

CHAPTER THREE

UNDERGRADUATE STUDENT SUCCESS



UNDERGRADUATE STUDENT SUCCESS

Trends in graduation rates and goals

Two traditional measures of student success are graduation rates and time to degree. By both measures, UC's undergraduates are highly successful. The four-year graduation rates for freshmen have risen significantly over the past 16 years — from 46 percent for the 1997 entering cohort to 70 percent for the 2015 cohort. The most recent six-year graduation rate, for the 2013 entering cohort, is 85 percent (3.1.1), which has increased by six percentage points since 1996. The six-year graduation rate is 88 percent when this measure includes students who transfer to non-UC institutions (3.1.2) and still graduate within six years. In addition, time to degree has steadily improved. The most recent freshman entrants are taking an average of 4.17 years to graduate, an improvement on the 2000 cohort, which took 4.33 years.

Transfer entrants have made similar gains, with two-year graduation rates increasing from 37 percent for the 1997 entering cohort to 59 percent for the 2017 cohort (3.1.3). The most recent four-year graduation rate for transfers (2015 entering cohort) is 89 percent, an increase of about ten percentage points since 1997. The average time to degree is 2.4 years for the 2012 cohort, an improvement from 2.6 years for the 1996 cohort (3.1.8).

Although graduation rates have increased for all students, there are still gaps in rates between subgroups (3.1.4, 3.1.5, 3.1.6, and 3.1.7). New-generation students — that is low-income students, first-generation students, and students from underrepresented groups (URGs) — have lower average graduation rates, especially four-year graduation rates for freshmen and two-year graduation rates for transfers. Assuming the net cost of attendance ranges from about \$11,000 for very-low-income California resident students to about \$30,000 for California residents in the highest income bracket, and assuming that the median early-career salary is around \$40,000, students graduating in four years as opposed to six could benefit from about \$100,000 to \$150,000 in lower costs and additional wages.

UC's goal is to enable all 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. In its UC 2030 goals, the University of California seeks to increase the four-year graduation rate from 68 percent (2014 cohort) to 76 percent by 2030, and two-year graduation rates from 57 percent (2016 cohort) to 70 percent by 2030.

Improving graduation rates and eliminating gaps

The UC Office of the President and campuses have employed predictive analytics to obtain a better understanding of factors that influence graduation rates. Findings indicate that pre-college factors such as academic preparedness measured by high school GPA, the rigor of student's high school or transfer courses, standardized test scores, and demographics are related to, but only explain a small portion of, variance in time to degree and graduation rates. Campus climate, access to courses, student sense of belonging, student engagement in academic and civic activities, and success in the first year at college, among many other factors, are important to college completion and timely graduation.

To address challenges facing students and campuses, and reach UC's goal of improving graduation rates, UC campuses have identified, and where possible are expanding, a wide range of programs to promote the academic success of undergraduates and eliminate gaps in graduation rates, particularly for new generation students. These include expanding orientation, advising, and counseling services; increasing on-campus work opportunities; redesigning and removing achievement gaps in entry courses with large enrollments; streamlining course prerequisites, course sequences, and degree requirements; summer research and summer bridge programs; increasing access to summer session courses; developing pedagogical strategies for the diversification of classrooms and instruction; and conducting learning analytics to assist students who might need additional support.

Students who take longer to graduate leave with more debt, have lower lifetime earnings, and are less likely to go onto graduate school. Recognizing the importance of early student success for on-time graduation, UC campuses are specifically making efforts to improve first-year student success. Many campuses offer summer bridge, transfer edge, extended orientation, and/or first-year seminars to assist students with the transition to UC. Campuses are also making advising mandatory for first-year students. Many UC campuses offer first-year students the opportunity to work on a research project with a faculty member. UC recently launched the systemwide First-Generation Faculty Initiative, which connects first-generation students to both faculty and staff mentors.

Undergraduate outcomes

The number of undergraduate degrees awarded by UC grew from about 32,900 degrees in 2000–01 to about 49,400 degrees in 2014–15, and 57,000 degrees in 2018–19 (3.3.1). Increases in the size of the entering freshman class and improving graduation rates contributed to this growth. UC has proposed a multiyear framework that seeks to improve degree attainment and produce 200,000 more degrees in addition to the projected baseline of one million degrees over the next 15 years, between 2015–16 and 2029–30. About 80 percent of these additional degrees (160,000) would be at the undergraduate level.

UC undergraduate alumni enroll at graduate schools or work in various industries. Four years after graduation, more than one-quarter of bachelor's degree recipients have enrolled in graduate or professional programs. More than half are working in key industries such as health care, K–12 education, finance & insurance, public administration, social assistance, higher education, engineering, and internet and computer systems. Many alumni work in industries that closely align with the majors they chose. By ten years after graduation, 56 percent of engineering & computer science majors work in engineering, manufacturing, or internet and computer systems; 30 percent of life science majors work in health care; and 34 percent of arts & humanities majors are working in K–12, higher education, or performing arts and entertainment.

UC alumni working in California surpass the typical earnings of other California bachelor's degree recipients (aged 25 and over) by six years after graduation. The earnings trajectory of UC alumni increases rapidly; ten years after graduation they double what they were earning two years after graduation, on average (3.3.2). Economic success is prevalent for all socioeconomic groups, including students whose families qualified for federal Pell Grants. Within five years of graduation, the majority of Pell Grant recipients earn an average income higher than their parents' combined incomes during the time those students attended UC (approximately \$50,000).

Looking forward

UC campuses have identified promising strategies that, if increased in scale, could help achieve ambitious UC 2030 goals. The University has not yet received state funding to expand these programs and strategies. Recent declines in first-year retention rates signal that future UC graduation rates could also decline and the gaps for new generation students could grow. Furthermore, it is unclear how the COVID-19 pandemic and shift to remote instruction could affect student success and retention.

[For more information](#)

Graduation rates and goals by campus, gender, Pell, residency status, race/ethnicity, and other factors:
universityofcalifornia.edu/infocenter/ug-outcomes

UC 2030 systemwide and campus dashboards:
universityofcalifornia.edu/infocenter/uc-2030-dashboard

Eliminating gaps in timely graduation:
regents.universityofcalifornia.edu/regmeet/sept19/b2.pdf

UC's undergraduate alumni outcomes, including employment industries and earnings:
universityofcalifornia.edu/infocenter/uc-undergraduate-alumni-outcomes

UC's report on Advising Strategies to Support Timely Graduation:
ucop.edu/institutional-research-academic-planning/_files/Advising_strategies.pdf

Total degrees awarded by degree type, campus, gender, and race/ethnicity:
universityofcalifornia.edu/infocenter/degrees-awarded-data

UC's role in enabling low-income students to achieve intergenerational economic mobility
universityofcalifornia.edu/infocenter/climb-mobility-analysis

UC First-Generation Faculty Initiative
universityofcalifornia.edu/news/uc-first-generation-faculty-students-you-ve-got-and-we-re-here-help

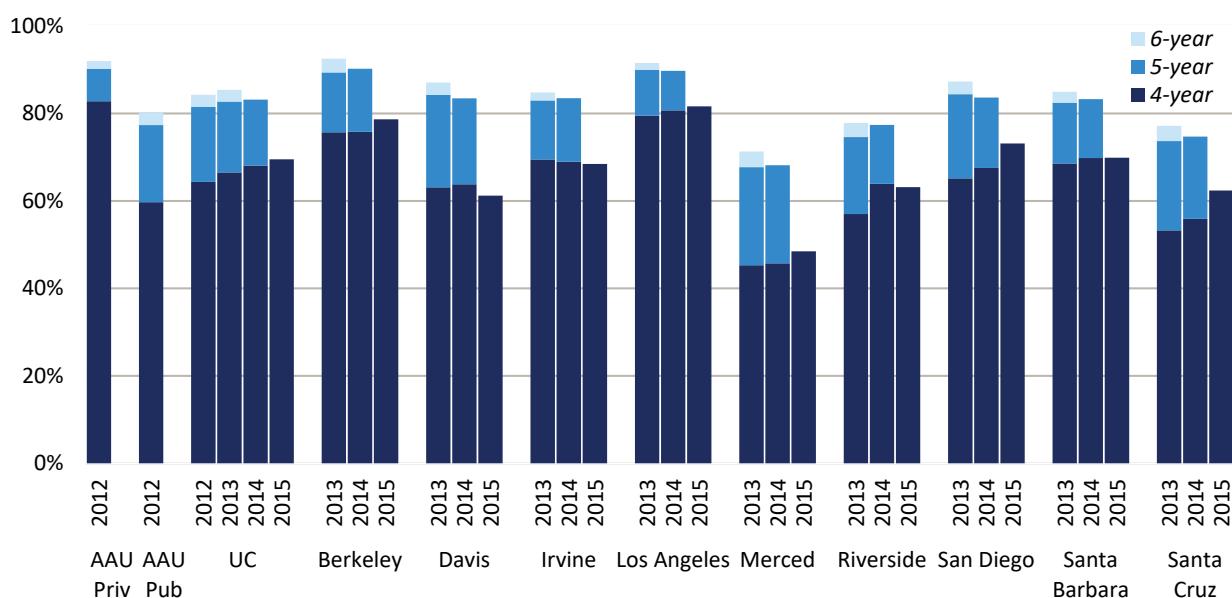
3.1 GRADUATION RATES

Over 80 percent of UC freshmen graduate within six years, a higher rate than comparable AAU public universities.

3.1.1 Freshman graduation rates

UC and comparison institutions

Cohorts entering fall 2013, 2014, and 2015; fall 2012 cohort for AAU comparison



Source: UC Data Warehouse and IPEDS¹

UC's six-year graduation rate is higher than that of comparable AAU public institutions. UC's four-year graduation rates for freshmen have risen significantly since 1997, from 46 percent for the 1997 entering cohort to 70 percent for the 2015 cohort. In recent years, UC Riverside and UC Santa Cruz improved their four-year graduation rates by about seven and three percentage points, respectively. These improvements are due to factors including campus programs supporting four-year completion, improvements in academic preparation of incoming students, and the current cost of a UC education, all of which motivate students to complete their degrees in timely fashion.

UC's latest freshman six-year graduation rate is 85 percent, which is a five-percentage point increase over the past twenty years.

By 2030, UC is striving to raise four-year completion to 76 percent and six-year completion to 90 percent. UC is seeking financial support from the state to achieve these goals.

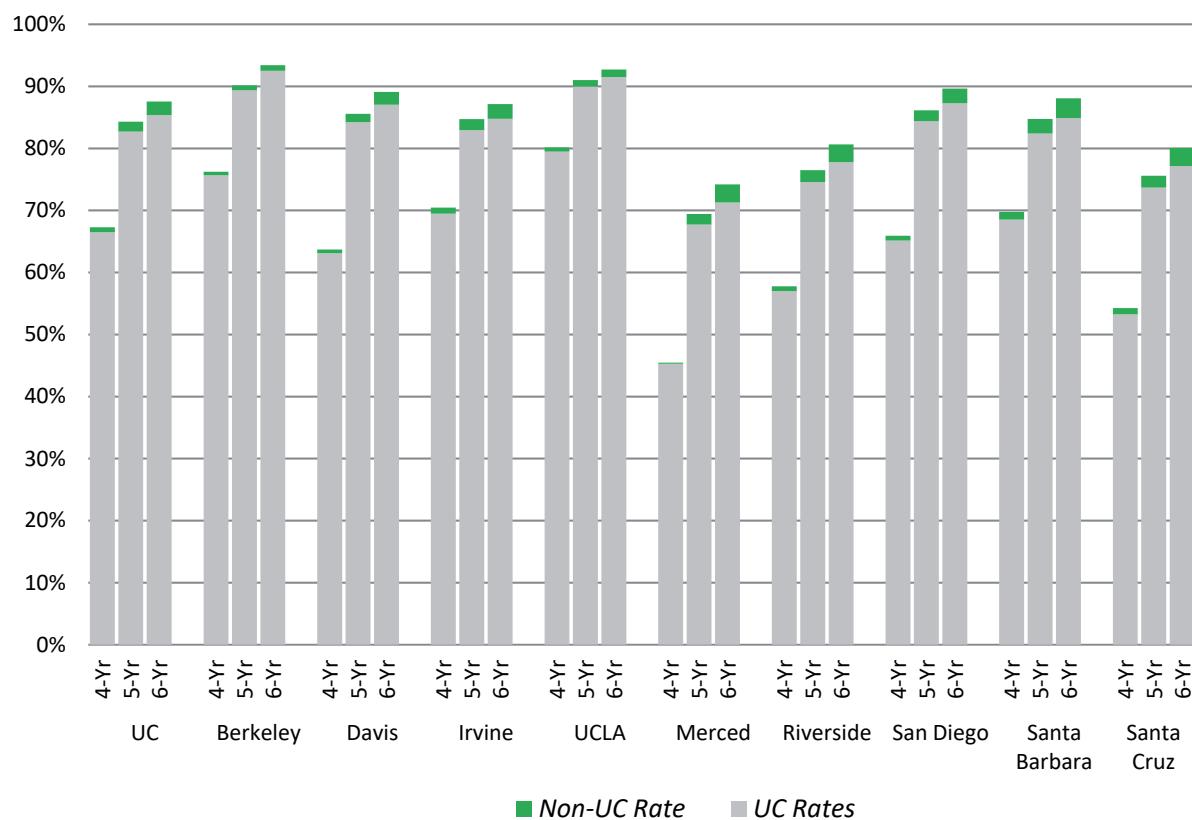
More information on trends in UC freshman graduation rates can be found at:
universityofcalifornia.edu/infocenter/ug-outcomes.

¹ Comparison IPEDS data are available for more limited years. The AAU comparison institutions are in the data glossary. AAU comparison is for the 2012 cohort, the most recent data available. Graduation rates are weighted by total cohort size. Institutions with missing data are excluded for that year. Freshmen are those students who entered a university directly from high school and who have not matriculated at another postsecondary institution prior to enrollment. UC statistics give credit to the originating campus for inter-UC campus transfers.

3.1 GRADUATION RATES

The six-year graduation rate of UC freshmen is close to 90 percent when students who finished their degrees 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 2013



Source: UC Data Warehouse and the National Student Clearinghouse¹

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

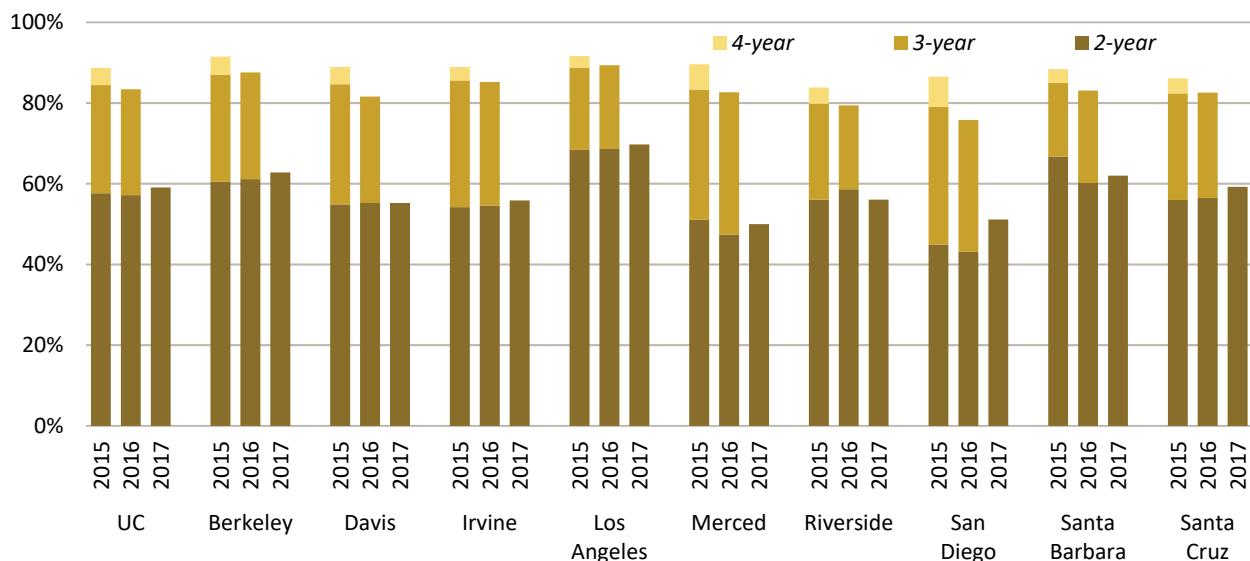
By this measure, UC's overall six-year graduation rate is about 88 percent. The effect of the extended graduation rate varies by UC campus, with Berkeley having fewer students who earn a degree outside of the UC system, while the six-year rates at Merced, Riverside, Santa Barbara, and Santa Cruz improve by as much as three percentage points when students who complete their degree at a non-UC school are included.

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.

3.1 GRADUATION RATES

Nearly 60 percent of transfer students graduate within two years.

3.1.3 Transfer graduation rates
Universitywide and UC campuses
Cohorts entering fall 2015, 2016, and 2017



Source: UC Data Warehouse¹

The two-year graduation rate for transfers is currently at 59 percent, the highest since 1995. The four-year rate is 89 percent. More information on trends in UC transfer graduation rates can be found at: universityofcalifornia.edu/infocenter/ug-outcomes.

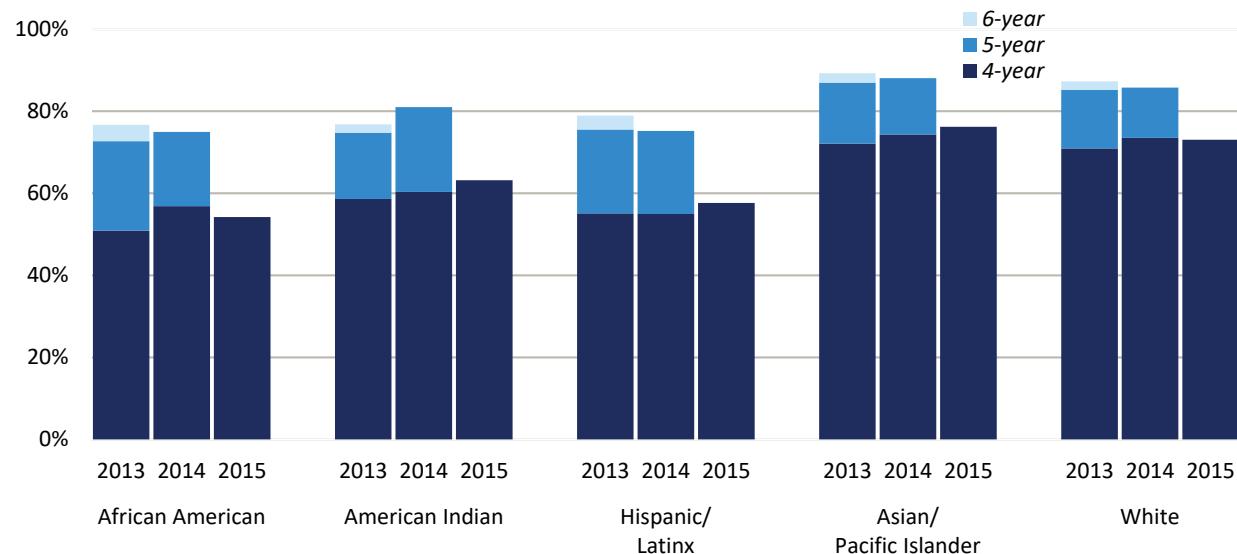
UC is striving to improve two-year graduation rates to 70 percent by 2030. UC is seeking financial support from the state to expand programs and services to achieve these ambitious goals.

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.

3.1 GRADUATION RATES

Underrepresented group (URG) students at UC graduate at higher rates when compared to URG students at other AAU public institutions, but gaps exist with other UC peers.

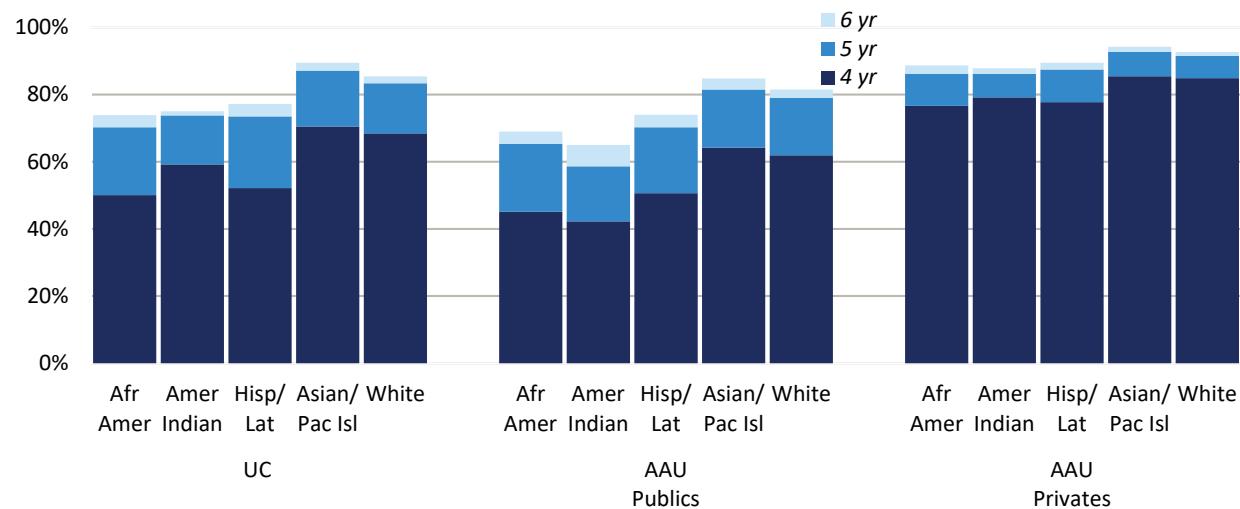
3.1.4 Freshman graduation rates by race/ethnicity
Universitywide, AAU public, and AAU private
Cohorts entering fall 2013, 2014, and 2015



By 2030, UC is looking to eliminate graduation gaps for underrepresented groups. Compared to the overall 4-year rate of 70 percent, African American students have a 54 percent rate, Hispanic/Latinx a 58 percent rate, and American Indian a 63 percent rate.

More information on trends in UC freshman graduation rates by campuses and demographic detail can be found at:
<https://universityofcalifornia.edu/infocenter/ug-outcomes>.

UC and comparison institutions, cohort entering fall 2012



Source: UC Data Warehouse and IPEDS.

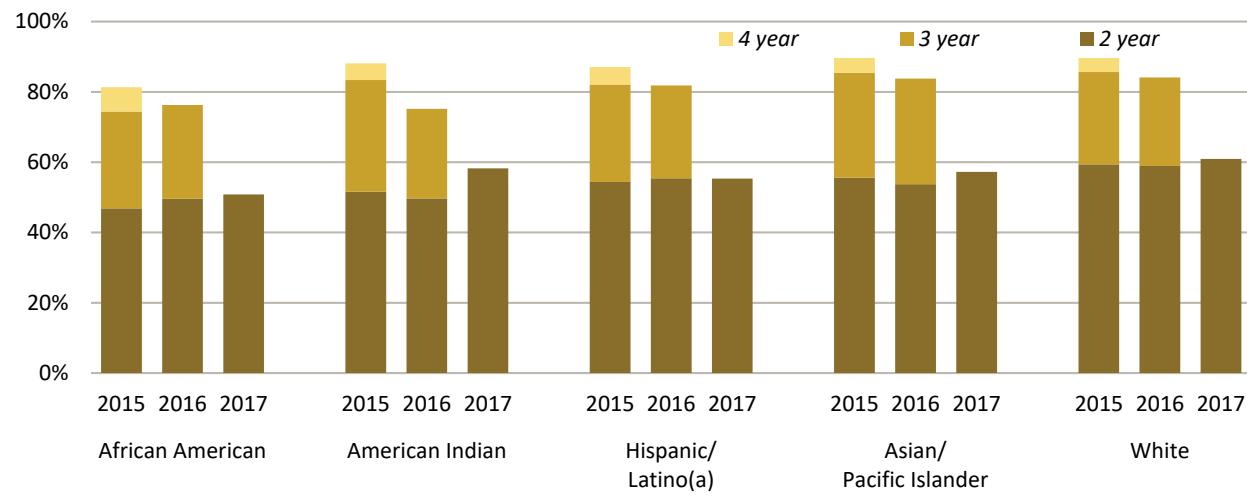
3.1 GRADUATION RATES

Regardless of race/ethnicity, transfer students graduate at a high rate, and the rate for two-year graduates is rising.

3.1.5 Transfer graduation rates by race/ethnicity

Universitywide

Cohorts entering fall 2015, 2016, and 2017



Source: UC Data Warehouse.

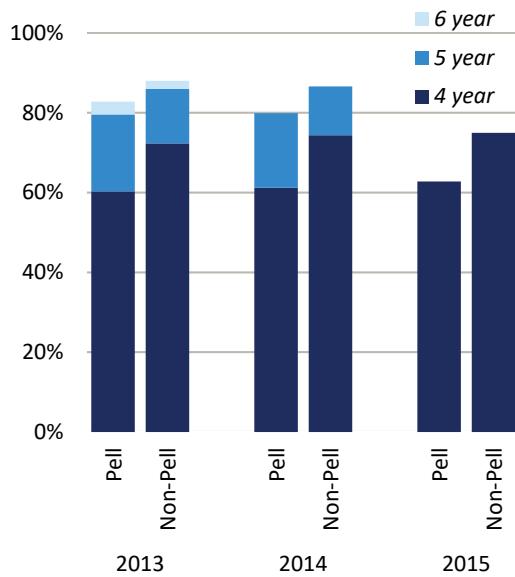
While graduation gaps are smaller for transfer students than for students who enter as freshmen, gaps still remain. By 2030, UC is looking to eliminate graduation gaps for underrepresented groups and raise the overall ontime graduate rate.

More information on trends in UC transfer graduation rates by campus and demographic detail can be found at:
universityofcalifornia.edu/infocenter/ug-outcomes.

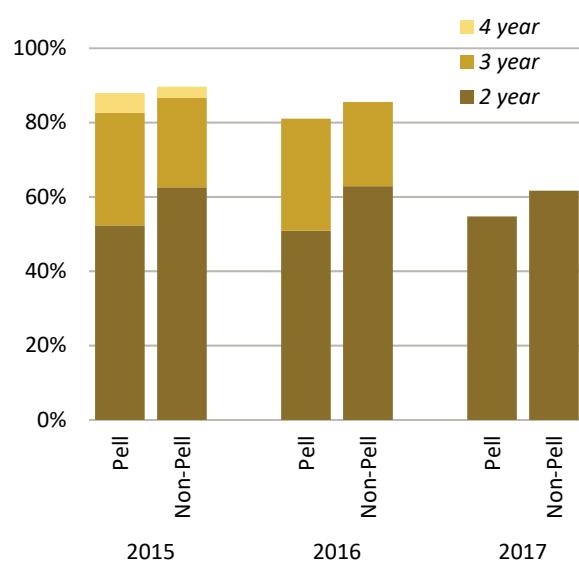
3.1 GRADUATION RATES

Over 82 percent of Pell Grant students graduate within six years.

3.1.6 Freshman graduation rates by Pell Grant recipient status
Universitywide
Cohorts entering fall 2013, 2014, and 2015



3.1.7 Transfer graduation rates by Pell Grant recipient status
Universitywide
Cohorts entering fall 2015, 2016, and 2017



Source: UC Data Warehouse. Pell Grant recipients are those who received a Pell Grant at any point during their time at UC.

Freshman Pell Grant recipients graduate at rates comparable to non-Pell recipients: 83 percent and 88 percent, respectively. Although there is a 12-percentage point gap at the four-year mark between freshman Pell recipients (63 percent) and non-Pell recipients (75 percent), this gap is reduced to five percentage points at the six-year mark.

For the transfer 2015 cohort, Pell and non-Pell Grant recipients graduated at comparable rates of 88 percent and 90 percent, respectively, within four years. However, the two-year graduation rate gap

between Pell and non-Pell Grant recipient transfer students is seven percentage points.

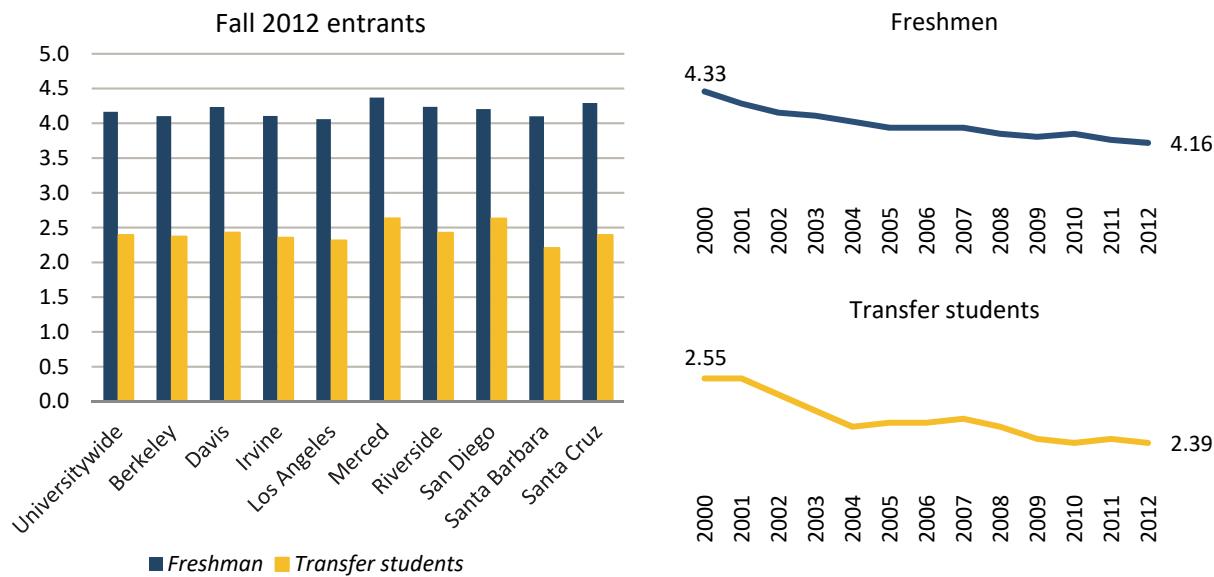
UC has adopted goals to eliminate graduation gaps by 2030 and is seeking funds from the state to support investment in programs and services needed to help achieve these ambitious goals.

More information on trends in graduation rates can be found at universityofcalifornia.edu/infocenter/ug-outcomes.

3.1 GRADUATION RATES

As graduation rates rise, undergraduate students at UC are also graduating more quickly.

3.1.8 Average time to degree Universitywide and UC campuses



Source: UC Corporate Student System.

Average time to graduation only includes students who graduated from UC within seven years.

The average time to earn a bachelor's degree at UC has decreased fairly steadily since 1994. Students entering as freshmen take an average of 4.16 years, down from 4.33 years in 2000.

For students entering as transfers, the average time to degree is 2.4 years, down from 2.55 years in 2000. More information on trends in UC time to degree can be found at universityofcalifornia.edu/infocenter/ug-outcomes.

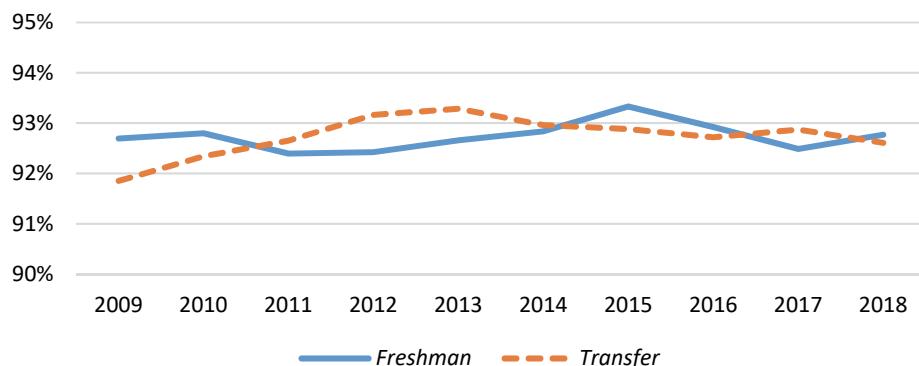
3.2 RETENTION RATES

Retention rates are high, but UC is monitoring recent declines.

3.2.1 First-year retention rates

UC systemwide

Cohorts entering fall 2009 to fall 2018

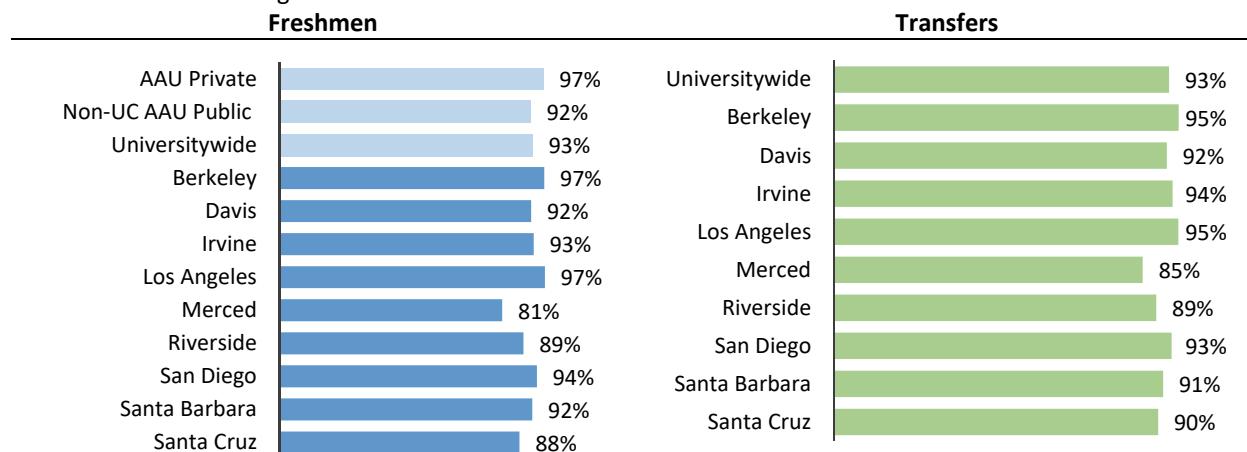


Source: UC Data Warehouse

3.2.2 First-year retention rates

UC and comparison institutions

Cohorts entering fall 2018



Source: Freshman data from IPEDS.¹ Transfer data from UC Data Warehouse. Comparison data are not available for transfers.

The current universitywide retention rate is 93 percent. This is higher than non-UC AAU public institutions (92 percent), but lower than AAU private institutions (97 percent).

For students leaving in good academic standing (GPA ≥ 2.0), some campuses are expanding honors programs or providing opportunities for undergraduate research as early as the freshman year. For those leaving in poor academic standing (GPA < 2.0), some UC campuses are using Summer

Bridge or early orientation. Campuses are also looking into housing and residential programs and cohort programs to integrate undergraduates.

Like entering freshmen, transfer students benefit from a smooth transition to UC. Several UC campuses have summer programs to support transfer students. More information on trends in UC retention rates can be found at: universityofcalifornia.edu/infocenter/ug-outcomes.

¹ Freshmen are first-time, full-time, degree-seeking students from the fall who enroll again in the next fall term. The most recent available comparison data available from IPEDS is for 2016.

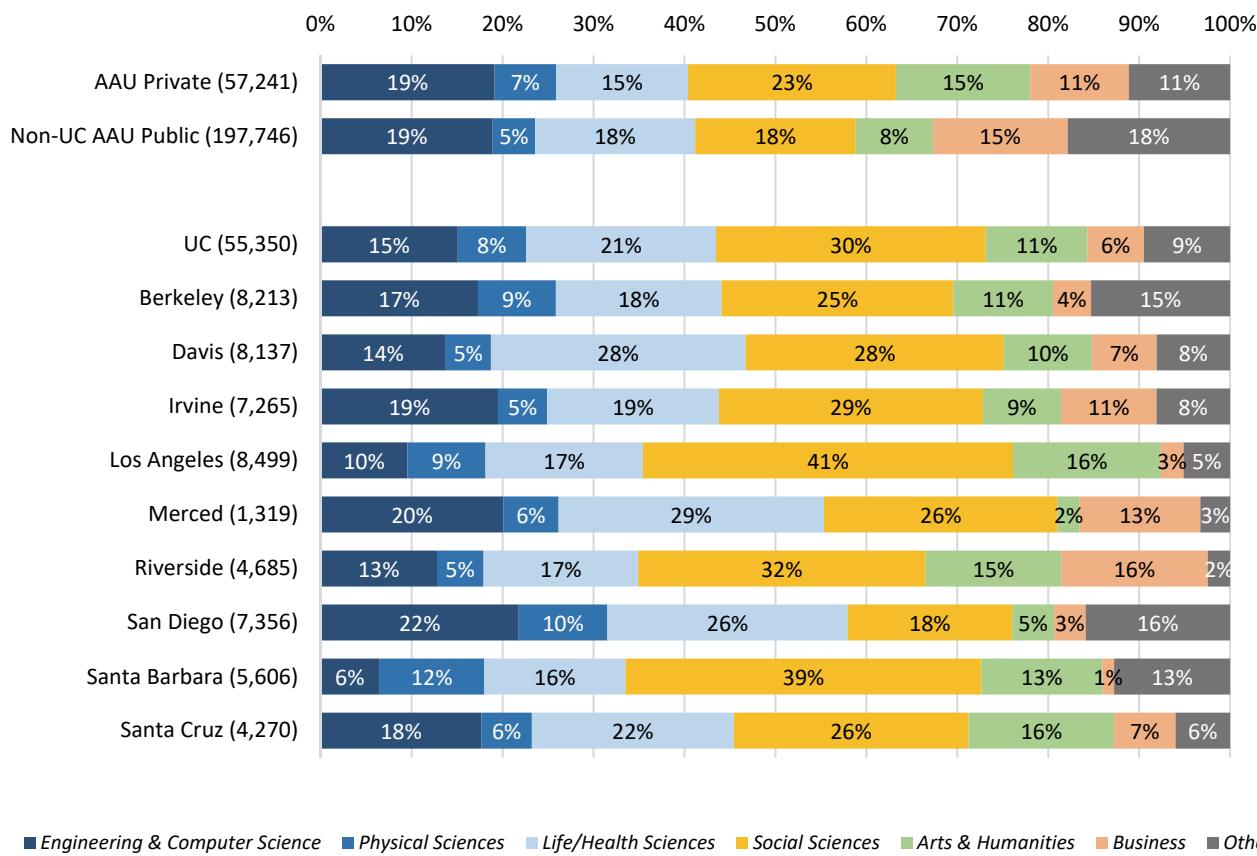
3.3 OUTCOMES

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

2017–18



■ Engineering & Computer Science ■ Physical Sciences ■ Life/Health Sciences ■ Social Sciences ■ Arts & Humanities ■ Business ■ Other

Source: IPEDS

About 43 percent of all undergraduate degrees awarded by UC in 2017–18 were in science, technology, engineering, and mathematics (STEM) fields. This is higher than the proportion at AAU public and private comparison institutions (41 and 40 percent, respectively).

3.3 OUTCOMES

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

- 3.3.2** Inflation-adjusted average and median alumni wages by selected majors, two, five, and ten years after graduation
 Universitywide
 2000–01 to 2016–17 graduating cohorts, combined, sorted by popularity

	After 2 years		After 5 years		After 10 years	
	Mean	Median	Mean	Median	Mean	Median
Arts & Humanities						
Arts	\$32,948	\$28,841	\$48,414	\$43,179	\$70,558	\$59,008
English/Literature	\$36,672	\$33,341	\$55,154	\$49,961	\$80,069	\$67,891
Foreign Language	\$36,252	\$32,259	\$54,659	\$48,985	\$81,832	\$67,916
History	\$37,184	\$33,077	\$59,285	\$51,551	\$87,409	\$71,961
Other Humanities	\$35,158	\$31,646	\$54,559	\$54,056	\$69,391	\$67,254
Philosophy	\$37,403	\$32,333	\$57,155	\$48,726	\$97,788	\$71,905
Professional						
Nursing	\$82,990	\$83,462	\$106,060	\$103,335	\$135,914	\$132,913
Business	\$55,124	\$51,591	\$80,184	\$70,884	\$121,364	\$97,537
Agriculture	\$53,025	\$51,089	\$75,927	\$69,625	\$112,444	\$96,413
Architecture	\$48,060	\$45,939	\$64,297	\$60,000	\$84,253	\$76,707
STEM						
Computer Science	\$82,762	\$76,764	\$114,468	\$97,957	\$152,266	\$124,093
Engineering	\$71,025	\$68,439	\$97,980	\$89,349	\$138,332	\$117,861
Physics	\$51,673	\$46,957	\$77,496	\$72,000	\$113,989	\$99,383
Biology	\$38,615	\$36,536	\$63,342	\$56,288	\$110,298	\$91,932
Chemistry	\$44,124	\$43,078	\$63,562	\$58,651	\$107,144	\$90,678
Mathematics	\$54,048	\$49,579	\$79,230	\$69,959	\$107,857	\$91,036
Social Sciences						
Economics	\$54,119	\$50,586	\$79,006	\$69,951	\$120,268	\$96,353
Political Science	\$42,379	\$38,719	\$68,869	\$58,177	\$107,082	\$87,946
Geography	\$42,525	\$39,018	\$65,792	\$58,342	\$94,052	\$77,340
Psychology	\$36,793	\$33,304	\$57,517	\$51,508	\$85,842	\$73,365
Anthropology	\$34,891	\$30,570	\$51,277	\$45,284	\$77,475	\$64,283
Sociology	\$39,513	\$36,252	\$59,208	\$53,113	\$83,335	\$71,337
All Disciplines						
All Majors	\$45,726	\$40,666	\$68,550	\$59,812	\$102,190	\$83,920

Source: California Employment Development Department and UC Corporate Student System. Includes alumni employed in the state of California only. Amounts are inflation-adjusted to 2018 dollars.

Alumni employment data provide evidence of UC's contribution to the California economy and its role as an engine of economic mobility. UC enrolls a greater percentage of low-income students (from the bottom 20 percent of the income distribution) than other four-year institutions in California. Recent data made available through a partnership with the Equality for Opportunity Project show that more than one in three UC alumni who come from the bottom 20 percent of income rise to the top 20

percent of income as adults, based on the entering cohorts of 1999 to 2005. Moreover, comparisons using this national data show UC bachelor's degree recipients working in California tend to earn about 20 percent more than UC graduates who work outside of California. More information on the Equality of Opportunity Project can be found at: ucop.edu/institutional-research-academic-planning/_files/CLIMB-a-mobility-analysis.pdf.

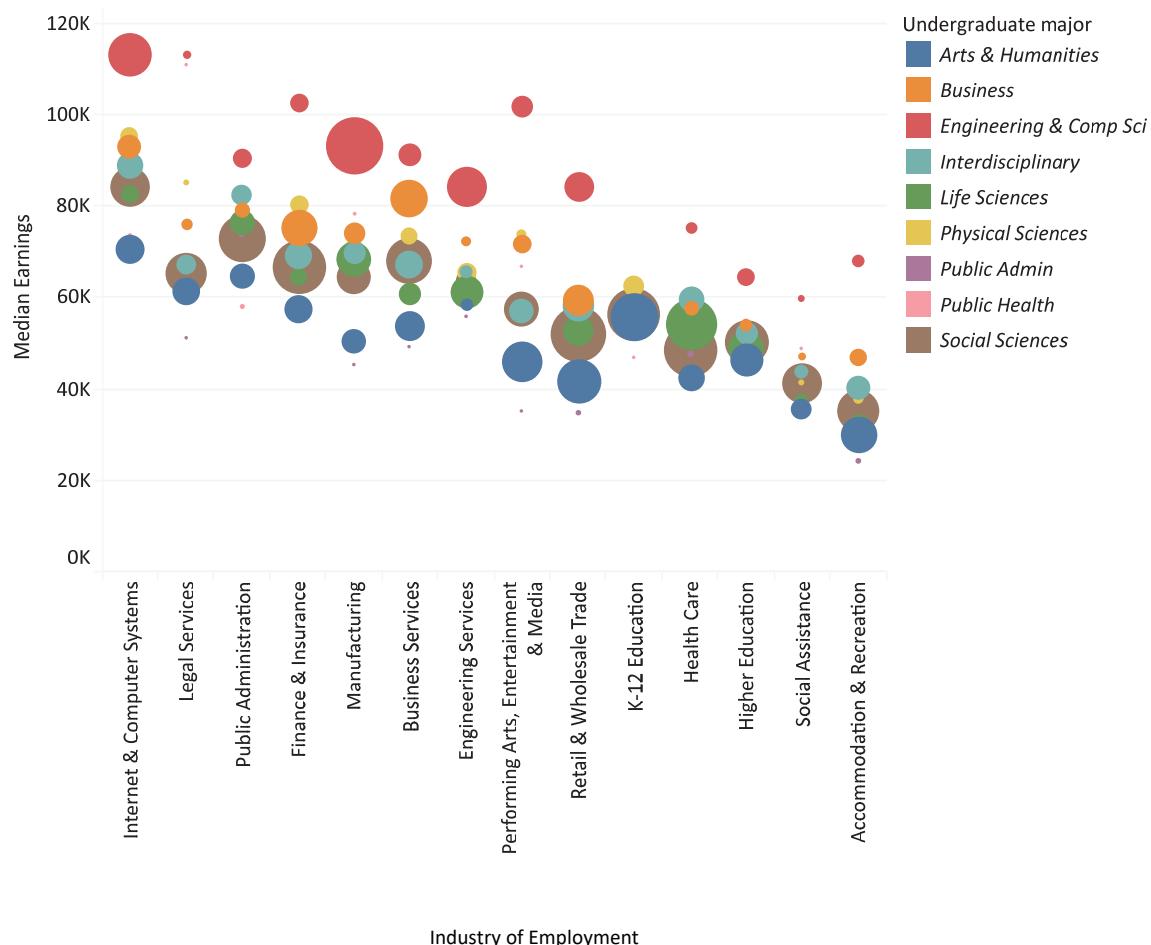
3.3 OUTCOMES

Engineering and computer science majors tend to earn more than other UC undergraduate alumni, but how much UC alumni make also depends on the industry.

3.3.3 Median alumni wages by industry of work for selected majors, five years after graduation

Universitywide

2000–01 to 2013–14 graduating cohorts, combined



Note: The size of bubble corresponds to percentage of alumni within majors employed in the industry. The largest bubble is 36 percent and the smallest is <1 percent.

Source: California Employment Development Department and UC Corporate Student System. Includes alumni employed in the state of California only. Amounts are inflation-adjusted to 2018 dollars.

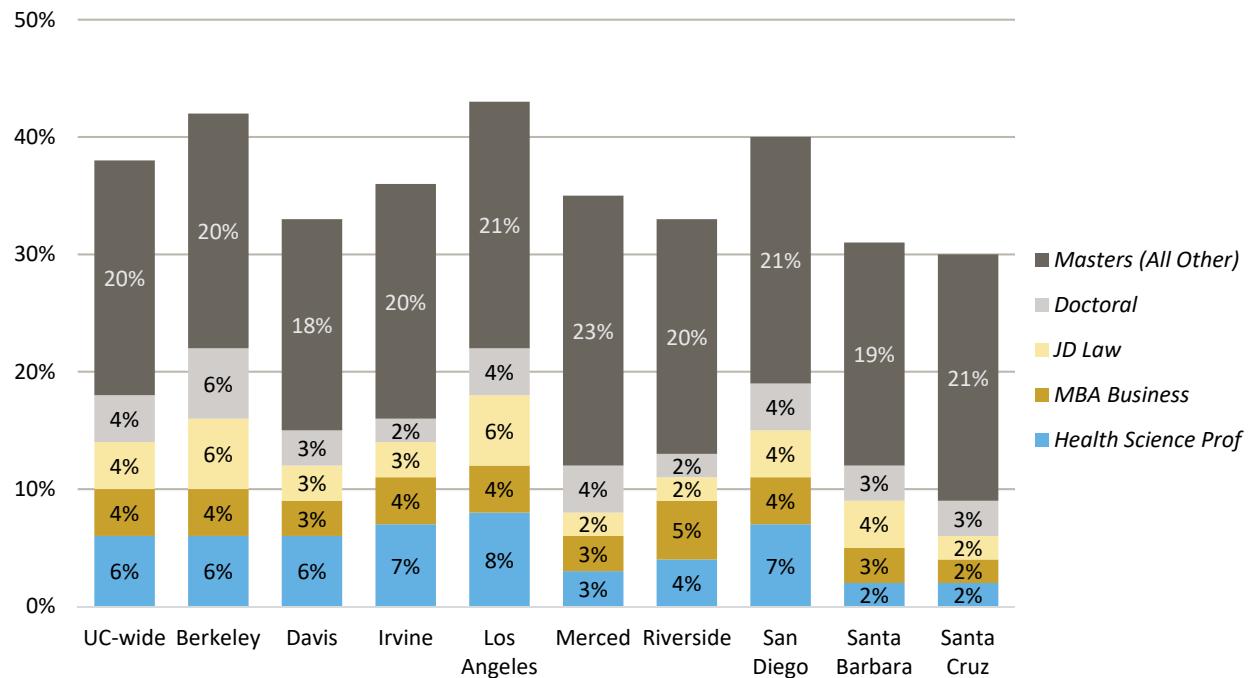
UC graduates go on to work in a wide range of industries in California. A large share of Engineering and Computer Science majors work in the Internet & Computer Systems and Manufacturing industries, with median salaries of about \$100K and \$90K, respectively. Business majors are likely to work in

the business services or finance & insurance industries where median earnings reach \$72K to \$78K. Arts & Humanities graduates are most likely to work in K-12 education, where median salaries are much lower, at about \$54K at five years after graduation.

3.3 OUTCOMES

Thirty-eight percent of undergraduate degree recipients go on to earn a graduate degree, the majority of which are masters-level degrees.

3.3.4 UC undergraduate alumni graduate degree attainment by campus
2000 to 2011 graduating cohorts, combined, as of June 2019



Source: UC Information Center

Earning a graduate degree is a major objective of many undergraduates who attend a research university. Nearly 40 percent of undergraduate students go on to earn a graduate degree after their undergraduate studies at UC.

The UC Information Center (universityofcalifornia.edu/infocenter/alumni-grad-outcomes) provides more details on graduate degree attainment by race/ethnicity, gender, Pell grant eligibility, and entry status. By 2030, UC aims to increase access to graduate degrees for populations that currently are less likely to attend graduate school.