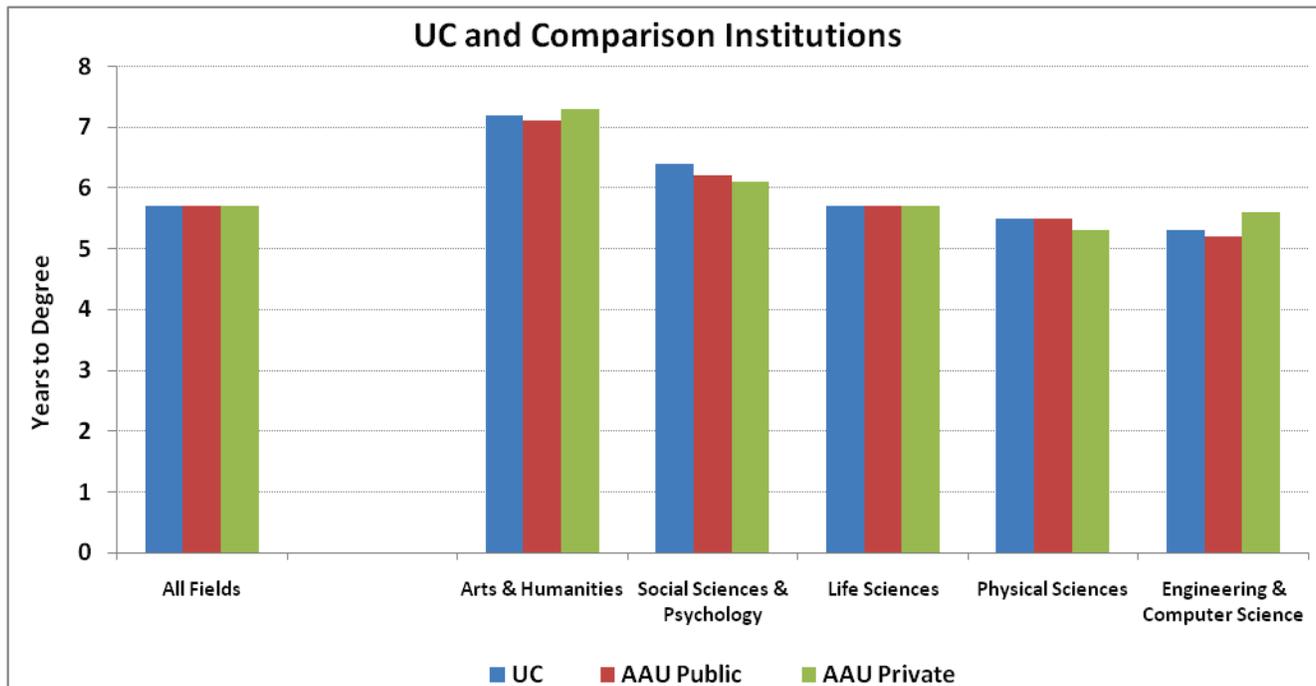
Source: National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) Completions Survey

Indicator 31 (continued) Graduate Academic Degree Awarded by Discipline, UC and Comparison Institutions, 2007-08



Indicator 32

Time to Degree for Ph.D. Students, UC and Comparison Institutions, 2003-04 to 2005-06

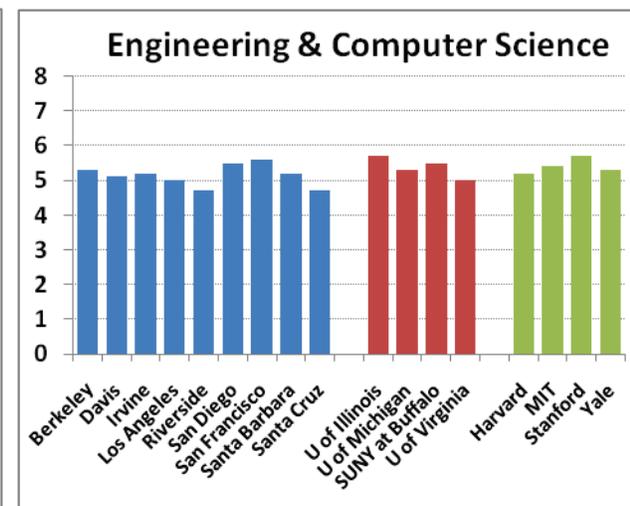
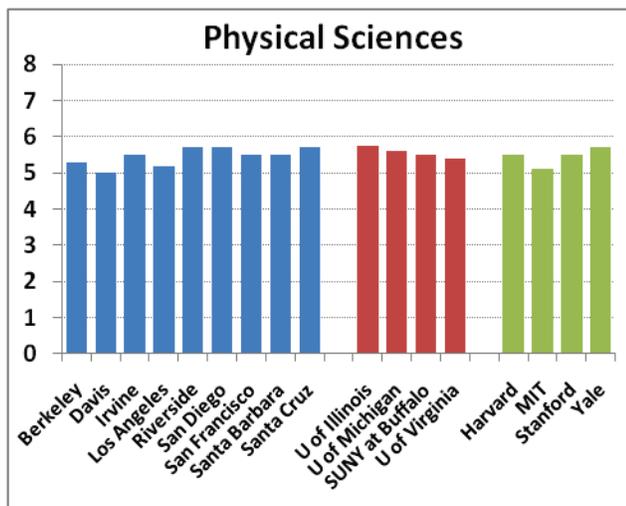
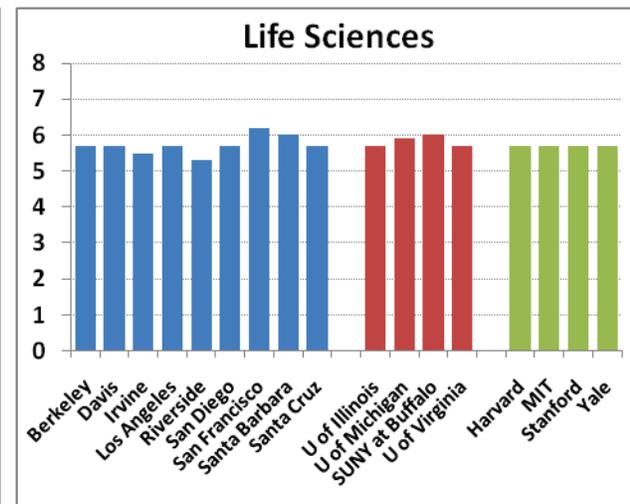
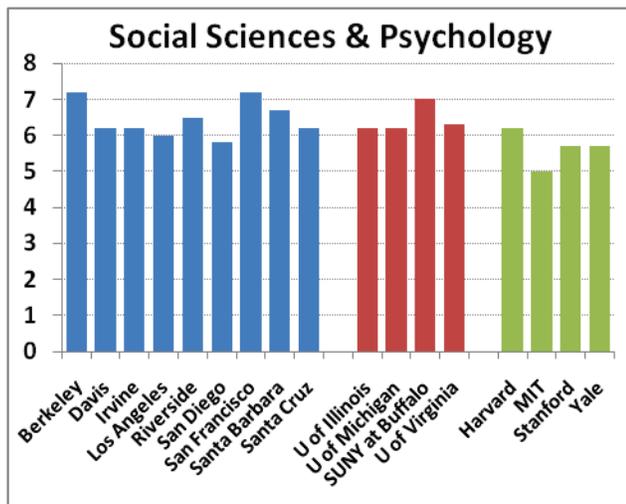
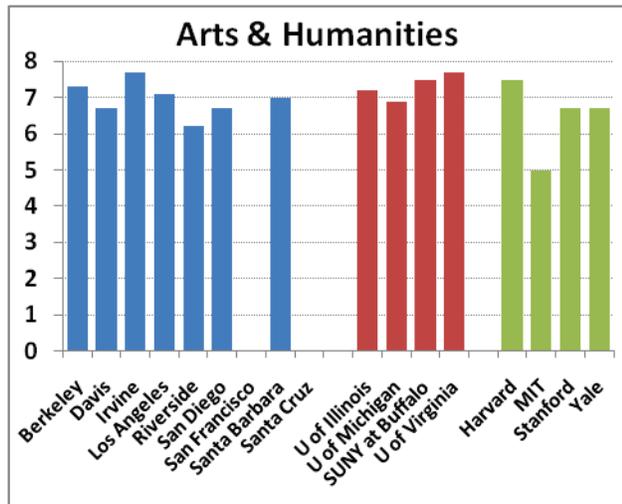
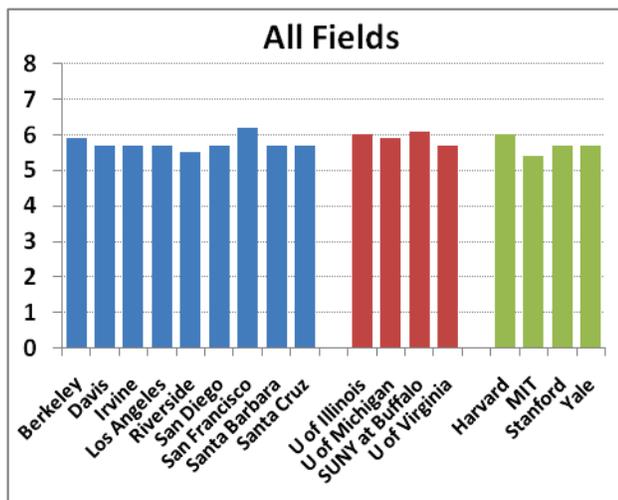


Note: Data shown are for median elapsed time to degree; data include Ed.D. students.

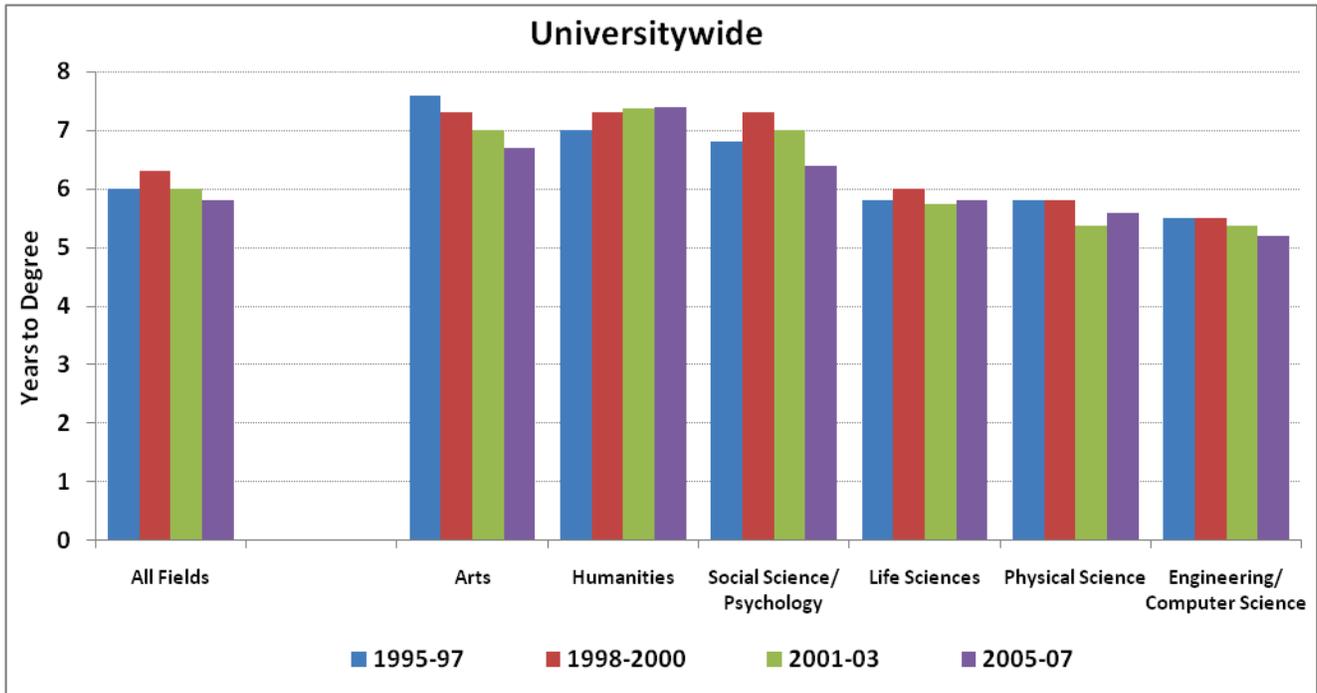
- Time to degree for Ph.D. students is measured from the time students enter their doctoral programs until the time they complete their Ph.D. degrees; it is based upon a rolling average over a three-year period.
- On average, Ph.D. students at UC take about the same amount of time to complete their degrees as students at other AAU research universities.
- However, Ph.D. students in the arts and humanities take longer to complete their degrees than Ph.D. students in other fields. This may be due to a number of factors: the additional time arts and humanities students spend as teaching assistants, the more individual nature of their dissertation research, the fact that they must often meet significant language requirements depending on their major and the fact that they more often interrupt their studies for financial or other reasons.

Source: Survey of Earned Doctorates, various years; sponsored by National Science Foundation, 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.

Indicator 32 (continued) Time to Degree for Ph.D. Students, UC and Comparison Institutions, 2003-04 to 2005-06



Indicator 33
Time to Degree for Ph.D. Students, 1995-97 to 2005-07



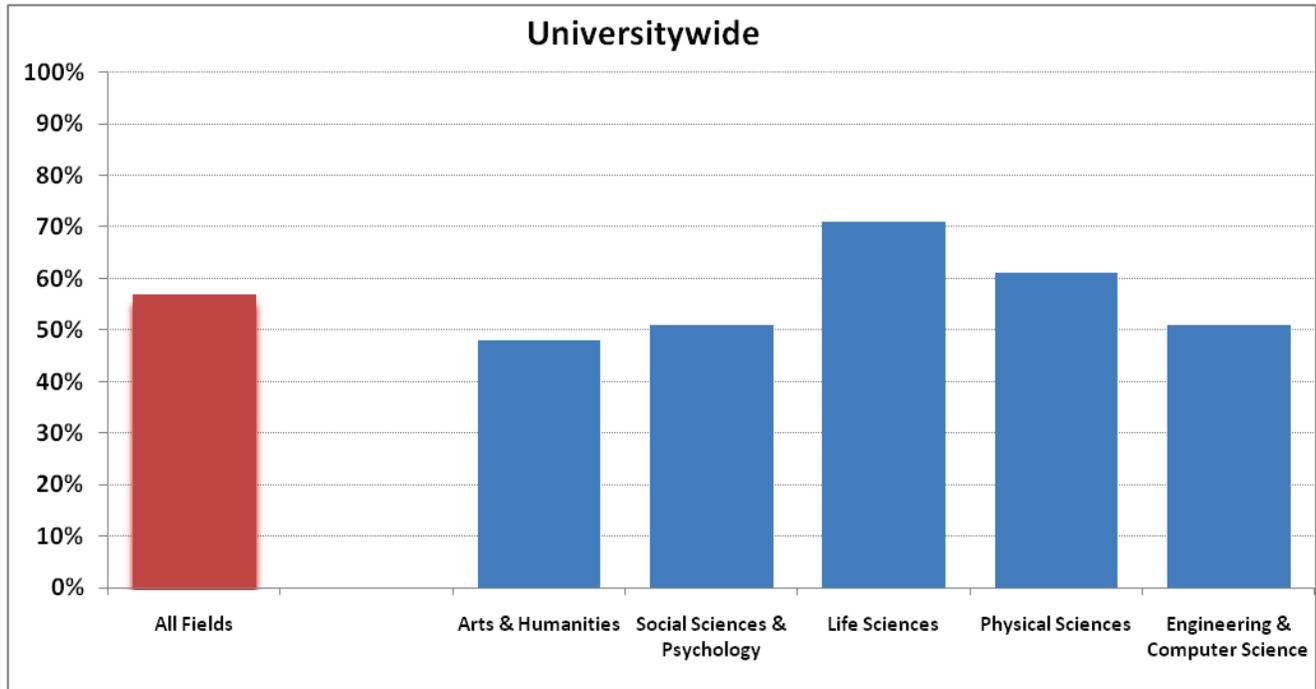
Note: Data shown are for elapsed time to degree.

- Overall, the time it takes UC Ph.D. students to complete their degrees has fallen from 6.3 years for those graduating in 1998-2000 to 5.8 years for those graduating in 2005-07.
- Recent humanities Ph.D.s are the one exception to this trend; they took about six months longer to complete their degrees than those who graduated 10 years earlier.

Source: UC Campus Graduate Divisions

Indicator 34

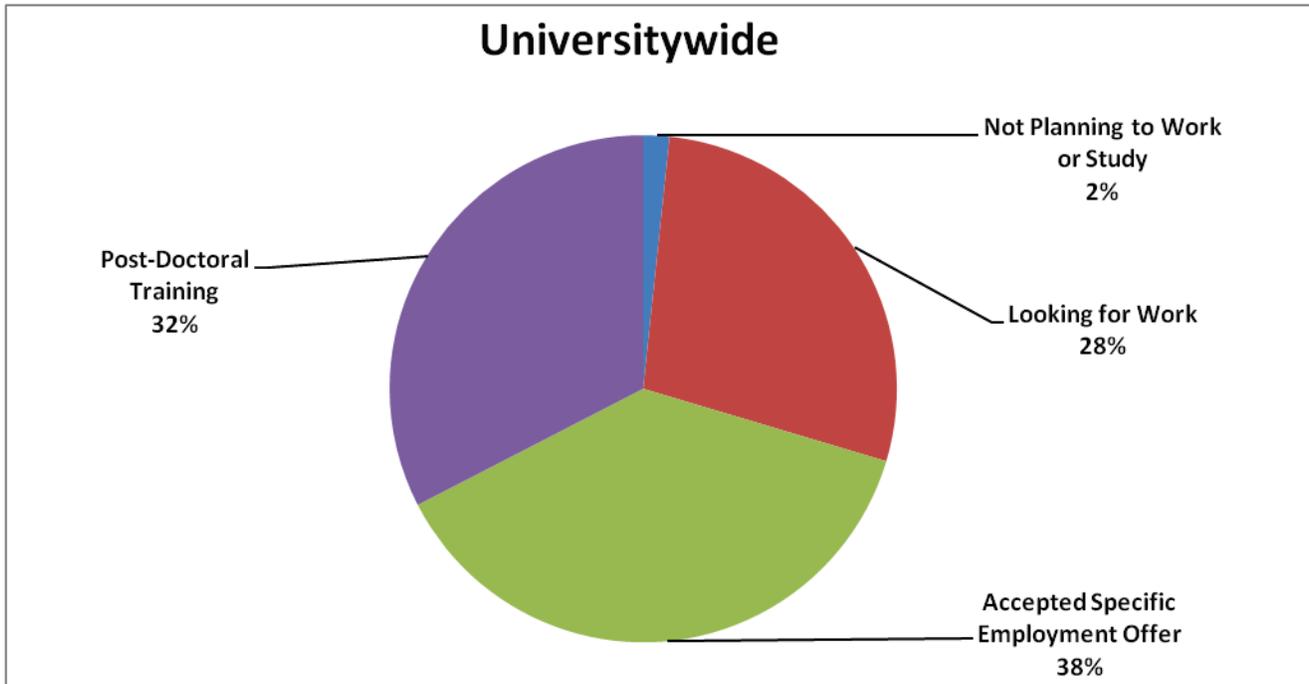
Ten-Year Ph.D. Completion Rates, Students Entering in Fall 1992 to 1994



- Completion of a Ph.D. requires intensive study and original research that makes a significant contribution to knowledge. In the lab sciences, this typically includes publication of research papers in scientific journals. In other fields, it generally requires completion of a book-length dissertation.
- Overall, 57 percent of students who began doctoral studies at UC between fall 1992 and fall 1994 had completed their Ph.D.s 10 years later.
- Over half of entering doctoral students who left their programs without completing the Ph.D. did complete a master's degree. Put another way, more than three-quarters of all students who began doctoral study at UC completed at least one graduate degree (master's or doctoral).
- Although data for all AAU institutions are not available, data from the Council of Graduate School's Ph.D. Completion Project suggest doctoral completion rates at UC are similar to those at similar institutions (www.phdcompletion.org/quantitative/book1_quant.asp).
- Comparative data on completion rates for doctoral students will be available from the 2010 National Research Council's Assessment of Doctorate Programs (forthcoming).

Source: UCOP Corporate Student System. This system contains data on all degree-seeking students Universitywide.
Data include Ed.D. recipients.

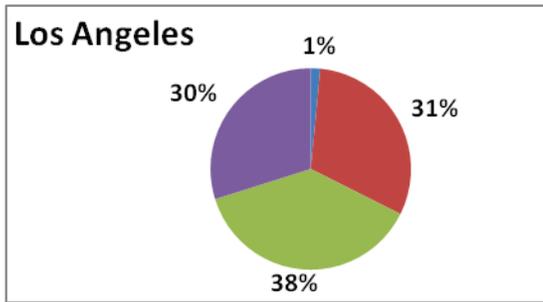
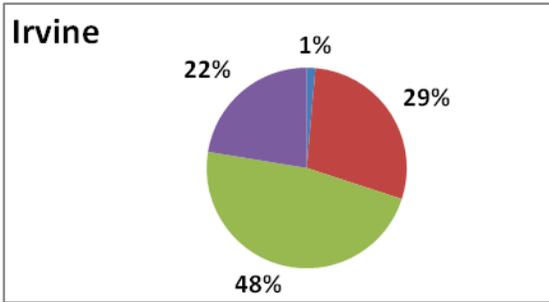
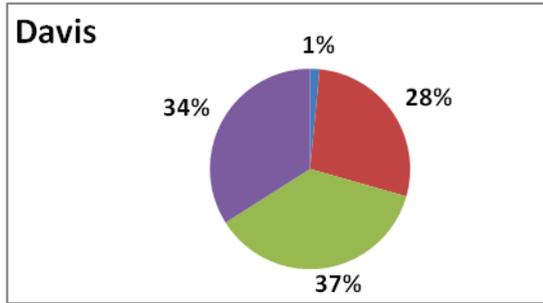
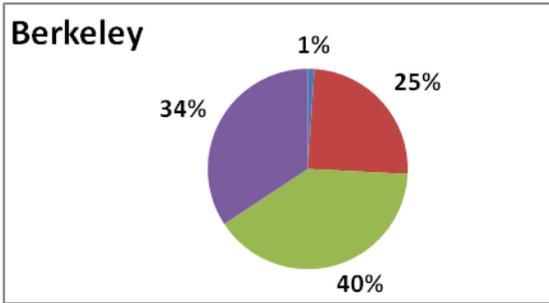
Indicator 35
Plans at Time of Ph.D. Completion, Spring 2007



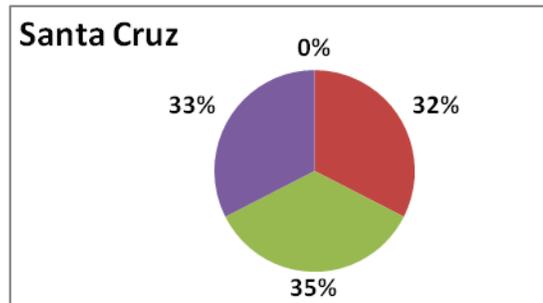
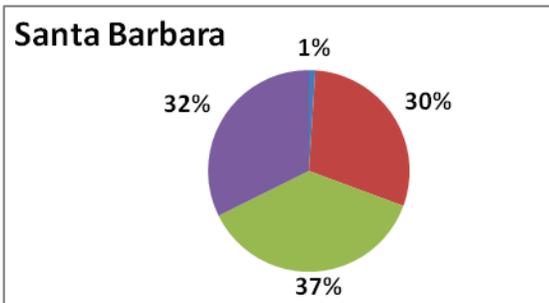
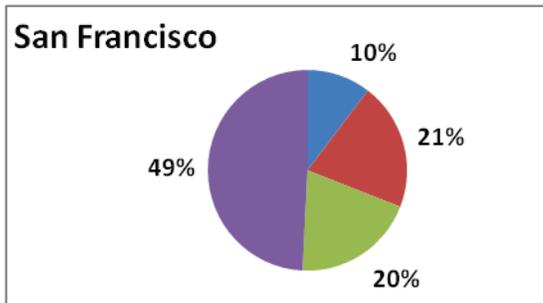
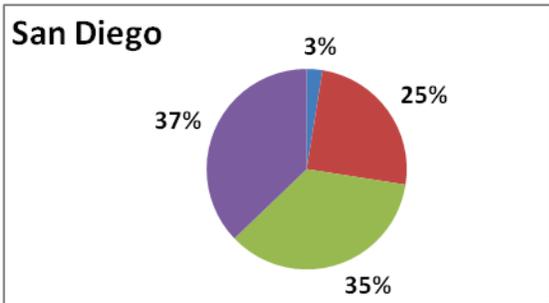
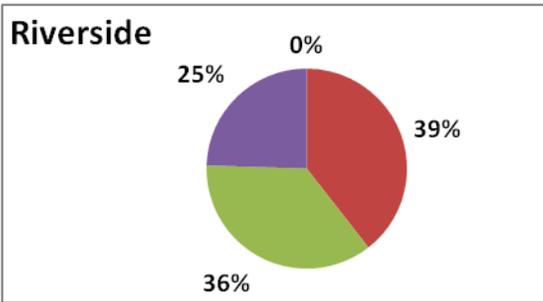
- More than one-third (37 percent) of students who earned a Ph.D. from UC already had accepted an employment offer by the time they had finished their Ph.D. degrees; another quarter (28 percent) were actively seeking employment.
- In addition, another third had accepted an offer of a post-doctoral position. Post-doctoral training—in which Ph.D. students do further research for one or two years under the guidance of a faculty member at a research university before accepting a permanent, full-time position—has become an integral part of the training of Ph.D. students, especially in the sciences.
- Two percent of new Ph.D.s had no immediate plans for further work or study the year after completing their degrees.

Source: Survey of Earned Doctorates, various years; sponsored by National Science Foundation, 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.

Indicator 35 (continued) Plans at Time of Ph.D. Completion, Spring 2007



(Merced opened in 2005 and had awarded very few graduate degrees as of spring 2007.)



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