

A large, sepia-toned photograph of Ernest O. Lawrence in his laboratory. He is wearing glasses and a white shirt with a tie, looking intently at a piece of scientific equipment. The equipment is complex, with various dials, wires, and mechanical parts. The lighting is dramatic, highlighting Lawrence's face and the intricate details of the machinery.

CHAPTER THIRTEEN

Honors and Rankings

Photo: Ernest O. Lawrence, UC's first Nobel laureate.

1939

Ernest O. Lawrence receives the Nobel Prize for designing the first cyclotron, a device for accelerating nuclear particles to very high velocities, which launched the scientific use of particle physics to discover the fundamental structure of matter. Lawrence was the University of California's first Nobel laureate.



1963

UCSD professor Maria Goeppert-Mayer wins the Nobel Prize in physics for her discovery of nuclear shell structure. She was only the second woman to win a Nobel Prize in physics, after Marie Curie.

HONORS AND RANKINGS

History

Decades before U.S. News and World Report and other rankings, Edwin Emery Slosson published a book called *Great American Universities* in 1910, featuring write-ups on ten leading American institutions of higher education — among them the University of California. Noting UC’s emergence from the “Union of a New England classical religious college and a Morrill Act school of agriculture and mechanic arts,” he wrote: “I know of no other university which cultivates both mechanics and metaphysics with such equal success, or which looks so far into space, and, at the same time, comes so close to the lives of the people; or which excavates the tombs of the Pharaohs and Incas while it is inventing new plants for the agriculture of the future.”

From the first UC Nobel Laureate, (Harold Urey, 1934) to the most recent UC faculty Pulitzer Prize winner (Alan Taylor, 1996 and 2014), UC faculty have a long history of winning prestigious awards spanning disciplines from the sciences to the humanities. Juan Felipe Herrera, professor emeritus in the department of creative writing at UC Riverside, was the nation’s 21st Poet Laureate.

Overview

Honors and rankings are one way to demonstrate the University’s performance and prestige. They reflect reputations and help to position the University nationally and internationally. This chapter first presents metrics of faculty awards and memberships. These represent some of the highest aspirations of research faculty, signaling noteworthy participation and contribution to research and scholarship in a particular area of expertise.

While the University’s faculty demonstrate unparalleled excellence, also noteworthy is the opportunity for students of diverse backgrounds to learn and study with these distinguished researchers and educators. One of the points of pride for the University of California is providing students from the bottom end of the economic spectrum with access to an educational and research environment comparable to the nation’s finest private institutions but on a significantly larger scale.

This chapter features data from the New York Times’s annual College Access Index, showing that the University of California leads the nation in the “Top Colleges Doing the Most for the American Dream.” It also features data from the Equality of Opportunity Project and the associated CLIMB initiative, which leverage national earnings and taxation data to study how colleges affect social mobility.



1980

Yusef Komunyakaa receives his MFA from UC Irvine’s acclaimed creative writing program. He goes on to win the Pulitzer Prize for poetry in 1994.



2007

UC Riverside biologist Cheryl Hayashi earns a MacArthur Foundation genius grant for her research on the evolution and composition of spider silk.

Universities are ranked in numerous ways, with publishers of rankings choosing criteria based on different audiences and different aims. This chapter highlights just two well-known rankings. U.S. News and World Report (USNWR) focuses on academic reputation, graduation rates, student selectivity and financial resources to create its list of America's Best Colleges. The Shanghai Academic Ranking of World Universities ranks institutions around the globe, primarily using faculty research productivity. Additional rankings for UC campuses are available at the link in the section below. While recognizing that these rankings may be useful sources of information, UC does not endorse any particular ranking system nor does it have specific goals with respect to any of them.

For more information

UC Rankings at a glance: ucop.edu/institutional-research-academic-planning/_files/uc-rankings-at-a-glance.pdf

An extended list of rankings: ucop.edu/institutional-research-academic-planning/_files/rankings-brief-2017.pdf

More on the Equality of Opportunity Project: ucop.edu/institutional-research-academic-planning/_files/Economic-Mobility-of-Undergraduates.pdf



2012

UC Riverside poetry professor Juan Felipe Herrera, known for chronicling the bittersweet lives, travails and contributions of Mexican Americans, is named U.S. Poet Laureate.



2013

Mario Molina of UCSD, receives the Presidential Medal of Freedom for his work uncovering how chemical pollutants called chlorofluorocarbons deplete Earth's ozone layer.

13.1 FACULTY AWARDS

UC faculty receive many prestigious awards because they are thought leaders in their fields.

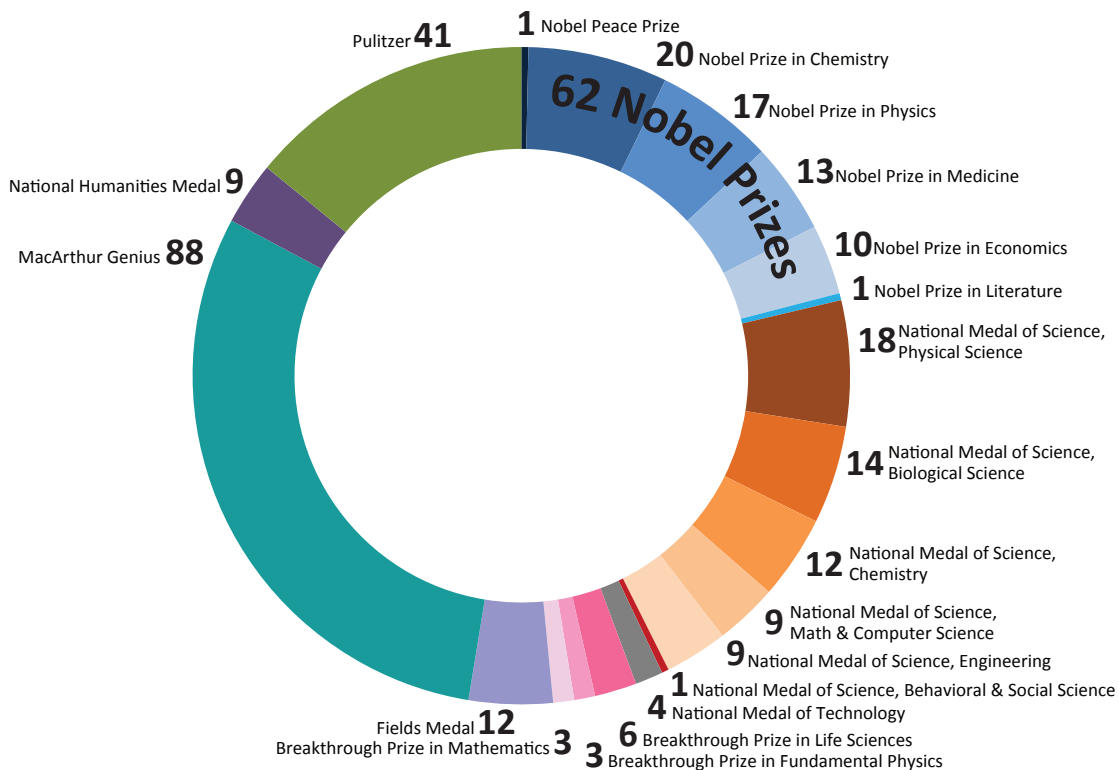
13.1.1 Nobel Prizes by campus affiliation

Sixty-one faculty and researchers affiliated with the University of California have won 62 Nobel Prizes, representing more than five percent of the 923 laureates. UC’s first laureate was Harold Urey in 1934, for the discovery of heavy hydrogen. UC’s most recent was Shuji Nakamura at UC Santa Barbara, “for the invention of efficient blue light-emitting diodes which has enabled bright and energy-saving white light sources.”

A list of UC’s laureates can be found at nobel.universityofcalifornia.edu.

	Chemistry	Economics	Literature	Medicine	Physics	Peace
Berkeley/ Berkeley Lab	8	5	1	1	8	
Irvine	2				1	
Livermore Lab					1	
Los Angeles	3	1		1	1	
San Diego	5	3		6	2	1
San Francisco				5		
Santa Barbara	2	1			4	

13.1.2 Prizes, medals and awards won by UC faculty



In addition to the 291 prizes, medals and awards presented in the chart above, many UC faculty are members of prestigious National Academies, providing leadership in service and general welfare to the nation.

National Academy of Sciences	616
National Academy of Engineering	261
National Academy of Medicine	213
National Academy of Inventors	62

The New York Times identified UC campuses as the best in the nation at enrolling, supporting, and graduating large numbers of lower-income students.

13.2.1 New York Times College Access Index

The New York Times’ College Access Index ranks institutions with at least a 75 percent five-year graduation rate by the share for freshman entrants that are Pell Grant recipients, the graduation rates of those students and overall net cost for low-income students. It aims to identify institutions with a “commitment to economic diversity,” based on the number of lower- and middle-income students a college enrolls and graduates and the price it charges these students.

In its 2017 ranking, UC campuses held the top five slots. Six UC campuses were in the top ten. The index was first published in 2014, ranking about 100 colleges, but UC campuses did not meet the criteria for inclusion. In 2015, the criteria were expanded and about 180 colleges were included, with UC campuses attaining six out of the top seven slots. The third publication of the index was in 2017, ranking about 170 colleges.

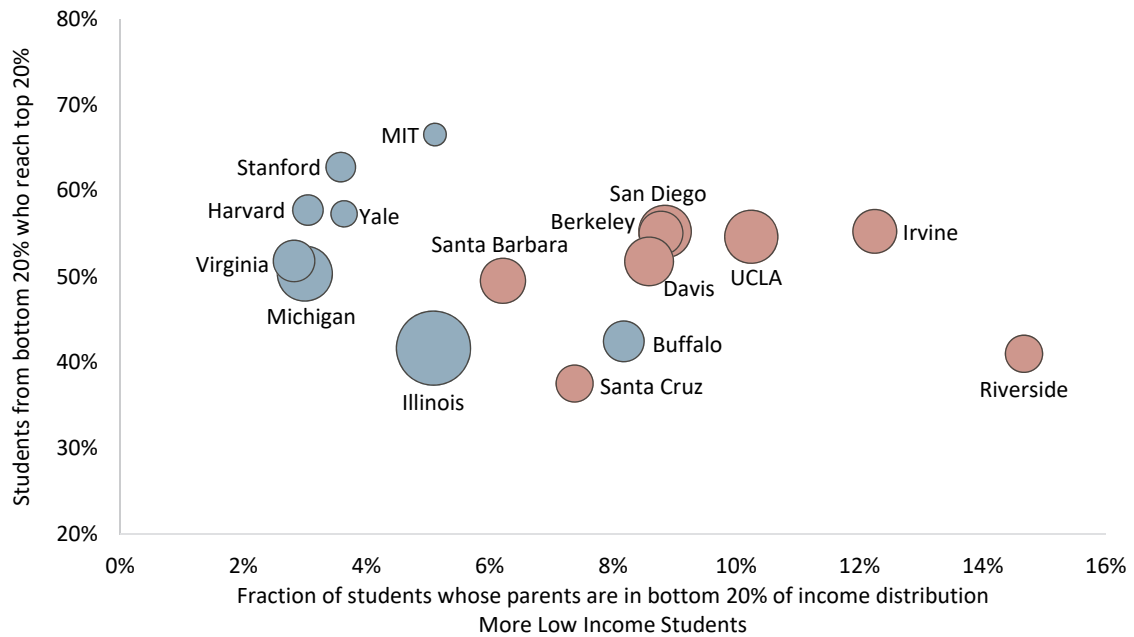
	2017 Rank	2015 Rank
Irvine	1	1
Santa Barbara	2	3
Davis	3	2
San Diego	4	4
UCLA	5	5
Berkeley	9	7

The remaining UC campuses with undergraduates did not meet the index’s criteria of at least a 75 percent five-year graduation rate and were thus excluded.

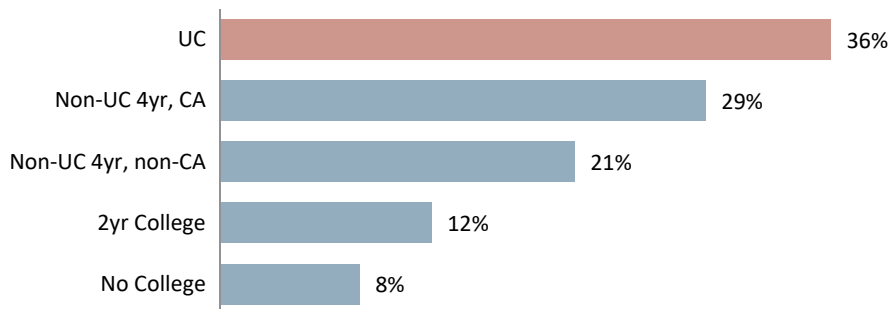
13.3 ECONOMIC MOBILITY

UC campuses are leaders in promoting economic mobility, moving large numbers of students from the bottom to the top of the economic spectrum.

13.3.1 Percent low-income vs upwards social mobility
UC campuses and comparison institutions
1999–2005 college entry cohorts



13.3.2 Percentage from the bottom 20 percent of income who move to the top 20 percent
UC alumni and peers from the same age group
1999–2005 college entry cohorts



UC’s collaboration with the Equality of Opportunity Project and the CLIMB Initiative reveals new insights into UC’s role in enabling low-income students to achieve intergenerational economic mobility. Through matching UC students to their IRS tax records, and linking them to their parents’ tax records when they first enrolled at UC, researchers have been able to determine how many UC students achieve economic mobility.

Thirty-six percent of UC’s lowest income students move from the bottom 20 to the top 20 percent of the income distribution as adults, which is higher than other 4-year universities in California and the nation.

13.4 RANKINGS

Of the top ten national public universities in the U.S. News and World Report ranking, six are UC campuses.

The U.S. News and World Report, in its 2018 national university rankings, focused on academic reputation, financial resources, and selectivity in undergraduate admissions. Its assessment on these metrics placed UC campuses among the very best public universities in the country:

- UC Berkeley and UCLA were ranked as the top public institutions
- Five UC campuses were among the top 10 public institutions in the nation
- For public and private institutions combined, six UC campuses ranked among the top 50

Numerical rankings can provide false precision based on very little actual differences among campuses. For example, there is only a three point difference in the overall score for universities ranked 37th and 46th.

13.4.1 U.S. News: America's Top National Public Universities 2017

	Public	National
Berkeley	1	21
UCLA	1	21
Santa Barbara	8	37
Irvine	9	42
San Diego	9	42
Davis	12	46
Santa Cruz	33	81
Riverside	58	124
Merced	87	165

13.4 RANKINGS

In the Academic Rankings of World Universities, only four public universities in the world appear in the top 20, and three 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.

The 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.

13.4.2 Shanghai Ranking Consultancy: Academic Rankings of World Universities 2017

Berkeley	5
UCLA	12
San Diego	15
UCSF	21
Santa Barbara	45
Irvine	64
Davis	85
Santa Cruz	98
Riverside	151-200
