UNIVERSITY
OF
CALIFORNIA

Budget for Current Operations

Context for the Budget Request

2022–23

Foreword

The University of California was founded in 1868 as a public, State-supported land grant institution. The State Constitution establishes UC as a public trust to be administered under the authority of an independent governing board, the Regents of the University of California. The University maintains ten campuses: Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz. Nine campuses offer undergraduate and graduate education; San Francisco is devoted primarily to health sciences graduate and professional instruction. The University operates teaching hospitals and clinics on the Los Angeles and San Francisco campuses, and in Sacramento, San Diego, and Orange counties. The University includes approximately 150 institutes, centers, bureaus, and research laboratories throughout the state. UC's Agricultural Field Stations, Cooperative Extension offices, and the Natural Reserve System benefit all Californians. The University also oversees the Lawrence Berkeley National Laboratory and is a partner in limited liability corporations that oversee two other Department of Energy laboratories.

ORGANIZATION OF THE *2022-23 BUDGET FOR CURRENT OPERATIONS – CONTEXT FOR THE BUDGET REQUEST*

The companion to this document, the *2022-23 Summary of the Budget Request,* provides a brief overview of the major policy issues, revenue needs, and expenditure plans and objectives of the University for 2022-23. It provides explanatory detail for all aspects of the University's operating budget plan for core funds.

The first chapter, *UC's Role in the State of California*, provides an overview of the University's contributions to the state in both the education and economic sectors.

The *Sources of University Funds* chapter presents a digest of the major fund sources that constitute the University's total operating revenue.

The *Cross-Cutting Issues* chapter provides budget detail for issues that cross functional areas.

Subsequent chapters discuss specific program areas in more detail. These include chapters covering the core mission activities of instruction, research, and public service, as well as all support activities and student financial aid.

Employee compensation and rising costs of employee and retiree benefits are major drivers of the University's budget plan. These issues are discussed in the *Compensation, Employee and Retirement Benefits, and Non-Salary Cost Increases* chapter.

The *Student Tuition and Fees* chapter provides information about the University's tuition and fee policy and practices.

The *Historical Perspective* chapter provides a detailed account of the history of State funding for the University over the last several decades.

The Appendix includes various tables providing current and historical budget, enrollment, and tuition information.

A separate volume, the *2021-27 Capital Financial Plan,* provides information about the University's capital facilities needs.

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UC's Role in the State of California

California's public investment in higher education fuels economic growth, social mobility, scientific discovery, and cultural opportunities. The State's historic commitment to fund the University has enabled it to not only educate the brightest students – over 285,000 in 2020-21 alone – but also to positively affect the life of every Californian.

- **UC educates the workforce** for the types of high-skill high-wage jobs required by high technology, business, agriculture, entertainment, health care, education, and other sectors of the economy.
- **UC is committed 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.
- **UC conducts research that fuels the State's economy**, creates jobs, increases productivity, and solves societal and global problems, leading to higher standards of living.
- **UC is a key source of innovation and entrepreneurs**, which are essential to the industries that drive California's competitiveness.
- **UC improves the health of Californians** by providing an unmatched combination of state-of-the-art patient care facilities and groundbreaking research programs, which are integrated with the nation's largest medical education program.
- **UC collaborates with K-12 schools** to improve the quality of instruction and expand educational opportunities.
- **UC offers public venues for cultural opportunities**, with dozens of museums, concert halls, art galleries, botanical gardens, observatories, and marine centers that serve as academic resources as well as exciting spaces for the broader community.

UC's excellence is well documented by the many honors and awards conferred upon faculty, departments, and campuses. That excellence, in turn, attracts billions of dollars in federal and private funding every year and supports the discovery and dissemination of new knowledge that promotes economic, social, and cultural development.

UC has long been a major contributor to California's vibrancy and strength. To meet the changing needs of future generations, California must continue to invest in the future by supporting its world-class public research university.

Display I-1: UC At-A-Glance

Founded in 1868, the University of California consists of:

- 10 campuses serving an estimated 285,000 FTE students in more than 850 instructional programs in 2020-21;
- 5 academic medical centers providing approximately 5.2 million hospital outpatient clinic visits and another 3.0 million outpatient visits attributable to the schools of medicine and other non-hospital clinic visits each year;
- In 2020-21, an over $5 billion research enterprise, seeking new knowledge and solutions to critical problems;
- A network of libraries housing nearly 40 million print volumes, second only to the Library of Congress;
- Over 5,500 buildings representing over 146 million gross square feet in 2020-21; and
- As of April 2021, 215,941 employees (or 168,657 full-time equivalent employees) across the system.

THE STATE'S HISTORIC INVESTMENT IN UC

The University's operating budget, estimated at $46.4 billion in 2020-21, funds its tripartite mission of teaching, research, and public service, as well as a wide range of support activities, including teaching hospitals, the Lawrence Berkeley National Laboratory, UC Extension, housing and dining services, libraries, and other functions.

State General Funds remain extremely important because they support the University's core instructional mission and make it possible to attract funds from other sources. Other fund sources augment the University's core activities of instruction and research; support academic and administrative functions; allow UC to provide public service to the state and its people; and support rich social, cultural, and learning environments on its campuses. Each year, UC generates more than $82.1 billion in economic activity. State funds leverage substantial private funding – the California Institutes for Science and Innovation, for example, is a unique funding partnership among the State, industry, and UC. This partnership is discussed in more detail in the

THE PURSUIT OF EXCELLENCE

The University of California is internationally renowned for the quality of its academic programs and consistently ranks among the world's leading institutions in the number of faculty, researchers, programs, and campuses singled out for awards and distinctions, election to academic and scientific organizations, and other honors. These include:

- Six UC campuses are classified as Hispanic-Serving Institutions (HSIs), with UC Santa Barbara as the first member of Association of American Universities to attain this designation.
- The University of California System received Insight into Diversity magazine's 2021 Higher Education Excellence in Diversity (HEED) award, which recognizes outstanding commitment to diversity and inclusion.
- 70 Nobel laureates, representing nearly 7% of the 962 laureates globally.
- 63 National Medal of Science winners.
- 646 UC faculty members have been elected to the National Academy of Sciences, one of the highest honors that can be accorded to a U.S. scientist.
- Over 590 American Academy of Arts and Sciences members.
- 249 members of the National Academy of Medicine, formerly known as the Institute of Medicine.
- Nearly 1,000 American Association for the Advancement of Science members.
- 92 recipients of MacArthur Foundation "genius" grants since the Foundation's inaugural awards in 1981.
- Over 1,669 Guggenheim fellowships since 1930 – more than any other university or college.
- More licensable patents secured by UC than by any other U.S. research university.
- Three UC campuses ranked among the top 20 institutions in the nation by *Washington Monthly* 2021 college rankings, which consider social mobility, research, and public service. The Berkeley campus was at the top of the list of UC campuses, ranking tenth overall.
- 139 of 318 UC programs in sciences, math, engineering, social sciences, and humanities ranked among the top 10 in their fields by the National Research Council in 2010.
- Six campuses among the top 10 American public universities in the 2022 edition of the *US News and World Report Best College* rankings, with the Los Angeles and Berkeley campuses ranked #1 and #2, respectively.
- The medical centers at Los Angeles and San Francisco nationally ranked third and ninth, respectively, in *US News'* Honor Roll for the country's top 20 hospitals in the 2021-22 rankings.
- Four UC campuses appeared in the top 20 of the 2021 Forbes Rankings of top colleges, the only public universities to appear in the top 20. The UC Berkeley campus ranked No. 1.

Research chapter of this document.

State General Funds provide a necessary and significant amount of UC's core operating revenues. Although State General Funds represent 10% of the University's total operating budget, they represent approximately 45% of the University's current core funds. The other core funds are primarily student tuition and fees, including nonresident supplemental tuition.

The University has historically received funding increases from the State during times of economic growth and decreases during times of State revenue decline. The fact that the State has typically increased its investment in UC during times of economic growth shows the value that the Governor and Legislators place on UC's service to the State in education, research, and public service. State funding decreases to UC can be dramatic, as during the aftermath of the Great Recession when the University's budget declined by a billion dollars over two years. While the State has fully restored the UC budget to the pre-recession and, more recently, pre-pandemic levels, inflation, and rapid enrollment growth, along with efforts to hold in-state tuition nearly flat over a ten-year period, have made it difficult for the University to sustain the same level of services.

State investment has helped develop the finest public research university system in the world. Protecting that investment is essential if UC is to remain among the world's top universities and to continue providing California with significant economic and societal benefits.

UC'S COLLEGE GRADUATES AND THE CALIFORNIA ECONOMY

California's Economic Performance. California has a long history of strong economic performance, including thriving industries and high-paying jobs. California's economy, with an approximately $3.1 trillion GDP in 2020, is the fifth largest in the world behind that of the United States, China, Japan, and Germany. Additionally, California's real median household income, adjusted for

inflation, has exceeded the national average for the last three decades.[1]

California became one of the world's leading economies in the second half of the 20th century in part because it has a high number of excellent research universities, which has helped to create and attract knowledge-based companies. For example, research at California's research universities served as the foundation for the biotechnology industry, and UC faculty and former students have founded hundreds of biotechnology companies. UC's discoveries, technology, and graduates are critical to the success of many knowledge-based companies.

Declining Educational Attainment of the Labor Force. As the state's baby boomers continue to retire, they will be replaced by younger workers. These younger workers, however, will have lower educational levels than today's retirees. According to a 2006 report by economists at Sacramento State University's Applied Research Center, "Keeping California's Edge: The Growing Demand for Highly Educated Workers":

> *"In recent history, California's education pipeline has always assured that the next cohort to enter the labor force would be better educated than current and previous cohorts. Employers could anticipate the ever-improving educational attainment of the labor force. Now, for the first time, projections of California's education pipeline indicate declining labor force quality compared to previous cohorts, which raises questions about our ability to supply the higher-educated labor force of the future."*

Indeed, adults ages 60 to 64 represent the best-educated age group in California today.[2]

Knowledge-based industries will drive California's longer-term economic competitiveness. Professional and managerial jobs, such as software developers, nurse practitioners, statisticians, information security analysts, and research analysts, are among California's fastest growing occupations.[3] These jobs typically require at least a bachelor's degree and often a master's or doctorate. Additionally, California's demand for skilled workforce spans beyond professions that historically required higher educational attainment.[4]

PPIC's 2019 report "Meeting California's Workforce Needs" finds that the number of retirees with bachelor's degrees are outpacing the number of degrees conferred by the University of California. One explanation for this phenomenon is that the retirement of baby boomers represents an unprecedented labor force loss given the exceptional size and educational attainment of this generation, which is not being replicated in younger generations.

A Lumina Foundation report from 2010 called, "A Stronger Nation through Higher Education" shows that an annual increase of college graduates of 6.7% is needed to produce enough educated professionals by 2025 to meet California's projected workforce needs. Testimony from PPIC in February 2020[5] indicate that California is now on track to close the degree gap, and this early progress is due in part to the concerted efforts by the State, UC and CSU systems. According to Lumina Foundation's updated 2021 report, while California's percentage of college graduates is slightly higher than the national average, its projections for demand for college graduates maintain that increased efforts still need to be made to fully close the gap.

UC, CSU, and the California Community Colleges (CCC) each play a critical role in addressing these challenges given the vast numbers of Californians that attend these institutions. As indicated earlier and discussed further in the *General Campus Instruction* chapter of this document, UC has a unique responsibility to help meet the need for technically and analytically sophisticated workers because UC alone is charged by the State with providing educational

[1] U.S. Bureau of the Census, Real Median Household Income in California, retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MEHOINUSCAA672N#0.
[2] PPIC. "Will California Run Out of College Graduates?" *Public Policy Institute of California.* October 2015. Web. http://www.ppic.org/main/publication_quick.asp?i=1166.
[3] Employment Development Department. "Top 100 Fastest Growing Occupations in California, 2018-2028." *State of California.* 2021. Web. http://www.labormarketinfo.edd.ca.gov/OccGuides/FastGrowingOcc.aspx.
[4] PPIC. "Meeting California's Workforce Needs." *Public Policy Institute of California.* October 2019. Web. https://www.ppic.org/publication/higher-education-in-california-meeting-californias-workforce-needs/
[5] PPIC. "Testimony" California Is on Track to Close the Degree Gap". Public Policy Institute of California. February 2020. Web. https://www.ppic.org/blog/testimony-california-is-on-track-to-close-the-degree-gap/

opportunities within a world-class public research university environment.

Efforts to Increase College Graduates

The need for more college graduates is evident, and UC is making gains towards meeting this demand. According to preliminary admissions reports, UC's fall 2021 incoming class was the largest class ever admitted. Among those admitted, an estimated 43% of California freshmen and 38% of California Community College (CCC) transfers came from historically underrepresented groups – African American, American Indian, Chicano(a)/Latinx and Pacific Islander.[6]

Opportunities for students to transfer to the University are growing. Based on preliminary campus 2021-22 admissions reports, UC admitted the largest class of California Community College transfers in the history of the University (over 28,400, including 25,700 residents), advancing UC's efforts to enroll one new California resident transfer student for every two California resident freshmen.

California also needs more students with graduate-level training. Recent enrollment trends, efforts to expand transfer enrollment, and the need for more graduate students are discussed in more detail in the *General Campus Instruction* chapter of this document.

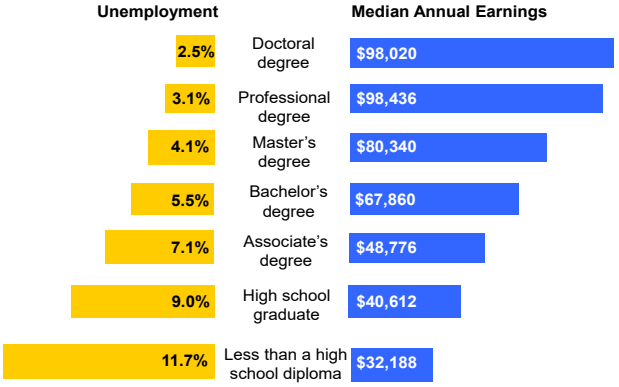
Returns on Investment. A more educated population generates more tax revenue and enjoys more rapid economic growth. Additionally, as Display I-2 demonstrates, higher education levels correlate with lower levels of unemployment and higher median earnings, which typically translate into enhanced social mobility. In fact, within five years of graduating from UC, Pell Grant recipients earn an average income higher than their parents' combined income during the time they attended UC. Across disciplines, incomes of UC bachelor's degree recipients double between two and ten years after graduation.

THE CALIFORNIA MASTER PLAN FOR HIGHER EDUCATION

The Master Plan has served as California's blueprint for higher education for more than 50 years, specifying the mission of each segment of higher education. UC's mission is tripartite:

- **Teaching.** UC serves students at all levels of higher education and is the public segment primarily responsible for awarding doctorate and professional degrees in areas such as medicine and law.
- **Research.** UC is the primary State-supported academic agency for research. Research is inextricably linked with teaching at UC, both at the graduate and undergraduate levels. Research also creates a vital link between UC and the private sector with the development of new knowledge and innovation leading to new industries and jobs.
- **Public Service.** UC contributes to the well-being of communities, the state, and the nation through efforts including academic preparation programs, Cooperative Extension, and health clinics. Policy makers draw on the expertise of UC's faculty and staff to address public policy issues that are of importance to the state and society at large.

Display I-2: Earnings and Unemployment by Level of Education*



Source: Bureau of Labor Statistics, 2020 Current Population Survey.
*Data are for people age 25 and older. Earnings are for full-time wage and salary workers.

With the shift to a knowledge-based economy, individual income and employment are more closely linked to level of education. Average earnings are typically higher and unemployment rates are typically lower for those with more advanced levels of education.

[6] Institutional Research and Academic Planning. "UC student data" *University of California, Office of the President.* August 2021. Web. https://www.ucop.edu/institutional-research-academic-planning/content-analysis/ug-admissions/ug-data.html.

A more educated populace greatly benefits California. A March 2021[7] report by The Campaign for College Opportunity, which focuses on the effects of raising college degree attainment for African American, Latinx, and American Indian/Alaska native populations, concludes:

- Reaching 60% California college graduates by 2030 will generate an additional $133 billion in state and federal revenue, provide nearly $20 billion in savings to the State in health and criminal justice expenditures, and California residents will see $435 billion in additional pre-tax income.
- By 2028, revenue benefits to California will outweigh costs by $2 billion per year.
- Raising college attainment for Latinx populations in California from 32.5 percent to 60 percent will result in an additional 1.26 million bachelor's degrees and 1.16 million in associate degrees, increasing average income from $32,509 per year to $42,130 per year.
- Raising college attainment for African American populations in California from 50.2 percent to 60 percent would increase average income from $39,114 per year to $43,310 per year by 2030.

As California's third largest employer, the University of California will continue to play a critical role in the State's recovery from the pandemic-induced economic downturn. UC will also help meet the workforce needs of a rapidly changing labor market – pre-existing trends of digitization, telecommuting and automation of work across industries – accelerated by the pandemic.[8] [9]

UC'S CONTRIBUTION TO THE STATE ECONOMY

In 2019, UC commissioned a study of its economic contribution to California. Though it is well established that UC-related economic activity touches every corner of California, making important contributions even in regions without a UC campus, the report quantified many of UC's economic impacts.

- UC generates about $82.1 billion in economic activity and contributes about $55.8 billion to the Gross State Product annually.
- Every dollar the California taxpayer invests in UC results in $14.32 in Gross State Product and $21.04 in overall economic output.
- One out of every 45 jobs in California – approximately 529,119 jobs – is supported by UC operations and outside spending by the University's faculty, staff, students, and retirees.
- UC is the state's third-largest employer, behind only the state and federal governments, and well ahead of California's largest private-sector employers.
- UC attracts about $13.1 billion in annual funding from outside the state.
- Every 10% reduction in State funding for UC has the potential to reduce state economic output by $5 billion due to ripple effects of UC activities across the entire California economy.
- UC Health — UC's five academic medical centers and 19 health professional schools — plays a major role in the University's economic contribution to California, generating about 197,835 jobs in the state, $36.9 billion in economic activity, and contributing $25.8 billion to the gross state product.

The University of California is a cornerstone of the State's economy, touching the lives of all Californians. UC and the State are intrinsically linked: State investment in UC represents an investment in California and its people, as well. The University of California remains one of the top higher education systems in the world, as a research institution and as an engine of economic growth and social mobility. State investment in UC translates to investment in the future of California.

[7] The Campaign for College Opportunity (2021). "California's Biggest Return". March 2021. Web. https://collegecampaign.org/portfolio/california-roi-2021/.
[8] Future of Work Commission (2019). 'Education, Skills, and Job Quality'. *Convening 3, 14 November 2019,* University of California, Riverside; McKinsey Global Institute. "The Future of Work in America: People and places, today and tomorrow". *McKinsey Global Institute.* July 2019. Web. https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-in-america-people-and-places-today-and-tomorrow#..
[9] McKinsey Global Institute. "The Future of Work after COVID-19". *McKinsey Global Institute.* February 2021. Web. https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19.

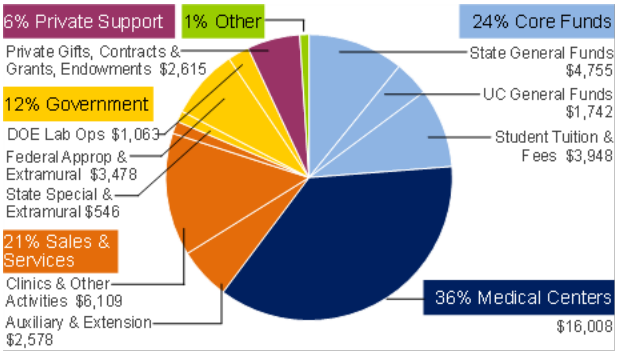
Sources of University Funds

The University's operating revenues, estimated to be $43.9 billion[1] in 2021-22, support its tripartite mission of teaching, research, and public service, as well as a wide range of activities in support of these responsibilities, including medical centers, the Lawrence Berkeley National Laboratory, University Extension, housing and dining services, and other functions. As shown in Display II-1, UC's sources of funds are varied:

- **Core funds**, consisting of State General Funds, UC General Funds, and student tuition and fees, provide permanent funding for UC's core mission and support activities, including faculty salaries and benefits, academic and administrative support, student services, operation and maintenance of plant, and financial aid.
- **Medical center revenue**, including patient care service revenue from private health plans, Medi-Cal, and Medicare, and other operating revenues, which provide funding to support medical centers (also known as teaching hospitals), clinical operations, research, and faculty at the schools of medicine.
- **Sales and services revenues** directly support auxiliary enterprises such as housing and dining services, parking facilities, and bookstores; University Extension; and other complementary activities such as museums, theaters, conferences, and publishing.
- **Government contracts and grants** provide direct support for specific research endeavors, student financial support, and other programs.
- **Private support**, including Regents' endowment payouts; transfers from campus foundations; and other private gifts, grants, and contracts, funds a broad range of activities typically restricted by the donor or contracting party. Private support comes from alumni and friends of the University, foundations, corporations, and through collaboration with other universities.
- **Other sources** include indirect cost recovery funds from research contracts and grants, patent royalty income, and management fees for Department of Energy labs.

The University's annual budget is based on the best estimates of funding available from each of these sources. This chapter presents a digest of major fund sources. Later chapters of this document describe how the University's funds are expended.

Display II-1: 2021-22 Sources of Funds (Dollars in Millions)



UC's operating budget, totaling $43.9 billion[1] in 2021-22, consists of funds from a variety of sources. State support, which helps leverage other dollars, remains critical.

CORE OPERATING FUNDS: GENERAL FUNDS AND STUDENT TUITION AND FEES

The University's "core funds," comprised of State General Funds, UC General Funds, and student tuition and fee revenue, provide permanent support for the core mission activities of the University, as well as the administrative and support services needed to perform them. Totaling $10.4[1] billion in 2021-22, these funds represent 24% of UC's total operations. While all fund sources are critical to the success of the University, much of the focus of UC's strategic budget process and negotiation with the State is dedicated to the levels and use of these core fund sources.

State General Funds

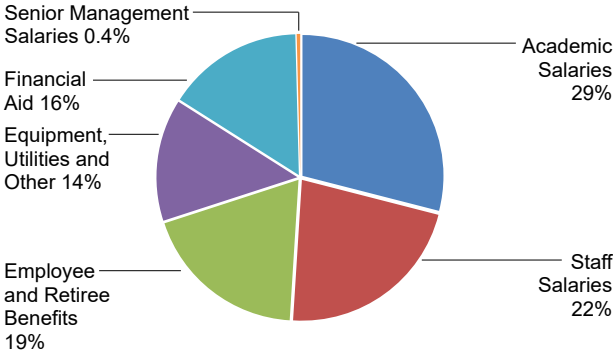
State General Fund support for UC totals $4.8[1] billion in 2021-22 and provides critical resources for the University. Each year, a portion of these funds is typically designated for specific programs or purposes in the State Budget Act. The majority of State General Funds, however, are undesignated, allowing them to be used where they are most needed to support the University's core mission activities.

UC General Funds

In addition to State General Fund support, certain other fund sources are unrestricted and expected to provide general support for the University's core mission activities, based on

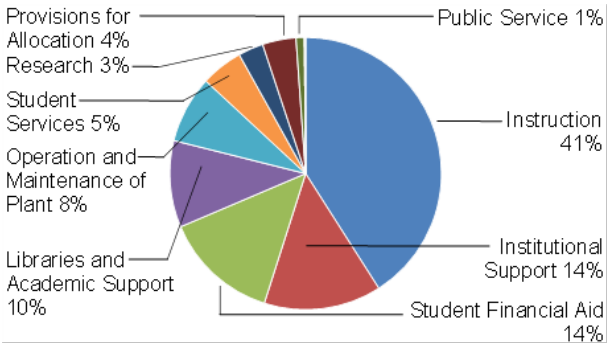
[1] Includes $191.1 million of State support dedicated to General Obligation bond debt service. This is not available for current operations.

Display II-2: 2020-21 Core Funds Expenditures by Type



Two-thirds of core funds support academic and staff salaries and benefits.

Display II-3: 2020-21 Core Funds Expenditures by Function



Nearly half of core funds are spent on general campus and health sciences instruction.

long-standing agreements with the State. Collectively referred to as UC General Funds, these include:

- Nonresident Supplemental Tuition,
- a portion of indirect cost recovery on federal and State contracts and grants,
- fees for application for admission and other fees,
- a portion of patent royalty income, and
- interest on General Fund balances.

The University expects to generate $1.7 billion in UC General Funds during 2021-22. The largest sources of UC General Funds are Nonresident Supplemental Tuition (estimated at $1.3 billion) and indirect cost recovery on federal contracts and grants ($353 million).

Student Tuition and Fees

Revenues from student fees fall into three general categories:

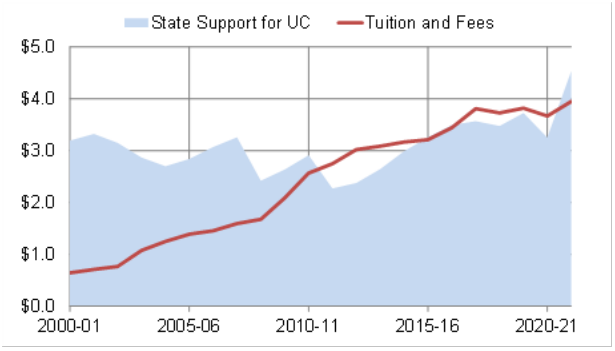
- Tuition revenue supports University operations for instruction, libraries, operation and maintenance of plant, student services, student financial aid, and institutional support. During 2021-22, Tuition is $11,442 and will generate an estimated $3.3 billion.
- Student Services Fee revenue provides funding for student life, student services, and other activities that provide extracurricular benefits for students, as well as capital improvements for student life facilities. The Student Services Fee, currently set at $1,128, will generate an estimated $324 million during 2021-22.
- Professional Degree Supplemental Tuition revenue helps fund instructional costs associated with the professional schools, including faculty salaries, instructional support, and student services, as well as student financial support. Professional school fees vary by program, campus, and student residency status and are expected to generate $370 million in 2021-22.

These and other UC student fees are discussed in detail in the *Student Tuition and Fees* chapter of this document.

Historical Changes in State Funds Support

State funding for UC has fluctuated dramatically with economic conditions over the past twenty years, as shown in Display II-4. As a consequence of the State's volatile revenue streams, the University's core fund budget has shifted towards an increased reliance on tuition and fees and UC General Funds.

Display II-4: State General Fund Support versus Student Tuition and Fee Revenue (Dollars in Billions)



While State support for UC has fluctuated with the state's economy, tuition and fees have become a larger share of UC's core funds budget, primarily due to enrollment growth.

While the State has provided more consistent annual increases to the University's base budget during the past decade, this funding has come with additional expectations related to California resident undergraduate enrollment growth, transfer enrollment, and limiting nonresident

undergraduate enrollment. The University has met or exceeded these expectations with minimal increases in systemwide tuition and fees over the past decade.

Doing so, however, has put pressure on the University's ability to maintain a high quality of education for its students.

Display II-5 shows per-student expenditures for education in inflation-adjusted dollars and yields several key findings:

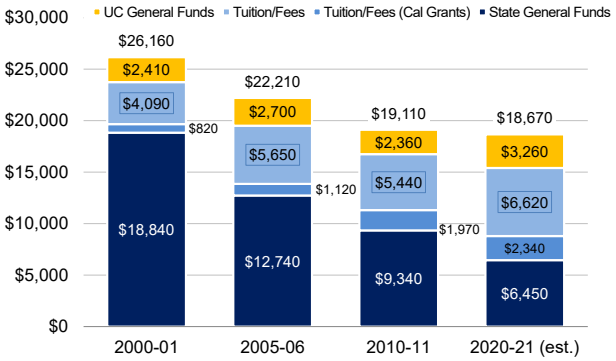
- The average core fund expenditure per student has declined by 29% over 20 years – from $26,160 in 2000-01 to an estimated $18,670 in 2020-21.
- The share of support provided by the State has declined. In 2000-01, State funding for UC, including Cal Grants, contributed $18,840 per student – 72% of the total cost. In 2020-21, the State share declined to $6,450, or 35% of the total cost.
- As State support has declined, the importance of revenue derived from tuition and fees and UC General Funds has grown. In 2000-01, tuition and fees represented only 19% of expenditures for education compared to 48% in 2020-21. Similarly, the share from UC General Funds has increased from 9% to 17% over the same period.

These findings raise additional points. First, while the University has reduced some costs through efficiencies, this reduction has not been sufficient to offset the effects of slow growth in State funding. As educational costs have outpaced growth in core fund revenue, austerity measures have affected the quality of a UC education. Examples include higher student-faculty ratios; overcrowded classrooms; inadequate investment in instructional equipment, library materials, and online courses; and a growing backlog of deferred maintenance.

Second, national news coverage about the high cost of college obscures what has really happened at UC. From 2000-01 to 2010-11, systemwide tuition and fees were increased to offset the effects of reduced funding from the State. Expenditures per student have actually fallen, not increased, in inflation-adjusted dollars.

Third, despite rising student fees, UC has successfully maintained student access and affordability. While tuition and fees have increased, significant increases in financial aid from both the University's financial aid programs and State financial aid programs have helped to ensure access for more low- and middle-income students and to allow them to graduate with student loan debt that is well below the national average. Across UC, 56% of California resident undergraduate students paid no tuition in 2019-20, and financial aid covered a large percentage of the other costs of education.

Display II-5: Per-Student Average Expenditures for Education (2020-21 Est. Dollars)



Average inflation-adjusted expenditures for educating UC students have declined since 2000-01. The University is increasingly relying on student-related charges. The State reduced funding for 2020-21 but restored it in 2021-22.

MEDICAL CENTERS

The University's medical centers generate three types of revenue:

- **Patient service revenues**, which are charges for services rendered to patients at a medical center's established rates, including rates charged for inpatient care, outpatient care, and ancillary services. Major sources of revenue are government-sponsored health care programs (i.e., Medicare and Medi-Cal), commercial insurance companies, managed care and other contracts, and self-paying patients.
- **Other operating revenues**, which are derived from non-patient care activities of the medical centers, such as cafeteria sales and parking fees.
- **Non-operating revenues**, which result from activities other than normal operations of the medical centers, such as interest income and the sale or disposal of capital assets.

Medical center revenues are used for operating expenses, including salaries and benefits, supplies and services, workers' compensation and medical malpractice insurance, among other expenditures. This revenue also helps support operations, clinical research, and faculty practice programs at the schools of medicine. Remaining revenues are used to

meet working capital needs, fund capital improvements, and provide a reserve for unanticipated downturns.

Expenditures of hospital income for current operations are projected to total $16.0 billion during 2021-22. The *Teaching Hospitals* chapter of this document discusses actions taken to address the challenges confronting UC's medical centers.

SALES AND SERVICES REVENUES

Revenues from self-supporting enterprises represent $9.3 billion, or 21%, of the University's 2021-22 budget. Such enterprises include educational activities (including those of health clinics); auxiliary enterprises, such as housing and dining services, parking facilities and bookstores; University Extension; and other complementary activities such as museums, theaters, conferences, and scholarly publishing. Net revenues from these activities are dependent upon the quality of the direct services and products being provided as well as the prices that the market will bear.

Auxiliary Enterprises

Auxiliary enterprises are non-instructional support services provided primarily to students, faculty, and staff. Programs include student residence and dining services, parking, bookstores, faculty housing, and a portion of intercollegiate athletics or recreational activities on some campuses. No State funds are provided for auxiliary enterprises; revenues are derived from fees directly related to the costs of goods and services provided. Total expenditures for auxiliary enterprises are projected to be $1.4 billion in 2021-22. These activities are described in more detail in the *Auxiliary Enterprises* chapter of this document.

University Extension, Other Self-Supporting Instructional Programs, and Other Campus Fees

In addition to the tuition and fees charged for full-time degree programs, the University generates fee revenue from enrollment in UC Extension courses and self-supporting instructional programs, along with the enrollment of non-UC students in summer instruction. These programs are expected to be entirely self-supporting: fees are charged to cover the full cost of offering the courses and programs.

Programs are dependent upon user demand. Campuses also charge fees for a variety of student-related expenses not supported by mandatory systemwide tuition and fees, such as student health insurance fees and course materials fees. Revenue from University Extension, other self-supporting instructional programs, and other campus fees is projected to be $1.2 billion in 2021-22.

Educational and Support Activities

Revenue from sales and services of educational and support activities is projected to total $6.1 billion in 2021-22. This includes revenue from the health sciences faculty compensation plans and a number of other sources, such as

EFFECTS OF COVID-19 ON THE UNIVERSITY

During 2020-21, the University of California campuses remained closed in order to protect the public from further spread of the Coronavirus, in compliance with the Governor's State of Emergency Order as well as local public health department orders. The University estimates that it lost approximately $2.2 billion of revenue from medical centers, clinical operations, housing and dining, and other auxiliaries during the year. The Coronavirus Aid, Relief, and Economic Security Act of 2020 ("CARES Act"), Coronavirus Response and Relief Supplemental Appropriations Act, 2021 ("CRRSAA") and American Rescue Plan ("ARP") provided the University with nearly $1.4 billion of Higher Education Emergency Relief Funds or ("HEERF") I, II, and III, federal funds. The HEER funds included $605 million of funding to provide direct emergency financial aid to students, and $775 million of funding to offset some of the lost revenue, and for the additional costs of facilities cleaning, and remote instruction at campuses. The Provider Relief Funds, totaling $932 million, helped offset lost revenue, and the additional costs of treating COVID-19 patients, testing, vaccination, personal protective equipment and other supplies at the medical centers.

Medical Centers

The medical centers were able to resume elective procedures, treatments, and patient visits, however, they also continued to treat COVID-19 patients, perform testing, and offer vaccination services. As a result, the medical centers lost nearly $233 million of revenue and incurred nearly $254 million of additional costs during the past year.

Auxiliary Enterprises

Nearly all on-campus dormitories and apartments remained closed for the entire year to comply with local county public health orders. As a result, the campuses lost nearly $1.4 billion of auxiliary revenue at housing and dining facilities, athletics, childcare, Extension, and other self-supporting activities.

neuropsychiatric hospitals, the veterinary medical teaching hospital, dental and optometry clinics, fine arts productions, museum ticket sales, publication sales, and athletic facilities users. Similar to auxiliary enterprises and academic medical centers, revenues in this case are generally dedicated to support the underlying activity.

GOVERNMENT CONTRACTS, GRANTS, AND AGENCY APPROPRIATIONS

Contract and grant activity generates $5.5 billion annually in revenue for the University and plays a key role in the University's position as a major driver of the California economy. Government sources, including the Department of Energy (DOE) and other federal agencies, state agencies, and local governments are significant providers of contract and grant funding. Contract and grant activity that is codified in legislation or based on long-standing agency agreements is permanently budgeted. In addition, non-permanent extramural funds are provided for specified purposes. The majority of this funding supports research, including salaries, benefits, equipment, subcontracts, and student financial aid.

Federal Funds

Federal funds provide support for UC in three primary areas: research contracts and grants, student financial aid, and health care programs.

In 2020-21, federal funds were the University's single most important source of support for research, generating $2.3 billion and accounting for 45% of all University research expenditures in 2020-21. While UC researchers receive support from virtually all federal agencies, the National Institutes of Health and the National Science Foundation are the two largest sponsors, accounting for nearly 77% of UC's federal research contract and grant awards in 2020-21. Although federal funds for UC research have grown significantly over the past several decades, the fiscal year 2013 sequestration and other constraints on federal spending, including cuts required by the 2011 Budget Control Act, have resulted in declines or stagnation of federal research funding available to the University. UC continues to face the prospect of lower federal award funding through 2025 for some mandatory programs.

Indirect cost recovery (ICR) funding reimburses the University for facilities and administration costs associated with research activity that cannot be identified as solely benefiting a particular contract or grant. During 2020-21, ICR funding from federal contract and grant activity was about $912.9 million and was dedicated to support contract and grant administration, core mission activities (in the form of UC General Funds), and special programs. The University is working to recover more of its indirect costs from research sponsors by increasing its negotiated federal rates and improving waiver management. While nearly all of the campuses have negotiated increases in the ICR rate, this has only partially mitigated declines in federal research funding.

Display II-6: 2020-21 Federal Support for UC and UC Students (Dollars in Millions)

Program Support	
Research Grants and Contracts	$2,320.0
Indirect Cost Recovery	$912.9
DOE National Laboratory Operations	$980.3
DOE Laboratory Management Fees	$25.2
Other Contracts and Grants	$236.8
2020 CARES Act, CRRSAA & ARP Funding	
Higher Education, including student direct aid	$456.0
Healthcare Provider Relief	$424.1
Student Financial Aid	
Pell Grants	$442.3
Other Undergraduate Grants and Scholarships	$25.0
Graduate Fellowships and Scholarships	$95.2
Student Loans	$918.8
Work-Study	$12.6
Patient Care	
Medicare	$3,380.4
Medicaid	$2,437.6
Estimated Total Federal Support	$12,667.2

In addition to research contracts and grants, federal funds entirely support the Lawrence Berkeley National Laboratory, for which UC has management responsibility. This support is projected to be $1.1 billion in 2021-22.

Federal student aid programs represent the single largest source of financial aid for UC students. Federal loan programs are available to assist both undergraduate and graduate UC students. In addition, needy students are eligible for federally-funded grant programs such as Pell Grants, and they may seek employment under the Federal Work-Study Program, through which the federal government subsidizes 50-100% of a student employee's earnings.

Graduate students receive fellowships from a number of federal agencies, such as the National Science Foundation and the National Institutes of Health. The *Student Financial Aid* chapter provides additional detail on this subject.

Finally, as mentioned earlier, federally-supported health care programs provide substantial funding to the University's medical centers for patient care through Medicare and Medi-Cal, totaling $5.8 billion in 2020-21.

State Agency Agreements

Similar to federally sponsored research, California state agencies provide contracts and grants to the University for a variety of activities. The largest area is research, but these agreements also support public service and instruction. These agreements are expected to generate $341 million in revenue for the University during 2021-22. Major providers of State agency agreements are the health care services, social services, transportation, food and agriculture, and education departments. Indirect cost recovery on State agency agreements is treated as UC General Fund income and supports the University's core mission activities.

Display II-7: 2021-22 State Special Funds by Revenue Source (Dollars in Millions, unless otherwise noted)

Research and Prevention Tobacco Tax Act of 2016	
Medical Research of Tobacco-related diseases	$52.3
Graduate Medical Education Programs	$36.2
California State Lottery Education Fund	
Instructional Activities and Programs	$46.3
Cigarette and Tobacco Products Surtax Fund	
Research of Tobacco-related diseases	$10.4
Breast Cancer Research	$8.8
Other State Special Funds	
Road Maintenance and Rehabilitation	$5.0
Oil Spill Prevention and Administration Fund	$2.5
Umbilical Cord Blood Collection Program	$2.5
Health Care Benefits Fund	$2.0
California Cannabis Tax Fund	$2.0
State Transportation Fund	$1.0
Other Funds less than $1M (in $'000's)	
Public Transportation Account	$980
California Cancer Research Fund	$425
Type I Diabetes Research Fund	$250
Total State Special Funds	$170.7

State Special Funds

In addition to State General Fund support and State agency contracts, UC's budget for 2021-22 includes a total of $170.7 million in appropriations from State special funds, as shown in Display II-7.

FEDERAL INDIRECT COST REIMBURSEMENT

All federal contract and grant activity generates costs which are divided into two basic categories: direct costs charged to a specific contract or grant; and indirect costs, including facilities or administrative expenses, which are shared across multiple contracts or grants. The *Research* chapter discusses indirect cost recovery and federal research funds in greater detail.

The University has an agreement with the State regarding the disbursement of federal reimbursement. Pursuant to this agreement, the first 19.9% of the reimbursement accrues directly to the University for costs of contract and grant administration in campus sponsored project offices, academic departments, and research units.

The remaining 80% of the federal reimbursement is split into two funds. The first 55% is budgeted as UC General Funds, which help to support the University's core funds budget. The remaining 45%, the University Opportunity Fund, is used for strategic investments in faculty recruitment packages (laboratory alterations, equipment purchases), support for graduate student researchers, instructional programs, and additional funding for capital.

ENDOWMENT EARNINGS AND PRIVATE GIFTS, GRANTS, AND CONTRACTS

Private funds include endowment payout as well as gifts, grants, and contracts. The Regents' endowment annually provides support for a wide range of activities. Gifts and private grants are received from alumni, friends of the University, campus-related organizations, corporations, private foundations, and other nonprofit entities, with foundations providing nearly half of total private gift and grant support. Private contracts are entered into with for-profit and other organizations to perform research, public service, and other activities.

Endowments

Combined Regents' and campus foundation endowments were valued at approximately $29.8 billion as of June 30, 2021. Payments from the Regents' General Endowment Pool (GEP), computed as a trailing five-year moving average, resulted in distributions approximately 6.4% higher than those from 2019-20.

Expenditures of endowment payouts support a range of activities, including endowed faculty chairs, student financial aid, and research. Approximately 84% of UC's overall endowment is restricted, however, limiting its use. This restriction is higher, on average, than the comparable percentages for most public institutions (80%) and private institutions (55%).

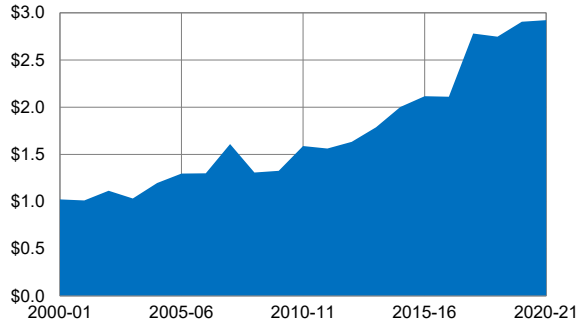
In 1998-99, the Regents approved a payout rate based on the total return of the GEP over the previous 60 months, with a long-term target rate set at 4.75%. This approach is intended to smooth annual payouts and avoid significant fluctuations due to market conditions.

Payouts from the Regents' endowments are permanently budgeted, while payouts from campus foundations are recorded as extramural (non-permanent) private grants. In 2020-21, the expenditure of the payout distributed on endowments and similar funds was $453 million from the Regents' endowments and approximately $457 million from campus foundations. Payouts in 2020-21 are expected to be slightly higher than those in 2019-20.

Private Support: Gifts and Grants

Private funds provide support for instruction, research, campus improvements, and student financial support, among other programs. In 2020-21, approximately 98% of new gifts to UC were restricted in their use.

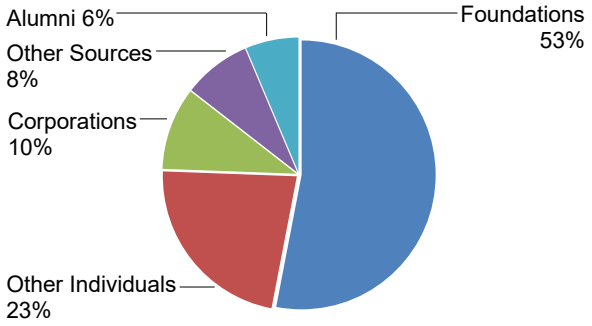
Display II-8: Private Gift and Grant Support (Dollars in Billions)



Gifts and pledge payments totaled $2.9 billion in 2020-21.

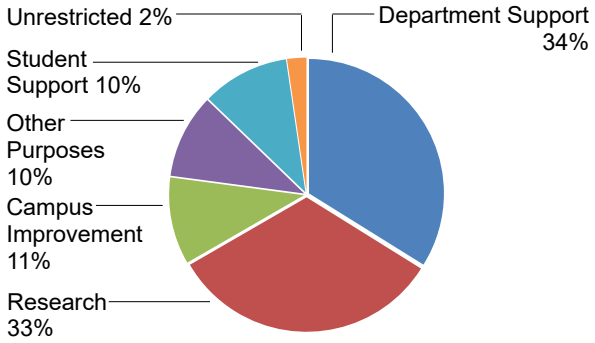
In 2020-21, new gifts and private grants to the University totaled just over $2.9 billion. Approximately $673 million of this total was designated for endowments, which can be expected to generate stable future funding, but are unavailable for current expenditure. Health sciences disciplines receive nearly half of all private support. 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 in philanthropy among the nation's public colleges and universities, and the high regard in which UC's alumni, corporations, foundations, and other supporters hold the institution.

Display II-9: 2020-21 Private Gift and Grant Support by Source



Almost two-thirds of gift and grant support to the University is provided by foundations and corporations.

Display II-10: 2020-21 Private Gift and Grant Support by Purpose



Academic departments and research receive more than two-thirds of private gift and grant support.

Private Contracts

In 2020-21, revenue from private contracts totaled $1.1 billion, an increase of 6% over 2019-20. Over the last ten years, awards have increased by 23% in inflation-adjusted dollars, making private contracts an increasingly important source of University funding. These contracts, which primarily support research purposes, include clinical drug trials with pharmaceutical and health care organizations, as well as agreements with other agencies,

including institutions of higher education.

OTHER FUND SOURCES

DOE National Laboratory Management Fee Revenue

As compensation for its oversight of the DOE National Laboratories at Berkeley, Livermore, and Los Alamos, the University earns management fees which can be used to support other activities. Performance management fees from Lawrence Berkeley National Laboratory (LBNL) are gross earned amounts before the University's payments of unreimbursed costs. By contrast, net income from the Los Alamos National Security LLC (LANS) and Lawrence Livermore National Security LLC (LLNS) reflects net share of fee income remaining after payment of unreimbursed costs at the two laboratories and shares to other owners. For 2020-21, UC's estimated share of income from LANS and LLNS is $25.0 million.

Management fee revenue related to LBNL is used for costs of oversight, research programs, reserves for future claims, and unallowable costs associated with LBNL. Per Regents' approval, revenue from LANS and LLNS will be used to provide supplemental income to select LANS employees, to cover unreimbursed oversight and post-contract costs, and to support a variety of University research programs. Further information about DOE Laboratory Management activity and revenue can be found in the *Department of Energy – UC National Laboratories* chapter of this document.

Intellectual Property Royalty Income

Income derived from royalties, fees, and litigation recovery, less the sum of payments to joint holders, net legal expenses, and direct expenses, is distributed to various stakeholders according to the University Patent Policy and campus policies. Patent income fluctuates significantly from year to year and budget estimates are based upon historical trends. This revenue appears in the University budget in two categories: as a component of UC General Funds and as part of Other Funds. Income distributions after mandatory payments to joint holders and law firms (for legal expenses) were $73.6 million in 2019-20. While 2,206 inventions generated royalty and fee income, the 25 most profitable inventions collectively accounted for more than 65% of total revenues.

- **Inventor Shares:** The University Patent Policy grants inventors the right to receive a percentage of net income accruing to individual inventions. The terms of the inventor share calculations are established in the Patent Policy. In 2019-20, 2,198 inventors received $31.9 million.
- **Research Allocation Share:** For inventions covered by the 1997 Patent Policy, 15% of net income from each invention is designated for research-related purposes at the inventor's campus or laboratory. This allocation totaled $8.8 million in 2019-20.
- **General Fund Share:** In 2019-20, the portion of net income allocated to the UC General Fund totaled $13.4 million after deducting payouts to joint holders, legal expenses, and inventor shares (excluding inventions managed by LBNL).
- **Income after Mandatory Distributions:** All income remaining after deductions and other distributions is allocated to the campuses. These funds are typically used by the chancellors to support education and research priorities. In 2019-20, this remaining income totaled $19.4 million.

Cross-Cutting Issues

Several of the University's budget issues intersect multiple areas. This chapter provides detailed information about four of these cross-cutting issues for 2021-22: the University's multi-year framework to end long-standing racial and economic disparities in student outcomes and to grow and diversify the faculty; presidential initiatives; University quality; and diversity of student body, students, and staff.

A NEW MULTI-YEAR FRAMEWORK

The UC Board of Regents adopted a multi-year framework in early 2019 known as "UC 2030: Advancing the California Dream" or simply "UC 2030." UC 2030 is a collective effort by UC leadership – the President, Chancellors, and Board of Regents – to address inequities and strengthen California's future by investing in the next generation of UC graduates, faculty, and research. Specifically, this framework seeks to achieve the following goals by 2030: to produce over 200,000 additional degrees (on top of the one million undergraduate and graduate degrees currently projected); to raise the undergraduate four-year graduation rate to 76% and the six-year graduation rate to 90%; to eliminate gaps in timely graduation and graduate degree attainment for Pell recipients, first-generation students, and underrepresented groups; and to invest in the next generation of faculty and research by adding 1,100 ladder-rank faculty over the next four years.

The University has set a goal to add 200,000 degrees *over the one million currently projected* – or 1.2 million undergraduate and graduate degrees by 2030 (relative to 2015-16). Since 2015-16, UC has added over 376,000 undergraduate and graduate degrees, or just over 31 percent of the 1.2 million total. At the undergraduate level, much of this improvement will be made by increasing timely graduation, with all campuses proposing improvements that would achieve a systemwide goal to increase four-year freshman graduation rates by eight points, from 68% to 76%, and two-year transfer graduation rates by 13 points, from 57% to 70%.

Central to the UC 2030 framework is educational equity; that is, the responsibility to dismantle barriers that affect full participation in scholarship, research, teaching, learning and public service, particularly for individuals from historically marginalized and institutionally underrepresented groups.

The UC 2030 framework goals also align with the equity guiding principles of the Recovery with Equity Task Force detailed in its 2021 report, "Recovery with Equity: A Roadmap for Higher Education After the Pandemic".[1] These four guiding principles are aimed at:

- Fostering inclusive institutions, which encompasses improving faculty, staff and administrator diversity;
- Streamlining pathways to degrees, which encompasses providing clear and easy-to-navigate pathways to degrees;
- Facilitating student transitions, which encompasses support for college preparation; and
- Simplifying supports for student stability, which includes resources and structures packaged and simplified to help students meet basic, digital, and financial aid needs.

Of the additional 200,000 degrees that UC will produce, over 40,000 would be at the graduate level. This growth would primarily be achieved through increased graduate enrollment across the system. Not only would this growth support degree attainment goals, but it would also increase the share of graduate students across the system, currently at 18%, compared to 23% for non-UC public members of the Association of American Universities (AAU) and 47% for AAU private institutions. Graduate growth also advances UC research activities and supports undergraduate degree attainment through teaching and mentorship.

As part of this framework, UC seeks to ensure that nine out of ten freshmen and transfer entrants leave UC with a

[1] California Governor's Council for Postsecondary Education, "Recovery with Equity: A Roadmap for Higher Education After the Pandemic" (2021), https://postsecondarycouncil.ca.gov/wp-content/uploads/sites/18/2021/03/Recovery-with-Equity_2021Mar25-12pm.pdf

degree, and to advance greater educational equity by eliminating gaps in timely graduation for Pell grant recipients, first-generation students, and students from underrepresented groups. One challenge to achieving these ambitious goals is a recent decline in first-year retention rates of approximately three-quarters of a percentage point for freshman entrants since 2015 (although retention rates for transfer entrants have remained the same). First-year retention has dropped even further for freshman entrants who are Pell grant recipients (approximately one-quarter of a percentage point) and first-generation students (one-tenth of a percentage point) – exactly the groups UC is targeting to support in timely graduation. First-year retention has increased by half a percentage point for freshman entrants who are underrepresented. These data emphasize the need for additional instructional resources to reverse the declining trend.

As part of the framework—with sufficient financial support from the State—the University will hire 1,100 additional ladder-rank faculty over four years. This hiring is essential if the University is to achieve its undergraduate and graduate degree attainment goals, grow high-demand programs, create new academic programs, and expand research that addresses California's needs and contributes to economic growth. Adding ladder-rank faculty would also enhance faculty diversity. UC's recent hires are more diverse than existing faculty, and they exceed national availability pools of recent Ph.D. graduates. Specifically, the proportion of underrepresented new assistant professors hired by UC between 2016-17 and 2019-20 exceeded the proportion of underrepresented Ph.D. graduates available for hire during the same time period. In addition to helping the State meet its projected workforce needs, improved graduation rates and reduced time-to-degree offer other benefits that support multiple University goals. For example:

- A shorter time-to-degree increases the affordability of a UC education by reducing the costs to students and parents associated with an additional term or year of attendance.
- Students' lifelong earning potential is increased when they enter the workforce sooner rather than later, thereby contributing toward their upward socioeconomic mobility.
- Having students graduate sooner creates more space on campuses and permits larger incoming classes, reducing the need for additional capital investment.

The University has not yet received State support to help achieve these ambitious goals. Nevertheless, the University will continue to track these outcomes as part of its ongoing efforts to expand educational equity and opportunity.

PRESIDENTIAL INITIATIVES, SYSTEMWIDE INITIATIVES, AND SYSTEMWIDE PROGRAMS

In recent years, the University has launched a series of high-priority initiatives that span all three components of the University's mission – instruction, research, and public service. The initiatives can be grouped into three distinct categories:

- **Presidential Initiative**[2]**:** A function launched by a UC President to address University, statewide, national, or global issues, that is solely funded by time-bound or single-occasion funding commitments.
- **Systemwide Initiative:** A function that benefits the State, multiple campuses, or the entire system, and is funded solely with time-bound or single-occasion funding commitments.
- **Systemwide Program:** A function that benefits the State, multiple campuses, or the entire system, and is funded with ongoing or permanent funds.

In fiscal year 2019-2020, there were five Presidential Initiatives, one Systemwide Initiative, and thirty-eight Systemwide Programs.

Presidential Initiatives

- **UC Community Safety Plan.** The University issued the University of California Community Safety Plan in August 2021. The plan creates a structure to achieve safety for students, faculty, staff, patients and visitors. It calls for transforming UC's culture, policies and practices to ensure that all members of the community feel welcomed, respected and protected from harm. Community input led to the development of the plan and its key guidelines: (1) Community and Service-Driven Safety; (2) A Holistic, Inclusive and Tiered Response Model for Safety Services; (3) Transparency and Continuous Improvement Through Data; and (4)

[2] These initiatives were part of President Emeritus Janet Napolitano's tenure. At the time of this writing, President Michael Drake had not yet put forward his initiative platform, although he supported the continuation of established initiatives in the current year.

Accountability and Independent Oversight.

- **Public Service Law Fellowships.** This initiative launched in 2016 and created a first-of-its-kind fellowship program to support enrolled UC law students and graduates committed to public service. The program awards annual fellowships to students at UC Berkeley, UC Davis, UC Irvine and UCLA, making public interest positions more accessible.
- **Student Public Service Fellowships.** This initiative established a fellowship program through the UC Center Sacramento (UCCS) and UC Washington Center (UCDC) aimed at encouraging undergraduate students to enter public service careers. The program supports students at each of the undergraduate campuses to gain firsthand exposure to the American political process and attain valuable work experience. Fellows receive financial support to defray costs of enrollment at UCDC or UCCS and are selected based on financial need and a demonstrated commitment to civic engagement and service for the public good. The program also expands the commitment to public service by providing funding support for graduate fellows that spend a term in residence at UCCS or UCDC.
- **Global Food Initiative.** The UC Global Food Initiative (GFI) seeks to address one of the critical issues of our time: how to sustainably and nutritiously feed a world population expected to reach eight billion by 2025. GFI also addresses topics such as UC student food security, agro-ecological practices, and resource conservation, as well as encouraging hands-on agricultural education and increasing the amount of locally produced organic food available to the UC community. The initiative aligns the University's research, outreach, and operations in a sustained effort to develop, demonstrate, and export solutions – throughout California, the United States, and the world – for food security, health, and sustainability.
- **Carbon Neutrality Initiative.** This initiative supports the University's ambitious goal of becoming the first major research university to emit net zero greenhouse gases from its buildings and vehicle fleet by 2025. The initiative builds upon UC's pioneering work on climate research and its leadership on sustainable business practices to improve its energy efficiency, develop new sources of renewable energy, and pursue related strategies to cut carbon emissions. A Global Climate Leadership Council, comprised of external experts and UC scientists, administrators and students, provides guidance in seeking out best practices, policies and technology to achieve carbon neutrality and to advance teaching and research in climate change and sustainability. In 2018 UC launched the University Climate Change Coalition, a network of research institutions from the United States, Canada, and Mexico, known as UC3. This cohort of universities is committed to mobilizing resources and expertise to accelerate local and regional climate action in partnership with businesses, cities, and states.
- **UC National Center for Free Speech and Civic Engagement.** The UC system and the Free Speech Movement have long been synonymous. The UC National Center for Free Speech and Civic Engagement was launched in 2017 and is housed at UC Irvine and UC Washington Center (UCDC). It serves as a national leader and resource on issues including how simultaneously to encourage robust inquiry and dialogue while safeguarding other institutional values such as equity and inclusivity. Through its programming, publications, and preeminent fellows, the Center explores how the fundamental democratic and academic principles of free speech and civic engagement enrich the discovery and transmission of knowledge in America's colleges and universities.

Systemwide Initiatives

- **Clean Energy Research Center on Energy and Water.** The mission of the Clean Energy Research Center on Energy and Water (CERC-WET) is to build and transfer a foundation of knowledge, technologies, human capabilities, and relationships to thrive in a future with constrained energy and water resources in a changing global climate.

Systemwide Programs

Systemwide programs address University priorities across a number of areas, including developing future generations of students, researchers, and faculty members, with a particular emphasis on diversity and inclusion; bringing leadership and resources to issues facing California and the world; and improving campus life. Examples include the following:

- **Assistance for Undocumented Students.** Recognizing that California's undocumented students face unique challenges, this program represents a multifaceted approach to support their success at UC. Elements include providing free immigration-related legal services to undocumented and immigrant students, supporting the California DREAM Loan program, funding campus student services coordinators, establishing the President's Advisory Council on Undocumented Students, convening a national summit on undocumented students, and providing centralized resources for students and families on a single website (undoc.universityofcalifornia.edu). On November 30, 2016, the University released its "Statement of Principles in Support of Undocumented Members of the UC Community." These principles, which are implemented through policies and procedures at all UC campuses and medical facilities, include the following:
  - Undocumented students will continue to be

considered for admission under the same criteria as U.S citizens or permanent residents.

- No confidential student records will be released without a judicial warrant, subpoena, or court order, unless authorized by the student or required by law; no UC campus police department will undertake joint efforts with local, state, or federal law enforcement agencies to investigate, detain, or arrest individuals for violation of federal law.
- The University will not participate in any effort to create a registry of individuals based on any protected characteristics such as religion, national origin, race, or sexual orientation.

The principles can be found in their entirety here: https://www.universityofcalifornia.edu/sites/default/files/Statement-of-Principles-in-Support-of-Undocumented-Members-of-UC.pdf.

UC exemplified its commitment to undocumented students by being the first university to file a lawsuit challenging the federal government's proposed rescission of the Deferred Action for Childhood Arrivals (DACA) program. In June 2020, the Supreme Court ruled in UC's favor.

- **President's Postdoctoral Fellowship Program.** The goal of this program is to attract the nation's top postdoctoral scholars whose work contributes to UC's mission to serve an increasingly diverse state, nation, and world. Fellowships are available to support postdoctoral students who are performing cutting-edge research and have a proven commitment to diversity and equal opportunity in higher education. Funding is also available to hire these scholars as UC faculty. The program (and its companion Chancellors' Fellows program) has over 100 active fellows.
- **Student Academic Preparation and Educational Partnerships (SAPEP):** Consistent with UC's land grant mission, UC's SAPEP portfolio of programs provide academic support and tools for low-income and underrepresented students and their educators along the K-12 continuum and beyond, through graduate school, to help ensure equitable educational outcomes for students from these groups. Goals include preparing students academically to enter four-year colleges from high school or as transfer students, raising overall K-12 student achievement levels, addressing barriers to educational equity, and increasing the diversity of graduate/professional school enrollment.
- **UC Programs in Medical Education (PRIME).** UC PRIME helps meet the health needs of California's underserved populations by combining specialized coursework and clinical training experiences designed to prepare future clinician experts, leaders, and advocates for the communities they will serve.
- **UC-Mexico Initiative.** The UC-Mexico initiative is addressing issues facing our shared populations, environment, and economies. Through sustained, strategic, and equal partnership between UC and educational institutions in Mexico, the initiative increases student and faculty exchange and provide opportunities for collaborative research in key areas, including education, health, sciences, agriculture/ sustainability, arts, and culture. This initiative has been integrated with related programs, such as Casa de California and UC Mexus, and is under the stewardship of UC Riverside.

QUALITY AT THE UNIVERSITY OF CALIFORNIA

What defines quality at a major research university? The metrics that are commonly used when rating universities include maintaining an outstanding faculty, measured in terms of individual achievements as well as adequate numbers to teach and train; recruiting and educating outstanding undergraduate and graduate students, as well as graduating them expeditiously; sustaining or enhancing those activities that receive positive evaluations from students and faculty with respect to the quality of education provided; and supporting core academic needs. Several key indicators of instructional performance show that to date, the University has managed to sustain and even improve outcomes for its students. Maintaining these outcomes, however, is a challenge the University must address, given the reality of limited State resources.

A Distinguished Faculty

The quality of the University of California is founded on its distinguished faculty. UC faculty members provide stellar instructional programs, research and creative work, professional leadership, and public service. The faculty fulfill the University's goals on behalf of the State of California by:

- delivering excellence and innovation in teaching and student learning;
- driving intellectual engagement, discovery, economic vitality, and cultural vibrancy;
- educating the workforce to keep the California economy competitive;
- providing health care to millions of Californians; and
- attracting billions of research dollars, creating new products, technologies, jobs, companies, and advances in healthcare, and improving the quality of life.

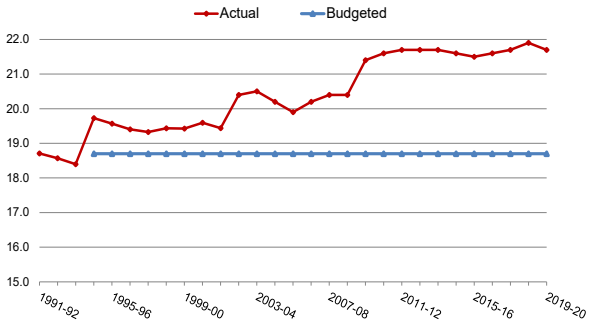
In fall 2020, UC employed 11,677 faculty (headcount) with appointments in the Ladder Rank and Equivalent series, the core faculty series charged with the tripartite mission of teaching, research, and public service. This includes retired faculty who are recalled to part-time service, to provide depth and breadth in fulfilling UC's mission The University employs additional faculty in Clinical Professor and In-Residence titles, as well as in Adjunct Professor, Visiting Professor, and Lecturer titles. In 2019-20 (the latest year for which data are available), expenditures on base salaries for appointments in all faculty series (from all revenue sources including State funds, student tuition and fees, contracts and grants, gifts and endowments, and clinical services) totaled more than $3.2 billion. In recent years, recruitment and retention challenges have increased, but UC continues to grow and diversify its faculty in the face of market and budget pressures.

Faculty continue to perform at top levels marked by awards for both established and early career faculty. Moreover, in 2019-20, UC awarded 0.37 doctoral degrees per tenured/tenure-track faculty member, compared to 0.30 doctoral degrees per faculty on average at both AAU private and non-UC AAU public institutions. Nevertheless, several trends illustrate major challenges facing the University that, if not addressed, will threaten the University's ability to sustain access and excellence:

- Over the past two decades, student enrollment has far outpaced growth in faculty. This growing imbalance between enrollment growth and growth in the number of faculty is troubling and must be addressed in the coming years.
- In 2020-21, UC's faculty salaries were 4.1% below market, as compared to its eight comparison institutions.
- Challenges of hiring a diverse faculty vary by discipline. Campus efforts to increase the representation of women and underrepresented minorities among the faculty have historically yielded limited progress due to several factors, including a particularly competitive labor market for these candidates and ongoing challenges in some disciplines in the proportion of faculty who women and from underrepresented groups relative to the availability pool.

Since 1994, the University's budgeted student-faculty ratio has been 18.7 to 1. However, the actual student-faculty ratio has deteriorated dramatically since the budget cuts of the early 1990s (as shown in Display III-1), currently

Display III-1: General Campus Student-Faculty Ratio



State cuts have led to increases in the budgeted student-faculty ratio. The University's long-term goal is to improve the ratio to 18.7:1 or lower. (Note: enrollment was not budgeted during the budget cuts of the early 1990s, so there are no student-faculty ratio data available during those years.)

standing at 21.7 to 1 systemwide and ranging from 18.8 to 25.5 on individual campuses. Improving the student-faculty ratio would permit the University to:

- offer smaller class sizes where appropriate,
- enhance the quality of the educational experience and richness of course offerings, and
- help students complete degree requirements and graduate more quickly.

A lower student-faculty ratio also increases opportunities for contact outside the classroom, guidance on internships and placements, and undergraduate participation in research and public service. Moreover, an improved ratio helps attract and retain high quality faculty who are both dedicated educators and outstanding researchers.

Although improving the student-faculty ratio has been an important goal of the University, funding for this purpose was not available for many years during fiscal crises. One of the University's quality initiatives proposed in recent budget plans, including the multi-year framework, is to improve the student-faculty ratio over the next several years.

Maintaining the quality and quantity of the faculty is critical to both the University and the State. Although faculty numbers declined in 2010-11 and 2011-12, UC is slowly replenishing faculty ranks; totals of ladder rank faculty surpassed 2009-10 levels in 2014-15 and hiring has out-

paced separations for the past three years, although, as already noted, the ratio of students to faculty remains high.

Timely Graduation

The University remains committed to ensuring that students are able to complete their degrees on time and to maintaining its excellent record of improving retention and graduation rates among all students.

The time it takes to earn a UC undergraduate degree, measured in the average number of years that elapse between matriculation and graduation, has dropped from 4.36 years for the 1996 freshman class to 4.15 years for the 2013 cohort. (Recent progress is illustrated in Display III-2.) Students may take more total units or take longer to graduate if they change majors, pursue a double major, major in a field with a higher unit requirement, or take a lighter load some terms. In recent years, campuses have worked to increase the average number of units taken during a term while reducing excess units taken over a student's career, thereby enabling students to graduate sooner and making room for additional students.

Among recent freshman cohorts, approximately 93% of students persist into the second year. Despite fiscal challenges, UC's four-year freshman graduation rate steadily improved and is 71.3% for the most recent cohort (graduation rate data are shown in Display III-3). Those who do not graduate in four years often require only one more academic quarter to earn their degree; 83.2% of the 2014 entering freshmen earned a baccalaureate degree within five years and 85.6% within six years. UC graduation rates far exceed the national average; among freshman students entering four-year institutions nationwide, only 41% earn a bachelor's degree within four years and 63% within six years.

Students beginning their higher education at a community college have historically done very well after transferring to UC. Among California Community College (CCC) transfer students, approximately 93% continue on to the second year and approximately 89% earn a UC degree within four years, taking on average 2.39 years to complete their degrees (graduation rate data for CCC transfers are shown in Display III-4). Transfer students' UC grade point averages upon graduation are about the same as those of students who entered as freshmen.

Student Satisfaction

The University measures undergraduate student satisfaction, along with a host of other indicators of students' well-being, using the University of California Undergraduate Experience Survey, or UCUES. In 2020, 81% of survey participants reported that they are very satisfied, satisfied, or somewhat satisfied with their overall academic experience at UC. Despite this positive overall rating, some distressing trends have also emerged. For example:

- A declining percentage of students state that they would choose to attend the UC campus at which they enrolled knowing what they know today.
- An increasing percentage of students report that they cannot secure their first-choice major.
- A declining percentage of students report knowing at least one faculty member well enough to request a letter of recommendation.

DIVERSITY

UC is dedicated to achieving excellence through diversity in the classroom, research laboratory, medical center, and workplace. It strives to maintain a climate that welcomes, celebrates, and promotes respect for the contributions of all students and employees.

In 2007, the Regents adopted as policy the UC Diversity Statement defining diversity as the "variety of personal experiences, values, and worldviews that arise from differences of culture and circumstance. Such differences include race, ethnicity, gender, age, religion, language, abilities/disabilities, sexual orientation, gender identity, socioeconomic status, geographic region, and more" (www.universityofcalifornia.edu/diversity/documents/diversityreport0907.pdf). The value of diversity in all aspects of UC's educational programs is fundamental to its mission as a land grant institution. A diverse University community enhances the quality of education by infusing perspectives and experiences from people of all walks of life in California and beyond, enriching and contributing to the educational, scholarship, research, and public service environment. An important aspect of this environment is the ability to take advantage of the social, cultural, and

intellectual contributions enabled by having a diverse population of students, faculty, and staff. An overarching goal is to link and engage leaders throughout the UC – faculty, staff and students – to transform the University to become more equitable and inclusive, so that all communities at UC are able to thrive. To that end, the Regents requested an annual accountability report on diversity at UC. The annual accountability reports have focused on diversity by gender, race, and ethnicity of the University community and have provided information about efforts to enhance that diversity.[3]

Diversity Within the University Community

UC often describes its diversity aspirations as reflecting the diversity of California. While the University has made progress in several key areas related to diversity and inclusion, it has not kept pace with demographic changes in California, especially with the rapid growth of the Chicanx/Latinx population. The racial and ethnic diversity of university populations change at different paces, over time. At the undergraduate level, the population changes roughly every four years, providing an opportunity for the University to become more responsive to demographic shifts in the graduating high school population. Conversely, faculty careers can last 30 to 40 years, requiring a much longer trajectory for these population shifts.

Undergraduate Students. At the undergraduate level, UC has made progress in expanding access to all Californians. At UC, underrepresented groups (URGs) include African American, American Indian, and Chicanx/Latinx students. In fall 1999, 16% of undergraduates were from underrepresented groups, rising to 30% in fall 2020. Among new California resident freshmen, students from URGs have increased from 16% in fall 1999 to 35% in fall 2020. This increase reflects, in part, the increases in diversity of California's high school graduating class. Additionally, California resident California Community College students from URGs have increased from 18% in fall 1999 to 36% in fall 2020.

Nevertheless, challenges remain. Although students from underrepresented groups constitute almost 60% of 12th graders and over three-quarters graduate, only 44.7% of students completing the A-G course requirements for UC admissions are Chicanx/Latinx and 4.2% are African American.

Even when students from underrepresented groups enter the University, they tend to take longer to graduate and are less likely to go on to graduate school. UC faculty do not reflect the racial or ethnic diversity of UC student populations, though new hires are overall more racially and ethnically diverse than existing faculty. UC 2030 goals are focused on ensuring that UC students and the next generation of UC faculty better reflect the diversity of California, thereby broadening perspectives, approaches, and outcomes in teaching and research, and strengthening UC's ability to address the challenges of tomorrow.

Graduate Academic Students. Similar to graduate programs across the country, UC's graduate academic programs strive to increase racial and ethnic diversity. The percentage of students from underrepresented racial/ethnic groups varied by academic discipline in fall 2020. Of the graduate academic students enrolled in social science disciplines, for example, 22.0% were from underrepresented groups in fall 2020. Of the graduate academic students enrolled in engineering, computer science, math, and the physical sciences, by contrast, 8.8% were from underrepresented groups in fall 2020. In nearly every discipline, UC graduates a higher percentage of students from underrepresented racial/ethnic groups than the average among other AAU public or private institutions.

The percentage of students who are women also varied by discipline in fall 2019, with 56.0% for social science disciplines and 30.1% for engineering, computer science, math, and the physical sciences. Figures for UC graduates in these disciplines are generally comparable to those at other AAU public or private institutions.

Graduate Professional Students. Among graduate professional degree programs at UC, the percentage of

[3] The January 2020 item on faculty diversity is available on the UC Regents website: https://regents.universityofcalifornia.edu/regmeet/jan20/b5.pdf. Detailed data on diversity and other accountability measures can be found at UC's Accountability Report website: http://accountability.universityofcalifornia.edu/.

students from underrepresented racial/ethnic groups varied in fall 2020, with 46.0% in education to 11.0% in life sciences disciplines. In nearly every discipline, UC graduates a higher percentage of students from underrepresented racial/ethnic groups than the average among other AAU public or private institutions.

In fall 2020, the percentage of women in UC professional degree programs ranged from 74.0% in education to 40.0% in business. Figures for UC graduates in these disciplines are generally comparable to those at other AAU public and private institutions.

Faculty Diversity. The ladder rank faculty at the University of California is more diverse, on average, than the faculty at AAU public and private institutions. Among the University's eight public and private comparison institutions, UC ranks second for the percentage of women faculty. Additionally, UC places second for the percentage of URG faculty and women URG faculty.

In fall 2020, 12.7% of ladder-rank faculty or equivalent (LRE) at UC (excluding retired faculty recalled to active service) were from an underrepresented group (URG): 7.9% were Chicano(a)/Latino(a), 0.5% were Native American, 3.5% were Black/African/African American, and 0.1% were Native Hawaiian/Pacific Islander. Additionally, 0.7% of LRE faculty identified as two or more races, of which one or more races was URG.18.9% were Asian or Asian American. Women made up 37.3% of the ladder rank equivalent faculty (excluding the portion of faculty who identified as another gender or who declined to state their gender), including 5.6% who were women URG faculty. (Figures include both domestic and international faculty.) Despite gains in faculty diversity over time, UC LRE are still 63.3% white and 62.7% male. Diversifying faculty is a national challenge for universities, including UC. The University is committing funding and personnel to support best practices in recruiting and retaining a diverse faculty. This effort includes significant actions on all ten campuses, such as national outreach and monitoring of recruitment efforts; implicit bias and climate enhancement training; cluster hiring; use of statements on contributions to diversity, equity, and inclusion; use of a common online recruitment system that facilitates data collection about the diversity of candidate pools and finalist lists; and institution of a systemwide Faculty Retention and Exit Survey.

The Budget Acts of 2016, 2017, and 2018 included allocations of $2 million on a one-time basis each year to support best practices in equal employment opportunity; the allocation was raised to $2.5 million for 2019-20 with total funding over four years at $8.5 million. The funding has been used to establish the Advancing Faculty Diversity (AFD) Program with funds awarded on a competitive basis to the campuses to support new interventions in the faculty recruitment process while being able to measure the interventions for their effectiveness in diversifying the faculty. While no funding was provided during the pandemic year of 2020-21, there is new funding for 2021-22 as a part of $5 million allocated for equal opportunity hiring and a focus on culturally-aware training for faculty.

Starting in 2018-19, the Office of the President supplemented allocations from the State by funding projects on improved academic climate and faculty retention, committing over $400,000 to fund six projects in the first year and increasing that to $1 million in 2019-20. Campuses have proposed a variety of innovative approaches to improving climate and retention for faculty members from historically underrepresented backgrounds. These projects have included workshops, anti-bias training, and symposia on equity, diversity, and inclusion; cross-division and network mentoring programs; building allies among faculty members holding non-minority identities; establishing cross-campus faculty learning communities focused on pedagogy for URG students; and addressing inequitable service loads.

As of 2021-22, the UC Office of the President plans to commit $3 million annually to continue these programs in equal opportunity in faculty recruitment and improved academic climate and retention. Campuses submitted 18 proposals for the funding in June 2021 and 12 programs, including projects on all ten campuses, will receive awards this year. Notably, this year's awards include four projects from multiple campuses; these projects focus, for example, on developing a toolkit of practices that department chairs can use to improve climate and recruitment outcomes; a

review of bias in the qualitative portion of student evaluations of teaching; and improvements to the campus network of Faculty Equity Advisors/Advocates. Of the projects that involved recruitment of new faculty, there is a focus on hiring faculty whose research and pedagogical focus is on issues of race, equity and gender disparities in a variety of disciplines: social sciences, Black Study, Health and Environmental Inequities, and Chicanx/Latinx studies, among others.

Each year the project issues a preliminary report in the fall term and an annual report at the end of the academic year. All reports are available online at this link: https://www.ucop.edu/faculty-diversity/index.html.

Staff Diversity. Among UC staff, the most diversity is seen among UC's professional and support staff, and the least among the Senior Management Group. Despite some progress over the past decade, in April 2021, the Senior Management Group (consisting of 169 employees) was 60.3% White and 57.7% male. In contrast, among the University's approximately 126,539 professional and support staff, 36.1% were White and 34.4% were male.

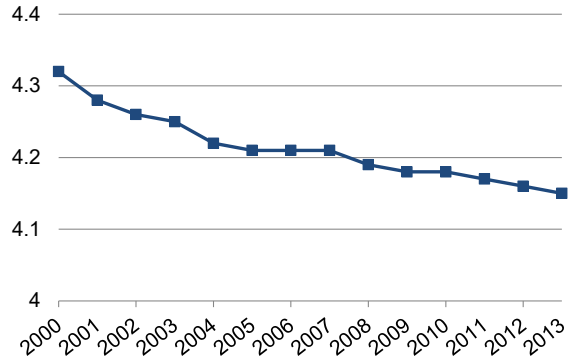
In April 2021, 33.3% of the University's approximately 127,000 non-academic staff were from underrepresented groups (URG), up from 17.9% in April 2011. Chicanx/Latinx staff represented the largest URG, constituting 24.9% of non-academic staff.

Institutional Best Practices in Diversity

Recognizing the need for and importance of advancing the diversity and inclusion of faculty, students, and staff, UC campuses and locations have implemented a wide variety of programs and initiatives. Some of these efforts have been in place for more than 30 years; some are brand new. Selected best practices are summarized below:

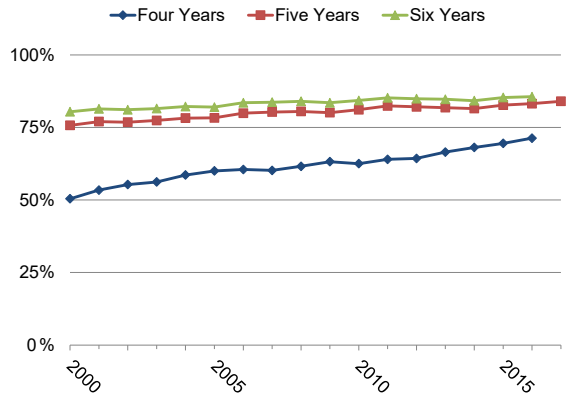
Undergraduate Students. As part of a portfolio of outreach programs called Student Academic Preparation and Educational Partnerships (SAPEP), UC devotes considerable resources to extensive academic and college preparation support. In 2019-20, the most recent year for which data are available, SAPEP programs collectively served over 200,000 K-12 and community college students. In addition, most K-12 schools served by SAPEP programs are classified as high-needs, meaning they have high percentages of students eligible for free or reduced-price meals under the National Schools Lunch Program.

Display III-2: Time to Degree among Freshmen by Cohort



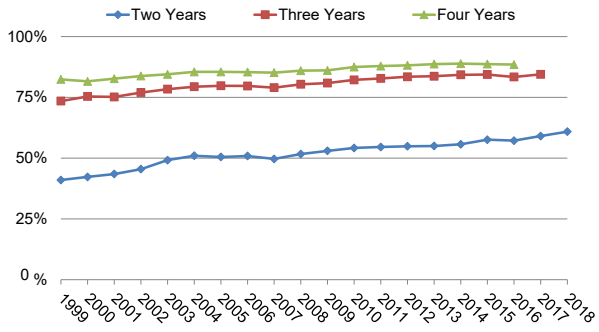
Time to degree, measured in average years elapsed between matriculation and graduation, has declined over time to 4.15 years for the most recent cohort.

Display III-3: Graduation Rates by Freshman Cohort



Over 70% of freshman entrants obtain their degree within four years and over 80% finish within six years.

Display III-4: Graduation Rates by CCC Transfer Cohort



CCC transfers to UC also exhibit strong graduation rates, with over 60% finishing in two years and over 88% graduating within four years of transfer.

When compared with their peers from California public high schools, program participants have significantly higher UC admission rates and rates of enrollment in all three of California's public college segments. In addition, when program participants are admitted to UC, they are more likely to enroll.

Hispanic Serving Institutions (HSI). Five of the nine UC undergraduate campuses are HSIs, a federal designation for colleges and universities with at least 25% Chicanx/Latinx undergraduate enrollment. The remaining four campuses are emerging HSI campuses and are expected to become full HSIs in the near future, making them eligible for federal grants and resources. As of 2019, 24.8% of UC undergraduate students were Chicanx/Latinx, which primes UC to becoming an HSI system at the R1 level. To support the UC as a thriving HSI system, the UC HSI Initiative was developed as a collaboration between the nine undergraduate campuses and the Office of the President. The Initiative focuses on data-driven and research informed best practices that supports Chicanx/Latinx student success at UC and beyond in their post-UC careers. In addition, the UC HSI Doctoral Diversity Initiative (UC-HSI DDI), launched in 2019, aims to enhance faculty diversity and pathways to the professorate for underrepresented students from California HSIs. The UC-HSI DDI awards competitive grants and funding to support graduate student preparation for the professoriate.

Graduate Academic and Graduate Professional Students. The UC-HBCU Initiative, first implemented in 2012-13, improves diversity and strengthens graduate programs by investing in relationships between UC campuses and Historically Black Colleges and Universities (HBCUs). Since its inaugural year, more than 745 HBCU scholars have participated in the program, which offers faculty-led summer research opportunities and year-round mentoring. Thus far, 252 UC-HBCU former interns have applied to UC graduate programs and 133 have been admitted (14 to master's programs). In fall 2021, 79 Ph.D. students and two academic master's students are expected to be enrolled at UC. Thirteen students have earned master's degrees, and thirteen fellows have completed Ph.Ds. as a direct result of the program. Four of the thirteen Ph.D. recipients have tenure-track faculty appointments at universities (two in California).

The UC-HSI DDI includes two components: 1) competitive grant awards to UC faculty/faculty administrators to support short-term and long-term programs/projects to enhance and expand pathways to the professoriate for underrepresented students, and 2) funding to directly support graduate student preparation for the professoriate. Funding includes resources to support a limited number of UC President's Pre-Professoriate Fellows (UC PPPF), who have advanced to candidacy in a UC Ph.D. program and are California HSI alumni. In 2020, UC named its first cohort of fellows; the program fosters their interest and preparation for the professoriate. Additional professional development support for underrepresented Ph.D. students is provided to encourage and help equip them to consider careers in the professoriate. Another goal of the UC-HSI DDI is to enhance the climate of academic programs through interventions, incentives and efforts that foster an academic culture of inclusion and equity—especially for faculty and students from underrepresented communities.

Medical Education. UC's Programs in Medical Education (PRIME), available at all UC medical schools, is an innovative training program focused on meeting the needs of California's underserved populations in both rural communities and urban areas by combining specialized coursework, structured clinical experiences, advanced independent study, and mentoring. As of 2020-21, UC enrolled 365 medical students in PRIME, with 67% from underrepresented groups in medicine.

Ladder Rank Faculty. As mentioned earlier, the President's Postdoctoral Fellowship Program (PPFP) is a keystone program at the University of California that supports diversification of UC faculty through financial support and career development training for postdoctoral scholars that show promise to be successful faculty in the UC system. Fellows have a demonstrated record of commitment to diversity in their research, teaching and/or outreach. The fellowship is extremely competitive, awarded to only the top 3% of applicants. In fall 2021, there are over 70 new and returning PPFP fellows across the UC system. At present, 294 PPFP fellows have been hired into UC tenure-track positions since 2003-04. As noted earlier in the

chapter, UC campuses are also piloting a number of programs designed to identify best practices in faculty hiring.

Staff and Management. The University is focused on a broad range of staff diversity issues, including recruitment, retention, and promotion, leadership commitment to staff diversity at each location, and systems for ensuring that best practices in support of staff diversity are woven throughout the fabric of the University. Many campuses now offer certificate programs in diversity and inclusion. These programs are designed to offer participants an in-depth examination of diversity and differences in order to gain a greater understanding of how and why to work together to build a stronger and more inclusive campus community.

Anti-Racism Resources and Initiatives. The University is committed to being consistently fair, equitable and anti-racist in its behaviors, policies, practices, and structures. In order to guide members of the UC community to become more active participants in combating racism, campus leaders have gathered and shared anti-racism resources, including links to articles, books, podcasts and films; along with providing anti-racism trainings, webinars, and the formation of task forces across the system. In additional, live, virtual and e-course trainings on mitigating implicit bias in hiring processes, teaching, faculty evaluation and other university activities are available systemwide at no cost to faculty and staff. These resources can be found at the following website, which will be updated over time: https://diversity.universityofcalifornia.edu/anti-racism-resources/. Across the UC system, locations examined policies, practices and approaches for addressing anti-Black and other forms of racism and discrimination. At the UC Office of the President, the Anti-Racism Task Force undertook an assessment of policies and practices, facilitated employee feedback, and presented findings and recommendations to President Emeritus Napolitano in late July 2020. In the fall of 2020, President Michael Drake approved the report and charged an implementation team to carry out the report's recommendations.

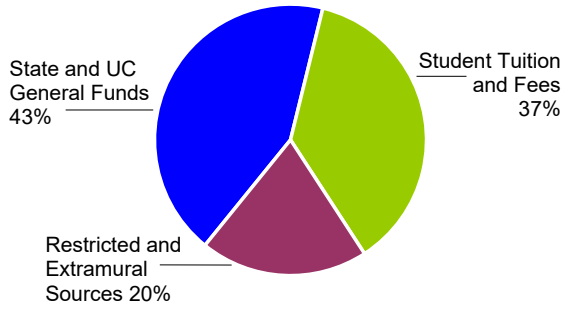
General Campus Instruction

The University of California provides undergraduate, graduate professional, and graduate academic education through the doctoral degree level and serves as the primary State-supported academic institution for research. Consistent with the California Master Plan for Higher Education, a fundamental mission of the University is to educate students at all levels, from undergraduate to the most advanced graduate level, and to offer motivated students the opportunity to realize their full potential. The University continues to offer a space to all qualified California resident undergraduates and provides programs for graduate academic and graduate professional students in accordance with standards of excellence and the growing needs of California, the fifth-largest economy in the world. To do this, the University must maintain a core of well-balanced, quality programs and provide support for newly emerging and rapidly developing fields of knowledge.

What attracts students to a research university is the opportunity to interact with faculty on the cutting edge of their field and to participate in, and even conduct their own, research. UC students are no different. The 2020 University of California Undergraduate Experience Survey (UCUES) found that 83% of respondents agreed that attending a university with world-class researchers was important. The survey also found that 71% of senior undergraduates have completed or are completing a research project or research paper as part of their coursework. The close relationship between instruction and research, at both the undergraduate and graduate levels, is the hallmark of a research university.

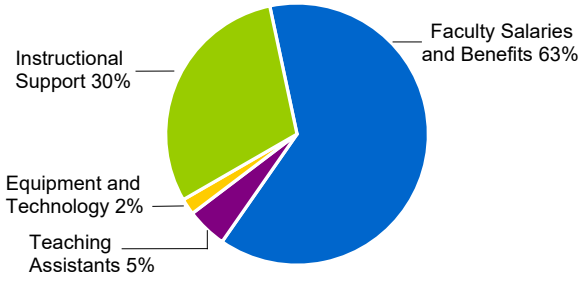
The University offers bachelor's, master's, and doctoral degrees in more than 850 instructional programs from agriculture to zoology and professional degrees in a growing number of disciplines. The University's Academic Senate authorizes and supervises courses offered within instructional programs, and also determines the conditions for admission and the qualifications for degrees and credentials. UC began awarding degrees in 1870 and conferred 85,234 degrees in 2020-21.

Display IV-1: 2020-21 General Campus Instruction Expenditures by Fund Source (Total: $6.1 Billion)



Core funds (State General Funds, UC General Funds, and mandatory and professional school student tuition and fees) provide 80% of funding for general campus instruction.

Display IV-2: 2020-21 General Campus Instruction Expenditures by Category (Total: $6.1 Billion)



Over 60% of expenditures in general campus instruction are for faculty salaries and benefits.

The general campus Instruction and Research (I&R) budget includes direct instructional resources associated with schools and colleges located on the nine UC general campuses.[1] I&R expenditures totaled $6.1 billion in 2020-21, 80% of which comes from core fund sources (State General Funds, UC General Funds, and student tuitions and fees). Additional resources for instruction are derived from self-supporting program charges, course materials and services fees, philanthropy, and other

[1] The San Francisco campus is primarily dedicated to the health sciences, which are discussed in the *Health Sciences Instruction* chapter of this document.

restricted sources. Budget elements and their proportions of the general campus I&R base budget include faculty and teaching assistant salaries and benefits (71%); instructional support (30%), which includes salaries and benefits of instructional support staff (such as laboratory assistants, supervisory, clerical and technical personnel, and some academic administrators) and costs of instructional department supplies; and instructional equipment replacement and technology (2%).

UNDERGRADUATE ENROLLMENT

Undergraduate and graduate enrollments are fundamental to the teaching and research components of the University's mission. Described below are some of the expectations set in the California Master Plan for Higher Education regarding University entrance requirements, admissions procedures, and enrollment policies.

Undergraduate Enrollment Provisions in the California Master Plan for Higher Education

The University of California remains committed to the Master Plan for Higher Education as the foundation for one of the finest higher education systems in the world. The interests of the State, its citizens, and the higher education segments in California have been well served by the Master Plan for more than 60 years.

The Master Plan calls for UC to offer access to all eligible California resident applicants to its undergraduate programs. The University establishes criteria designed to identify the top 12.5% of the State's public high school graduates and guarantees freshman admission to all California resident applicants who meet the requirements, apply on time, and choose to attend (though not necessarily at the campus or in the major of choice). In addition, the Master Plan calls for UC to guarantee a place for all California Community College (CCC) transfer applicants who meet the relevant admissions requirements. The Master Plan calls for the State to provide adequate resources to enable UC to accommodate all California resident students who are eligible and likely to apply.

Legislative reviews of the Master Plan have maintained its basic tenets, explicitly reaffirming the access guarantee for all eligible students. Indeed, section 66202.5 of the California Education Code states: "The University of California and the California State University are expected to plan that adequate spaces are available to accommodate all California resident students who are eligible and likely to apply to attend an appropriate place within the system. The State of California likewise reaffirms its historic commitment to ensure that resources are provided to make this expansion possible, and shall commit resources to ensure that [eligible] students ... are accommodated in a place within the system."

History of State Support for Undergraduate Enrollment Growth

Historically, the State has provided sufficient funds to support enrollment growth as it occurred at UC. Specifically, the State provided funding for each additional FTE student added to the University's budgeted enrollment level based on an amount known as the marginal cost of instruction. This cost is intended to reflect the level of resources needed to educate each additional student at UC's historical level of quality and is calculated using an agreed-upon methodology with the State. Funding for enrollment growth at the marginal cost of instruction was included in the 2005-06, 2006-07, and 2007-08 budgets.

The State's ongoing fiscal woes led to reductions in support for UC – and no new funding for enrollment growth – during 2008-09 and 2009-10. In keeping with its commitment to the California Master Plan and California undergraduate applicants who had worked hard to become eligible for admission, the University made a decision in 2008-09 to ask that campuses, to the best of their ability, implement the enrollment increases that had been planned before the onset of budget cuts. This enrollment growth, including growth of planned health science programs, was funded through an internal redirection of existing resources. As a result of this action, and due in part to increased nonresident enrollment, the University's total enrollment continued to grow after 2008-09 (see Display IV-4). The State budget provided $51.3 million to support 5,121 FTE students at UC at a marginal cost rate of $10,012 in 2010-11. However, a few weeks after the budget was signed, UC was informed of the State's intent to cut $500 million from its base – a cut that eventually rose to $750 million – leaving this enrollment growth only temporarily funded.

After four consecutive years of no new funding for enrollment growth (from 2011-12 through 2014-15), the State once again began to include undergraduate enrollment growth funding in the University's budget in 2015-16 and 2016-17, albeit at levels below the State's traditional marginal cost rate. UC redirected funds from other programs to make up the difference. In 2017-18, the State directed the University to enroll at least 1,500 additional undergraduates in 2018-19 by internally redirecting existing funding. State funding for the University in 2018-19 included support for 500 new California resident undergraduates in 2018-19 (in addition to the 1,500 new California undergraduates funded by an internal reallocation of University resources). The 2019-20 Budget Act provided $10 million in permanent funds to continue support of 2018-19 enrollment growth, as well as $49.9 million to support the enrollment of 4,860 additional California resident undergraduates over 2018-19 enrollment levels by 2020-21. The 2020-21 Budget Act, which was enacted following the onset of the COVID-19 pandemic, did not include UC enrollment targets for 2021-22. The 2021-22 Budget Act expressed the intent of the Legislature to support additional California resident undergraduate enrollment growth in 2022-23.

The resumption of State support for undergraduate enrollment growth has been a positive development. Nevertheless, actual California resident enrollment growth has far outpaced the levels supported in recent Budget Acts. Undergraduate enrollment growth beyond the levels supported by State funds creates an ongoing challenge to campuses as they strive to maintain the quality of a UC education.

Demographic details about the University's undergraduate population can be found in Displays IV-8 through IV-13.

Recent Context for Undergraduate Enrollment Growth

The University, with the support of the State, has achieved an extraordinary level of enrollment growth in recent years. The growth in total enrollment of California resident undergraduates between fall 2015 and fall 2016, for example, was the largest one-year increase since the end of the Second World War. This expanded access has benefited both California high school graduates and California Community College students, who applied to – and enrolled at – the University in record numbers.

This growth, while a boon to California students seeking to enroll at UC, has created challenges for campuses. These challenges have resulted in part because actual enrollment growth far exceeded the funded enrollment growth targets specified in the Budget Acts of 2015 and 2016.

Respectively, those Acts provided $25 million in State support for enrollment growth of 5,000 California resident undergraduates in 2016-17 over 2014-15 levels and $18.5 million in State support for enrollment growth of 2,500 additional California resident undergraduates in 2017-18 compared to 2016-17. In both cases, funding was granted by the State after the University demonstrated to the Director of Finance that it would achieve, at a minimum, these enrollment targets.

Both Budget Acts provided funding on an all-or-nothing basis: UC was to receive no enrollment growth funding if it fell short of the specified goal, yet would receive no additional funding for enrolling students in excess of the goal. In order to avoid the prospect of receiving no State funds for enrollment growth, campuses made the rational decision to err high when trying to achieve their enrollment growth targets.

MARGINAL COST OF INSTRUCTION

The marginal cost of instruction formula includes:

- salary and benefits for additional faculty positions (based on the assumption of a budgeted student-faculty ratio of 18.7 to 1);
- related instructional support such as clerical and technical personnel, supplies, and equipment;
- support for teaching assistant positions;
- institutional support; and
- support for operation and maintenance of plant, libraries, and student services.

Activities that the State has historically not supported, such as student health services, plant administration, executive management, and logistical services, are excluded. The methodology identifies the State subsidy provided for the cost of education as well as the portion of this cost that is supported by student tuition and fees. To the extent that the methodology is based on expenditures, the marginal cost rate does not capture the full costs of instruction.

This tendency, combined with the often unpredictable nature of enrollment management, resulted in estimated enrollment growth of approximately 10,100 students between 2014-15 and 2017-18, or 2,600 more than the 7,500 students for which partial funding was provided in the Budget Acts of 2015 and 2016. In lieu of State support to subsidize the cost of educating these students, campuses have instead diverted funds from other pressing budgetary needs to accommodate the larger-than-expected enrollment of California resident undergraduates.

Although the University envisioned sustaining expanded access by increasing total California resident undergraduate enrollment by at least 10,000 students within four years (from 2014-15 through 2018-19), it ultimately enrolled over 10,000 new students in just three years (by 2017-18). Display IV-3 illustrates the extent to which the enrollment growth of California resident freshmen and California resident transfer entrants in 2016-17 and 2017-18 mark departures from that of the previous five years and Display IV-4 shows how total University enrollment has grown since 2006-07. Actions taken for 2016-17 and 2017-18 have implications for future years – as classes of students coming in are larger than classes graduating, total enrollment grows, even if new student enrollment does not change. Moreover, in 2018-19, UC exceeded its budgeted growth of 2,000 California resident undergraduate FTE. In 2020-21, UC has also exceeded the 4,860 California resident undergraduate FTE growth (relative to 2018-19) funded for 2019-20 and 2020-21 in the 2019 State Budget Act.

CALIFORNIA'S MASTER PLAN FOR HIGHER EDUCATION

In exchange for the higher education segments agreeing to differentiate functions and admissions pools and to reduce programmatic duplication, the State government and taxpayers agreed to provide support for higher education in the form of California's Master Plan.

Differentiation of function

- UC (10 campuses) – high-cost doctoral education, highly specialized professional schools
- CSU (23 campuses) – bachelor's and master's level education
- CCC (116 community colleges) – lower division and basic skills education and workforce training

Differentiation of admissions pools coupled with principle of universal access

- UC and CSU are to take all eligible students in the top one-eighth and one-third, respectively, of California public high school graduates.
- CCCs are to admit any student capable of benefiting from instruction.
- Any CCC student has the opportunity to become eligible for four-year instruction.
- UC and CSU give eligible CCC transfer students priority in admission.

Affordability

- A commitment to the principle of tuition-free education for California residents has been replaced in the last few decades with moderate tuition accompanied by robust financial aid policies.
- Student aid helps ensure finances are not a barrier to higher education and that State Cal Grants are portable to any institution in the state.

UNDERGRADUATE ADMISSIONS

In spite of the uncertainty brought on by the pandemic, the University has maintained its commitment noted in the Master Plan for Higher Education to provide a place in at least one of the UC campuses for all eligible undergraduate California applicants who wish to attend. UC received the highest number of undergraduate applications in its history, over 128,000 applications from California high school seniors for fall 2021 admission, a 13% increase relative to the prior year. This volume continues to reflect a high level of demand among California's high school graduates for access to the University of California.

Offers of admission for fall 2021 to California freshmen from underrepresented groups increased by 9.7% relative to offers for fall 2020. Chicano(a)/Latino(a) students constitute the largest ethnic group of admitted freshmen for the second year in a row at 37%. The proportion of African American and American Indian admits held steady at 5% and <1% of total admits, respectively.

The proportion of California freshmen admitted who would be the first in their families to earn a four-year college degree held steady at 45% between 2020 (35,058) and 2021 (36,866), while the proportion of admitted students from low-income families grew from 44% (30,865) to 45% (33,812).

Applications from domestic California Community College

(CCC) transfer students also increased for fall 2021. Specifically, applications increased by over 7.5%, from 33,090 for fall 2020 to 35,564 for fall 2021. Domestic CCC transfer applicants from underrepresented groups remained steady at 40% of applicants over the two years.

Offers of admission to domestic CCC transfers from underrepresented groups increased by 1.5% for fall 2021 relative to offers for fall 2020. The racial/ethnic makeup of the fall 2021 admitted CCC transfer class was very similar to last year's. Chicano(a)/Latino(a) students made up the largest proportion of domestic CCC transfers at 32% (the same as the previous year). African American students also remained about flat at 5% (down 0.4 percentage points from last year). American Indian students dropped slightly to 0.5% from 0.7% of admitted students. The proportion of CCC transfers admitted who would be the first in their families to earn a four-year college degree declined slightly to 53% in 2021 from 54% in 2020 but increased in actual number by 116 to 13,300. The proportion of admitted students from low-income households remained flat at 57% (13,827).

Admission Policies

The University strives each year to meet its commitment under the Master Plan to provide access to all eligible California high school graduating seniors who seek to attend UC. The University also strives to identify and enroll, on each of its campuses, a student body that demonstrates high academic achievement and exceptional personal talent, and that encompasses the broad diversity of backgrounds characteristic of California. The effect of the University's admissions policy is continuously monitored and reviewed to ensure that the University receives applications from a wide range of students displaying high academic achievement and exceptional personal talent. Beginning with fall 2021, UC eliminated the consideration of SAT or ACT scores in the admissions process.

Eligibility for guaranteed admission. There are two paths to attaining guaranteed admission to UC for California residents: through the Statewide Context, placing an applicant in the top 9% of graduates statewide, and through the Local Context, based on a class rank placing an applicant in the top 9% within his/her high school. Both guarantee a space at UC, though not necessarily to the campus of choice. Consistent with past practice, California residents who are guaranteed admission but are not accepted by any campus to which they apply are offered admission through the referral pool at one or more campuses with additional capacity. Currently, the Merced campus is the only campus offering admission through the referral pool. California resident applicants who have met all minimum requirements for freshman admission but are not identified in the top 9% in the state or within their high schools are entitled to review of their applications.

Comprehensive Review. The University's "comprehensive review" process, in place since 2002, ensures the admission of highly qualified students by allowing UC campuses to consider a variety of academic and other qualifications that all students present on the application. Data show that students admitted under comprehensive review present increasingly accomplished credentials.

All freshman applicant records are reviewed not only for their grades, rigor of their academic program and other academic criteria – important baseline indicators of academic potential – but also for additional evidence of such qualities as leadership, intellectual curiosity, and initiative. This policy sends a strong signal that UC is looking for students who have achieved at high levels and, in doing so, have challenged themselves to the greatest extent possible.

As part of its service to the State, UC is responsible for certifying whether courses offered in California's high schools qualify as A-G courses, which are required for eligibility to both the UC and the California State University (CSU) systems. For the 2020-21 academic year alone, UC reviewed almost 19,000 high school courses for UC and CSU eligibility. UC's A-G course lists include approximately 260,000 approved courses from more than 2,500 high schools and programs.

In recent years, a great deal of attention has been devoted to creating curricula that combine college-preparatory work with Career Technical Education (CTE). Courses that combine academic content knowledge with practical or work-related applications may be eligible for A-G approval. The Office of the President has assisted high schools to develop and implement integrated courses that unite

academic study with CTE. More than 600 institutions across California offered at least 510,000 public high school students the opportunity to enroll in A-G-approved integrated courses in 2020-21.

TRANSFER FROM CALIFORNIA COMMUNITY COLLEGES TO UC

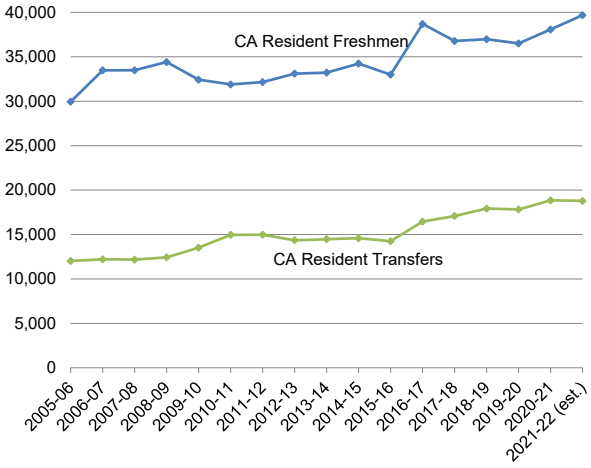
For those students who choose not to attend a four-year university directly out of high school, the ability to transfer from a California Community College (CCC) to a four-year institution helps sustain the State's commitment to educational opportunity for all. The California Master Plan prescribes a ratio of 60:40 in upper division to lower division undergraduate students in order to have ample upper division spaces for CCC transfer students. This 60% upper division proportion would be achieved if UC enrolled one upper division transfer student for every two new freshmen, assuming all students proceeded in lockstep.

Many new freshmen attain upper division status in fewer than two years, however, through the application of Advanced Placement (AP) and other college credit. As a result, UC has been able to meet the 60:40 ratio without enrolling as many transfer students as originally envisioned in the Master Plan. To ensure consistency with the Master Plan, UC's Commission on the Future recommended in 2011 that UC instead seek to reach the 2:1 ratio, resources permitting. The Budget Act of 2017 made $50 million contingent upon the University demonstrating "a good faith effort" and taking "all possible actions" to attain a ratio of "at least one entering transfer student for every two entering freshman students beginning in the 2018-19 academic year" at each undergraduate campus except Merced. The University took important steps to advance this goal, including extending the application deadline for transfer applicants in order to increase the applicant pool, setting aggressive transfer enrollment targets for each undergraduate campus, and signing a Memorandum of Understanding with the California Community College Chancellor's Office (CCCCO) to implement a guarantee of transfer admission for all qualified CCC applicants (see more information in the following section). Collectively, these efforts satisfied the requirements in the Budget Act.

Transfer Student Enrollment. In 2020-21, UC set a record by enrolling over 18,000 California resident transfer students. UC is projected to surpass that record in 2021–22 by enrolling more than 19,000 California resident transfer students, the largest California resident transfer class in the University's history.

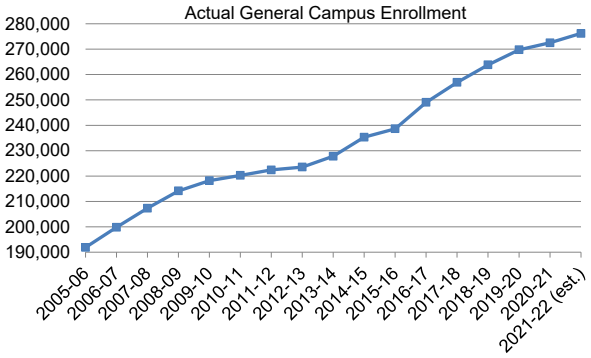
Transfer students are a crucial part of UC. In December 2017, President Emeritus Napolitano convened the Transfer Task Force to analyze the current scope of transfer admission options for prospective UC applicants, with a goal of attaining more and better-prepared transfer

Display IV-3: California Resident Freshman and California Resident Transfer Entrants (Fall Term)



After years of relatively flat enrollment growth among new California resident freshmen and California resident transfers, the University once again began to increase enrollments of these populations of students. The State called upon the University to enroll 5,000 additional California resident undergraduates in 2016-17 relative to 2014-15 enrollment, resulting in the dramatic increase in California resident freshman entrants that year.

Display IV-4: Total General Campus Enrollment (FTE)



Total (undergraduate and graduate) general campus FTE enrollment has grown substantially since 2005-06.

students by ensuring greater transparency of UC's requirements for successful transfer. Then in April 2018, the University of California and the California Community Colleges established a joint agreement aimed at increasing the number of academically prepared community college students who transfer to UC and earn a bachelor's degree. Under the Memorandum of Understanding (MOU), the new Pathways+ program launched in fall 2019 and provides students with the security of an admissions guarantee to a UC campus of choice, strong major preparation for a competitive admissions edge at any UC campus, and a solid foundation for academic success and timely degree completion after transfer. As outlined in the MOU, this program is only one of a series of efforts to help community college students, especially those from disadvantaged backgrounds, gain access to the University.

All UC campuses are open to new transfer students for each fall term. CCC transfer applicants who are California residents and who have met UC's minimum requirements and completed lower division major courses are given priority in transfer admission at all campuses.

As with freshman applicants, campuses use comprehensive review criteria for transfer applicants to select students for admission to majors and campuses. Selection criteria at campuses with more eligible applicants than spaces available include academic factors such as major preparation, including the completion of a UC Transfer Pathway, as well as evidence of such qualities as motivation, leadership, and intellectual curiosity.

Transfer Advising. In order to promote the transfer process, the University provides admission advisors who regularly travel to CCCs to meet with students and staff regarding transfer admission and lower division coursework preparation requirements. Due to the pandemic, these efforts were conducted in a virtual format. Outreach continues to be focused on CCCs with high numbers of educationally disadvantaged students and historically low transfer rates to UC.

To assist students preparing for transfer, UC developed the online Transfer Admission Planner (UC TAP), which allows students to begin tracking their completed coursework at CCCs in their first year and provides immediate feedback on their progress towards transfer. Furthermore, the tool allows UC and CCC counselors to track and communicate with potential transfer students. Additionally, UC campuses have transfer centers and advisors available to assist prospective and new transfer students who enroll at UC.

TRANSFER APPLICANTS

California resident transfer applicants who meet one of the following paths are guaranteed a comprehensive review of their application for admission.

- Completion of at least 60 semester/90 quarter units of transferable coursework with a 2.4 GPA, including seven specific transferable courses with a C grade or better in each, or
- Completion of an approved Associate Degree for Transfer at a California Community College, or
- Completion of an approved UC Transfer Pathway.

Course Articulation. To plan for transfer, students must know how the courses they take at a CCC will apply credits toward a degree at a particular UC campus (i.e., transfer articulation). Transfer course articulation at UC falls into two categories:

- **Universitywide Articulation.** Transferable Course Agreements, reviewed by the UC Office of the President, designate which courses can be transferred for unit credit at any UC campus and meet University transfer admission requirements.
- **Campus-specific Articulation.** Each UC campus designates which courses at the community college are comparable to courses taught at the UC campus and will be accepted as transfer credit toward the campus's major, breadth, or other undergraduate degree requirements.

Transfer Planning Tools. CCC students have three primary tools to navigate the transfer path: 1) ASSIST, the official statewide database and online resource of articulation information for California's public colleges and universities, which houses more than 20 million articulation reports for the CCC, CSU, and UC systems to guide transfer students on how courses they complete at a community college transfer to any of the public four-year campuses; 2) the UC Transfer Pathways Guide, an online resource that shows prospective CCC transfers which UC-transferable courses from ASSIST meet the specific course expectations of a given UC Transfer Pathway; and 3) the UC Transfer Admission Planner, where students can plan

and track their progress towards meeting transfer requirements.

UNDERGRADUATE NONRESIDENT ENROLLMENT

UC's priority is to enroll all eligible California residents for whom the State has provided funding. The California Master Plan for Higher Education calls upon UC to offer a space to, and the State to fund, all eligible California resident applicants at both the freshman and transfer levels. Campus enrollment targets for California residents are established on a university-wide level based on available State funding and campus growth plans.

Just as other forms of diversity enhance the educational experiences of students, California's dependence on an increasingly global society and economy requires geographic diversity among the student body. Nonresident students are essential to the University, contributing to the academic quality and educational experience of all students and enhancing the diversity of backgrounds and perspectives on the campuses at which they enroll. Their contributions help prepare all UC students to live and work effectively in an increasingly global world. Nonresident enrollments also help grow and sustain the University's global reach, promoting new opportunities for students and faculty.

Until 2011-12, UC enrollment of undergraduate nonresidents was about 5% of total undergraduate enrollments across the system. With the onset of the Great Recession, UC began to increase the enrollment of nonresident undergraduates in addition to continuing its commitment to resident undergraduate enrollment. For 2021-22, the systemwide total of undergraduate nonresidents is projected to be 38,655 FTE, or 17.7% of total undergraduate enrollment. UC continues to enroll a much lower percentage of nonresident undergraduate students compared to its public peer institutions. For example, at the University of Michigan and the University of Virginia, nonresidents constituted 43.5% and 31.0%, respectively, of undergraduates in fall 2020 (the most recent term for which these data are available).

Nonresident undergraduates pay $29,754 more than California residents in Nonresident Supplemental Tuition, providing extra revenue that enables UC to improve educational programs for all students. Among other purposes, Nonresident Supplemental Tuition revenue is used to help recruit and retain high-quality faculty, mount additional courses that help lower class sizes and expand the breadth of offerings, expand library collections and services for students, renew instructional equipment and technology, and otherwise help to ameliorate the challenges to academic quality described earlier in this chapter.

Many nonresident students choose to stay in California after graduation from UC. According to California Employment Development Department data (which exclude federal employees and those who are self-employed), half of UC domestic nonresident undergraduates and 13% of international undergraduates remain in California for two or more years after graduating. Overall, around 30% of nonresidents are employed in California initially after completing their UC degrees. The State itself reaps benefits from the contributions to California industries of talented and highly qualified nonresident UC graduates. As discussed in the *UC's Role in the State of California* and *Health Sciences Instruction* chapters of this document, California is in desperate need of college-educated workers in many industries. Nonresidents who stay in California after earning their degree at UC bolster the pool of highly educated workers in California and make significant contributions to the State economy.

As part of the conditions set by the Legislature for receiving funds to support enrollment growth in 2017-18, the Budget Act of 2016 called upon the University to adopt a policy on enrollment of nonresident students. The UC Board of Regents adopted such a policy in May 2017, reaffirming UC's historic commitment to California residents by limiting the proportion of out-of-state and international students at its nine undergraduate campuses. The policy caps nonresident enrollment at 18% or, for campuses that enrolled a higher percentage in 2017-18, their percentage from 2017-18.

GRADUATE STUDENT ENROLLMENT

Graduate education and research at UC have long fueled California's innovation and development, helping establish California as the fifth-largest economy in the world. Indeed,

UC is charged by the California Master Plan for Higher Education with the responsibility to prepare professional and doctoral students to help meet California's and the nation's workforce needs.

Over the last 50 years, however, while well-justified attention has been paid to accommodating undergraduate enrollment growth, both for the baby boomers and for their children, graduate enrollment growth has not kept pace with that of undergraduates. Despite high-quality programs and many applicants, growth in graduate programs has been limited due to the lack of State support, creating an imbalance in University programs and preventing the University from keeping pace with growing workforce needs.

Since 1967-68, UC undergraduate enrollments have grown dramatically, from 59,000 FTE to an estimated 236,000 FTE in 2021-22, or 300% over 50 years. General campus graduate enrollment has grown at a much slower rate, from approximately 22,400 to an estimated 40,000 FTE in 2021-22, only 78.6%, during the same period (see Display IV-5).

As a consequence of this imbalance, the proportion of graduate students decreased from 26.3% of general campus enrollment in 1969-70 to an estimated 14.5% in 2021-22 (see Display IV-6).

The graduate student percentage of total enrollment has declined in recent years though graduate enrollments in raw numbers have risen slightly. (An increase in graduate professional students was partly offset by a decrease in graduate academic students.) UC's enrollments of graduate academic and graduate professional students (including health sciences and self-supporting enrollments) is about 21% of total UC enrollment, while among other Association of American Universities (AAU) institutions, approximately 34% of public and roughly 65% of private enrollments were graduate students. As Display IV-7 illustrates, UC's total graduate percentage is lower than the average among all of UC's eight comparison institutions.

UC has fallen behind in graduate enrollment for several reasons. Because of State budget constraints in the 1980s and 1990s, undergraduate growth was prioritized to ensure access to all eligible undergraduates choosing to attend UC. But graduate enrollment growth has also been slowed in many cases by the inability of departments to secure adequate and competitive student financial support. Higher education norms dictate that programs provide funding to support their Ph.D. students. Competitive funding packages are critical to attract highly qualified students.

IMPORTANCE OF STATE FUNDING

Accommodating enrollment in recent years without sufficient resources has affected students by eroding UC's traditional high-quality academic experience. For students, the dilution of resources potentially means fewer course offerings, less access to modern instructional equipment, larger class sizes, reduced interaction with top faculty, longer waits for student services, longer time-to-degree, fewer student jobs, and fewer library holdings and services relative to the number of students enrolled. This negative effect comes at a time when students are being asked to cover a greater share of costs through tuition and fees.

For faculty, the effect is similar. As funding remains constrained, fewer competitive offers can be made to new faculty. Existing faculty must manage the needs of ever-larger classes, with less assistance from additional faculty and graduate students and less time for research or public service. Working with outdated equipment in unmaintained buildings, faculty morale suffers and opportunities at other institutions become more attractive. If top faculty leave, UC's quality will suffer.

Graduate students are critical to the State's economic, social, and cultural development. In addition, UC graduate students play a vital role as future faculty in higher education in California, and help enhance the quality of the instructional and research enterprise while enrolled at UC.

Diversity in Graduate Education

UC is committed to training an academic graduate population that reflects the diversity of the state and nation. African American/Black students are extremely underrepresented in UC graduate and professional programs. This remains a challenging area. For example, the five-year average of 2010-14 for enrollment of African Americans in UC academic doctoral programs was 2.9%. The most recent five-year average enrollment rate (2016 through 2020) is 3.7%.

In order to enhance the pipeline of African American students who earn advanced degrees from UC Ph.D. programs, UC launched an initiative in 2011 that provides fellowships to UC Ph.D. students who participated in the

UC-Historically Black Colleges and Universities (HBCUs) Initiative. The UC-HBCU Initiative seeks to improve the representation of HBCU alumni in UC graduate programs, particularly Ph.D. programs, by investing in relationships and projects with HBCU students and faculty. Thus far, 252 UC-HBCU former interns have applied to UC graduate programs and 133 have been admitted (14 to master's programs). As of fall 2021 there are expected to be 79 Ph.D. students and two academic master's students from this program enrolled at UC. Thirteen students earned master's degrees, and thirteen fellows have completed Ph.Ds. as a direct result of the program. Four of the thirteen Ph.D. recipients have tenure-track faculty appointments at universities (two in California).

In addition, the UC-Hispanic Serving Institutions Doctoral Diversity Initiative (UC-HSI DDI), launched in fall 2019, aims to improve faculty diversity by enhancing pathways to the professoriate for underrepresented students from California Hispanic Serving Institutions (HSIs). The UC-HSI DDI includes two components: 1) competitive grant awards to UC faculty/faculty administrators to support short-term and long-term programs/projects to enhance and expand pathways to the professoriate for underrepresented students, and 2) funding to directly support graduate student preparation for the professoriate. Funding includes resources to support a limited number of Ph.D. students, named UC President's Pre-Professoriate Fellows (UC PPPF), who are California HSI alumni and have advanced to candidacy at UC. In 2020, UC named its first cohort of fellows, representing each campus. The UC President's Pre-Professoriate Fellowship fosters their interest and preparation for the professoriate. Additional professional development support for underrepresented Ph.D. students is provided to encourage and help equip them to consider careers in the professoriate. Another goal of the UC-HSI DDI is to enhance the climate of academic programs through interventions, incentives and efforts that foster an academic culture of inclusion and equity—especially for faculty and students from underrepresented communities.

A diverse faculty is a crucial part of any strong research institution. The University of California President's Postdoctoral Fellowship Program (PPFP) offers postdoctoral research fellowships, professional development, and faculty mentoring to outstanding scholars across fields whose research, teaching, and service contribute to diversity and equal opportunity at UC. In addition, UC is working to increase the number of PPFP fellows hired as UC faculty at the completion of their fellowships. Since 2003-04, 294 PPFP fellows have been hired into tenure-track positions at University of California campuses. For a description of these and other efforts to increase diversity among UC's faculty, see the *Cross-Cutting Issues* chapter of this document.

History of State Support for Graduate Student Enrollment Growth

Graduate enrollment must increase to complement dramatic undergraduate growth, to support faculty in the research mission of the University, and to help with the teaching and mentoring associated with additional undergraduates. To that end, the University's 2016-17 budget plan requested an additional $6 million in State General Funds above the base budget increase to support the enrollment of 600 additional graduate students by 2016-17. Although the State did not fund this request, it remained a high priority for the University.

In an effort to keep pace with the significant growth in undergraduate student enrollment in 2016-17, and in anticipation of further growth in 2017-18, the 2017-18 budget plan requested $9 million to support graduate student enrollment. Ultimately, the 2017-18 Budget Act granted the University $5 million for graduate student enrollment growth (500 students). This augmentation was a welcome reinvestment from the State in graduate student enrollment growth, which is a defining characteristic of the University as the State's research institution.

The University requested $5 million of new permanent funding to support 500 additional graduate students in 2018-19. The final 2018-19 Budget Act provided one-time funding for general University needs, but included no permanent funding for graduate enrollment growth. By contrast, and as mentioned earlier, the 2019-20 Budget Act provided $10 million in permanent funds to continue support of 2018-19 enrollment growth. Ultimately, these funds were sufficient to address only a portion of the undergraduate and graduate students that campuses enrolled in 2018-19 above previously funded levels.

Graduate Education and the State's Economy

UC graduate education and research have a long history of fueling economic development in California. UC graduate education and research spawned the biotechnology industry, and UC graduates have been drivers in the development of the electronics industry, particularly in communications and semiconductors.

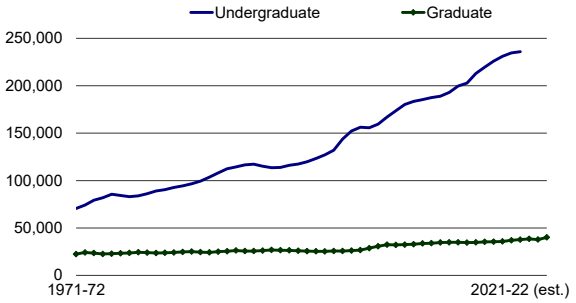
UC graduate programs directly contribute to California's research and development-intensive industry sectors by supplying highly trained alumni and attracting industry to California. Companies in knowledge-based industries tend to form clusters around major universities to take advantage of access to the pool of specialized workers and to benefit from knowledge transfers from the concentration of research, innovation, and specialization.

In the future, California's economy will depend even more on high-tech industries. Stem cell research, environmental research and innovation, global health care delivery, and energy research will have significant affects on the health and economy of California and the world.

All sectors of California's economy will need many more highly educated workers — engineers, scientists, business entrepreneurs, and others whose innovations will drive California's prosperity. In keeping with its charge under the Master Plan, the University will play a key role in helping to meet the need for these technically and analytically sophisticated workers. The looming retirement of highly educated workers in the large baby boomer generation and the declining in-migration of educated workers from other states and nations create additional significant challenges for California's economy. Growth in UC's graduate programs would help meet the need for more science and technology professionals.

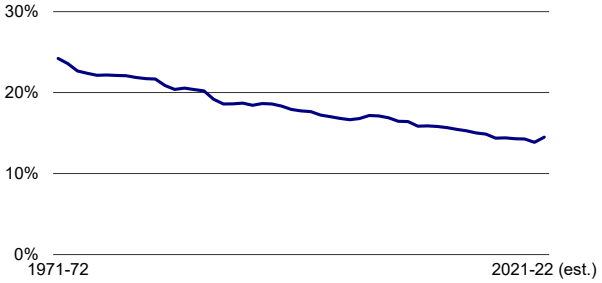
UC's contribution toward fulfilling the State's need for intellectual resources is not limited to science, engineering, and health care. In addition to the needs of a technology-based economy, California and the nation face many social challenges that require highly educated individuals to analyze and solve problems as they shape California's future. UC graduate programs in the arts, humanities, social sciences, and professional fields continue to serve these needs:

Display IV-5: Undergraduate and Graduate General Campus FTE Enrollment



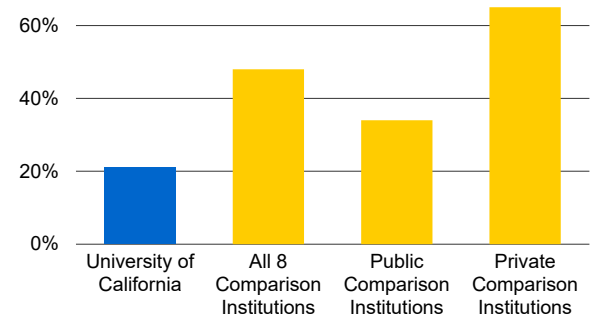
Since the 1960s, UC's undergraduate enrollment has grown rapidly, but graduate enrollment has not kept pace. While undergraduate enrollment has grown 300%, graduate enrollment has only grown about 78.6%.

Display IV-6: Graduate Students as a Percentage of General Campus Enrollment



The proportion of graduate enrollment on the general campuses has fallen from over 25% in the 1970s to below 15% in recent years.

Display IV-7: Proportion of Graduate Enrollment at UC and Comparison Institutions



In fall 2019 (the most recent year for which comparison institution data are available), 21% of total UC enrollment was graduate academic and graduate professional students (including health sciences and self-supporting enrollments), compared to 34% at its four public comparison universities and 65% at its four private comparison universities.

- Professional and managerial jobs, such as financial managers, marketing specialists, software developers, engineers, and research analysts, are among California's

fastest growing occupations.[2] These jobs typically require at least a bachelor's degree and often a master's degree or doctorate.

- UC prepares highly skilled and creative school administrators, architects, lawyers, public health and public policy analysts, social workers, urban planners, and other professionals who add to the State's economic and social well-being.
- Creative industries in California, such as entertainment and digital media, also contribute to the State's economic growth. According to the Bureau of Economic Analysis (BEA), arts and entertainment contributed $97.19 billion, or 3.5%, to California's gross domestic product in 2017.[3] Alumni of UC's graduate programs are represented in many sectors of the arts world, leading and building programs and creating new ideas. California's entertainment and digital media industries are thriving precisely because of the many writers, musicians, visual artists, and actors the University trains.

Graduate Students and Higher Education

UC graduate students play a critical role in higher education in California, both as future faculty at UC, CSU, and other California colleges and universities, and as teaching and research assistants while in graduate school. Both UC and CSU depend heavily on the graduates of UC's Ph.D. programs.

Growth in graduate enrollments is necessary to maintain excellence in instruction and research. New faculty members are attracted to UC in part because of the high caliber of graduate students with whom they can work. In 2020-21, UC attracted substantial percentages of students with prestigious fellowships: 11% of NSF fellowship recipients and 29% of Ford fellowship recipients chose to attend UC. Graduate students also work as teaching assistants, helping to meet UC's overall instructional needs, though their primary importance lies in the ways they complement faculty roles: leading small discussion groups and laboratory sections, offering a wider range of perspectives and teaching delivery modes, and serving as near-peer mentors for undergraduates.

Graduate students are vital to UC's discovery and innovation enterprise. Especially in the sciences and engineering, the research process entails teamwork, and graduate student researchers, as key members of these teams, have been central to the creative breakthroughs that have made UC one of the world's greatest universities. Graduate students further amplify UC's research contributions by supervising and mentoring undergraduates engaged in research projects, thus enabling greater involvement of undergraduates in primary research activities.

In the 21st century, access to a graduate education is becoming increasingly necessary to engage in analytic work across fields. For this reason, many undergraduates will seek to further their education beyond the baccalaureate level in the coming years. Following the growth of high school graduates during the last decade, California's 25 to 34-year-old population will grow about 6% between 2020 and 2030. As a result, demand for graduate education will likely increase.

A portion of this growing demand will likely be attributable to the University's own baccalaureate degree graduates. According to the 2020 administration of UCUES, whereas 40% of UC undergraduates plan to earn a graduate or professional degree soon after graduating, 68% plan to *eventually* earn a graduate or professional degree.

UC must also be particularly vigilant about ensuring access to graduate education for historically underrepresented groups, including individuals from disadvantaged socioeconomic backgrounds. For California to meet its growing workforce needs and to maximize the potential of so much talent within the State, UC must help far more students pursue graduate study. To that end, the University launched the Growing Our Own and Diversifying UC Ph.D. Pathways Initiative in May 2021. This initiative prioritizes investing in pathways to success for California undergraduates and focuses on expanding and diversifying California's much-needed pool of workers and innovators to meet the state's advanced workforce needs, ensuring that those pursuing advanced degrees and professoriate opportunities are

[2] Employment Development Department. "Top 100 Fastest Growing Occupations in California, 2018-2028." *State of California.* 2021. Web. http://www.labormarketinfo.edd.ca.gov/OccGuides/FastGrowingOcc.aspx.
[3] Bureau of Economic Analysis. "Real Value Added to The Gross Domestic Product (GDP) of California in 2017, by Industry (in Billion Chained 2009 U.S. Dollars)." *Statista - The Statistics Portal*. Statista. May 2018. Web. https://www.statista.com/statistics/304869/california-real-gdp-by-industry/.

reflective of the state of California. The initiative is intended to (1) increase the number and proportion of UC bachelor's degree recipients who get an academic doctoral degree, and (2) increase the number and proportion of UC PhD enrollees from UC, CSU, other HSIs, Tribal Colleges and Universities (TCUs), and HBCUs. Campuses are currently developing strategies to support this initiative, including highlighting the need for increased financial support for academic doctoral students for UC to remain competitive and sustain its world class research enterprise.

UC MERCED

The Merced campus was established as the tenth campus of the University of California to meet the state's overall needs for higher education as well as the needs of a significant and rapidly growing area of California – the San Joaquin Valley. Since opening its doors to freshmen, transfers, and graduate students in the fall of 2005 with just 875 students and 60 faculty members, the Merced campus has achieved critical milestones to mark the further development and expansion of the first new research university in the United States in the 21st century.

As the first new UC campus since 1965, the Merced campus has a rare opportunity to become an extraordinary institution as it builds on a heritage of distinction and legacy of excellence. Faculty, staff, and administrators have been drawn to Merced by the challenge of building and sustaining a unique institution in a traditionally underserved area of California. The collective energy and enthusiasm of those committed to development of the institution have resulted in the promise that the Merced campus will emerge as a world-class center of research, knowledge, intellectual relevance, and significance.

Educational Access

Student interest in the Merced campus has continued to grow since the campus opened 16 years ago (see Display IV-14). For the fall 2020 admissions process, just over 30,000 students applied (freshmen and transfers) – a 1% increase over applicants for fall 2020.

In fall 2020, 99% of undergraduate students at the Merced campus were California residents, and nearly 63% were members of underrepresented minorities. Display IV-15 provides demographic details about UC Merced's California resident undergraduates in fall 2020. Approximately 27% of the undergraduate class as of fall 2019 came from the San Joaquin Valley. Moreover, among all undergraduates as of fall 2020 (freshmen and transfers) at UC Merced, 73% were first-generation college students. These students will serve as role models for others and help establish a college-going tradition in their families and communities. In fall 2020, 63% of Merced's undergraduates received Pell Grants.

The Merced campus plays a major role in fulfilling the goals of the Regents and the State to ensure that every eligible student in California who applies is offered a place at UC, thus helping to maintain UC's commitment to the California Master Plan for Higher Education. UC Merced is also uniquely positioned to raise the college-going rate in the San Joaquin Valley and beyond. Continued growth of Merced is a high priority for the system.

Academic Innovation and Excellence

As a research university, the Merced campus is particularly focused on increasing the number of students in California who complete advanced degrees. In fall 2020, the campus enrolled 742 graduate students, 94% of whom were pursuing doctoral degrees. Graduate students work closely with distinguished Merced faculty on groundbreaking research across a wide array of disciplines.

The Merced campus is in many ways an educational laboratory. Its faculty and students are deeply engaged in innovative programs in both education and research. The Merced campus's 290 ladder rank faculty members, drawn from around the world, are leading the way in advancing cutting-edge curricula in majors that will support a vibrant range of academic offerings. Currently, students are able to choose from 24 majors and 25 minors.

Research

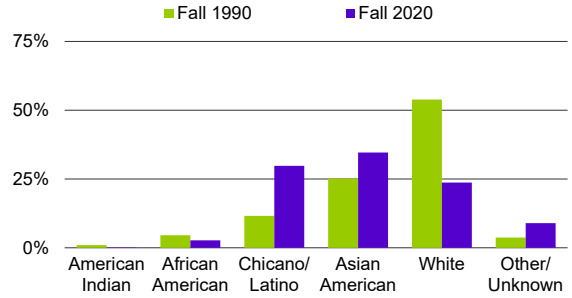
In terms of developing its research enterprise, the Merced campus continues to demonstrate remarkable achievement, having grown its research expenditures over fivefold, from $5.5 million in 2005-06 to $45.97 million in 2020-21 (see Display IV-16 for more details).

Awards have been granted by a variety of federal, state, and private sources, including the National Science Foundation, the National Institutes of Health, the U.S. Department of Agriculture, the Department of Energy, the

Display IV-8: Characteristics of Fall 2020 Undergraduate Students

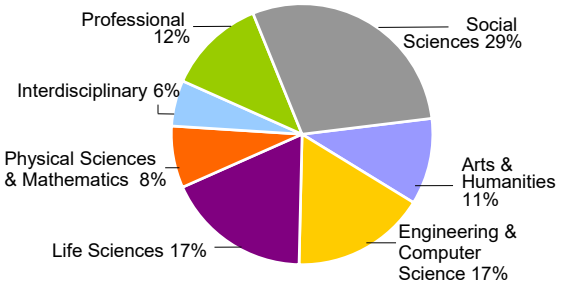
Headcount enrollment	226,449
Female	54%
Underrepresented group	30%
First-generation college students	40%
Full-time students	97%
California residents	82.8%
Domestic nonresidents	5.9%
International students	11.3%
Upper division	65%
Lower division	35%

Display IV-9: Distribution of Domestic Undergraduate Students by Race/Ethnicity



Since fall 1990, the proportion among UC undergraduates of Chicano(a)/Latino(a) students has risen more than 250% and the proportion of Asian American students has risen 137%.

Display IV-10: 2020-21 Bachelor's Degrees Conferred by Broad Discipline (Total: 65,239 Undergraduate Degrees)

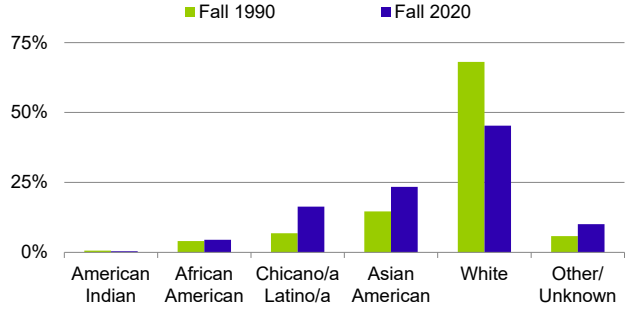


In 2020-21, UC undergraduates earned 65,239 bachelor's degrees. Approximately 40% of undergraduate students earned degrees in the social sciences, arts, and humanities, with nearly the same proportion earning degrees in STEM fields.

Display IV-11: Characteristics of Fall 2020 Graduate Students

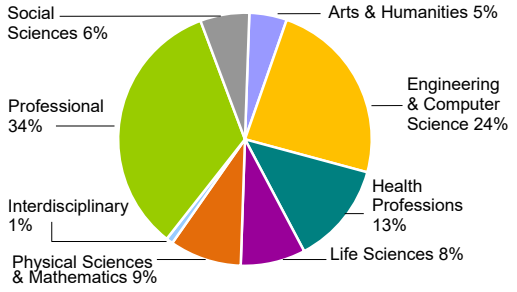
Headcount enrollment	59,267
Female	49%
Underrepresented group	17%
Doctoral students	40%
Academic master's students	14%
Professional students	39%
California residents	52.8%
Domestic nonresidents	8.5%
International students	21.9%

Display IV-12: Distribution of Domestic Graduate Students by Race/Ethnicity



Since fall 1990, the proportion among UC graduates of Chicano(a)/Latino(a) students has risen over 235% and the proportion of Asian American students has risen approximately 160%.

Display IV-13: 2020-21 Graduate Degrees Conferred by Broad Discipline (Total: 19,957 Graduate Degrees)



In 2020-21, UC awarded 19,957 graduate degrees, which consisted of masters (13,177), doctoral (3,772), and professional degrees (3,008). Just over half were in sciences, mathematics, engineering, and health professions, and approximately one third were degrees in other professional disciplines.

California Department of Water Resources, and a number of foundations and private companies. The success in garnering extramural funding allows the Merced campus' innovative faculty and students to conduct trailblazing, multidisciplinary research in the campus' particular areas of strength, most notably climate change, solar and renewable energy, water quality and resources, artificial intelligence, psychology and cognitive science, data science, agricultural technology, and biomedical topics including complex human health issues and stem cell and cancer research. The faculty's accomplishments in these areas are vital to the Merced campus' core mission as a research university with a strong commitment to graduate education.

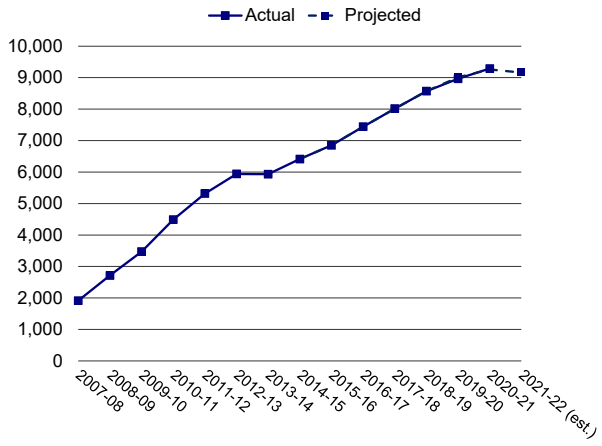
A distinctive mark on research at the Merced campus is being made by its signature organizations: the Sierra Nevada Research Institute, the Health Sciences Research Institute, the UC Solar Research Institute, and the Center for Information Technology Research in the Interest of Society. The Community and Labor Center will increase the campus's direct research involvement with communities within the San Joaquin Valley.

At the Merced campus, opportunities for undergraduates to become involved in research projects are a high priority. As with its instructional programs, the Merced campus' research institutes foster collaboration across disciplinary areas – the relationships among environmental science, human health, and environmental and health policy are examples of issues that are particularly important for the San Joaquin Valley. Partnerships with other UC campuses, Lawrence Berkeley National Laboratory and Lawrence Livermore National Laboratory, Sequoia and Kings Canyon National Parks, and Yosemite National Park, also enhance education and research at Merced.

Economic Development

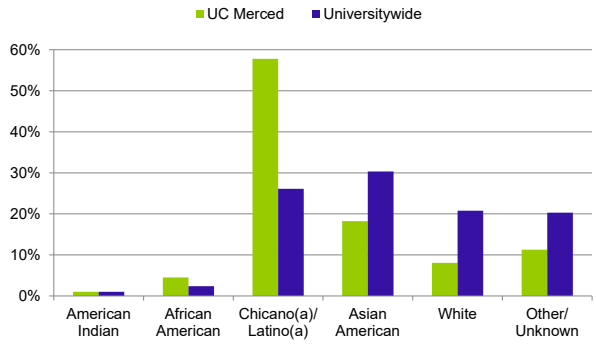
UC Merced serves the San Joaquin Valley as an economic engine. As the employer of more than 1,500 faculty and staff and a major user of local services, the campus continues to be a significant and growing contributor to the regional and state economy. A new economic impact study by Emsi Inc. found that just in FY19, campus impact on the Valley amounted to more than $514 million, including salaries, spending, goods, and construction — supporting more than 5,500 Valley jobs. Most importantly, the campus will continue to produce an educated workforce that will benefit the region and the state.

Display IV-14: UC Merced Total FTE Student Enrollment



Total FTE enrollment at the Merced campus reached 9,289 students in 2020-21. Interest in the Merced campus continues to grow.

Display IV-15: Fall 2020 California Resident Undergraduates by Race/Ethnicity



Among UC Merced undergraduates in fall 2020, more than 63% are students from underrepresented groups.

Essential Growth Funding and Continued Support

With the most diverse student body of any UC campus, UC Merced is the embodiment of the mission of the University of California. The Merced campus' educational and economic impact will continue to grow as the campus matures and as its research agenda continues to produce knowledge and innovations. Despite fiscal challenges, further investment in the Merced campus promises that the tenth campus, as first envisioned, will have a substantial effect on the Central Valley and on the state.

In order to keep the Merced campus on its intended trajectory, continued enrollment growth funding is essential.

Merced Capital Development

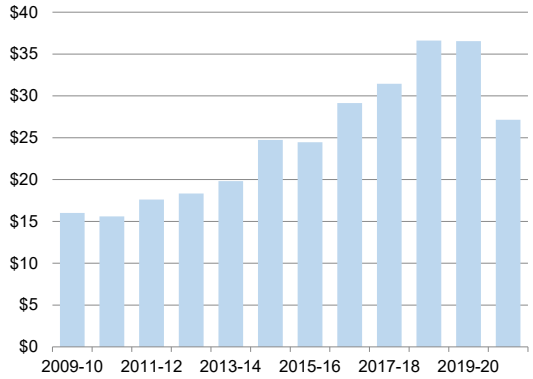
In response to the need for additional space, the Merced campus embarked on a major initiative to further develop the campus, known as the Merced 2020 Project. This ambitious initiative, completed in summer 2020, represented the second great phase of campus development under the amended Long Range Development Plan. The project created a dynamic expansion of the existing Merced campus with new mixed-use development that integrated students, faculty, and staff into a sustainable living and learning environment.

The Merced campus entered into a public-private partnership with a developer to design, build, finance, operate, and maintain the Merced 2020 project. With an approximate budget of $1.34 billion, Merced 2020 represented the University's largest public-private partnership to date. The Merced 2020 project expanded the campus by 790,000 assignable square feet of academic, administrative, research, recreational, student housing, and student services facilities to accommodate the planned enrollment growth. The developer acted as the design and construction contractor, provided debt and equity financing, and will operate and maintain major building systems for 35 years. This concessionaire approach is new to the University and represents a comprehensive, albeit complex, delivery model.

The project delivery method enabled a quick turnaround for facility design and construction. This approach allowed the University to augment its capital delivery system and shift project construction and operating risk, while enhancing long term flexibility in situations where yielding control off the real property is appropriate.

The final phase of the project was completed on time in June 2020 and is projected to be $1.1 million under budget post-substantial completion. The newest buildings include two student residential halls, a multipurpose conference center, a center for athletics and student health, and an administration building for academic leadership and student enrollment. The project exemplifies the university's commitment to sustainability. Every building has earned

Display IV-16: Research Expenditures at UC Merced (Dollars in Millions)



UC Merced and its faculty are attracting significant research dollars to the San Joaquin Valley. As student enrollment grows and additional faculty members are hired, research awards should also continue to rise.

LEED Platinum certification through the U.S. Green Building Council.

In 2018, the campus approved a comprehensive space allocation plan that specified a series of "backfill" projects to renovate space being vacated as faculty and programs relocate to the new 2020 Project facilities. These projects will retrofit and upgrade existing space in six academic buildings to accommodate new faculty and additional student enrollment. The campus has continued to design and construct additional facilities beyond the Merced 2020 Project, notably a projected Health, Behavioral Science building to support the new Medical Education Program and the growth of health sciences, in particular the ongoing partnership with UCSF and UCSF-Fresno to expand medical education in the Valley.

The new Science and Engineering Building 2 opened in August 2014, the second classroom and office building opened in June 2016, and the critically needed Central Plant Telecommunications Reliability Upgrade project was completed in fall 2016. In February 2018, the campus also completed the Downtown Campus Center administrative building to consolidate staff and help reinvigorate the civic core of its host community.

The University must comply with environmental mitigation requirements, which the campus will meet by purchasing wetland turnkey credits. In addition, the campus used a

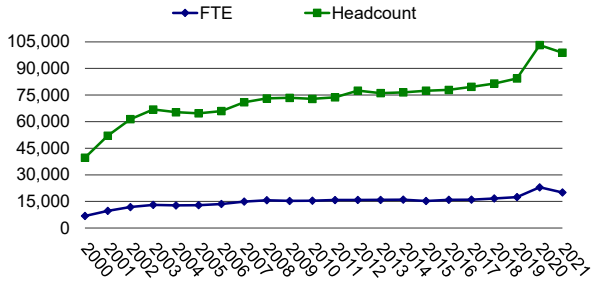
portion of the University of California Century Bond proceeds to fund the majority of the downtown Merced administrative building and a small portion of Merced 2020, as well as small infrastructure projects on the existing campus.

SUMMER INSTRUCTION

The University, with funding from the State, began expanding summer instruction programs in 2001. Since that time, the University has more than doubled its State-supported summer enrollments. As Display IV-17 demonstrates, over 103,180 UC students (or approximately 22,970 FTE) participated in summer instruction in summer 2020. Summer 2020 enrollment increased by an estimated 31%, or over 5,400 FTE, relative to summer 2019. A number of factors contributed to this extraordinary growth, including the University's adoption of fully remote summer instruction and students' relative lack of alternative options for summer activities during the COVID-19 pandemic. Summer 2021 enrollment decreased by an estimated 12.6%, or 2,890 FTE, relative to summer 2020.

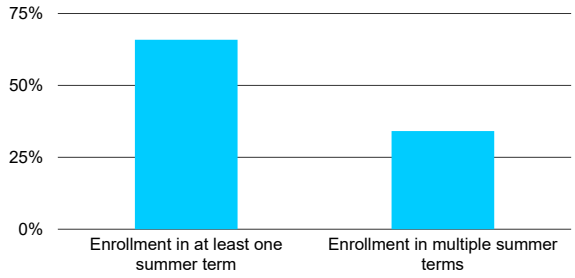
UC campuses offered 5,777 summer primary courses in 2020. Summer expansion has resulted in more efficient use of facilities and accelerated time to degree for undergraduates, thereby making room for more students during the regular year. Students report using summer as a means to graduate on time or even early; they also report enjoying the smaller class sizes and faculty contact. In recent years, over 65% of undergraduate students have enrolled in at least one summer session, and approximately 34% enroll more than once (see Display IV-18) even though students can also use summer for other opportunities, such as work, travel, or internships. This participation rate has stabilized in recent years. However, the University believes the potential exists to further expand summer enrollment, which will play an important role in the University's efforts to help students make timely progress toward graduation and serve more California resident undergraduates.

Display IV-17: Summer Term Headcount and FTE Enrollment at UC



FTE enrollment in summer instruction has grown by an estimated 53% since 2003, and by an estimated 31% between 2019 and 2020 alone – extraordinary growth by historical standards.

Display IV-18: Summer Enrollment Patterns of UC Undergraduates



Among undergraduates who entered UC in 2015 and 2016, 65% enrolled in at least one summer term during their undergraduate careers, and 34% enrolled in summer courses during more than one year.

ONLINE EDUCATION AT UC

The 2020-21 academic year posed continuing challenges to teaching and learning at UC. All efforts were focused on teaching and learning remotely due to the COVID-19 pandemic. To support instructional continuity, faculty needed training on, and support for, digital platforms and tools for remote teaching. Students needed support with basic infrastructure and engagement in remote settings.

Remote instruction differs from fully online instruction in significant ways. Fully online courses require substantial planning time to ensure that instructional design is evidence-based and sufficiently focused on both content and interaction. Lectures are delivered via high-production videos, with interactive course discussions facilitated through online platforms. Online courses employ both synchronous (real-time) and asynchronous (any time) learning opportunities. All fully online courses offered during the academic year at UC are reviewed and approved by the Academic Senate for online delivery and provide academic credit towards a degree.

Students and faculty alike noted the challenges of the sudden shift to remote instruction in spring 2020. For many students, inconsistent or unreliable internet access meant missing synchronous lectures. For faculty, the rapid transition to delivering instruction via videoconferencing platforms required substantial efforts with minimal technical support or time to plan.

Rising to the challenge, UC campuses, in concert with the UC Online (formerly the Innovative Learning Technology Initiative (ILTI)), brought together teams of instructional technologists and designers, digital platforms and systems, including the cross-campus enrollment system, to support teaching and learning at UC and beyond.

All ten campuses have substantially increased their digital and online learning opportunities. And despite the instructional challenges associated with remote instruction, interest in and enthusiasm for online learning at UC continues to grow. Recognition of the role that technology and innovation play in maintaining high quality and engaging instruction for UC students has increased significantly. As faculty and students return to campuses for fall 2021, they bring with them experiences, knowledge and skills learned in the remote format, that support increased digital inclusion, and instructional resilience.

Systemwide, UC offers fully online courses and programs, as well as online components of courses, to UC undergraduate and graduate students, enhancing learning opportunities, strengthening teaching and learning, and providing increased access to the courses necessary for timely graduation and degree completion. The UC Academic Senate has developed guidelines for fully online undergraduate degrees. Several campuses are working towards this possibility, all with extensive Senate input and review.

Prior to launching a systemwide initiative in 2013 to increase online education, UC offered approximately 2,600 online courses, totaling over 90,000 student enrollments. The majority of these online courses and enrollments were associated with certificate or other extension programs, as described in the *Self-Supporting Instructional Programs* chapter of this document. These courses and programs were generally not designed or offered for credit toward UC undergraduate degrees.

Since 2013, with input and funding from the State Legislature, UC has been able to provide enrolled undergraduate students with flexible and innovative learning opportunities that satisfy degree requirements. Today, there are approximately 800 approved fully online undergraduate courses. There are also nearly 400 fully online graduate courses. Together, these offerings represent a 40% increase in the UC online catalog. An additional 5,200 online, not-for-credit courses are currently offered to non-matriculated students through UC Extension. Despite the increase in online courses, this is still a disruptive, uncertain time at UC, and some faculty have chosen to remain instructing online. While online instruction will certainly be much higher post-pandemic, the numbers will fluctuate over the next couple of years.

UC Online

For the past eight years, in close collaboration with campuses, UC has operated UC Online (formerly the Innovative Learning Technology Initiative (ILTI)), a systemwide program designed to increase online course offerings with State funding for online education. UC Online focuses on increasing undergraduate access to courses needed for timely graduation by providing funds to campuses to support online and hybrid courses, campus and systemwide infrastructure, cross-campus course instruction, and evaluation and accountability efforts.

In 2020-21, UC Online achieved many milestones, including:

- increasing the number of courses in the catalog that are open to cross-campus enrollment to nearly 500;
- enrolling more than 100,000 UC undergraduate students in online and hybrid courses, including approximately 4,000 cross-campus students (UC students at one home campus enrolling in online courses offered at another UC host campus during the academic year);
- substantially increasing the number of online courses that provide General Education, pre-major or major credit, and course equivalence at other UC campuses through focused and sustained efforts (more than 2,000);
- further enhancing the central infrastructure necessary to support online cross-campus offerings by creating compatibility between campus registration systems and

equipping a cross-campus enrollment website with a searchable database of courses.

Individual campuses are utilizing innovative online approaches to enhance teaching and learning at the credentialing and course levels. Examples include:

- UC Davis, UC Santa Barbara and UC Santa Cruz collaborating and developing a fully online, introductory course sequence in Punjabi.
- UC Irvine creating a “Life 101” course, enrolling nearly 580 students — including 50+ cross-campus students — focused on staying healthy during the pandemic.
- UC San Diego and UC Irvine students participating in a transatlantic course with the Sciences Po College, in Reims, France.
- Campus teams using UC Online resources to deliver training in online/remote course design and teaching, including:
    - UC Davis’s ACCELERATE Fellows program supported 100+ fellows and nearly 500 faculty and students’ transition to remote instruction.
    - UC Santa Cruz’s Online Education ran 15 cohorts of Integrated Course Design for Remote Instruction (150+ instructors trained), developing 80+ online courses.

UC also continues to innovate and offer advanced degree programs with online components. New programs that feature this integration include: Information and Data Science at UC Berkeley; Human Computer Interaction and Design at UC Santa Cruz; and the following two programs at UC Irvine: Criminology, Law and Society; and Journalism. Many of UC’s top-ranked graduate and professional degree programs offer online executive education and are actively developing more online degree programs.

New tools and applications, developed by UC and externally, support quality learning opportunities and student engagement with content, faculty, and other students. In its ongoing effort to explore new practices for effective online education, the University participates in monthly collaborative sessions about online education with California State University and the California Community Colleges. These sessions enable UC to tap into the broader online higher education conversation in California.

UC’s Scout program offers high schools approved A-G courses online. Schools, teachers, and students can choose from a variety of online A-G and College Prep approved Advanced Placement courses. Building on a $4 million, one-time appropriation from 2016-17, the University expanded the UC Scout program by increasing the number of courses offered through the A-G Success Initiative. This initiative has developed more than 45 high-quality, fully online middle school and high school classes approved by the University to satisfy the A-G subject requirements.

Delivering outstanding online education to engage and inspire across the academic spectrum requires a long-range, multi-faceted strategy. The digital transformation of UC to support equitable, accessible and inclusive teaching and learning, remains essential and integral to the goals of the system.

Health Sciences Instruction

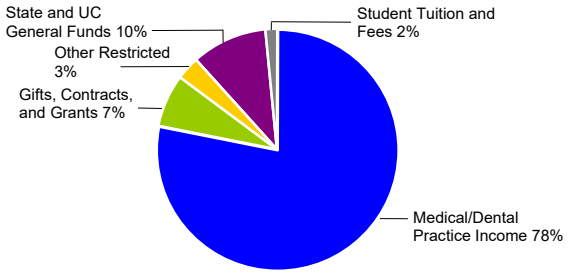
The University of California plays a critical role in training health professionals, conducting scientific research, and delivering high-quality health services. UC operates the largest health sciences instructional program in the nation, enrolling approximately 15,000 health sciences students/trainees across 20 schools at seven campuses. These include schools of dentistry, medicine, nursing, optometry, pharmacy, public health, and veterinary medicine. Since 2013, UC has added four new health professional schools, including the UC Irvine Sue & Bill Gross School of Nursing, UC Riverside School of Medicine[1], UC San Diego Herbert Wertheim School of Public Health and Human Longevity Science, and UC Irvine School of Pharmacy and Pharmaceutical Sciences. Across the health sciences, UC programs provide an unparalleled integration of education, research, and patient care.

UC's research discoveries help prevent and cure diseases, create new technologies for diagnosing and treating illnesses, and provide new strategies for staying healthy. Beyond millions in federal and philanthropic dollars invested in the state through research contracts and grants, UC's contributions to the prevention and treatment of chronic medical conditions such as asthma, cancer, cardiovascular disease, and diabetes help improve health outcomes and achieve savings and economic productivity.

UC operates six academic health centers, five of which own or operate their own hospitals. University of California Health centers consistently rank among the state's top hospitals, providing high-quality health services to millions of Californians every year, as described in greater detail in the *Teaching Hospitals* chapter of this document. In addition, UC provides education, prevention, and early intervention services to thousands of Californians through community health and outreach programs.

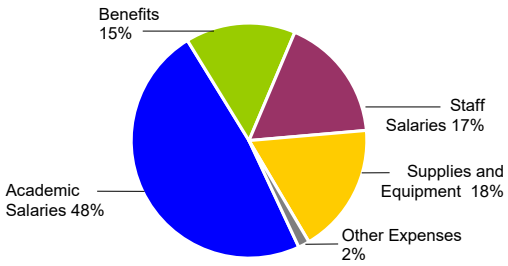
The most pressing goals of the University's health sciences programs are to train future generations of highly skilled, knowledgeable, and compassionate healthcare professionals; to improve healthcare outcomes through state-of-the-art research; and to deliver high-quality health services in California and worldwide.

Display V-1: 2020-21 Health Sciences Instruction Expenditures by Fund Source (Total: $6.3 Billion)



Physician and other professional fee revenue as well as support from the medical centers contribute substantially to funding the cost of clinical training in the health sciences.

Display V-2: 2020-21 Health Sciences Instruction Expenditures by Category (Total: $6.3 Billion)



Academic and staff salaries and benefits constitute almost two-thirds of all health sciences expenditures.

FUNDING FOR HEALTH SCIENCES

In 2020-21, expenditures for health sciences instruction totaled $6.3 billion. Of these expenditures, $639 million were from State and UC General Funds. The patient care services provided by UC health sciences faculty also generate significant revenue, which provides essential support for health sciences instruction. To operate the instructional program, the health sciences schools require faculty, administrative and staff personnel, supplies, space, and equipment. Faculty requirements for instruction are linked to historic student-faculty ratios initially established for each profession and category of students enrolled.

[1] UC Riverside School of Medicine was established in 2008, but enrolled its first cohort of medical students in 2013.

These student-faculty ratios, which are lower than those required of general campus courses, reflect the intensity and requirements of both basic sciences and clinical instruction, including associated medical and legal responsibilities for supervision of students who are learning and engaged in direct patient care.

During the State's fiscal crisis of the early 2000s, followed by the Great Recession of 2008, State support for UC professional schools was substantially reduced and professional fees increased steadily to offset lost State revenue. Physician fees, other professional service fees, and Professional Degree Supplemental Tuition (PDST) charged to students in dentistry, medicine, nursing, optometry, pharmacy, pharmaceutical sciences, public health, and veterinary medicine are necessary to support UC health sciences teaching programs. PDST levels in these programs have increased in order to offset reductions in State support and to maintain access and academic excellence, with 33% of new fee revenue (or an amount equivalent to 33% of a program's total PDST revenue) committed for financial aid, as required by policy. Although schools have accelerated efforts to address the consequences of rising tuition by increasing scholarship funds, the collective effect of these increases raises concerns about rising educational debt. Adding to these challenges, the COVID-19 pandemic has had a negative financial effect on UC health sciences teaching programs. From the onset of the pandemic through June 30, 2020, $161.1 million was lost in revenues from medical education and campus clinical operations.[2] Shifting to online instruction, managing clinical placements to enable continued academic progress, and assuring reliable access to Personal Protective Equipment added new expenses on top of these lost revenues. In many instances, this also affected progress towards degree completion for students. In spring 2021, 37% of graduate health sciences students reported delays to their graduation, increasing both their educational expenses and their campus' costs of instruction.[3]

Continued efforts are required to contain costs, maintain and enhance access, and reduce student debt where possible.

STATE NEEDS FOR HEALTH SCIENCES EXPANSION

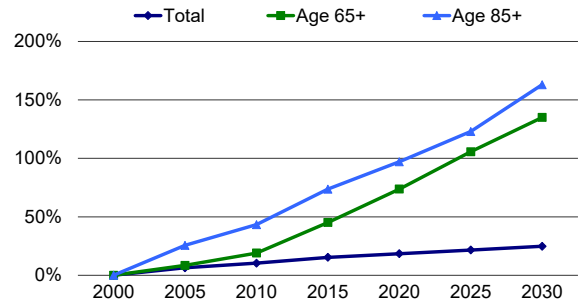
California, the nation, and the world are in the midst of an unprecedented pandemic that is challenging the University's health providers, including physicians, nurses and other health sciences trainees and staff, as well as its hospitals, clinics, and associated public health systems. The COVID-19 pandemic has heightened awareness of the vital statewide importance of frontline healthcare workers. It has also revealed a critical need for reinvestment in higher education to ensure the availability of a sufficiently-sized and well-trained health workforce to care for patients and to serve and protect the broader health of California.

Both California and its need for health services are projected to continue growing. With approximately 40 million people, California is the nation's most populous state, with its population projected to reach 45 million by 2050.[4] California's elderly population will also continue to grow, with those age 85 or older estimated to grow over 33% between 2020 and 2030, as shown in Display V-3.[5]

California's population is more racially and culturally diverse than most other states, with no race or ethnic group constituting a majority of the state population. 39% of California residents are Latino, 36% are white, 15% are Asian or Pacific Islander, and 6% are African American. 27% of Californians are immigrants, about twice the U.S. percentage.[6]

[2] UC Federal Government Relations. "University of California COVID-19 Request Highlights & Update on Expenditures and Lost Revenues", https://ucop.edu/federal-governmental-relations/_files/Advocacy/covid-19/uc-covid-19-costs-impact-and-tps-july-2020-factsheet-final.pdf
[3] Office of the President. "Instruction and Research at the University of California: COVID-19 Impact and Plans for Fall 2021", https://regents.universityofcalifornia.edu/regmeet/july21/a2.pdf
[4] PPIC. "California's Population" *Public Policy Institute of California.* March 2021. Web. https://www.ppic.org/wp-content/uploads/JTF_PopulationJTF.pdf
[5] California Department of Aging. "California State Plan on Aging 2017-2021" Web. https://www.aging.ca.gov/download.ashx?lE0rcNUV0zbUy1iwYmWKng%3D%3D
[6] Public Policy Institute of California. "California's Population", https://www.ppic.org/publication/californias-population/.

Display V-3: Projected California Population Growth by Age Group



Between 2020 and 2030, California's population will grow by 5%. During that time, the population age 65 and older will grow 35% and the population age 85 and older will grow 33%.

Notwithstanding these demographic trends, UC has only modestly expanded its enrollment in health sciences programs over a period of decades. Only recently has the University increased medical student enrollment through new medical education programs. Although the state did not provide additional funding for medical school enrollment growth from 2008 to 2015, campuses continued to grow enrollment in their six UC Programs in Medical Education (PRIME) programs.

Of note, the University established its fourth School of Nursing and third School of Pharmacy at UC Irvine, its sixth School of Medicine at UC Riverside, and its third School of Public Health at UC San Diego. These new schools, along with the continuing development of new nursing educational programs at UC Irvine and UC Davis and modest growth in existing nursing programs, further increased health sciences enrollments. However, despite increases in enrollment, many areas of California still face shortages of healthcare professionals, perpetuating longstanding gaps in access to care. Adequately expanding and preparing California's future healthcare workforce will likely require and benefit by:

- increased public investment and State support to expand access to health professions education;
- increased diversity of all UC health professions faculty and students; and
- increased use of innovative approaches to teaching, including telemedicine, more opportunities for distance learning, and use of new technologies; and
- development of new educational models involving inter-professional training and team-based approaches to patient care

INVESTING IN HEALTH SCIENCES EDUCATION

Among the University's ongoing health sciences budget priorities is securing permanent State support for graduate nursing student enrollment growth.

The University was extremely pleased that the 2021-22 State Budget included $12.9 million to fund enrollment growth in PRIME programs, one-time funding of $25 million for UC Riverside's School of Medicine, and one-time funding of $30 million for UC San Diego's Hillcrest Medical Center.

MEDICAL EDUCATION

UC Riverside School of Medicine

The School of Medicine (SOM) at UC Riverside (UCR) opened in 2013 as the first public MD-granting medical school to open in California in over 40 years. To help expand access and address the healthcare needs of Inland Southern California and the state, UCR SOM is training a culturally competent and diverse physician workforce. The School's mission directly addresses the needs of Inland Southern California, which has the greatest shortage of primary care and specialist physicians of any region in the state, according to the California Health Care Foundation. Now enrolling almost 300 medical students, the UCR SOM has graduated four classes totaling 198 students and has placed an additional 156 physicians in residency programs in California, with 59 of those residents remaining in Inland Southern California. The UCR SOM is the only community-based medical school in the UC system, and as such, it does not own or operate its own hospital. Consequently, the UCR SOM relies on regional hospitals and community providers to provide clinical training sites for its students and resident physicians. The goals of the SOM focus on transforming the way healthcare is delivered to the community by:

- selecting students oriented to the mission of the school, especially those who have ties to Inland Southern California, and creating new residency training slots in the region;

- improving the population's health through proactive primary and preventive care, effective management of chronic diseases, and filling gaps in the region's subspecialty services;
- enhancing the patient care experience by providing accessible, timely, and culturally sensitive services;
- lowering health care costs by implementing a medical home model of care that emphasizes prevention, wellness, and chronic disease management by reducing variations in practice and outcomes and improving efficient use of specialty care services; and
- developing research and clinical expertise in population-based assessment of health and wellness, health interventions, healthcare disparities, and strategies for expanding access.

In 2012-13, the SOM secured preliminary accreditation from the Liaison Committee on Medical Education (LCME) and enrolled its first class of 50 students in August 2013. The School was granted provisional accreditation in June 2015 and received full accreditation from the LCME in June 2017.

The 2013-14 Budget Act included $15 million in permanent State funding for the SOM as part of UC's base budget augmentation. Although this funding was crucial to the first phase of the medical school's early development, it was not sufficient to fully develop the school's operational infrastructure, address its capital needs, or expand class sizes and faculty, all of which are in support of the School's goal to address the region's physician shortage. To help address this shortfall during the first five years of operation, the UC Riverside campus provided funding to help support the SOM, but this level of subsidy was not sustainable without reducing funding for other UCR programs.

Additional ongoing operating revenues were needed to support the existing SOM program, as well as to allow for planned increases in class size. A recent site visit report conducted by the UC Office of the President (December 2018) determined that "the initial funding for the SOM was approximately $25 million less than was needed…to enable the full development of the SOM."

Fortunately, the 2020-21 State Budget recognized these critical needs and included an increase of $25 million in ongoing funding for UC Riverside's School of Medicine. This support came at a critical time, with COVID-19 and its disproportionate effect on communities of color and those with limited access to health care, further revealing the effects of the decades-long physician shortage that the UCR SOM was established to address.

The additional ongoing State appropriation of $25 million, together with the funding to build a new Education and Administration building that was included in the State Budget Act of 2019, will enable the SOM to make progress toward an ultimate enrollment of approximately 125 medical students per class (or roughly 500 total) and to increase the number of residents in training, thereby contributing (on an ongoing basis) to addressing regional and community needs. Given the School's history of underfunding, a portion of the $25 million will be used to secure the existing platform and address the School's ongoing structural deficit; most of the remainder will be used to sustain the School's total enrollment of approximately 300 students until the School's new education building opens in in 2022-23 or 2023-24, after which enrollment growth will resume.

In 2020-21, the School will begin to execute a multi-year plan to hire an additional 40 faculty FTE, including several within clinical academic units that will help support the educational experience of medical students. These hires will enable the School to reduce its reliance on voluntary and community-based faculty, providing more stability for the medical school and its teaching programs. To support additional student enrollments and faculty, the School will also begin to hire additional staff in 2021-22, with a plan to add up to 51 additional staff FTE across a variety of leadership and administrative roles over a several-year period.

Thus far, the School has made progress toward increasing physician capacity in the Inland Empire by expanding student pipeline programs to prepare more of the region's students for careers in medicine and health, and building new residency training programs. Although these efforts are mostly funded by grants and affiliate contracts, there is clear recognition of the value of these community partnerships. Supported in part by extramural funding, the SOM has also expanded its pipeline programs for students from the middle school level through a post-baccalaureate "gap" year program. These programs, reaching approximately 1,000 pre-med students, provide enrichment

UC PROGRAMS IN MEDICAL EDUCATION (UC PRIME)

Rural PRIME (Rural California) at Davis
Incorporates an award-winning model program in telemedicine with a commitment to outreach and rural healthcare.

PRIME-LC (Latino Community) at Irvine
Emphasizes Latino health issues, including increased proficiency in medical Spanish and Latino culture.

PRIME (Leadership and Advocacy) at Los Angeles
Trains future physicians to lead and advocate for improved healthcare delivery systems in disadvantaged communities. A small number of PRIME students also participate in a joint UCLA program affiliated with Charles R. Drew University of Medicine and Science (CDU).

SJV PRIME (San Joaquin Valley)
Provides specialized training with an emphasis on community-based research and educational experiences to improve the health of populations in the San Joaquin Valley region of California. Prioritizes recruitment of students from the region.

PRIME-HEq (Health Equity) at San Diego
Builds upon research about health disparities to help students learn and contribute to achieving equity in healthcare delivery.

PRIME-US (Urban Underserved) at San Francisco
Offers students the opportunity to pursue interests in caring for homeless and other underserved populations in urban communities.

and academic support to improve the educational attainment of youth and to create a clear pathway leading up to and into medical school. In addition, the SOM has continued the tradition of providing a portal into its medical school exclusively for UCR's undergraduate degree holders. Specifically, up to 24 of the current medical school seats each year are reserved for these students in the Thomas Haider Program at the SOM.

To begin addressing the uneven distribution of residency training opportunities in California, the SOM has added over 100 new residency training slots in Inland Southern California with programs in internal medicine, family medicine, and psychiatry, as well as new fellowship programs in child/adolescent psychiatry, cardiovascular medicine, and gastroenterology. In 2019-20, the SOM added a fellowship in addiction medicine, in partnership with Eisenhower Medical Center and the Betty Ford Center.

The SOM also partners with affiliated community hospitals in the region for programs in family medicine, general surgery, internal medicine, and neurology. UCR-sponsored and affiliate-sponsored programs combined are currently training approximately 280 resident physicians and fellows. Development of additional residency training programs and fellowships is planned for future years.

UC Programs in Medical Education (UC PRIME)

California's physician workforce is vital to the health and well-being of the state's 40 million residents. As the most populous and most ethnically and culturally diverse state in the nation, California faces unique challenges in improving access to care and health outcomes for its citizens. Health sciences graduates must be prepared and better trained to address the cultural and socioeconomic factors, health practices, and potential environmental hazards that affect health outcomes. Without comprehensive strategies and focused teaching programs, current health disparities will persist and likely intensify in the years ahead as the state faces a substantial shortfall of physicians and other health care workers.

In 2004, UC launched a systemwide medical education program intended to help address state needs. Referred to as "UC Programs in Medical Education," or UC PRIME, the program includes innovative training opportunities focused on meeting the health needs of California's historically underserved populations. UC PRIME combines specialized coursework and clinical training experiences to prepare future clinician experts, leaders, and advocates for the communities they will serve.

UC PRIME's focus on medically underserved communities has also resulted in extraordinary increases in racial, ethnic, and socioeconomic diversity across the UC medical education system, with 67% of PRIME students from groups underrepresented in medicine compared to 13.6% at medical schools nationally. In 2020-21, 365 medical students (approximately 10% of all medical students) were enrolled in UC PRIME.

The primary goal of UC PRIME is to address the needs of the State's growing and diversifying population by substantially expanding the number and diversity of UC

medical school graduates committed to future practice in medically underserved communities across the state.

Currently, UC enrolls 365 PRIME students, which is 28 short of initially planned enrollment of 393. Of these current enrollments, and until the passage of the 2021-22 state budget, only 126 positions had received State funding. UC campuses receive approximately $35,600 of State funding per PRIME student. In its February 2019 final report, the California Future Health Workforce Commission identified State support for unfunded PRIME positions among its top ten recommendations for addressing physician workforce shortages in California. Historically, to sustain UC PRIME, funding within the medical schools was redirected and, for some new programs, new philanthropic funds were raised.

In keeping with the Regents' formal state funding request for 2021-22, the Governor approved an augmentation of $12.9 million in ongoing funding to fund previously unfunded enrollments in all existing programs and to fund development of new programs focused on the needs of Native American/American Indian communities and Black/African American communities. This funding will benefit all six UC medical schools, stabilize resources for teaching across all programs, and grow total enrollment to nearly 500 PRIME students across all programs. Funding will also require one-third of the amount to be set aside for need-based student financial aid, and approximately another third of the augmentation is allocated to grow PRIME enrollment by 112 students over the next six years. Of these new students, 96 will be enrolled in two new PRIME programs focused on American Indian/Alaska Native communities and those facing Black/African American groups and communities. The new funding will help meet the demonstrated financial need of each PRIME student at originally planned enrollment levels, improve resources for pipeline/pathway programs to strengthen outreach and recruitment of diverse students, secure additional training sites and preceptors in underserved communities, and help support improved data collection, tracking, and analysis.

PRIME – Public & Community Health

The intertwined and catastrophic local and global syndemic of COVID-19, structural racism, and climate crisis highlight the need to develop a diverse workforce of physician leaders who are trained in public health, grounded in social justice, and dedicated to centering the community in health equity initiatives. UCSF School of Medicine (SOM) and the UCB School of Public Health (BPH), both world-renowned academic institutions, propose expanding and recreating PRIME-US into PRIME-Public & Community Health (PCH) to meet this challenge. By integrating an anti-racist, anti-oppression critical pedagogy curriculum with advanced public health training, PRIME-PCH will leverage the strengths and resources of UCSF and BPH to prepare a diverse community of students to become the physician leaders we need. The proposed creation of PRIME-PCH will expand UCSF PRIME by 7 additional students each year, thereby contributing to the goal of the California State Legislature to expand PRIME as promptly as possible. This proposal would add 1 net new position at UCSF over 5 years, or 5 total; plus 6 new positions for the JMP rebranded program, across 5 years, or 30 total. This results in a request for ongoing state support for an increased total enrollment of 35 students across all 5 years, at both locations. Using the per student amount for the recent PRIME budget action of $35,600 per student, this would be a total of $1,246,000 annually in ongoing funding. In keeping with the funding request for PRIME approved as part of the most recent State budget, one-third of the funding per student will be returned as financial aid.

UCSF School of Medicine Fresno Branch Campus

In 1975, UCSF Fresno was established as a regional graduate medical education campus of UC San Francisco. This occurred with support from the state legislature and the Veterans Administration to address physician shortages in California's San Joaquin Valley (SJV). Today, UCSF Fresno is the largest physician training program between Sacramento and Los Angeles, with:

- 600+ physicians and rotating medical students trained each year
- 300 core and 400 volunteer UCSF faculty in Fresno
- 550,000+ patient visits annually at clinical partner sites
- 300+ research studies, clinical trials, and public service projects

Roughly 40% of all UCSF Fresno 2021 physician-trained graduates are staying in the Central Valley, and 75% of all graduates are remaining in California.[7]

SJV PRIME was launched in 2011 by the UC Davis School of Medicine, in partnership with UCSF-UCSF/Fresno and UC Merced, to recruit and prepare students for future careers in medicine in the San Joaquin Valley. In 2018-19, SJV PRIME program management and oversight transitioned from UC Davis to UC San Francisco to better align with longstanding UCSF-Fresno clinical teaching programs. Medical students enrolled in SJV PRIME spend 18 months at the UCSF medical campus and then move to Fresno for the remaining years of their training. With this transition, UCSF effectively established a branch medical school campus in Fresno to further address physician shortages in the region, and academically prepare a pipeline of students – many of whom are from the Central Valley – for future careers in health and medicine.

As previously noted, the 2020-21 State Budget provided UC with an increase of $15 million in ongoing funding to expand medical education in the SJV through a unique partnership involving the UCSF regional campus for clinical studies at UCSF Fresno and a newly designed UCSF regional campus for pre-clerkship studies at UC Merced. The currently proposed plan for these resources is to develop and implement a combined BS-MD program in partnership with UC Merced. As envisioned, prospective UC Merced students will be accepted out of high school into a program through which they earn both a baccalaureate and an MD, provided they maintain satisfactory academic progress. Such programs also have successful records of diversifying the medical profession.

Plans are underway to prepare UC Merced to qualify as a new UCSF regional medical school campus for pre-clerkship studies for the PRIME-SJV learners. After completing both baccalaureate studies and the first phase of medical school at UC Merced, PRIME-SJV students would transfer to UCSF Fresno to complete their clinical studies and earn an MD degree from UCSF. This program leverages UC Merced's educational, research, and student support expertise with UCSF Fresno's clinical expertise to educate a cohort of students from the SJV who are prepared to address the many health care challenges of the SJV communities. Eventually, this path – contingent upon sufficient stable operating revenues – could lead to an independent medical school at UC Merced.

NURSING EDUCATION

Virtually all Americans will require nursing care in their lifetimes. The recent nursing shortage raises concerns that must be addressed in California and nationwide, especially in light of national healthcare reform and the substantial increase in numbers of Californians who have health insurance as a result of the Affordable Care Act and associated Medicaid (Medi-Cal) expansion.

One frequently used benchmark of the need for registered nurses (RNs) is the number of employed RNs per 100,000 people (California Institute for Nursing and Health Care 2006). California remains among the states with the lowest number of employed RNs per capita (826 versus the U.S. average of 1,053 per 100,000).[8] Causes of the nursing shortage include rapid population growth (especially of those over age 65) and an aging nursing workforce (over half of California's licensed nurses are age 45 or older).

To help meet the state's future nursing needs, and given the size and scope of nursing programs offered by the California State University and California Community Colleges, including the ongoing needs of these programs for nursing faculty, UC has focused primarily on graduate level nursing education by, for example, preparing new faculty to join nursing programs and training advanced practice nurses. All four UC nursing campuses (Davis, Irvine, UCLA, and UCSF) offer graduate programs to help prepare and train professional nurses and future nursing faculty.

Baccalaureate Nursing. Both the California State University and the California Community Colleges have large undergraduate programs in nursing. In fall 2006, UC re-established the Los Angeles campus's bachelor degree

[7] UCSF Fresno. "Focus on UCSF Fresno", https://www.fresno.ucsf.edu/2021/06/17/june2021/
[8] Philip R. Lee Institute for Health Policy Studies & Healthforce Center at UCSF. "Forecasts of the Registered Nurse Workforce in California." May 2020. Web. https://www.rn.ca.gov/pdfs/forms/forecast2019.pdf

program in nursing and added a new undergraduate program at the Irvine campus. These represented efforts to allow college-bound high school graduates interested in nursing the opportunity to pursue such a degree at UC, and to eventually rebuild the pool of nurses eligible to pursue graduate work. It is noteworthy that these are among the most competitive undergraduate majors for these campuses. In recent years, the health care industry has seen increased demand for nurses with bachelor's degrees, with many employers preferring or requiring such a degree for employment.

UC Davis School of Nursing

In 2007, the Gordon and Betty Moore Foundation (GBMF) announced $100 million in founding support, among the largest commitments ever made to a nursing school, to launch the Betty Irene Moore School of Nursing at the Davis campus. The GBMF's vision for the School of Nursing was as a public-private partnership between the Foundation and the State in which both would provide funding for the new school. The campus admitted its inaugural class of students in the master's and doctoral programs in fall 2010. In 2013, the School of Nursing added the Master of Science Nurse Practitioner and Master of Health Services Physician Assistant Studies programs. A fifth program, which prepares new nurses – the Master's Entry Program in Nursing – opened in summer 2016.

The expectation of the GBMF, as memorialized in the grant agreement with the University of California, was that as students are enrolled in the School, funding to support those students would be provided by the State in a manner consistent with funding provided to nursing programs at other UC campuses. This condition was endorsed by the Regents in their approval of the school in March 2009.

UC Irvine School of Nursing

The UC Irvine (UCI) Program in Nursing Science was established in 2007. The Irvine campus added a master's degree program in 2009-10 and expanded with an initial cohort of Ph.D. students in fall 2013. In 2016, the William and Sue Gross Family Foundation committed $40 million to establish the Sue & Bill Gross School of Nursing at the Irvine campus. The combination of public and private support enables UCI to train the next generation of nurse leaders. The foundation gift funds construction of state-of-the-art buildings, increasing classroom and research capacity, with a focus on real-world training, and expansion of faculty practice in community clinics. UCI School of Nursing's overall enrollment is expected to double in the next decade, from approximately 200 to 400 undergraduate, master's, and doctoral students by 2028. Total nursing faculty is expected to grow from 17 to 45 in the next decade.

UCLA School of Nursing

The UCLA School of Nursing was established in 1949. The school is ranked among the top nursing schools in the country and is highly ranked in nursing research funded by the National Institutes of Health (NIH). Research is at the core of its mission–not only as a primary component of a comprehensive education, but as a critical investment in the future of nursing. The School has a rich history of innovation in nursing research and is continually pushing the boundaries to improve health. Its findings are often relevant for other health disciplines. UCLA offers undergraduate, master, and doctoral degrees in nursing. Over 600 students were enrolled in 2020-21.

UC San Francisco School of Nursing

In the wake of the 1906 San Francisco earthquake, the University of California established a diploma program at the hospital training school for nurses in San Francisco. The UCSF School of Nursing is a vital part of UCSF's world-renowned health sciences campus and its mission to advance health worldwide. The School provides comprehensive graduate education (offering Master of Science and Ph.D. degrees) and prepares its students for leadership roles in clinical practice, administration, teaching, and research. Over 520 students were enrolled in 2020-21.

UC Nursing Budget Advisory Group

In January 2017, the UC Nursing School Budget Advisory Group was charged to develop a proposal and specific recommendations for achieving long-term fiscal sustainability for the UC Schools of Nursing (SON). Various structural deficits were identified. Factors contributing to this problem included issues such as higher costs associated with clinical teaching (compared to non-clinical

programs) that are intensified by lack of support from some UC academic health centers for teaching nursing students; student tuition that does not fully support expenditures related to student instruction; and high start-up costs related to new and relatively small nursing programs that are still expanding enrollments and programs. The Advisory group completed a progress report in June 2017 that summarized findings, provided recommendations, and suggested next steps for developing campus-specific plans and monitoring overall progress. A final report was completed in July 2019. This effort resulted in a better understanding of the fiscal circumstances of all four UC nursing schools, which face challenges that are similar to those faced by other schools of nursing at public research universities. There has been continued monitoring and support for both campus and systemwide efforts to reach long-term fiscal sustainability. These efforts include developing a plan to enable employed represented nurses in the academic health centers to contribute as clinical instructors within the UC SONs, and faculty clinicians to accept critical and difficult-to-fill clinical positions. A review of instructional costs, system-level fees, and cost-modeling scenarios for UC nursing programs is currently underway with input and participation of University of California Health and UC nursing school deans.

Psychiatric Mental Health Nurse Practitioner Program

On behalf of the UC Schools of Nursing, at UC Davis, UC Los Angeles, and UC San Francisco, $9 million in one-time funding is being requested to support enrollment and financial aid for the Psychiatric Mental Health Nurse Practitioner (PMHNP) post-master's online certificate program that is housed at the Consortium Office at UC Davis as a shared program across the UC Davis, UCLA and UCSF Schools of Nursing. The 2019 California Future Health Workforce Commission report identified the preparation of PMHNPs as a vital recommendation to advance health and well-being across the diverse communities of California. In response to this need, faculty and leaders at the University of California (UC) created the first distance-friendly multi-campus psychiatric-mental health nurse practitioner (MC-PMHNP) post-graduate certificate program in the state. The program development was funded by a grant from the California Health Care Foundation with the support of the UC Office of the President. UCSF, in collaboration with UCLA and UC Davis, launched the program in 2021. There are currently 34 students enrolled in the 2021 pilot cohort at UCSF. The program launched with a plan to recruit 40 students in year one and increase enrollment to 60 students annually in the remaining five years of the program (2022, 2023, 2024, 2025, 2026). The program is in good stead – the curriculum and program elements are launched and the infrastructure to administer the program through the Consortium Office has been funded by the California Health Care Foundation. Investment is required to actualize enrollment goals, particularly engaging potential students in underserved communities. The program can only meet and grow its enrollment goals, reaching a diverse population of nurse practitioners with robust financial support. The cost to prepare 300 students over the next five years is approximately $9 million ($30,000/student).

Self-Supporting Instructional Programs

This chapter describes three instructional program categories that largely generate their own support: University Extension, summer session for non-UC students, and self-supporting graduate professional degree programs.

UNIVERSITY EXTENSION

University Extension is the largest continuing education program in the nation, providing programming for over 430,000 registrations annually. Extension serves a range of students, from youth to seniors, but its core audience is employed adult learners with a bachelor's degree. UC Extension is a self-supporting operation and its offerings are dependent upon user demand, which varies due to multiple factors, including the strength of the economy. In 2019-20, University Extension expenditures for instruction were $302 million (the most recent data available).

UC Extensions were well positioned to weather the COVID-19 pandemic in their online and regional professional portfolios. Given their experience in online education, UC Extensions provided substantial support to their campuses as the main campus transitioned to remote instruction. In addition, Extensions saw a significant increase in enrollment for remote and online classes. Contrastingly, UC Extensions observed a large decline in the enrollment of international students during the COVID-19 pandemic. In terms of net impact, many UC Extensions are projected to experience financial losses in FY20 and/or FY21. Looking ahead, the U.S. economic recession will have mixed effects on UC Extensions. Changes in the economy will likely drive increased demand for upskilling and reskilling. At the same time, the capacity of individuals and businesses to pay for this type of education and training will likely be constrained until the economy begins to recover.

The University offered its first extension courses to students beyond the immediate campus community more than 100 years ago. Today, extension divisions at each of UC's ten campuses offer nearly 27,000 courses, programs, seminars, conferences, and field studies throughout California, and in a number of foreign countries. The majority of UC Extension programs are designed to serve the continuing education needs of working professionals. Programs are presented through open-enrollment courses for individuals, as well as through organizational partnerships supported by contracts and grants with public agencies, non-profit organizations, and private companies. Certificate programs are offered in areas such as computing and information technology, environmental management, graphics and digital arts, and health and behavioral sciences. In 2019-20, UC Extension awarded 8,358 certificates (the most recent data available).

UC Extension offers a wide variety of online courses to students in California, across the nation, and around the world. These online course offerings range from undergraduate courses carrying UC academic credit to professional-level courses in subjects such as project management, computer programming, and technical writing. These courses extend the instructional resources of the University to the global community, as exemplified by the Concurrent Enrollment Program, in which regular campus courses are made available to non-matriculated students on a space-availability basis.

Extension credit programs are reviewed and presented through policies established by the UC Academic Senate. While they do not offer degrees, extension credit programs provide transferrable degree credit, professional development, personal enrichment classes, and public service programs to matriculated and non-matriculated domestic and international students, and corporate and non-profit agencies and organizations. Various undergraduate and graduate degree credit courses are available, either as equivalents of existing UC campus courses, or structured as undergraduate classes with content not found in an existing campus offering. Extension courses explore history, literature, and the arts in traditional and innovative ways, providing cultural enrichment to Californians. Extension also serves UC's public service mission through lecture series, Summer Institutes, public affairs forums, and other events for the general public. Additionally, Extension conduces applied research,

provides technical assistance, and promotes regional economic development that ultimately serves all Californians.

The 2019-20 Governor's Budget included $15 million in one-time General Fund support for development or expansion of degree and certificate completion programs at the UC Extension centers, to be expended over a 5-year period. A request for proposals was then sent to the nine UC campuses with Extension centers and, after a review by a committee with academic and administrative representatives, three proposals, as well as funds for systemwide market demand and research, were approved to receive funding: UCLA's "Extension Certificate Completion Proposal", UC Merced's "Degree Completion Project", UC Santa Barbara's "Pathway to UC: A California Central Coast Project", and UC San Diego's "Degree Completion Analysis and Workforce Market Demands". These proposals will help individuals who did not previously finish their undergraduate degrees to complete these degrees or receive a professional certificate in workforce areas that are important to the California economy.

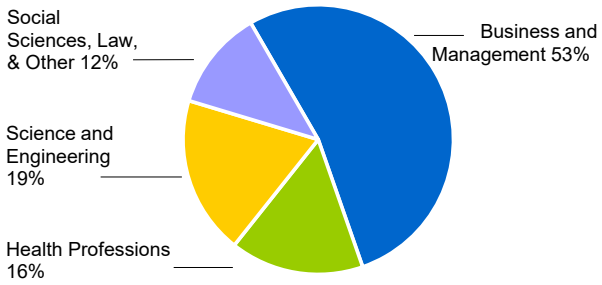
SUMMER SESSION FOR NON-UC STUDENTS

In addition to the University's course offerings during the regular academic year, UC and non-UC students may enroll in courses during the summer session on any of the ten campuses. Before fall 2000, the State did not provide funding for the summer term; State appropriations were only directed toward the fall, winter, and spring terms. Through summer 2000, summer sessions were supported by student course and registration fees set by each campus.

With State support, UC began converting summer instruction for UC students from self-supported to State-supported programs in 2001-02, and completed the conversion of all general campuses in 2006-07. Further discussion of State-supported summer instruction may be found in the *General Campus Instruction* chapter of this document.

Non-UC students make up a small proportion of the student population during summer sessions, and their fees contribute accordingly to the summer session programs. Non-UC students may pay higher fees to help support the cost of their education and are not eligible for financial aid.

Display VI-1: 2021-22 Self-Supporting Program Headcount Enrollment by Discipline (Total: 9,651)



More than half of self-supporting program enrollment is in MBA and other management programs for working professionals.

In 2020-21, out of 116,840 total students, 7,055 non-UC students registered for UC summer sessions, many of whom were regularly enrolled at California State University, California Community Colleges, or other institutions. Approximately $10.1 million of summer session expenditures in 2021-22 were funded from non-UC student tuition and fees.

SELF-SUPPORTING DEGREE PROGRAMS

The University operates over 100[1] self-supporting graduate professional degree programs. These programs, developed in accordance with the Presidential *Policy on Self-Supporting Graduate Degree Programs*, are intended to provide alternative pathways to graduate and professional degrees for academically qualified adults to further their education and upgrade their skills. Extending opportunities to working professionals is another way that the University helps meet state workforce needs.

Self-supporting programs adhere to the same academic standards as do other graduate degree programs at UC, but do not receive State funds. Full program costs, including, but not limited to, faculty instructional costs, program support costs, student services costs, and

[1] Discontinued and/or suspended programs not included.

overhead, are covered by student fees or other non-State allowable funds. Fees for these programs are set at market rates; any excess funds generated by these programs are available to support UC's core academic mission. Some programs are administered through University Extension (though degrees are granted by the department), while others are administered directly by professional schools or academic departments.

The University's largest self-supporting programs are evening/weekend and executive Master of Business Administration (MBA) programs (see Display VI-1). Programs have been established in a range of disciplines, however, and include online programs, off-site programs, joint programs with other institutions, and programs for foreign-trained students.

In 2016, the University revised its policy[2] on self-supporting programs to recognize that self-supporting graduate professional degree programs are a necessary educational strategy that allow the University to serve a greater number of students above and beyond that which State resources will support. Initially, these programs were directed towards working adults and other non-traditional student populations, and were limited to part-time or alternately scheduled programs. As a result of this revision, self-supporting programs are permitted to be full-time and regularly scheduled.

In 2020-21 a total of 9,651 students enrolled in self-supporting programs. These programs generated approximately $408 million in revenue in 2020-21.

[2] See https://policy.ucop.edu/doc/2100601/SSGPDP.

Research

The University of California is among the top academic research engines and innovation ecosystems in the world. Demonstrated research excellence, integrated with the teaching mission and social mobility, frames a powerful model for 21st century higher education. As California recovers from the economic shocks brought on by the novel coronavirus pandemic, the University's research enterprise plays an unparalleled role in shaping broad-based co-prosperity for the lives and futures of all Californians.

Established as California's primary academic research institution in the 1960s by the Master Plan of Higher Education, UC alone is charged by the State with developing world-class research universities that serve as the State's research arm. By focusing on its mission, UC has developed the largest number of top ranked research campuses of any system in the world. UC campuses routinely rank among the top five institutions internationally, and they are home to outstanding faculty, researchers, and staff. UC has more winners of the Nobel Prize, more Pulitzer Prize recipients, and more members of the National Academies of Science, Engineering, and Medicine than any other university system.

UC faculty are also mentors whose excellence in research is not achieved alone. They support and guide their graduate and undergraduate students, postdoctoral scholars, and professional research staff in creating new knowledge. Together they produce works of art, author influential writings, find solutions to the most pressing social and environmental challenges, and push the boundaries of science, engineering, technology, and medicine.

The State of California is a partner in the success of UC. Its annual investment in the university is leveraged in several ways. For every State dollar invested on research, UC expends approximately ten dollars from federal, private, and other non-State sources, providing a substantial return on investment and stimulus for growing the economy.

The effect of this partnership is reflected in the economic, healthcare, and societal successes the State values. The well-trained workforce arising from UC research programs is a magnet for drawing major industries to the state and for inspiring startup companies to anchor in California.

THE TEACHING-RESEARCH NEXUS

Research is inextricably linked to the University's instructional and public service missions. Integrating both research training and new research discoveries with formal education is the platform for preparing outstanding graduates. This demonstrated approach to higher education has placed seven of the nine[1] eligible UC campuses as members of the prestigious Association of American Universities (AAU). The nation's top undergraduate and graduate students and postdoctoral scholars pursue an education at UC because of the outstanding quality and reputation of its academic and professional programs. At this historic juncture, the University of California and, specifically its research and teaching-learning enterprises, can also help to drive sustained excellence and an equitable recovery by ensuring a culture of diversity, equity, justice, and inclusion throughout the UC's research and educational activities.

The strength of the degree programs is founded on the excellence of the faculty and the research programs they establish. This culture of excellence has created a robust, enterprising research and teaching ecosystem that touches all aspects of University life, attracts billions of dollars in funding annually to the University, and draws many of the best students in the world to learn and work in California.

In 2019-20, UC trained over 16,700 graduate students as paid research assistants and employed or hosted over 6,100 postdoctoral scholars. Funding for graduate enrollment growth helps expand the pool of individuals who engage in and support research programs and who often comprise the future professoriate.

Research is also embedded in the undergraduate curriculum and exposes students to the core skills and knowledge, overarching questions, latest findings, and

[1] UCSF does not offer undergraduate degree programs and is, therefore, not eligible for AAU membership.

methodology of their discipline. Outside of the classroom, undergraduate students participate in research activities and conduct original scholarship. This close engagement with research allows undergraduates to understand how new knowledge is created while also mastering the valuable critical thinking, communication, and problem solving skills that will help them become engaged citizens and competitive contributors to society and the economy.

As a commitment to diversifying its student body, UC has launched a set of "academic pipeline" initiatives for undergraduate and graduate students with quantifiable success. The recent U.S. News and World Report[2] rankings for social mobility show that seven UC campuses, five of which are in the AAU, are ranked in the Top 25 in social mobility. It also shows four UC campuses in the Top 10 and UC Riverside and UC Irvine ranked first and second, respectively. Diversity is at the heart of innovation and, thus, further adds value to the UC degree.

UC has made considerable investments in 2020 and 2021 to diversify its faculty, staff, and student body. It has sustained support for programs that promote the recruitment and retention of underrepresented faculty populations; expanded implicit bias training opportunities for student leaders, faculty, staff, and senior administrators; enhanced university information systems and operational processes to more fully recognize historically underserved populations; and rolled out initiatives designed to transform specific campuses and locations to be anti-racist and Black-thriving places to work and learn.

LEVERAGING THE STATE'S INVESTMENT IN THE UC RESEARCH ENTERPRISE

To maintain and enhance its competitive advantage, the UC research enterprise requires the best faculty, research staff, postdoctoral scholars, and graduate and undergraduate students, along with state-of-the-art equipment and well-maintained facilities. State investment is the foundation for UC research success and is essential to its sustainability and continued excellence. State funds are used to purchase equipment, launch early-career faculty, staff laboratories, and support graduate student research assistants. These State funds are crucial to supporting both ongoing research projects of high strategic priority for the state, and for seeding early-stage research not yet eligible for or sufficiently developed to enable pursuit of external funding. The State's investment in these areas is leveraged significantly by competitively-acquired external funds from federal, private, and other sources and is a direct contributor to the long-term excellence of UC's research enterprise.

UC researchers are successful in securing external support for sponsoring their research. In 2020-21, UC received over $6.8 billion in research awards. The University's success in attracting extramural funds to California has been dependent on the State's continual investment and recognition that UC is an important contributor to the state's economic prosperity. In 2020-21, direct research *expenditures* (as distinct from *awards*) totaled $5 billion, a 3% decrease from the prior year.[3]

Federal, State, and private sources are major providers of UC research funding. Federal agencies are the largest source of support for research, accounting for about half of all University research expenditures in 2020-21. In addition, approximately 10% of UC's research expenditures from non-federal funds originated as federal awards to other institutions and come to UC as subawards. As shown on the following page, Display VII-1 shows direct research expenditures by fund source for 2020-21, Display VII-2 shows changes over time by source, and Display VII-3 presents trend data about research expenditures in the various disciplines.

State Funds

In 2020-21, 10% of direct research expenditures came from State Funds (includes State General Funds and Special State Funds) and UC General Funds to support coordinated statewide programs and State agency agreements. For many UC research programs, State and UC General Funds provide seed money for research projects vital to California, such as earthquake engineering

[2] See https://www.usnews.com/best-colleges/rankings/national-universities/social-mobility.
[3] This rate of growth differs from the rate of growth in extramural awards noted later, reflecting the multi-year nature of research awards.

and improved crop varieties. This funding is then often leveraged to attract extramural funds.

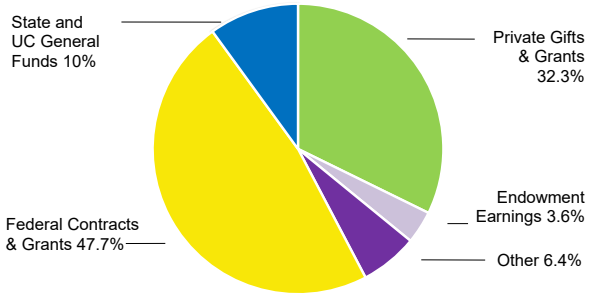
In 2021-22, State Special Funds are expected to provide about $80.6 million for a range of ongoing research initiatives. For example, State Special Funds provide support to a coordinated statewide program of tobacco-related disease research administered by the University ($10.4 million) and available to researchers from other California institutions on a competitive basis. Part of the State's tobacco tax supports the Medical Research Program ($52.3 million) and the Breast Cancer Research Program ($8.6 million). The State personal income tax check-off supports the California Breast Cancer Research Fund ($178,000) and the Cancer Research Coordinating Committee-managed research program ($425,000).

California State agencies also sponsor research at the University. Major providers of State agency agreements include the California Departments of Public Health, Transportation, Health Care Services, Social Services, and Food and Agriculture, as well as the California Energy Commission, the California Emergency Medical Services Authority, and the California Institute for Regenerative Medicine.

Federal Funds

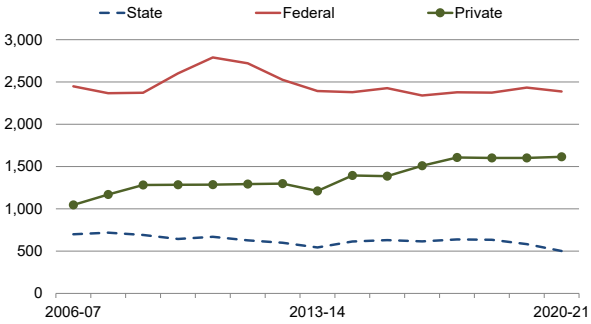
Federal awards remain by far the most significant source of support for UC's research enterprise and have a profound effect on UC's ability to support graduate students and post-doctoral scholars. The University was awarded about $3.96 billion in federal research awards alone in 2020-21. Display VII-4, on the following page, shows the federal research awards distribution by agency. Awards from the National Science Foundation (NSF), National Institutes of Health (NIH), and other Health and Human Services (HHS) agencies accounted for 77%, or $3.04 billion, of UC's federal research funding, with the Department of Defense (DOD), National Aeronautics and Space Administration (NASA), and Department of Energy (DOE) making up most of the rest. Historically, UC researchers have successfully competed to win nearly 6% and 8% of NIH and NSF annual research and development (R&D) appropriations, respectively. The UC system receives more NIH funding than any other entity in the country, and about two-and-

Display VII-1: 2020-21 Direct Research Expenditures by Fund Source (Total: $5 Billion)



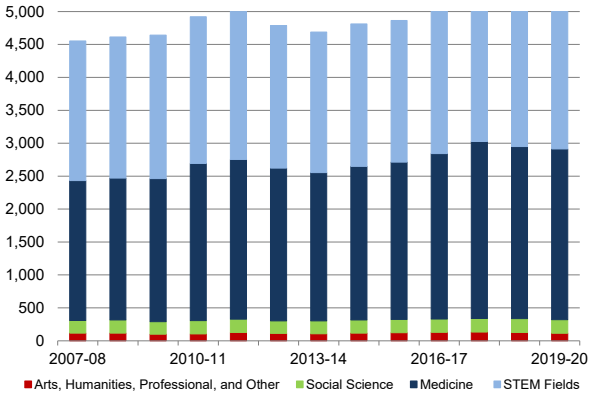
Over 75% of research funding is derived from federal agencies and private sources.

Display VII-2: Trends in Direct Research Expenditures by Source (Dollars in Millions; Inflation-adjusted)



Adjusted for inflation, direct research expenditures grew by about 12% since 2006-07. During this period, State research funds (includes UC General Funds) have declined by 28% while federal and private research funds combined have grown by 15%.

Display VII-3: Direct Research Expenditures by Discipline (Dollars in Millions; Inflation-adjusted)



Expenditures for research in the medical fields continue to grow compared to expenses for all other disciplines.

one-half times more than the next highest set of institutions, the Harvard-affiliated Partners Healthcare System.

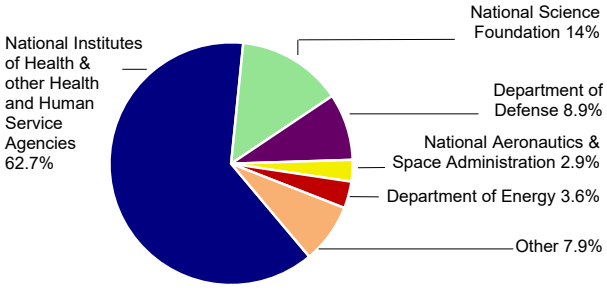
Federal funds are primarily targeted at research in STEM (science, technology, engineering and mathematics) and medical fields, which total over 90% of direct research expenditures each year during the past decade. This proportion should not overshadow the vibrant research activity that also occurs in the social sciences, arts and humanities, and professional disciplines. These fields make important contributions to scholarship, yet have relatively little support from external research funding.

Owing to the dominance of federal funds as a source of UC's research funding, the outcome of the annual federal budget and appropriations process has the largest effect on the University's research budget. While UC's proportional share has been relatively steady, fluctuations in UC's federal research funding closely parallel trends in the budgets of federal research-granting agencies. Display VII-5, on the next page, provides a recent history.

More recently, for example, the University's research budget has been affected by the threat of federal funding constraints stemming from federal budget sequestration that began with the Budget Control Act of 2011 and lasted for a decade. In inflation-adjusted dollars, federal funding expended on UC research currently accounts for 48% of total direct research expenditures, compared to 55% in FY 2010-11. In 2012-13, federal budget sequestration produced a sharp downturn in research funding to UC and other U.S. academic research institutions. The Bipartisan Budget Act of 2013 and subsequent federal appropriations restored some of the R&D funds that were cut by the 2013 sequester. The passage of the Bipartisan Budget Act of 2015 raised discretionary budget limits, allowing federal fiscal year (FY) 2016 and FY 2017 appropriations for federal R&D programs to increase by an average of 8% compared to FY 2015 levels.

Although the passage of the Bipartisan Budget Act of 2018 added $68 billion to the non-defense discretionary programs above sequestration levels, the federal administration's FY 2019 budget request proposed reduced funding, compared to the FY 2018 enacted levels, for several major education, research, and health care

Display VII-4: 2020-21 Federal Research Awards by Sponsor (Total: $3.96 Billion)



Federal agency sources supply about 58% ($3.96 billion) of all research awards. NSF, NIH and other Health and Human Services agencies provide 77% of UC's federal research awards.

programs. While able to draft appropriations bills with higher allocations, Congress faced challenges getting bills passed. Signed into law on February 15, 2019, a consolidated appropriations package included a 4% increase for NSF, a 5.4% increase for NIH, and an 8.1% increase for NASA's Science programs.

In March 2019, the administration released its FY 2020 budget request, which called for significant cuts to research and education, meeting the non-defense discretionary sequestration caps set forth in the Budget Control Act of 2011. Specifically, under sequestration, non-defense discretionary programs were set to be cut by $55 billion and defense discretionary programs were set to be cut by $71 billion in FY 2020.

However, in July 2019, the administration and congressional leaders reached an agreement to raise federal spending levels. The Bipartisan Budget Act of 2019 amended the Budget Control Act of 2011, ending sequestration for FY 2020 and beyond. While the final agreement increased the caps overall, the agreed upon budget caps for FY 2021 were much lower than those for FY 2020.

In December 2019, Congress passed two omnibus appropriations packages that included the twelve appropriations bills for the remainder of FY 2020. Nearly all research agencies saw increases. Compared to the previous fiscal year, the legislation provided a 6.5% increase for NIH, a 6% increase for DOE's Office of Science, and a 2.5% increase for NSF.

Display VII-5: Federal Funding History for UC Research

2012-13	The Budget Control Act of 2011 (BCA) required deep reductions in federal discretionary spending for ten years through 2021. The initial year's sequester cut of $3.5 billion in federal academic research support nationwide translated to an approximately $175 million decline in federal research funding for UC and an additional $25 million decline in non-research contracts and grants.
2013-14 to 2015-16	Together with the Bipartisan Budget Act (BBA) of 2013 and federal appropriations legislation, the 2015 BBA increased the flow of research funds to UC from federal agencies to pre-sequester levels (adjusting for inflation).
2016-17 to 2017-18	Congress passed a two-year budget deal for FY 2018 and FY 2019 that provided increased non-defense discretionary funding, including for education and research programs.
2018-19	Even with a higher budget allocation, the federal administration proposed a FY 2019 budget request with significant cuts to key education and research programs. After a 35-day partial government shutdown that lasted through late January 2019, a consolidated appropriations package was signed into law that provided increased non-defense discretionary funding. The President and Congress reached a deal to end sequestration and raised the budget caps for FY 2020 and FY 2021.
2019-20	In December 2019, two consolidated appropriations packages were signed into law. Nearly all research agencies received increases. Even with flat funding caps established under the Bipartisan Budget Act of 2019, the federal administration's FY 2021 request proposed significant decreases for research and education.
2020-21	After two continuing resolutions to keep the federal government operating, an FY 2021 consolidated appropriations package was signed into law in December 2020. While the administration's FY 2021 budget request proposed flat funding for many science agencies, the appropriations package included increases for all the research and development programs. Additionally, to address the pandemic's effect, six emergency appropriations bills were signed into law that included funding for health-related research and development, including at NIH. With the end of sequestration, the new administration's FY 2022 budget request proposed significant increases for the science agencies. However, Congressional action on FY 2022 appropriations has been delayed.

In March 2020, the administration released its FY 2021 budget request. Like the previous year's proposal, the request called for significant decreases for research and education. The $4.8 trillion proposal was billions of dollars less than the already tight budget caps Congress and the administration agreed to for non-defense and defense discretionary funding as established in the Bipartisan Budget Act of 2019.

Congress passed six emergency supplemental appropriations bills to help address the effects of the COVID-19 pandemic. In total, the four packages provided over $42 billion for R&D. The majority of funding is allocated to the Centers for Disease Control and the Biomedical Advanced Research and Development Authority; however, NIH received over $4.7 billion to develop vaccines, therapeutics, and diagnostics to tackle COVID-19.

With the pandemic dominating much of Congress' attention coupled with the November 2020 presidential election, the FY 2021 appropriations cycle was significantly behind schedule. The House and Senate did not reach agreement on the FY 2021 appropriations bills prior to the end of the federal fiscal year and, instead, passed a continuing resolution to keep the government operational through December 11, 2020. After a second week-long continuing resolution, an FY 2021 consolidated appropriations package, containing all twelve bills, was signed into law and included all the R&D programs important to the University.

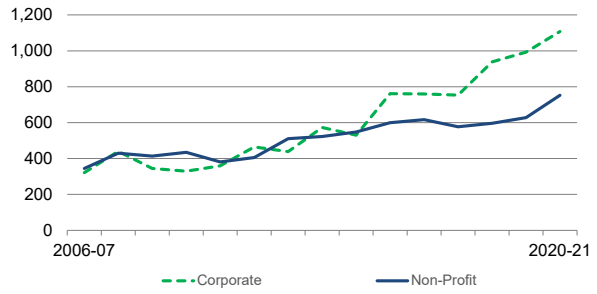
With the change in administrations, the FY 2022 budget request was delayed and was not submitted to Congress until April 2021. With the end of sequestration in FY 2021, the science agencies requested significant increases for their budgets, including a 21% increase for NIH, a 20% increase for NSF, a 33% increase for the National Oceanic and Atmospheric Administration's Office of Atmospheric Research (OAR) and a 65% increase for DOE's Energy Efficiency and Renewable Energy (EERE). The administration's focus on climate change resulted in proposed increases for several agencies. Additionally, at NIH, the proposed establishment of an Advanced Research Projects Agency for Health (ARPA-H), modeled after DOD's Defense Advanced Research Projects Agency (DARPA), resulted in a proposed increase for that agency as well.

However, with the delayed budget request, congressional action on FY 2022 was also delayed. Therefore, before the end of the fiscal year, Congress passed a continuing resolution to keep the government operational through December 3rd, so they can complete its work and reach agreement with the White House.

Private Funds

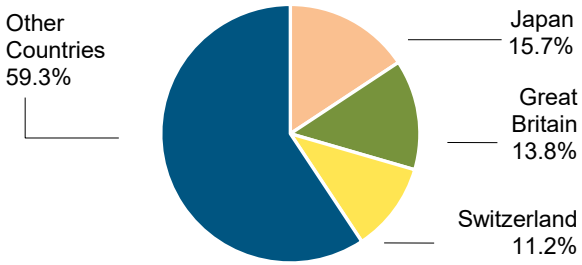
Research investment in the University by private organizations has kept pace with federal funds as an important source of research funding. From 2006-07 to 2020-21, private support for research has almost doubled in inflation-adjusted dollars (see Display VII-6); the more recent increase in corporate funding is due largely to an increase in the number and cost of clinical trials. Private foundations, industry, and partnerships with faculty at other institutions contributed over a quarter of the total research awards in 2020-21. The global economic recession of 2008-2010 caused a decline in new corporate awards, as shown in Display VII-6, but corporate support has increased since 2010-11, showing that the business community is reinvesting in UC research. Sponsorship from non-profits has been increasing since 2010-11 and exceeds pre-recession levels. Representative awards from non-profits include those from the Simons Foundation ($35 million), the California, Community Foundation ($18 million), the Henry M. Jackson Foundation for the Advancement of Military Medicine ($14 million), the Bill and Melinda Gates Foundation ($12 million), and the Semiconductor Research Corporation ($7 million).

Display VII-6: Private Research Awards by Type of Sponsor (Dollars in Millions; Inflation-adjusted)



Representing over 27% of all research awards at the University, corporate and non-profit funding are above pre-recession levels.

Display VII-7: Research Awards by International Sponsors FY 2012-21



Although international sponsors provide a relatively small portion of total research funding to UC ($1.9 billion over ten years, compared to almost $6.8 billion in research awards for fiscal year 2021 alone), this funding provides the valuable opportunity for UC scholars to engage directly with the global research community.

International Funds

Funds from international sponsors are a significant subset of private research awards and enable University researchers to directly engage with researchers from around the globe. Research is a global enterprise, and overseas investment in UC research is a measure of its quality against international standards. Recent data[4] indicate that nearly 41% of UC's scholarly outputs have international co-authors. As shown in Display VII-7, the University has received more than $1.9 billion in international research support from over 80 different countries since fiscal year 2012. Great Britain, Switzerland, and Japan contributed 40.7% of total international funding during that period, primarily in the medical and engineering research disciplines.

Department of Energy National Laboratories

UC oversees three Department of Energy (DOE) laboratories: Lawrence Berkeley National Laboratory (LBNL) and two national security laboratories, Lawrence Livermore National Laboratory (LLNL) and Los Alamos National Laboratory (LANL). UC receives fees to manage the two national security laboratories and generally uses

[4] Source: *SciVal*® database, Elsevier B.V., http://www.scival.com (downloaded on July 29, 2020).

some of this money to fund collaborative research projects among UC scholars at the ten campuses, LBNL, LLNL, and LANL. The UC National Laboratory Fees Research Program (LFRP) supports projects on a range of issues, including climate science, cybersecurity, human health, and national security through social sciences. Current initiatives include: pandemic preparedness and biosecurity, clean renewable energy and decarbonization, and mesoscale materials and high energy density science.

The LFRP provides UC faculty and students access to unique research facilities and premier scientific experts at the national laboratories in fields of strategic importance to California and the nation. The DOE laboratories view this program as an important component of their long-term workforce development strategies. Undergraduate and graduate students and postdoctoral scholars working with DOE researchers on their projects often go on to build their careers in national security laboratories. UC has managed these DOE laboratories since their creation during and immediately after World War II, and it maintains close intellectual ties to its DOE laboratories through this program. The DOE laboratories are discussed in more detail in the *Department of Energy – UC National Laboratories* chapter of this document.

INDIRECT COST RECOVERY

Budgets for externally funded research projects include direct and indirect costs. Direct costs are those expenditures easily assigned to specific research projects, such as the salaries of the researchers and the equipment and materials that are uniquely used to conduct the research. Indirect costs cover the facilities and administrative expenses (e.g., compliance, electricity, and library costs) that are shared among many projects.

At present, the University recovers a portion of these indirect expenditures and must subsidize the remaining costs from other revenues. UC's federal Indirect Cost Recovery (ICR) rates are estimated to run below the true indirect costs of conducting research. Moreover, funding for research projects sponsored by the State of California, corporations, foundations, endowments, and gifts often contains restrictions that preclude payment of indirect costs, or has established rates significantly lower than the University's federal ICR rates. These policies and practices place an even greater burden on the University's limited resources.

The University is working to recover more of its indirect costs from research sponsors by increasing its negotiated federal Facilities and Administrative (F&A) rates. The administrative component of all federally-negotiated F&A rates is capped at 26% regardless of actual administrative costs. Over the last few years, there have been increased delays in negotiations resulting in unrealized indirect cost recovery.

In future indirect cost rate negotiations, UC intends to press its case to close the gap on the facilities portion of F&A rates. Higher education associations continue to make the case to rescind the cap on administrative costs. Historically, federal rate negotiators have justified lower negotiated federal rates at public institutions under the argument that public institutions receive State support. However, State funding to UC has declined over the years and does not compensate for lower federal rates. Closing the gap in the federal rate would lessen the burden on University resources and allow greater flexibility in the use of discretionary funds.

EFFECTS OF COVID-19 ON UC RESEARCH

In response to the statewide shelter-in-place Executive Order issued in March of 2020, the University research leadership, from across the campuses and national laboratories, worked closely to swiftly ramp down approximately 90% of UC's vast research enterprise. They accomplished this feat while ensuring the safety of all personnel, developing guidelines to conduct research remotely, and maintaining compliance with research policies. A shared framework for ramp-up of operations in a phased manner was prepared, according to tiered local public health indicators.

There were many implications arising from the ramp down process and remote operations that have financial and other costs associated with them, including the following:

- Most research personnel were required to work offsite with limited access to physical infrastructure (e.g., equipment) needed to advance their projects.

- Without regular access to research tools, grant-funded researchers were at risk of not completing the scope of their projects as proposed to their sponsors. This problem continues to be particularly acute with State grants and contracts as well as industry projects.
- Closure or reduced use of shared facilities, such as clean rooms and microscopy and imaging suites, resulted in lost user fees to pay technical staff and significant overhead costs to keep equipment and specialized heating, ventilation, and cooling (HVAC) systems running.
- The effect on the campuses and on UC is daunting. The loss of faculty productivity may have a catastrophic longitudinal effect on the future success of the campuses and diversity of the professoriate that UC has worked ardently to achieve.

Research is a driver of state and U.S. scientific leadership and assurance of national security and economic prosperity. The quantitative effect of research disruption on the overall budget continues to remain unclear. Generally, federal agencies have been flexible in allowing for time extensions to complete work. However, the future recovery of costs is dependent on the appropriation of funds for this purpose. UC remains hopeful that federal COVID-19 funding will offset some of these potential losses and that similar administrative flexibilities will be provided by non-federal sponsors to protect both the projects and the personnel working on them.

EFFECTS OF UC RESEARCH

Strengthened by long-term state investment, UC has contributed directly to the entrepreneurial spirit of California and to its stature as the fifth-largest economy in the world. The UC research enterprise stimulates the state economy by deploying new technologies and creating new jobs, companies both large and small, and industries. Almost all of the industries in which California is among the world leaders grew out of university-based research: agriculture, biomedicine, medicine, computers, digital media, environmental technologies, semiconductors, web-enabled commerce and banking, and telecommunications.

For the past 20 years, the University has led the nation's institutions of higher education in obtaining patents. The annual number of invention disclosures since 1993 is shown in Display VII-8. UC researchers are responsible for 12,766 active inventions, a 09% increase from the prior

SPOTLIGHT ON COVID-19 RESEARCH

Since early 2020, UC research has advanced important knowledge and interventions in the worldwide effort to mitigate and end the global novel coronavirus pandemic and to ensure preparedness for future emergent infectious disease threats. Some examples include:

- A UC Coronavirus Assembly Research Consortium (UC Riverside, UC Merced, and UC Davis) has been established to understand and disrupt the viral assembly of COVID-19 in order to propel the development of pharmacological strategies to prevent infection or improve treatment outcomes. The consortium aims to understand the physical principles underlying the formation of coronaviruses and explore the effect of selected drugs on the assembly process.
- Diagnostic testing technologies have been piloted across UC that help to increase testing capacity, accuracy, and volume. These include tests using gene-editing, home-based saliva collection (UC Berkeley), and mobile-device integration (UC Riverside). Wastewater surveillance demonstrations have been established at several UC campuses, offering the potential of an early-warning, low-cost surveillance strategy before new cases appear in diagnostic testing or surveillance data. UC San Diego has employed wastewater surveillance in nearly 200 campus buildings to ensure safe reopening.
- Working with the Department of Public Health, research laboratories and facilities at seven campuses are conducting pathogen genomic sequencing, adding tools of the genomics era to the public health toolkit. Bioinformatics researchers at UC Santa Cruz, UCSF, and the nonprofit research organization Chan Zuckerberg Biohub are working with the state to develop a framework for combining genomic data with metadata in state databases to enable local and state health officials to make decisions and take actions to inform public health action.

UC researchers have focused on the needs of populations at greatest risk for coronavirus infection and associated adverse health outcomes, including co-morbid conditions such as cancer, HIV infection, and tobacco-related diseases. Systemwide emergency research funding support for these priorities was made available to 85 seed awardees. Additional one-year continuation awards were granted for selected projects that provided the highest potential for near-term effect on the detection, diagnosis, or treatment of COVID-19 disease. Emergency awards were allocated for projects across the UC campuses and affiliated national labs. These awarded projects are anticipated to reduce the community and social burden of COVID-19 in California.

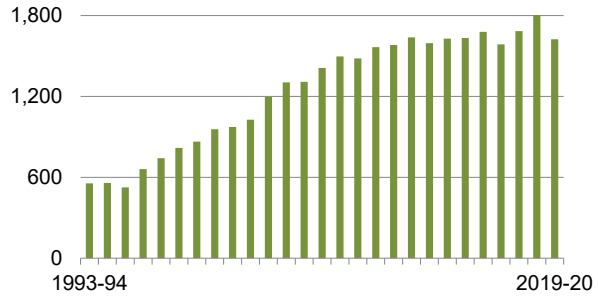
year's level. In 2019-20, UC disclosed 1,624 new inventions (excluding those of the Lawrence Berkeley National Laboratory), many of which are patented and licensed to companies. See Display VII-9 for a select statistics of UC technology transfer.

Many of UC's 5,160 active U.S. patents have led to the creation of today's leading industries, which have improved our health, changed the way we do business, and enriched our lives. UC patents include the Hepatitis B vaccine, drugs to treat prostate cancer, the Nicotine Patch, mobility bionics and exoskeletons that enable paraplegics to walk, CRISPR gene-editing technologies, and market-leading varieties of strawberries and citrus. UC research and intellectual property also have global reach, with 6,441 active foreign patents, 872 of which were issued in 2019-20.[5]

Many early-stage UC technologies are licensed to startup companies, which stimulate economic growth near UC campuses and throughout California. From the high-tech centers of San Diego and Silicon Valley to the agriculture of the Central Valley, UC licenses its technology throughout California. In 2019-20, 101 UC startup companies[6] were founded. Since 1980 there is a cumulative total of 1,422 startup companies established through UC-licensed innovations (including Lawrence Berkeley National Laboratory).

Throughout California an estimated 78% of firms have 20 or fewer employees, making the University's contributions to the state's small business ecosystem a vibrant driver of the state's economy. [7] For example, Lastline, founded by UC Santa Barbara professors, developed an enterprise security platform designed to detect and defend advanced malware in a computer network. From modest beginnings near campus, it grew to 166 employees and was acquired in 2020. Another example, Cellscope Inc. evolved from a social benefit project as part of a UC Berkeley class that brought together engineering and business students. They developed a smartphone-enabled health diagnostic toolkit for healthcare professionals and consumers. Initially using foundation funding, then later using venture capital, its then later using venture capital, its principals grew the business until its acquisition in 2019 by a multi-national healthcare firm.

Display VII-8: UC Invention Disclosures



The annual number of invention disclosures has nearly tripled in over two decades at UC campuses, excluding the Lawrence Berkeley National Laboratory.

Display VII-9: Effects of UC Technology Transfer*

Royalty and Fee Income for fiscal year	$107.9 million
UC Portfolio of Active Inventions	12,766
UC Portfolio of Active U.S. Patents	5,160
Number of Active Utility Licenses	1,608
Companies founded based on UC technologies since 1980	1,422

* Total as of June 30, 2019.

UC startups provide jobs for Californians and tax revenues for the state. UC continues to launch and support these industries of the future.

As a land grant institution, the University of California has worked closely with California's agricultural industry. In the late 1800s, UC researchers discovered how to remove salts from the soils of California's Central Valley, transforming barren land into the most productive agricultural region in the world. Since then, UC has remained committed to supporting the agricultural sector, developing new technologies in crop management and pest control and helping the industry adapt to changing regulations and environmental conditions while remaining competitive. Today, the industry is at the cusp of an era of "precision

[5] These statistics are not available for LBNL-managed inventions for 2019-20 and are excluded from systemwide totals unless otherwise specified.
[6] UC startups are independently operating companies, which formed to commercialize UC technology, and whose licensing of UC technology was deemed critical to the business.
[7] See, Fast Facts on the California Economy.

agriculture," in which new technological tools offer the potential to enhance agricultural productivity and improve the lives of its workers.

SYSTEMWIDE RESEARCH PROGRAMS

The vitality and strength of UC research are further enabled by systemwide assets and programs. Systemwide efforts offer unique, collaborative approaches to tap the expertise, resources, and physical and cyber assets across the University.

Natural Reserve System

Established by the Regents in 1965, the Natural Reserve System (NRS)[8] is a unique assemblage of 41 protected wildland sites throughout California, as shown in Display VII-10. Under the California Environmental Quality Act (CEQA), UC is designated as a "Trustee Agency" of the NRS sites. In this important role, UC bears both a fiduciary and stewardship responsibility to protect the long-term integrity of the land's natural resources. The NRS also works in partnership with other stakeholders, such as the National Park Service and the Wildlife Conservation Board, to ensure the best stewardship possible.

Because of these responsibilities, the Systemwide NRS Office serves as the state-identified recipient of, and responder to, legal environmental notices received by the University as Trustee Agency for projects that may affect its NRS reserves.

The NRS's marine and terrestrial reserves, field stations, and research centers encompass nearly all of the state's major ecosystems. The sites sit on more than 756,000 acres and provide access to several million more acres of protected public lands. Overall, the NRS is the largest and most diverse university-operated system of natural reserves in the world. There is no other outdoor laboratory like the NRS in the world.

The NRS sites are managed to support UC research, teaching, and public service programs. The ecosystems and facilities offered by each reserve are available to faculty and students from all UC campuses. They are also available to other institutions, public and private, from around the world, as well as approved users from the K-12 community and the general public.

Researchers use NRS reserves as outdoor laboratories where they can analyze natural systems, investigate important ecological and evolutionary principles, and attain a better understanding of society's effect on the environment and vice versa. The large-scale canvas of the NRS enables researchers to compare species and conditions in one portion of the state with those in another, at a spatial magnitude relevant to species and their management. The ability to conduct such studies over time is crucial when anthropogenic changes are occurring to the environment across the globe.

DEPLOYING CLIMATE SOLUTIONS THROUGH SCIENCE-BASED LAND MANAGEMENT

California is a world leader in slashing greenhouse gas (GHG) emissions, but reductions alone will not be enough to reach the state's goals for achieving carbon neutrality. A consortium of multidisciplinary researchers from throughout California's academic institutions have established public-private partnership projects with the aim of accelerating the most promising climate solutions to the state, national, and global levels, including those focused on catalyzing negative emissions.

Recent multi-year awards from the California Strategic Growth Council, totaling over $12 million, have resulted in the establishment of three UC-led Innovation Centers to capture greenhouse gas emissions in land. The Centers advance scientific knowledge by establishing soil amendments technologies to catalyze negative carbon emissions in croplands and rangelands,[9] developing tools to improve wildland management planning and monitoring for carbon sequestration,[10] and promoting commercialization and adoption of biochar, a decomposed blend of biomass and charcoal, to help reduce methane emissions.[11]

These newly established institutes collaborate closely with private industry, Tribes, community groups, and government to deploy comprehensive climate solutions through science-based land management.

[8] See https://ucnrs.org/ for more information.
[9] See https://www.workinglandsinnovation.com/.
[10] See https://california-ecosystem-climate.solutions/.
[11] See https://ncpc.ucmerced.edu/news/2019/researchers-hope-tackle-methane-emissions-manure-through-use-biochar.

Display VII-10: Natural Reserve System Sites

The NRS covers 756,000 acres across 41 protected wildland sites throughout California. No other network of field sites matches its size, scope, and ecological diversity.

NRS Research addresses such pressing global problems as climate change, catastrophic wildfire, wildland conversion, environmental deterioration, declining water quality, and disappearing biodiversity. Reserves are also used to investigate human history in California, look for supernovae, and listen for earthquakes, among many other projects. Research conducted at NRS sites spans the breadth of intellectual endeavor, from anthropology to biology and to the performing arts. Example projects include the following:

- The NRS Climate Modeling Network consists of 26 stations at 22 reserves. The stations are all constructed from similar, high precision weather and climate equipment that use identical data collection protocols to provide data to researchers.
- Using next-generation remote sensing technologies, the California Heartbeat Initiative tracks the pulse of water through state wildlands. The project will correlate plant reactions to climate conditions, enabling scientists to monitor the water status of ecosystems on a landscape scale. The information can be used to produce forecasts of environmental health, including droughts and catastrophic wildfire.

The NRS recognizes that the environmental fields lag far behind other disciplines in racial and ethnic diversity. The Samuelsen Conservation Scholars Initiative seeks to introduce a broad range of students to the joys and rigors of field research. The initiative supports programs such as the NRS's Field Science Fellowship. Available to UC undergraduates from backgrounds underrepresented in the environmental sciences, the fellowship funds a summer of independent field research at the NRS living laboratories.

The NRS receives modest funding from State General Funds, which is matched or exceeded by campuses to provide responsible administration and stewardship of the reserves. In recent years, the NRS benefited from a matching fund program that provided for facilities construction, improvements, and land acquisition via the 2006 Proposition 84 bond fund managed by the Wildlife Conservation Board. In 2018, the NRS was the beneficiary of a second voter initiative, Proposition 68: the California Clean Water and Safe Parks Act. This new bond provides up to $10 million in matching State funds for infrastructure improvements and land acquisition. The NRS faces significant challenges as it readies its land stewardship, infrastructure, and operations for the demands of 21st century research, education, and public service.

Agriculture and Natural Resources

University of California Agriculture and Natural Resources (UC ANR) is a statewide network of UC researchers and educators dedicated to the creation, development, and application of knowledge in agriculture, natural, and human resources. UC ANR serves as the land-grant arm for the UC system and its mission is to maintain and enhance connections that fully engage UC with the people of California and achieve innovation in fundamental and applied research and education that supports sustainable, safe, nutritious food production and delivery systems; economic success in a global economy; a sustainable, healthy, productive environment; science literacy; and positive youth development.

UC ANR is unique in its three-way partnership with federal, state, and county governments to provide local and statewide research and extension programs that address the critical issues of California. UC ANR's research and public service programs are delivered through two organizational units: the Agricultural Experiment Station (AES) and UC Cooperative Extension (UCCE). While both units conduct research, UCCE also is the outreach arm for

UC ANR, extending research to communities across the state, as described in the *Public Service* chapter.

Approximately 560 AES faculty are located within three colleges on the Berkeley, Davis, and Riverside campuses, as well as at the School of Veterinary Medicine at Davis. There are 199 UCCE specialists and 149 UCCE advisors located in UC campuses and communities throughout the state. Many AES faculty hold split UCCE and campus teaching appointments.

AES faculty represent a variety of disciplines and, consistent with the University's land-grant status, are charged with conducting fundamental and applied research related to contemporary and relevant problems facing agriculture, natural resources, nutrition, and youth development. UC ANR statewide programs focus on specific issues that engage AES faculty and academics from all UC campuses, allowing teams to work on complex issues that require multidisciplinary approaches. In addition, UC ANR's nine research and extension centers, located in a variety of ecosystems across the state, provide a core research and extension base.

Given the financial challenges associated with the pandemic, UC ANR adapted by focusing on goals identified in its Strategic Plan that emphasized generating revenue, optimizing resource deployment, expanding and diversifying fundraising, and improving efficiency. UC ANR has concentrated on maximizing resource deployment into areas that will yield higher efficiencies and bolster its programmatic research and delivery. For example, UC ANR has increased co-funded positions with external partners, such as commodity groups and governmental agencies, allowing it to hire new academics and continue addressing the growing needs of Californians. Another key focus of UC ANR is to develop new partnerships to expand its academic presence. Partnering with California State Universities, California Community Colleges, and other universities has enabled UC ANR to broaden its academic reach while increasing the potential for sharing and collaborating.

A main focus of UC ANR, growing donors and gifts has increased by 3% in FY 2020-21 and is expected to increase by 14% in FY 2021-22 by adding more endowments for 4-H and Master Gardener programs. Additionally, awarded extramural funds have risen 28% to $47 million over the past four years through the efforts of principal investigators in collaboration with UC ANR's Contracts and Grants office. The growth in donors, gifts, and extramural funds broadens the range of UC ANR's research and enables it to pursue knowledge and solutions in applied topics and fields that benefit all California communities.

The following are examples of recent research conducted by UC ANR scientists that addresses current, complex challenges for the benefit of all Californians.

Research to Enhance Community Economic Development. A UCCE specialist at UC Riverside directed the California Citrus Clonal Protection Program (CCPP), the first program of its kind, which provides a safe mechanism for statewide introduction of new citrus varieties through methods such as *in vitro* variety therapy and disease diagnostics for propagating healthy citrus trees. From the fourteen new citrus varieties that completed therapy and testing by the CCPP in 2020, four varieties were introduced by large California citrus producers. Citrus growers estimate that every commercially viable CCPP variety introduction creates one to two jobs per acre out of 1,000 to 1,500 acres typically planted for new varieties.

Research to Increase Agricultural Efficiency and Profitability. AES researchers at UC Riverside are investigating the benefits of sustainable crop production and water use efficiency from recycling food waste as biofertilizers in horticultural crop production. Microbiologists have found that including fermented food waste in the water supply for pot-grown citrus trees promoted the growth of beneficial bacteria around the plant roots, with potential benefits for plant growth, plant health, and the production efficiency of the plants. By recycling food waste, the experimental system can help close a major gap in the sustainable recycling of resources in modern societies.

Research to Improve Access to Positive Built and Natural Environments. An AES researcher at UC Davis undertook a project entitled "Designing Healthy Youth Environments" to identify how physical environments facilitate adolescents' positive development and how youth engagement might help understand, conceive, and create supportive physical environments. This work, which

appears in a recently published book, is a crosswalk between positive youth development and community development, and has policy and planning implications relative to urban spaces, park planning, and park design.

Research to Improve Food Security. AES researchers at UC Davis developed and maintained the first publicly available database of grocery stores interventions aimed at increasing access to nutritious food in food desert areas. Studies resulting from the database assessed the interplay between regional geography, management models, policy drivers, financing, and timing for 71 interventions and identified factors to consider for successful interventions. Their research found that community engagement was a critical component in siting, opening, and keeping a new grocery store operational.

Research to Improve Preparedness to Extreme Weather and Climate Change. Destructive debris flows, commonly known as mudslides, can damage homes and infrastructure and threaten public safety. A UC Riverside AES scientist is conducting field research to better understand how storm events following wildfires affect destructive debris flows in Southern California. Their research group travels to various catchments after fire and storm events to investigate the water and sediment transport processes that produce debris flows. These findings will help scientists and stakeholders better assess debris flow risk during post-fire storms.

Research to Improve Water Use Efficiency. An AES researcher at UC Berkeley conducted a comprehensive study on unsustainable irrigation that considered 130 primary crops, or nearly 100% of global crop production, and found that 51% of global irrigation volumes are unsustainable. Their findings included crop-specific and country-specific analyses of unsustainable irrigation, bridging major knowledge gaps on the environmental effects of irrigation. At UC Riverside, an AES researcher is investigating tree varieties and species that will best tolerate drier weather patterns in California due to climate change, including key crops like avocado, citrus, and grapes. This type of future-proofing research is a major reason why UC has contributed to the long-term success of California's food system.

UC ANR collaborates with the UC campuses, California State University campuses, California Community Colleges, non-profits, the private sector, and a diverse array of stakeholders in all 58 counties. This extensive network of partners enables UC ANR to provide multidisciplinary basic research and applied research needed to address the incredibly complex challenges facing Californians. During the past fiscal year, AES and UCCE researchers issued 20 patents, developed 2,240 research-based publications, and participated in over 1,150 science-based policy engagement activities. Convening multidisciplinary teams to work on complex issues enhances UC ANR's ability to develop innovative solutions. UCCE then translates UC research into actionable management strategies to protect and support the state's farming, forestry, wildland, and urban communities and environments.

California Institutes for Science and Innovation

In the early 2000s the State, UC, and hundreds of pioneering businesses and individuals joined together in an unprecedented partnership to create four thematic multi-campus California Institutes for Science and Innovation (Cal ISIs). State funds are used to support research and knowledge transfer in selected areas benefiting the citizens of California. Since then, the institutes have leveraged state investments, totaling $400 million over 20 years, by two-to-one from federal and private sources.

The four Institutes, each jointly operated by at least two UC campuses, partner with industry, public sector, and international collaborators to address large-scale issues critical to the economy and quality of life. The Cal ISIs are structured to propel outstanding research outcomes to actual adoption and use by society. They have remained vital over time and continue to affect California's industry, government, and workforce. For example:

- California Institute for Telecommunications and Information Technology (Calit2)[12] develops innovative approaches to high-speed data analysis applied to nanotechnology, life sciences, information technology, and wireless and optical telecommunications. This work has effects on traffic congestion mitigation, natural and manmade disaster response, zero GHG homes and

[12] Calit2: http://www.calit2.net/

buildings, homeland security, smart manufacturing, and healthcare. Calit2 has undertaken significant efforts to engage industry, startup companies and national laboratories with its innovation space, which serves as a launching pad for dozens of California-based companies.

- California Institute for Quantitative Biosciences (QB3)[13] supports UC life science researchers and entrepreneurs and empowers them to launch startup companies that advance products and services to market. In 2019 alone, companies in the QB3 network created more than 550 high-value jobs in the Bay Area and across California. QB3 scientists address complex challenges in biology while taking advantage of the Institute's incubators, venture funds, and startup competitions. QB3 affiliated faculty have made advances in genome engineering and genetic engineering, in synthetic biology and biofuels, and in developing innovative medical devices.
- The Center for Information Technology Research in the Interest of Society (CITRIS) and the Banatao Institute[14] work at the forefront of IT innovation and its effect on society, prioritizing human-centric solutions while striving to reduce inequality as the world digitizes. CITRIS addresses seven vital agendas for a modern society: digital transformation, sustainable infrastructure, health, robotics, the future of work and education, tech policy, and women in technology. Its pioneering incubator commercializes university-based innovations, launching 65 startups that have spurred job creation and collectively raised over $100 million in external funding.
- California Nanosystems Institute (CNSI)[15] demonstrates that major breakthroughs today arise from an understanding of how to manipulate, control, and manufacture at the nanometer scale. Nanosystems now appear in energy (solar cells), healthcare (drug delivery systems), the environment (water purification systems), IT (next-gen microprocessors), and other sectors. CNSI has led to the launching of multiple companies, creating thousands of jobs for the state. CNSI was recently awarded $23.7 million from NSF to form the BioPACIFIC Materials Innovation Platform.[16]

In response to the rapidly-evolving challenges presented to the COVID-19 pandemic, each of the Cal ISIs deployed cross-disciplinary research agendas focused on aspects of coronavirus treatment and prevention. More information can be found on their web sites.

While capital funding allowed the development of state-of-the-art facilities and resources over the years, funding for Cal ISI operations has been inadequate. Operations require funding for advanced technology infrastructure, specially trained technical personnel to operate the advanced instrumentation, and seed money to build new research teams across disciplines and campuses, as well as to attract large-scale extramural contracts and grants from industry and governmental sources.

In 2012-13, the State provided $4.8 million for support of the Cal ISIs; this funding was supplemented by $8.4 million from both permanent and one-time UC sources. The Institutes continue to be a systemwide priority and, accordingly, base support for the Institutes was increased by $3.5 million in 2013-14. Since then, total annual support for the Institutes is $16.6 million: $4.8 million in State support and $11.8 million in other UC funds.

Multicampus Research Units

Multicampus Research Units (MRUs) are established by UC to provide a cohesive infrastructure for exploring an emerging thematic, interdisciplinary research area. Formal MRUs enable long-term research and creative work, with collective expertise, that has far ranging applications. An MRU also can be formalized between UC campuses and the UC national laboratories.

State resources are also used for research training of graduate and undergraduate students and postdoctoral scholars in the most sophisticated facilities and laboratories, thus preparing the best-qualified workforce in the world that directly supports all sectors of the California economy.

There are currently seven MRUs. One – the UC Institute of Transportation Studies – is highlighted.

UC Institute of Transportation Studies

The UC Institute of Transportation Studies (ITS)[17] is a multicampus research unit (MRU) with branches on four campuses: UC Berkeley, UC Davis, UC Irvine, and UCLA. At ITS, researchers from more than 30 disciplines collaborate to address critical State goals in high priority

[13] QB3: https://qb3.org/
[14] CITRIS and the Banatao Institute: https://citris-uc.org/
[15] CNSI: https://www.cnsi.ucsb.edu/
[16] NSF BioPACIFIC: https://biopacificmip.org/news/all/2020/ucsb-and-ucla-lead-new-nsf-biopacific-mip
[17] UC ITS: https://www.ucits.org/

areas such as traffic congestion and management, climate change, urban sustainability and air quality, infrastructure and energy, transportation system performance/ optimization, and taxation and finance.

ITS is committed to building effective collaborations with state and federal partners to enable new ways of thinking about transportation. ITS researchers are actively working with public and private researchers to make California's transportation network more effective, focusing on technologies including automated and electric vehicles, resilient and sustainable new types of pavement, and policies that make existing public transit and ridesharing more effective for users throughout the state.

Since 1947, ITS has been funded with a small portion of the fuel taxes that have supported the Public Transportation Account (PTA), and the institute receives an annual PTA allocation of $980,000. In FY 2016-17, ITS received a $3 million one-time funding augmentation, and it is currently receiving $5 million per year under the terms of the transportation infrastructure package passed by the Legislature in SB 1 in 2017-18. This much appreciated State investment enables ITS researchers to sustain their efforts in helping address California's research priorities. ITS has developed a multi-tiered research initiative focused on increasing statewide transportation research engagement, including with other UC and CSU campuses.

In March 2020, ITS launched a special initiative to study the direct and indirect effects of the COVID-19 pandemic on California's transportation systems. The special initiative includes a rapid-response research solicitation to support immediate data-collection efforts, with seven near-term research activities already completed, such as "Future of Public Transit and Shared Mobility: Scenario Planning for COVID-19 Recovery" and "Will COVID-19 Worsen California's Truck Driver Shortage?" Seventeen longer-term projects are projected be completed over the next two years to understand the effects of COVID-19 over time. These research activities will be complemented by outreach and engagement efforts, including virtual meetings and discussions with transportation leaders to ensure research is informed by frontline practitioners, a webinar series highlighting new research insights, and a policy briefing series distilling key findings. Projects focus on the travel effects of the phased shelter-in-place period, which include surges in telecommuting, online shopping, and walking and biking, as well as dramatic reductions in local travel. These changes have produced benefits such as cleaner air, fewer traffic accidents, and less traffic congestion. However, they have also created unprecedented challenges such as crippling reductions in transit revenues, modified transit service that disproportionately affects vulnerable populations, supply chain disruptions impeding the delivery of medical supplies, and removal of shared mobility options (i.e., shared e-bikes and e-scooters). Understanding and addressing these transportation-related challenges while preserving the benefits where and when possible will be vital to California's success in tempering the spread of COVID-19 while getting the economy moving again.

Multicampus Research Programs and Initiatives

By leveraging exceptional talent from across the UC system, the UC Multicampus Research Programs and Initiatives (MRPI) make critical contributions that fulfill the University's mission and benefit California. Selected through rigorous independent peer review, MRPI awards fund multicampus research collaborations to advance innovative scholarship, create new knowledge, and support students and postdoctoral scholars. The MRPI awards are typically in the range of $150,000 to $500,000 annually per project. The five medical centers, three national laboratories, and other research facilities are also eligible as partners in these grants. These networks, in turn, help secure outside support in emerging areas. For example, the California Institute for Quantum Entanglement MRPI was recently awarded $25 million as a NSF Quantum Leap Challenge Institute (QLCI) for Present and Future Quantum Computation. Awards are made in all fields of university scholarship. Competitions for new awards are held biennially, with the next round launching in January 2023.

In 2020-21, MRPI directed $1.9 million towards COVID-19 research. These investments include support for the UC Coronavirus Assembly Research Consortium, and $200,000 in emergency seed fund grants to address COVID-19. These projects include, for example, the following:

- The UC Virtual Network for COVID-19 Clinically Collected Biospecimens is a collaboration among the five

UC medical centers at Davis, Irvine, Los Angeles, San Diego, and San Francisco. The network leverages resources across UC and the state to enable rapid response to California's needs and achieve research breakthroughs.

- Two studies led by faculty at UC Irvine explore the effects and pursue solutions to COVID-19 among California populations particularly vulnerable to COVID-19: 1) a court study on the effects of COVID-19 on justice-involved young adults, and 2) a sero-surveillance study of healthcare workers for COVID-19 using a coronavirus antigen microarray.

In addition to the UC Coronavirus Assembly Consortium, examples of new multicampus research endeavors launched in 2021 include:

- A four-campus partnership to investigate honeybee health and reverse a worldwide decline in honeybees. Honeybees play a critical role in crop pollination and are threatened by climate change and pesticide use. The team, comprised of faculty from the Davis, Merced, Riverside, and San Diego campuses, is pursuing solutions to honeybee colony collapse that includes establishing novel breeding programs, developing medications for sick honeybees, and providing training to beekeepers to identify sick honeybees and hives. This network will be one of the largest honeybee health networks in the country.
- As wildfires continue to devastate communities across the West, wildfire scientists and planners do not know whether resilience planning efforts are reaching Californians who are "doubly vulnerable" due to both socioeconomic disadvantages and proximity to high wildfire risk areas in peri-urban and rural parts of the state. Researchers at the Berkeley, UCLA and Merced campuses will work with historically underrepresented communities and tribal groups to identify more equitable planning solutions and to build a framework and toolkit to guide local resilience and recovery.
- Partnering with farmers and farmworkers, UC researchers from four campuses and the Division of Agriculture and Natural Resources are collaborating to create a new model of agricultural technology that is farmer- and worker- friendly while enhancing productivity, equity, food resilience, and environmental sustainability. The team, involving researchers from the Berkeley, Davis, Merced, and Riverside campuses, will take a transdisciplinary approach addressing technical, labor, environmental, and social components, as well as exploring policy options.

The MRPI portfolio of awards represents a shared and leveraged resource that enhances the effect of UC research across the State. Annual funding levels for the program declined by $11.6 million between 2009-10 and 2014-15 but has since been partially restored and remains far below the investment level needed to achieve its potential. In FY 2021-22, the MRPI grants budget is $7.3 million.

Labor Research and Education

Growing international economic integration, policy shifts, transformations in business organization, new technology, and other changes have brought many positive developments. However, these changes have also resulted in emerging inequities and concerns for communities, researchers, and policy makers. The UC labor program engages in research and education that advances knowledge and understanding of these new challenges and opportunities from a variety of perspectives and disciplines, including historical, comparative, and institutional approaches.

State funding for the Institute for Labor and Employment (ILE) was first provided in 2000-01, when the State added $6 million in the University's budget to establish a multicampus research program focused on issues related to labor and employment. However, funding for the program was unsteady from 2000-01 through 2007-08. The University has supported labor research by providing $4 million in 2008-09 and $2 million in 2009-10 and 2010-11, which was split between the UC Berkeley and UCLA Institutes. After some variations in funding in the intervening years, in 2015-16, the Legislature augmented the University's budget to bring permanent funding for the program to $6 million, or $3 million for each institute.

SUMMARY OF UC RESEARCH

UC's world-class research enterprise is exemplified and guided by the principles of excellence, accessibility, and equity. Contributing nearly 10% of all research activity in the United States, UC faculty and researchers enjoy outsized representation in pre-eminent national and international awards, prizes, and honors (Nobel, National Medal, Field Prize, MacArthur, etc.) and rankings (US News & World Reports, Academic Ranking of World Universities, Times Higher Education, etc.). In parallel, UC continues to accelerate progress in increasing demographic representation of post-graduate degree students, faculty,

staff, and administrators who represent the rich racial-ethnic, socio-economic, geographic, and cultural diversities found throughout California.

The University's networks in academia, industry, philanthropy, and its presence in communities, all allow UC to convene a broad and diverse range of experts in every field. Its presence and relationships in every California county and its vast Natural Reserve System enable the University to foster participatory engagement and ensure equity and inclusion within its mission, goals, and strategies. Enabled by this foundation, UC continues to advance the frontiers of discovery and to tackle the most complex ecological, economic, health, educational, and workforce challenges facing California and Californians in the pandemic recovery period and beyond.

Public Service

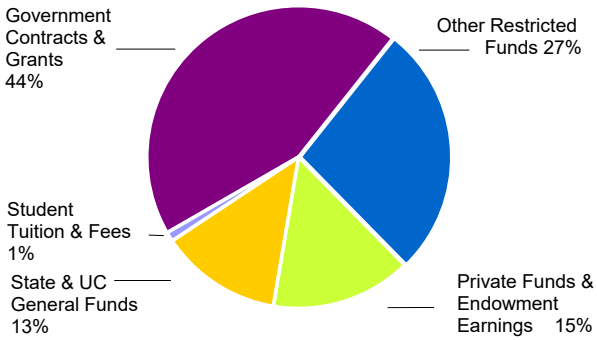
Public service at UC includes a broad range of activities organized by the University to serve state and local communities; students, teachers and staff in K-12 schools and community colleges; and the public in general. Consistent with its mission as a land grant institution, UC's public service programs help improve the quality of life in California by focusing on major challenges, whether in business, education, health care, community development, or civic engagement, that affect the economic and social well-being of its citizens.

State funds support a variety of public service programs at UC. This chapter describes five major State-supported public service efforts:

- SAPEP,
- the California Subject Matter Project,
- COSMOS,
- Cooperative Extension, and
- the Charles R. Drew University of Medicine and Science.

Campuses also conduct other public service programs that are supported by State funds, as well as by student tuition and fees, user fees, and other non-State fund sources. These programs include arts and lecture programs and student- or faculty-initiated community service projects.

Display VIII-1: 2020-21 Public Service Expenditures by Fund Source (Total: $783 Million)



While State funds play an important role in UC's public service programs, significant funding for Cooperative Extension and other major programs is generated from government contracts and grants and private sources.

STUDENT ACADEMIC PREPARATION AND EDUCATIONAL PARTNERSHIPS

Student Academic Preparation and Educational Partnerships (SAPEP) programs seek to raise student achievement levels and close achievement gaps among groups of students throughout the K-20 (kindergarten through university) pipeline, tasks critical to keeping California's economy competitive. In fall 2020, students from a large majority of traditional California public high schools matriculated to UC: UC freshman enrollees came from 1,246 (77%) of the 1,623 schools open in 2019-20. However, over half of these students came from just 223 (13.7%) of all 1,623 high schools. With a focus on serving students who attend historically under-resourced schools in California, UC's 13 SAPEP programs reached students at more than 1,800 K-12 public schools and all 114 community colleges in 2019-20, raising college eligibility rates, increasing transfer from community college to four-year institutions, and preparing undergraduates for graduate or professional education.[1] The Regents have identified closing achievement gaps, improving access to college, and increasing diversity at UC as among the University's highest priorities.

Through SAPEP programs, UC reaches students and schools in most need of assistance. Most schools served by UC SAPEP programs are high need, as evidenced by high percentages of students at these schools eligible for free or reduced-price meals under the National School Lunch Program (NSLP). In 2019-20, 81% of the high schools served by SAPEP's three largest high school programs were those in which more than 60% of all students were eligible for free or reduced-price meals. By contrast, 59% of all California public high schools in 2019-20 enrolled students in which more than 60% were eligible for free or reduced-price meals.

[1] The most recent SAPEP data are for the 2019-20 year, the most recent year available, unless otherwise noted.

The effects of the University's SAPEP programs on students from underrepresented groups is significant. While enrollment at UC is not the specific goal of UC's academic preparation programs, the ability of students to compete successfully for UC admission is a strong indicator of increased access to postsecondary opportunities. Also, these programs increase the diversity of the University. For example, in fall 2020, 11% of African-Americans and 13% of Chicano(a)/Latino(a) new UC freshmen from California public high schools had been 12th-grade participants in UC's student academic preparation programs in 2019-20.

In response to the COVID-19 pandemic, SAPEP programs quickly transitioned to offer robust online programs and services. SAPEP programs curated comprehensive advising, professional development, and academic enrichment programs to deliver in online formats/platforms.

UC has created innovative ways to help generate systemic changes in California's educational system through long-term partnerships with K-12 schools, businesses, community-based organizations, and parents and families. For example, UC's K-20 Regional Intersegmental Alliances align SAPEP programs with their local and regional K-12, community college, educational, community, and business partners. Activities and strategies vary by region depending on the needs and priorities of partner schools, and include direct student and family services, as well as academic enrichment and student academic and career advising; dissemination of research and best practices on teaching and learning; professional development and coaching in specific content for teachers; and collaboration with schools, districts, and community agencies on grant writing and resource development. Alliances design systemic strategies for improving academic achievement and college and career readiness for underserved student populations.

In 2004, UC collaborated with these partnerships to implement the Transcript Evaluation Service (TES), a decision support tool that tracks A-G coursework progress and UC/CSU eligibility for students, schools, and school districts. TES is used in a variety of ways, from student assessment to research and policy studies. Data from TES is used to support the university's SAPEP programs and used by schools and districts to support individual student eligibility and to assess student and school A-G progress annually and over time. In 2020-21, TES processed transcripts for 548,715 students at 455 high schools in 80 school districts. These schools represent 41.2% of all traditional public high schools in California.

TES provides data for school and district administrators to diagnose course completion obstacles and improve UC/CSU course requirement completion on a school-wide

HISTORY OF STUDENT ACADEMIC PREPARATION PROGRAMS AT UC

As early as 1872, then-University President Daniel Coit Gilman called on the University to collaborate with schools in enhancing student preparation for a college education so that the "work of the University shall clearly forward the welfare of the state, of the whole body politic."

The current generation of student academic preparation programs took shape in the 1960s, when the civil rights movement drew attention to issues of access to the University. During this period when there were no fiscal constraints on enrollments, the Regents addressed access issues primarily through aggressive and innovative admissions policies.

In the 1970s, the University began providing underrepresented students with academic assistance and information to help them meet University admission standards. The Legislature passed the Meade Bill in 1975 (AB 2412), marking the first time that State resources were devoted to increasing the number and persistence of eligible underrepresented group students. With it was born the concept of developing a pipeline of academic preparation programs beginning with students in the seventh grade and continuing through their college careers. Academic preparation programs expanded gradually during the 1980s and early 1990s.

In July 1995 the Regents adopted Resolution SP-1, which eliminated consideration of race, ethnicity, and gender in UC admissions. At the same time, the Board called on the President to appoint the Outreach Task Force (OTF) to identify ways in which outreach programs could help to ensure that the University remain accessible to students from educationally disadvantaged backgrounds. Coupled with the passage by California voters of Proposition 209 in fall 1996, which essentially placed the tenets of SP-1 in the State's Constitution, these events elevated academic preparation programs to become the University's most critical tool for promoting access to the University for educationally disadvantaged students in California.

basis. In 2014, TES was recognized by Achieve[2] for the role it plays in diagnostic assessment of where students are falling short of the courses needed for admission to the state's university systems.[3] TES has also proved to be an important tool for policy and research studies. For example, TES data was used in the last two statewide eligibility studies (public high school classes of 2007 and 2015) commissioned by the Governor's Office of Planning and Research and conducted to estimate the number of public high school graduates who meet the freshman admission requirements for the University of California (UC) and California State University (CSU) systems.[4]

Program Descriptions and Outcomes

In addition to partnerships with K-12 and community organizations, UC's portfolio of SAPEP programs raises college eligibility rates, increases transfer from community colleges to baccalaureate-degree granting institutions, and prepares undergraduates for graduate programs.[5]

College Access and Preparation

With a focus on academic advising and building college knowledge, the ***Early Academic Outreach Program (EAOP)***, UC's largest academic preparation program, helps students from underserved schools and colleges complete a rigorous college preparatory curriculum in high school, complete UC and CSU coursework and exam requirements, and apply for college and financial aid. EAOP provides academic enrichment, such as intensive workshops and summer courses; advising; test preparation; and information for parents such as how to apply for financial aid and college options in California. EAOP also supports schools by providing educators with valuable assistance in updating A-G course lists and submitting A-G courses for review, and explaining UC admissions and eligibility to teachers and counselors.

With a focus on science, technology, engineering and mathematics (STEM) and workforce preparation, the ***MESA (Mathematics, Engineering, Science Achievement) College Prep*** program helps middle and high school students excel in math and science so they can graduate from college with degrees in science, engineering, computer science, or other math-based fields. MESA offers classes during the school day that allow advisors to work with students on academics and MESA activities. MESA's academic development curriculum includes math and science coursework that is A-G approved and based on California Math and Science Standards. MESA also offers individualized academic planning, tutoring, math workshops, study groups, and career exploration services. Parent involvement workshops and events help parents learn how to become effective advocates for their children's academic success.

With a focus on literacy development, ***The Puente Project*** prepares middle and high school students – many of whom are English language learners – for college through rigorous academic instruction in writing and literature, intensive college-preparatory counseling, and mentoring from successful members of the community. Students in the program study with the same Puente-trained English teacher for ninth and tenth grades in a college-preparatory English class, work closely with a Puente-trained counselor to prepare an academic plan and stay focused on their goals, participate regularly in community involvement activities, and attend field trips to college campuses.

With a focus on access to rigorous curriculum, ***UC Scout*** provides students, teachers, and schools access to online A-G and Advanced Placement course work. UC Scout offers 65 courses in seven disciplines for middle and high school students. All California public school students and teachers have free access to UC Scout Basic courses. In 2019-20, UC Scout served more than 9,957 California

[2] Achieve works with states to raise academic standards and graduation requirements, improve assessments, and strengthen accountability, including helping to develop the Common Core State Standards. See https://www.achieve.org/.
[3] Achieve, January 2015, "Closing the Expectations Gap: 2014 Annual Report on the Alignment of State K-12 Policies and Practice with the Demands of College and Careers."
[4] D. Silver, et.al., University Eligibility Study for the Public High School Class of 2015, RTI International, July 2017.
[5] Detailed descriptions of each SAPEP program are available in the most recent SAPEP annual outcomes report at https://www.universityofcalifornia.edu/infocenter/sapep_outcomes, and an interactive map of SAPEP-served schools is available at https://www.universityofcalifornia.edu/infocenter/k-12-directory. In addition, an interactive dashboard with detailed outcomes for EAOP, MESA College Prep, and Puente High School Project is available at https://www.universityofcalifornia.edu/infocenter/uc-k12-outreach.

students. During the COVID-19 pandemic, the demand for UC Scout grew as students and teachers throughout California sought additional online instruction and resources. Other programs promoting college access and preparation include ***ArtsBridge***, ***Student-Initiated Programs***, ***University-Community Engagement (UCE)*** and ***UC Links***.[6]

UC's college access and preparation programs have been recognized nationally as models of best practice. Specific program achievements include the following:

- Increased college eligibility: Participants are more likely to complete the A-G courses required for UC/CSU eligibility. In 2019-20, 83% of 12th-grade participants in EAOP, MESA, or Puente had completed A-G coursework (compared to 43% of all California public high school graduates[7]).
- Increased college attendance: Class of 2020 high school seniors from UC's three largest college access and preparation programs enrolled at California public colleges at higher rates than their peers in fall 2019: EAOP (65%), MESA (66%), and Puente (70%). In 2017-18, an estimated 55% of all California public high school graduates enrolled at California public colleges.[8]
- Increased community college transfer: as described below, SAPEP programs also promote transfer preparation for community college students to baccalaureate -granting institutions.

Community College Articulation Agreements are agreements between individual California community colleges and individual UC campuses that define how specific community college courses can be used to satisfy subject matter requirements at UC.

ASSIST[9] (Articulation System Stimulating Interinstitutional Student Transfer), the official transfer and articulation system for California's public colleges and universities, provides students and counselors with detailed course transfer and articulation information to streamline the transfer process.

The MESA Community College Program (MCCP) provides rigorous academic development for community college

SAPEP FUNDING SINCE 1997-98

In 1997-98, after the adoption of SP-1 and Proposition 209, the Legislature considered the University's academic preparation programs to be an effective means to increase access to college for educationally disadvantaged students and promote diversity. The University's budget for student academic preparation programs grew from $18.1 million in State and University funds in 1997-98 to a peak of $85 million in 2000-01.

Due to the State's fiscal crisis in the early 2000s, the SAPEP budget was reduced by $55.7 million over several years, including a 56% reduction in 2003-04, bringing the total budget to $29.3 million in 2005-06. In 2006-07, a $2 million augmentation to expand community college transfer programs brought the SAPEP budget to $31.3 million.

The Governor's proposed budget for 2009-10 originally slated SAPEP programs for elimination, but the Legislature converted the cut to an undesignated reduction. As permitted by the 2009-10 Budget Act, campuses were instructed to limit cuts to any program within the portfolio to no more than 10%, which was only half the percentage cut to the University's State funds. For 2010-11, the Budget Act called for UC to maintain funding for SAPEP programs at 2009-10 levels. In 2011-12, the University experienced a 21.3% reduction in State funding. Budget Act language authorized reductions of no more than that percentage in SAPEP programs; however, the SAPEP portfolio ultimately experienced an overall budget reduction of 17%.

Consistent with Budget Act language, the programs in the SAPEP portfolio were not eligible for budget reductions in 2012-13 as the Governor's revenue-enhancing initiative passed in November 2012 and no further cuts were made to UC's budget. These programs also have not been eligible for budget reductions since that time. The SAPEP budget currently is $24.6 million in State and University funds.

In 2021, UC received $22.5 million on a one-time basis to support SAPEP programs. These funds will support scaling programs and services to more students and schools to increase preparation for baccalaureate and graduate degrees and address COVID-19-related effects on preparation and access. SAPEP programs use State resources efficiently. The cost per student of most programs is substantially less than the cost per student of comparable federally funded programs.

[6] More information about other UC college access and preparation programs is available at https://www.ucop.edu/outreach-educational-partnerships/resources-publications/outcomes-dashboards.html.
[7] Comparison data are for the Class of 2020, the most recent year available from the California Department of Education's DataQuest (see https://dq.cde.ca.gov/dataquest/).
[8] Comparison data are for full-year 2018-19 enrollments by the Class of 2018, the most recent year available from the California Department of Education's DataQuest.
[9] See https://www.assist.org/.

students who are pursuing transfer to four-year universities in majors that are calculus-based. All MCCP students are required to attend Academic Excellence Workshops, student-led supplemental instruction/study groups that emphasize the most challenging aspects of classes within the student's major. Additional services include individualized academic planning; college orientation for math-based majors; career exploration and professional development; and summer internships in business, industry, and academia.

Students enrolled in the ***Puente Community College Program*** take a demanding two-course English sequence, receive transfer requirement counseling, and meet regularly with a Puente-trained mentor from the professional community. Teachers and counselors receive training in innovative counseling and teaching methodologies for educationally disadvantaged students.

Community College Transfer Preparation (CCTP) Programs increase opportunities for California community college students to transfer to four-year institutions by providing comprehensive academic guidance and support for prospective transfers. Services include assistance with course selection, informational workshops on academic requirements for transfer admissions, and professional development and training for community college counselors and faculty. Students in transfer programs are more likely to be admitted to UC and more likely to enroll when admitted. Participants who applied to UC in fall 2020 had an 89% admission rate (compared to 75% for all CCC applicants), and of the participants who were admitted, 82% enrolled (compared to 74% for all CCC admits).

Other SAPEP program achievements in transfer preparation include:

- In 2019-20, an estimated 1.99 million website visitors used ASSIST to determine course transferability between CCC, CSU, and UC systems. In addition, as of 2019-20, ASSIST tracks more than 186,000 CCC-UC articulation agreements by major, more than 353,000 CCC-CSU agreements by major, approximately 53,000 CCC courses that can be transferred by general credit to any UC campus, and over 23,000 CCC courses approved to fulfill the Intersegmental General Education Transfer Curriculum that can be transferred to any CSU or UC campus.
- UC continues to simplify the transfer process for prospective students and counselors by implementing tools like the online UC Transfer Admission Planner (UC TAP). In 2020-2021, more than 72,000 CCC students used this tool to stay on track to transfer successfully.
- Of those MESA Community College Program participants who transferred to a four-year campus in the most recent evaluations of the program, 100% majored in a STEM field.
- Puente Community College Program students maintain enrollment continuity more often than all California Community College (CCC) students statewide. For Puente participants in the most recent evaluation of the program, 83% enrolled in three continuous semesters (or four continuous quarters) as compared with 76% of all CCC students statewide.
- The *Discover Your UC online w*ebinar series assisted prospective UC transfer students during the pandemic. In summer 2020, more than 2,000 students participated in the webinar series and the video recording had more than 3,500 views.

Graduate and Professional School Preparation

UC's SAPEP programs also prepare and encourage high-achieving undergraduates from educationally disadvantaged communities to pursue graduate and professional level training.

Leadership Excellence through Advanced Degrees Program (UC LEADS) places juniors and seniors who have experienced conditions that have adversely affected their advancement in their field of study in two -year intensive research experiences with faculty mentors. ***Summer Research Internship Programs (SRIP)*** also provide intensive research experiences. ***UC Law Fellows*** and ***Post-baccalaureate Medical School Programs*** provide preparation for graduate study through academic skills building, test preparation, and mentoring. In the most recent evaluation of the program, nearly two-thirds (64%) of graduate and professional school academic preparation program participants enrolled in graduate or professional school.

CALIFORNIA SUBJECT MATTER PROJECT

The California Subject Matter Project (CSMP) is a statewide network of nine subject-specific professional learning projects that provide rigorous training programs to enhance learning for all students. CSMP engages K-12 educators with university faculty in all disciplines from UC, CSU, and independent higher education institutions to

collaboratively design and deliver intensive institutes for education professionals that promote teachers' understanding of K-12 content and instructional strategies. CSMP professional learning programs provide educators with the course content represented in California's K-12 standards and frameworks, and covers all of the academic disciplines required to meet college entrance (A-G) requirements, including arts, history/social science, global education, mathematics, physical education/health, reading and literature, science, world languages, and writing. The network reaches teachers and students across California through roughly 90 regional sites located at university and college campuses statewide. In response to the COVID-19 crisis, demand for CSMP's professional development services, including curated, multilingual teaching and learning resources for K-12 educators and administrators, increased substantially. Access to these services occurred through a variety of online platforms designed to support teachers, students and schools during this period of unprecedented disruption to learning, with special attention to serving educators in under-resourced and high-need communities.

In addition to subject-specific offerings, CSMP was invited to partner with the Principal Leadership Institutes (PLIs) at the UC Berkeley Graduate School of Education and at UCLA Center X, within the School of Education, to launch the state center for the 21 California State Leadership Academy (21CSLA). Funded by the California Department of Education, 21CSLA is dedicated to professional learning and support for California's educational leaders, including teachers and school and district administrators. 21CSLA programs are free for participants and include leadership coaching and an emphasis on improving instruction and achievement outcomes (including through distance learning) for English learners, students with disabilities, low-income students and other historically marginalized students.

During 2019-20, CSMP provided nearly 1,536 professional learning programs to over 25,700 teachers and school administrators from more than 6,800 K-12 schools. The majority of school districts served qualified for "Differentiated Assistance Status" under the California Department of Education's Local Control Funding Formula system. These districts, therefore, received additional funding in order to better serve large populations of students who were English learners, foster youth, and/or eligible for free/reduced-priced meals under the National School Lunch Program.

State funding for CSMP has remained at $5 million per year since 2003-04. In addition, in 2020-21, CSMP received $3.4 million in federal funding from the CA Department of Education (CDE) and this same amount is anticipated for 2021-2022. The federal funds figure represents a nearly 30% decrease since 2009-10. In 2020-21, CSMP also received $6 million in one-time state funding to expand the capacity of the projects to provide professional learning services to K-12 teachers across subject matter projects in an effort to mitigate "learning loss" resulting from school closures due to COVID-19. This funding expanded CSMP's capacity to offer additional training for more educators in underserved and under-resourced communities, enhanced remote delivery of professional learning, and accelerated its leadership development initiatives. These funds were allocated equally across all nine projects: Writing, Reading and Literature, Mathematics, and Science and $340,000 each for Arts, Global Education, History-Social Science, Physical and Health Education, World Languages.

For 2021-22, one-time State funding in the amount of $5 million has been allocated to CSMP to support expanded professional learning for educators to mitigate K-12 student learning loss related to the COVID-19 pandemic and an additional $2 million has been allocated to develop teacher professional learning resources in support of the state's newly adopted ethnic studies framework. CSMP leverages State and federal funding with foundation grants and district contracts to support the professional development programs. CSMP was originally authorized in 1998 and was reauthorized in 2002, 2007, and again in 2011. The 2011 bill (SB 612) extended authorization to June 30, 2017 and incorporates all nine projects into the legislation. In 2016, a statute was enacted that eliminated the June 30, 2017 sunset provision noted in SB 612.

COSMOS

The California State Summer School for Mathematics and Science (COSMOS) provides an intensive academic experience for students who wish to pursue advanced mathematics and the sciences and prepare for their education in these areas. COSMOS is a four-week-long residential academic program for top California high school students in mathematics and science. COSMOS course clusters address topics not traditionally taught in high schools such as astronomy, aerospace engineering, biomedical sciences, computer science, wetlands ecology, ocean science, robotics, and game theory. The program takes place each summer on the Davis, Irvine, Santa Cruz, and San Diego campuses. Cluster sizes tend to vary from about 15 to 30 students, and the student to academic staff ratio is typically around 5:1. In summer 2020, the COSMOS summer residential program was cancelled due to COVID-19 and campus closures. The online COSMOS program was launched in summer 2021.

In 2010-11, COSMOS received $1.9 million in State funds, a 10% reduction from State support in 2007-08. Consistent with Budget Act language, the University reduced State support for COSMOS in 2011-12 to $1.7 million, also a 10% reduction compared to the prior year. In the 2014-15 Budget Act, the Governor eliminated provisional language associated with several programs, including COSMOS, which had specified the funding level expected by the State for the budget year. The California Education Code stipulates that the State fund at least 50%, but not more than 75%, of the program's actual costs; funds are also provided by participants with the ability to pay and from private sources. AB 1663 (2012) amended the Education Code to set the program's tuition level for California residents at $2,810, and AB 616 (2017) authorized the current fee provisions – which allow for annual increases of up to 5% – of the COSMOS program until January 1, 2023. For summer 2021, the tuition level for California residents attending COSMOS was $1,917, a reduced rate for online programming in light of COVID-19.

UC COOPERATIVE EXTENSION

University of California Agriculture and Natural Resources (UC ANR) serves as the land-grant arm for the UC system through two organizational units: UC Cooperative Extension (UCCE) and the Agricultural Experiment Station (AES). The AES mandate is to conduct research that addresses agricultural, environmental, and societal problems of importance to California (described in more detail in the *Research* chapter). UCCE develops and extends research-based, practical solutions to communities across the state, with a presence in all 58 counties.

Over 300 UCCE academics (specialists, advisors, academic coordinators, and academic administrators) convene AES and other UC faculty, agencies, and industry groups, amongst others, to work with local communities to address needs in agriculture, natural resources, nutrition, youth development, and community economic development. Most UCCE specialists are located on the Berkeley, Davis, Merced, Riverside, Santa Barbara, and Santa Cruz campuses. They conduct research, develop new technologies, transmit results to communities statewide, and serve as a campus link for county-based UCCE advisors. The UCCE advisors are located in communities where they conduct applied research and translate and test research findings for solutions to local problems. They extend practical, science-based information through workshops, demonstrations, field days, classes, digital media, and websites. They work with over 260 community educator specialists to deliver audience-driven and research-based educational programs. In 2020, UCCE had about 708,400 direct educational interactions with adults and youth, including interactions with individual farmers on more effective pest management practices, nutrition education with families, and briefings with policymakers on wildfire preparation and recovery.

UC ANR statewide programs engage UCCE academics with faculty across the ten UC campuses, the National Laboratories, and medical centers to leverage resources to work on complex issues that require multidisciplinary approaches. These programs and institutes include, for example, the UC Statewide Integrated Pest Management Program, the Agricultural Issues Center, the California Institute for Water Resources, and the Nutrition Policy Institute. Supporting volunteerism is an integral part of educational efforts in the California 4-H Youth Development, California Naturalist, UC Master Gardener,

and UC Master Food Preserver programs. In 2020, there were over 19,000 volunteers who contributed over 2 million hours of public service. In addition, nine research and extension centers (RECs) located in a variety of ecosystems across the state engage diverse stakeholders in research and demonstration of practical solutions.

With the historic 2021-22 state budget increase, UC ANR is dedicated to rebuilding the UC Cooperative Extension footprint. Additional ongoing funding from the State allowed UC ANR to immediately recruit 20 new UCCE academic positions and hire related program support members. UC ANR will continue to fill current major gaps and, among other things, identify positions to address California's emerging and future needs.

Despite the far-reaching effects of the COVID-19 pandemic, UC ANR continued its emphasis on job protection, programmatic priorities, and maintaining financial stability to deliver research and extension services to Californians. UC ANR implemented a hiring freeze, utilized various budget strategies, and deployed reserve funding to mitigate the financial effects of the pandemic. Many Californians and communities were unable to attend or participate in extension activities or access UC ANR's educational resources in traditional in-person methods. In response, UC ANR developed a web enabled service delivery model with a large-scale addition of online resources to expand reach. UC ANR also developed virtual content, produced educational videos, and delivered extension activities through virtual meetings and social media. For example, UCCE's Expanded Food and Nutrition Education Program (EFNEP) program provided online cooking education and local referral to food resources during the COVID-19 pandemic, helping increase participants food security, and supporting UC ANR's public value of safe, sufficient, and healthy food for all Californians. Another example is UC ANR's Integrated Pest Management program, which facilitated the transition of an in-person workshop on pollinator health to a webinar, which became widely available on its YouTube video channel. Moving to a virtual platform enables UC ANR to increase its online presence and drive the public's increased engagement and access to services, programming, and research information.

The following are a few examples that demonstrate UC ANR's ability to adapt in meeting the increasingly varied and evolving needs of local communities and stakeholders throughout the state:

Promoting Economic Prosperity in California. UCCE creates and extends new knowledge about agriculture and natural resource management and strategies for increasing yields and economic returns. For example, UCCE Santa Clara provided technical assistance to 185 farmers from socially disadvantaged communities to apply for COVID-19 emergency relief grants; 155 applicants were awarded over $3 million. UCCE also conducts research and education, leading to improvements in individual and household financial management practices. In 2020, the EFNEP saved families an average of $58.10 per month on groceries, which is projected to have saved over $1.5 million for EFNEP graduates statewide.

Building Climate-resilient Communities and Ecosystems. UCCE programs develop solutions to increase the resilience of agriculture, communities, and natural ecosystems. To address the growing risk of wildfire hazards, UCCE scientists worked with private landowners, Firewise communities, and partner organizations across the state to demonstrate the techniques and benefits of using prescribed fire to reduce fuel loads. In the Sierra Nevada region alone, 400 participants attended a prescribed UCCE workshop series within the past two years, with 80% of participants reporting knowledge gains. UCCE advisors also developed new technologies to help prevent wildfires. These include Evalutree, an app-based assessment tool designed to expedite and simplify hazardous tree identification and mapping near power lines, and Match.Graze, a web-based platform that connects private landowners with livestock owners to provide grazing services that reduce wildfire fuel loads.

Safeguarding Sufficient, Safe, and Healthy Food for all Californians. UCCE develops and provides outreach and education on science-based solutions to help ensure food safety and reduce food insecurity. The UC Master Food Preserver Program, for example, provides instruction on safe, low-cost home food preservation techniques. During the COVID-19 pandemic, UCCE San Luis Obispo County's partnership with local food banks helped 363 residents

receiving food assistance learn new strategies for maximizing the use of fresh produce. Approximately 85% of participants reported that the lessons would help them increase food resources. UCCE county offices across the state conducted work to increase Electronic Benefit Transfer (EBT) utilization at local farmers' markets. In Marin and Sonoma county, farmers' market inclusivity initiatives increased EBT use by 64% and dollar-for-dollar Market Match incentives by 52%. In San Luis Obispo county, farmers market awareness efforts during the COVID-19 pandemic helped increase new EBT customers by 35% from 2019 to 2020, a significant increase over the prior year's growth of 4%.

Protecting California's Natural Resources. UCCE collaborates with partners and agencies to increase ecological sustainability, improve air and water quality, and advance water and land management practices. For example, UCCE partnered with four commercial growers in the Palo Verde Valley to identify and optimize moderate water deficits in alfalfa by shifting to a deficit irrigation model. Positive findings influenced the Natural Resource Conservation Service and other agencies to investigate further and disseminate deficit irrigation practices and provide incentives to growers for adoption. Low desert growers may conserve one acre-foot per acre following this study's proposed practices, which would equate to 200,000 acre-feet (over 65 billion gallons) of water conserved for the region. UCCE in Santa Cruz County conducted four on-farm soil trials for organic strawberries that examined anaerobic soil disinfestation using cover crop or crop residue. The trials resulted in 1,800 acres of primarily organic strawberry fields in California being treated with this method in the 2020 growing season, representing nearly 40% of organic strawberry acreages and 5% of conventional strawberry acreages in the state.

Developing a Qualified Workforce for California. In 2020, UCCE provided professional development opportunities to 9,700 dedicated adult volunteers for the 4-H Youth Development Program. The volunteers led over 100,400 youths (ages 5 to 19) enrolled in hands-on lessons in areas such as leadership, civic engagement, STEM, and college and career readiness. Of the 4-H youths who responded to surveys, 89% reported having engaged in a community service project. Additionally, 91% of youths reported respecting the differences and strengths of individuals on a team. These are skills that become increasingly important as California and the U.S. become increasingly racially and ethnically diverse. During the COVID-19 pandemic, 4-H youth in Santa Clara County engaged in service-learning through creating and distributing over 2,000 face masks and shields to healthcare workers and local families. In Sonoma and Merced counties, 4-H youth applied their STEM skills by creating face shields and mask straps with a 3D printer, using designs approved by the National Institutes of Health.

Promoting Healthy People and Communities. UCCE academics and program staff provide outreach and education through two statewide nutrition education programs: the California Expanded Food and Nutrition Program (EFNEP) in 24 counties and CalFresh Healthy Living, University of California (CFHL,UC) Program in 32 counties. EFNEP delivers research-based nutrition education to limited-resource families with young children to improve healthy lifestyle choices. In 2020, EFNEP reached over 41,000 adult and youth family members. Evaluations of adult participants indicate 95% improved at least one practice to choose a more nutritionally sound diet. CFHL,UC Program is a partnership involving the USDA, California Department of Social Services, and UCCE to serve persons eligible for the federal Supplemental Nutrition Assistance Program. In 2020, nutrition and health education was provided to over 72,800 participants. Furthermore, CFHL,UC policy, systems, and environmental interventions (e.g., smarter lunchrooms that influence healthy choices, food-based gardening, quality physical activity, and wellness policies) were adopted by 320 partner sites indirectly reaching over 170,000 individuals in early childhood centers, schools, and community environments.

Developing an Inclusive and Equitable Society. UCCE continues to work to ensure outreach and education are inclusive and equitable for its diverse audiences. For example, the UCCE Fresno County small farms team distributed face masks, hand sanitizing wipes, and COVID-19 safety signage in multiple languages to roadside strawberry stands. Sixteen small-scale strawberry farmers implemented personal protective equipment, displayed the

safety signage at their farm stands, and reported increased compliance from customers. UCCE in San Luis Obispo County was uniquely positioned to design an educational campaign to inform healthcare providers, community-based organizations, policymakers, and the public about the effects of COVID-19 on the LGBTQ+ population and raise awareness about access to care. Across UC ANR, statewide programs and UCCE local offices have engaged in structured organizational reflection on racial justice and strengthened efforts to increase the diversity of program volunteers, staff, and participants and improve the accessibility and cultural relevance of our programs for all Californians.

UCCE serves every county in California – connecting resources, forming integrated teams to work on complex issues, and delivering research-based, practical solutions. UCCE works with diverse stakeholders in local communities to determine the best use of academic positions and program funding for campus and off-campus locations throughout California. Programmatic priorities are derived through consultations with external stakeholders such as local community leaders and legislators, and internal UC stakeholders including campus leadership.

CHARLES R. DREW UNIVERSITY OF MEDICINE AND SCIENCE

The Charles R. Drew University of Medicine and Science (CDU), a private, nonprofit university with its own Board of Trustees, conducts educational and research programs in South Los Angeles. Since 1973, the State has appropriated funds to UC to support a medical student education program operated by the Los Angeles campus in conjunction with CDU. State General Funds are provided to CDU under two contracts administered by the University. One contract provides State support for medical education; the other a separate public service program that funds activities in the Watts-Willowbrook community.

Historically, CDU received State funds through the University's budget for the training of 48 medical students (including 24 third-year and 24 fourth-year students) and 170 medical residents. Today, CDU provides educational, co-curricular and extra-curricular programming for all 109 medical students (years 1 through 4+). The joint CDU/UCLA affiliation agreement with the David Geffen School of Medicine outlines the structure of the relationship and instructional activities. Students participating in the joint Medical Education Program (MEP) earn a Doctor of Medicine (MD) degree, which is granted by the David Geffen School of Medicine. The fifth 10-year agreement between UCLA and CDU was signed June 2018. In November 2019, CDU became an applicant with the Liaison Committee on Medical Education (LCME) for its Independent Medical Education Program (IMEP). The IMEP will operate as a separate program, alongside the CDU/UCLA MEP.

In 2008, CDU expanded its medical student enrollment by four students (per class) as part of the UC Program in Medical Education (PRIME) initiative. The Los Angeles campus' PRIME program is designed to train physician leaders to be experts and advocates for improved healthcare delivery systems in disadvantaged communities. In 2020, 58% of CDU-UCLA graduates matched into primary care residency programs, with 11% going into Family Medicine.

In 2007, Los Angeles County's King/Drew Medical Center (KDMC), the primary teaching hospital for CDU, was closed due to serious concerns about patient care by the Los Angeles County Board of Supervisors, which had administrative and fiscal responsibility for the hospital. As a result of the closure of the hospital, CDU voluntarily closed its residency programs.

Following the KDMC closure, the University worked with state, county, and other local officials to open Martin Luther King Jr. Community Hospital in July 2015. In partnership with LA County and additional clinical partners, CDU has successfully re-established residency training in Psychiatry and Family Medicine. Selected from the 2018 Residency Match, the first cohorts in each program started in July 2018. CDU has received continuing accreditation from the Accrediting Council of Graduate Medical Education (ACGME) for both programs with a total cap of 24 in both programs (6 per year in Psychiatry and 8 per year Family Medicine). As the only residency training programs in South Los Angeles, CDU currently has 58 resident physicians in training. CDU submitted an application for an Internal Medicine residency in 2019, hosted the ACGME Internal

Medicine site visit in July 2020, and brought eight first-year and two second-year residents into the new Internal Medicine residency program in 2021. Other specialties under consideration for future graduate medical education programs include General Surgery, Physical Medicine and Rehabilitation, Orthopedic Surgery, Pediatrics, and Obstetrics/Gynecology.

In July 2018, CDU was formally notified that the WASC Senior College and University Commission (WSCUC) reaffirmed accreditation for the institution for a period of ten years. The WSCUC commended CDU for, among other things, their strategic plan and strong commitments to the community, social justice, and community service; addressing health disparities; and producing health professionals who return to and serve under-resourced communities.

Consistent with language in the Budget Act, UC reduced support for CDU by 5% in 2011-12. Since then, funding for CDU instructional and public service programs currently is $8.3 million in State General Funds and $475,000 in matching funds. The University provides additional support for CDU from medical student Professional Degree Supplemental Tuition revenue and other University funds. For 2021-22, one-time funding of $50 million was included in the Budget Act for medical education facilities.

Academic Support – Libraries

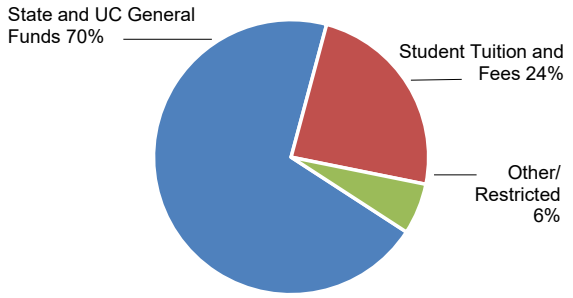
Individually and collectively, the University of California (UC) libraries provide access to the world's knowledge for the UC campuses and the communities they serve, supporting UC's missions of teaching, research, and public service. The intellectual capital of the libraries – their acclaimed research collections, innovative services, user-friendly facilities, and highly trained staff – constitutes an unparalleled resource for UC and all Californians.

As scholarly and creative hubs rooted in the physical and digital realms, UC's libraries are a network of locations, services, and resources that evolve to better serve today's diverse students, scholars, and disciplines. Transformative library services enable UC's scholars to create, publish, share, store, search for, and deliver information with ease. Through content licensing, digitization, and open access strategies, the libraries provide access to far more information than they physically possess; in fact, it is the libraries' longstanding investment in digital resources and services that supports remote learning, teaching, and research endeavors, including during the COVID-19 pandemic. Many of UC's ever-growing digital collections and information services are also accessible to all who seek such services and collections worldwide. UC collections and archives also provide resources for understanding and combatting anti-Black racism, and supporting social justice and equity work more broadly.

Campus libraries offer welcoming, inclusive and technology-rich learning spaces and services to meet myriad user needs and maximize intellectual potential and student success. Information professionals guide students through their scholastic careers, and digital scholarship centers, data labs, and makerspaces introduce new opportunities to learn, experiment, and create. UC special collections, unique on each campus, allow researchers of all levels to work with rare and original materials in carefully managed spaces.

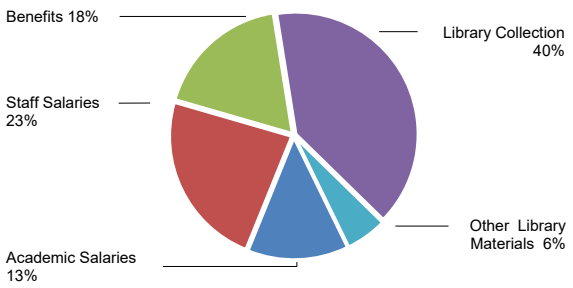
The UC Libraries' system includes more than 100 libraries across the ten campuses, two regional library

Display IX-1: 2020-21 UC Libraries Expenditures by Fund Source (Total: $306 Million)



The vast majority of the libraries' budget is derived from core funds (State support, UC General Funds, and student tuition and fee revenue).

Display IX-2: 2020-21 UC Libraries Expenditures by Category (Total: $306 Million)



Nearly 46% of the libraries' expenditures provides for the purchase, preparation, and use of library materials in a variety of formats (print, digital, multimedia, and objects). As in other functions of the University, salaries and benefits are the UC Libraries' largest collective expenditure.

Libraries hold more than 40 million print volumes (as shown in Display IX-3); in the United States, UC's collection is surpassed only by the Library of Congress.

In 2020-21, the economic value of the physical collection was estimated at $1.2 billion, with special collections valued at an additional $606 million, or 4.7% of UC's net capital assets. Now more than ever, use of the libraries' digital collections continues to expand, as more materials are available primarily or solely online. In 2020, more than 40 million journal articles were downloaded by UC faculty, researchers, and students.

UC LIBRARIES EXPENDITURES

Expenditures for the libraries totaled $306 million in 2020-21. Approximately 90% of the budget is derived from core funds (State support, UC General Funds, and student tuition and fee revenue). Significant restricted funding is provided from endowment earnings and private gifts and grants. As in other areas of the University, the libraries' greatest expenses are salaries and benefits for more than 2,000 employees, including professional librarians, IT professionals, and support staff. Compensation and benefits represented 54% of the libraries' expenditures in 2020-21. Library materials, which include books, subscriptions, and licensing of digital materials, made up 46% of expenditures.

The libraries continue to face numerous budgetary pressures. The amount of scholarly information being produced is rapidly growing, as is the number of academic programs offered systemwide, resulting in greater need for new information resources. Students continue to require access to facilities that provide technologically well-equipped learning environments. In the past, the State provided substantial support for UC's strategy to promote systemwide library development. Over the last 20 years, however, the State has been unable to provide sufficient funding to confront persistent price increases of books, journals, and databases, which consistently outpace inflation, as shown in Display IX-4.

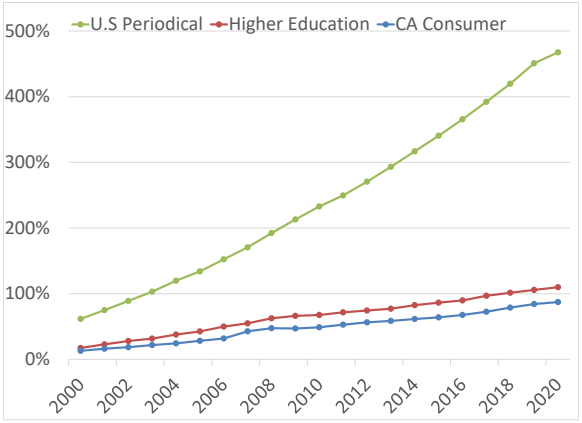
To address funding shortfalls for collections and services, the libraries have identified and developed shared strategies to reduce costs and promote more efficient use of resources. As shown in Display IX-5, these strategies, which include reduced purchasing costs through interlibrary lending, lower capital costs resulting from use of shared off-site facilities, and savings from systemwide digital collections development and shared journal subscriptions, result in annual savings and cost avoidances of $126.3 million. As described later in the chapter, the libraries are also active leaders in numerous global initiatives to transform scholarly publishing into a system that is economically sustainable, while also ensuring the widest possible access to the scholarly record.

Display IX-3: UC Libraries At-A-Glance

Number of Libraries	100+
Library Holdings	
Print volumes	40,000,000
Audio, video, and visual materials	17,800,000
Maps	4,700,000
Microcopy and microfilm	25,500,000
Average e-books on each campus	1,700,000
Digitized UC volumes in HathiTrust	4,500,000
Electronic-journals licensed collectively	244,000
Digitized items in campus collections	38,600,000
CDL/Shared print collection	918,000
Library Use	
Digital articles downloaded	40,400,000
Total library loans	119,000
Intercampus loans	29,000
Regional facility loans	17,000
Reference inquiries (total)	77,000
Virtual reference inquiries	72,000
Participants in instructional programs	110,000

Note: Data reported by all 10 campuses and the CDL. Numbers rounded.

Display IX-4: Consumer, Higher Education, and Periodical Price Increases



Over the last 20 years, the cost of periodicals has risen more than 251%, while the consumer price index has risen only 66% during the same period. This cost increase has not changed in the digital environment.

Though the libraries maximize systemwide savings and cost avoidances through numerous collaborative efforts, library budgets continue to face pressure. The efficiencies generated through systemwide collaboration result in deep systemwide interdependence; as a result, budgetary decisions, whether at the UC Office of the President or a campus, can affect each partner's ability to contribute to and benefit from the coalition, and may more broadly threaten the vitality of these core systemwide initiatives.

THE UC LIBRARIES PROGRAM

The UC Libraries have developed shared strategies to optimize resources and expertise, and strategically prioritize systemwide work. The most recent planning document, "University of California Libraries, Systemwide Annual Plans and Priorities, FY 2021-22," outlines the libraries' commitment to the promotion of affordable course materials, including the use and creation of open educational resources; development of shared technical infrastructure; transformation of scholarly communication; and advancement of systemwide diversity, equity, and inclusion. The plan also positions the libraries to further explore opportunities around controlled digital lending and expanding remote online access to the University's immense print corpus. Through such collaborative work, the libraries expand shared capacity and advance both local and systemwide initiatives.

Open access remains a widely-held institutional value at UC. As outlined in the UC Libraries' 2018 *Pathways to OA*[1] report, the libraries are concurrently investing in multiple open access strategies, at the campus and systemwide levels, to achieve the shared goal of making the products of scholarship freely and readily available to anyone in the world. Such efforts include directly engaging scholarly publishers, outreach to journal editors, support for academy-owned open access infrastructure, and investment in UC open access publishing. The libraries also provide crucial implementation support for the Academic Senate and Presidential open access policies[2], which commit the deposit of UC-authored scholarly articles to free and open digital repositories, like UC's eScholarship.

In partnership with the UC Academic Senate, the libraries are utilizing systemwide journal contract renewals to negotiate and implement transformative open access agreements with scholarly journal publishers. UC's transformative open access model converts subscription payments into open access publishing payments and seeks long-term sustainability through a cost neutral conversion to open access. The libraries signed their first transformative agreement with Cambridge University Press in April 2019[3] and have since signed nine additional agreements, including with the largest academic publishers, Elsevier and Springer Nature.[4]

The UC Libraries' leadership in resource stewardship is long established, as evidence by **UC's Regional Library Facilities (RLFs)** in Richmond and Los Angeles, which currently house more than 15 million volumes of enduring research value deposited by campus libraries. An expansion at the northern RLF successfully opened in fall 2020 and will help ensure the preservation of UC's library collections for successive generations.

The RLFs are also a major component of the UC Shared Print Collection, which contains single print copies of material for systemwide use and archival purposes. Shared print and other RLF collections alleviate campus space pressures by generating on-campus space for new print acquisitions, which remain critical to UC teaching and research, and enabling student-focused space redesign projects. In order to achieve even further economies of scale, the UC Libraries actively participate in two extramural shared print programs. The libraries are founding members of the **Western Regional Storage Trust (WEST)** program to build a shared print journal archive with other institutions in the western region of the United States, and the **HathiTrust Shared Print Program** to build a shared print monograph archive with peer institutions in North America. Both programs help libraries at UC and beyond make more efficient use of limited storage space, while ensuring the continued preservation of print holdings.

[1] See https://libraries.universityofcalifornia.edu/about/initiatives/scholarly-communication.
[2] See https://osc.universityofcalifornia.edu/open-access-at-uc/open-access-policy/.
[3] See https://osc.universityofcalifornia.edu/2019/04/cambridge-uc/.
[4] See https://osc.universityofcalifornia.edu/2021/03/uc-secures-landmark-oa-deal-with-worlds-largest-scientific-publisher/ and https://www.universityofcalifornia.edu/press-room/uc-reaches-groundbreaking-open-access-deal-leading-global-publisher

Display IX-5: Estimated Annual Savings from Library Innovations and Efficiencies (Dollars in Millions)	
Resource Sharing	$26.7
Regional Libraries Facilities	$24.8
California Digital Library	$74.8
Total	$126.3

UC Library Search (formerly referred to as the Systemwide Integrated Library System (SILS) project) launched in July 2021 and provides UC patrons with faster and easier access to the vast physical and digital collections of the UC Libraries, whether available at their home campus, online, or elsewhere within the system, including the RLFs. As the first truly unified discovery and borrowing enterprise system spanning the University, the libraries are further securing operational efficiencies, improving systems infrastructure, and bringing about significant cost avoidances. President Drake celebrated the launch of UC Library Search as "a transformational moment for the University of California."[5] Additional library discovery and delivery services continue to include overnight courier, interlibrary lending, and, if needed, immediate scanning and electronic delivery of articles.

With systemwide co-investments from the campus libraries, the **California Digital Library (CDL)** secures core scholarly electronic resources of systemwide importance and value, creating a level playing field for all UC students, faculty, researchers, clinicians and staff to excel. The value of this electronic access is demonstrable: even before the recent shift to remote teaching and learning due to COVID-19, the portfolio's 1,200 databases, 120,000 online journals and 1.2 million eBooks were accessed 1 billion times annually across the UC community, including UC's professional schools and health centers, from UC Merced to UCLA. During the COVID-19 pandemic, access to online resources has been more critical than ever, enabling the continuation of UC's teaching and research enterprises. CDL leverages the "power of ten" in their negotiations, bringing tens of millions of dollars in annual savings for digital serials and other materials. The centralized CDL negotiation and acquisition teams streamline the procurement process and create substantial efficiencies for the system.

CDL built and manages the University's open access publishing and repository platform, eScholarship, which hosts over 290,000 open access publications, including over 80 journals, showcasing research from all ten campuses. Items in the eScholarship repository have been accessed 75 million times globally since its inception in 2002. In 2020, eScholarship expanded its services to host the EarthArXiv preprint service. The CDL also works in partnership with campuses to provide systems and tools for managing the University's research outputs, and to share scholarly materials more broadly. CDL's Online Archive of California (OAC) provides access to 50,000 finding aides to enable researchers to locate archival and unique materials from nearly 400 libraries, archives, and museums across the state. For users interested in viewing digitized versions of the content discoverable in OAC, CDL's Calisphere provides free online access to over 2 million digital objects from throughout California, including images, texts, and recordings. The libraries and CDL support research data management and preservation for UC authors and scholarly community members through a variety of tools and services, including: the Merritt digital repository for managing, sharing, archiving and preserving digital content; and the Data Management Planning Tool (DMPTool) to help researchers create effective data management plans required by funding agencies.

The UC Libraries further augment the University's capacity through strategic partnerships with the broader library community and other collaborators. Since 2006, more than 4.5 million books from the UC Libraries have been scanned through participation in **mass digitization** partnerships with Google and the Internet Archive. These projects preserve content and expand the libraries' ability to provide faculty, students, and the general public with access to collections. Leveraging these mass digitization partnerships, the UC Libraries are founding partners in the **HathiTrust Digital Library**, a collaboration of more than 200 top-tier research universities to archive and

[5] See https://ucnet.universityofcalifornia.edu/news/2021/07/president-drake-announces-the-introduction-of-uc-library-search.html

share their digitized book collections. Through the HathiTrust, UC gains access to millions of digitized books in the public domain, and benefits from cost-effective and reliable storage and preservation of its own digitized book collections. During the COVID-19 pandemic, the HathiTrust Emergency Temporary Access Service (ETAS) provided UC users with lawful access to in-copyright digital items that corresponded with physical volumes that would otherwise be unavailable due to building closures. In 2018, CDL and the Dryad Digital Repository announced their partnership to develop an open, community-supported data publishing and curation tool for researchers worldwide. Utilizing the technical platform developed by CDL for its Dash data sharing tool, CDL and Dryad relaunched the new Dryad data repository in fall 2019. By fall 2020, UC researchers, who are provided free use of Dryad through the partnership, had published 800% more datasets, when compared to UC's former, institution-specific data repository.

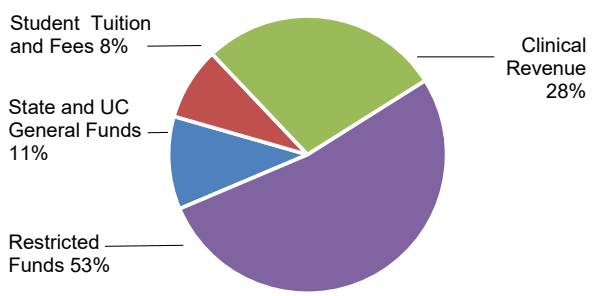
All of the UC Libraries' activities support the mission of UC, promoting the University as a leading research engine in the growth of California, the advancement of knowledge, and the education of California's students.

Academic Support

UC's academic support function includes various clinical and other support activities that are operated and administered in conjunction with schools and departments. These activities support the University's teaching, research, and public service missions. The University's clinics, the largest of these activities, are largely self-supporting through patient fees.

Academic support activities are funded from a combination of State funds, student or other fees, contracts and grants, and other revenues. Expenditures for academic support totaled $2.1 billion in 2020-21 (see Display X-1). Various clinical and non-clinical activities, described in more detail below, provide academic support to campus programs, educational experiences for students, and valuable community services.

Display X-1: 2020-21 Academic Support Expenditures by Fund Source (Total: $2.1 Billion)



Expenditures totaled $2.1 Billion in 2020-21. Clinics and other services are largely self-supporting.

UNIVERSITY CLINICS

Occupational and Environmental Health Centers

The northern (Berkeley, Davis, and San Francisco) and southern (Irvine and Los Angeles) Centers for Occupational and Environmental Health (COEH) were created in 1979 as a joint project of the California Department of Industrial Relations and UC. The centers serve Californians through programs and partnerships designed to deepen understanding and awareness of occupational and environmental hazards, and to prevent disease, fatalities, and injuries in and out of the workplace. Each center serves as the focal point for occupational health-related activities on the campuses in its geographical area, thereby strengthening the University's programs of teaching, research, and public service in these fields.

Community Dental Clinics

The pre-doctoral dental clinics in Los Angeles and San Francisco allow graduate professional students to pursue organized clinical curricula under the supervision of dental school faculty. Drawing from a diverse patient base, the clinics provide a spectrum of teaching cases that enhance the required training in general and pediatric dentistry.

These clinics, along with other community dental clinics staffed by students, residents and faculty from the schools of dentistry, serve to meet the dental health needs of hundreds of thousands of low-income patients, many of whom would not otherwise receive dental care. Despite providing a vital safety net for the community, these dental clinics are typically not self-supporting.

Optometry Clinics

The optometry clinics at Berkeley serves primarily as clinical teaching laboratories for the School of Optometry, while providing comprehensive eye care and specialty services for patients from throughout the region. At the clinics, optometry faculty supervise students in the clinical aspects of the prevention, diagnosis, and treatment of eye disease and visual problems. In addition, students receive clinical experience at various Bay Area community health centers, which exposes them to a broad range of cases and provides much-needed public service.

Veterinary Clinics

The veterinary medicine clinical teaching facilities at Davis, Tulare, and San Diego are specialized teaching hospitals and clinics that support the UC Davis School of Veterinary Medicine. In these facilities, faculty train students enrolled in veterinary medicine in the clinical aspects of diagnosis, treatment, prevention, and control of diseases in animals. In addition, clinics train veterinary specialists (or residents) and conduct clinical research to develop new treatments

and advance animal and human health.

Neuropsychiatric Institutes

UC's two neuropsychiatric institutes, the Semel Institute for Neuroscience and Human Behavior at the Los Angeles campus and the Langley Porter Neuropsychiatric Institute at the San Francisco campus, are among the State's principal resources for the education and training of psychiatric residents and other mental health professionals, and for the provision of mental health services. The primary missions of the institutes are to treat patients with diseases of the nervous system, and to strive for excellence in the development of approaches to problems associated with developmental, behavioral, psychological, and neurological disorders.

OTHER ACADEMIC SUPPORT PROGRAMS

In addition to the clinics, UC operates a wide variety of other academic support programs that are administered by schools and departments and enhance the University's teaching, research, and public service activities. Examples include the following:

Laboratory School

The UCLA Lab School, which is part of the UCLA School of Education and Information Studies, serves as a laboratory for exploring innovative ideas regarding teaching, learning, and child development for approximately 450 children of diverse backgrounds in Pre-K through sixth grade. The results of its studies are shared through collaborations with educators from other schools, conferences, workshops, site visits, and in print publications and other media. Through this mix of strategies, UCLA Lab School teaching practices and research outcomes have been widely shared with schools across the globe. Due to the COVID-19 pandemic, UCLA Lab School pivoted to remote instruction in March 2020 and facilitated a pilot program for three weeks to explore and prioritize practices for student and staff safety, as well as wellness for resuming in-person instruction in the fall. Lab continued schooling remotely through the fall of 2020 and reopened for in-person instruction in winter 2021.

Vivaria and Herbaria

Each campus operates vivaria and herbaria, which are centralized facilities for the ordering, receiving, and caring of animals and plants essential to instruction and research.

Museums and Galleries

The University operates many museums and galleries. These cultural resources are open to children and adults throughout the state and are largely self-supporting, generating revenue through ticket sales. Many of UC's museum and gallery holdings are also available to UC faculty and students conducting research.

Teaching Hospitals

The University of California Health (UCH) operates the largest academic health system and the most expansive health sciences instructional program of its kind in the nation. UCH constitutes the fourth-largest health care delivery system in California, with six academic health centers (AHCs) in Irvine, Los Angeles, Riverside, Sacramento, San Diego and San Francisco. Five of the AHCs own or operate their own teaching hospitals, along with owned or operated clinics, while UC Riverside Health provides clinical care through community facilities. A critical mission of all six AHCs is to support the clinical teaching programs of the University's 20 health professional schools. In addition, UCH's systemwide services support patient, student and employee health.

Core clinical learning experiences in the health sciences take place at UC AHCs and other UC-sponsored teaching programs. The University's hospitals and hospital-based outpatient clinics serve as regional referral centers providing tertiary and quaternary clinical services that are often available only in an academic health setting. Additionally, UCH hospitals and hospital-based clinics provide the entire spectrum of health services, including primary and preventive care.

UCLA and UCSF health centers ranked third and ninth in the nation, respectively, and all UC medical/surgical hospitals are ranked among California's top 15 hospitals, according to U.S. News & World Report's 2021-22 survey. UC Davis Health, UC San Diego Health, UCLA Health, and UCSF Health also ranked No. 1 in their metropolitan areas, while UCI Health was ranked eighth in the LA metro area and has been recognized in the survey as one of America's Best Hospitals for 21 consecutive years.

DISPLAY XI-1: UC MEDICAL CENTERS AT-A-GLANCE, FISCAL YEAR 2020-21*

The University's six academic health centers are a critical part of California's health delivery system.

Licensed acute care inpatient bed capacity	3,954
Inpatient days	1,090,958
Outpatient clinic visits**	5,993,965
GME residents	5,708
Total operating revenue	$14.8 billion

*UCSF Medical Center financial statements include UCSF Benioff Children's Hospital Oakland, a blended component unit of the University of California. Total outpatient visits include hospital and physician clinics, emergency room encounters, and home health and hospice visits.

**UC's six Schools of Medicine, among other health professional schools, work in conjunction with UC's academic health centers to provide patient care. Specifically, UC's medical schools and specialty clinics provided 3,312,480 outpatient clinic visits in 2020-21, for a total of 9,306,445.

DELIVERING COMPLEX AND INNOVATIVE CARE

The health centers are internationally recognized as leading sites for research and development of new diagnostic and therapeutic techniques. A highly diverse portfolio of clinical research is funded by government agencies, foundations, and private industry. An important example of translating scientific research into clinical interventions was the involvement of the UCH centers in all major clinical trials of COVID-19 vaccines conducted in the United States. This includes the Pfizer-BioNTech, Moderna, and Johnson & Johnson vaccines that have been used across the nation and the world. UCH clinical trial sites have been instrumental in critical efforts to increase the diversity of participants in these trials. Better representation is much-needed across clinical trials overall and essential to addressing vaccine hesitancy among historically marginalized groups.

UC health centers support Level 1 Trauma Centers, capable of providing the highest level of specialty expertise and surgical care to trauma victims. With a tripartite mission of teaching, public service, and research, these centers benefit both California and the nation. They not only provide excellent training and educational opportunities for health professionals who participate in the University's clinical teaching and continuing education programs, but also health care services to more than 1.8 million unique patients each year.

UCH's patients often have more complex medical conditions than patients at many other institutions, conditions that often can only be managed by quaternary and tertiary care referral hospitals like those at UC. The case mix index, which measures patient complexity and severity, has historically been higher than the state average.

UC's academic health centers collaborate on clinical excellence and population health improvement in a number of ways. At the UCH system level, health centers work together through the Center for Data-Driven Insights and Innovation (CDI2), Quality and Population Health Management (QPH) and other functions. These efforts are supported by the UCH Data Warehouse which leverages information from electronic health records across the system. These collaborations are consistent with UCH strategic plan objectives to become a market leader using data analytics to inform health-related research and improve patient outcomes and care.

UC Cancer Consortium

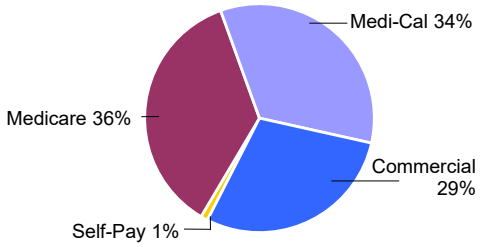
A key collaboration across UC academic health centers is around the fight against cancer. Cancer is the second leading cause of death in California and more than 1.4 million Californians are living with a history of cancer.

Each of UC's cancer centers holds the highest designation from the National Cancer Institute (NCI) and supports all aspects of UC's tripartite mission of education, research and public service. Today, the UC cancer centers represent 10% of the NCI-designated Comprehensive Cancer Centers in the U.S. and 62% of the comprehensive cancer centers in the state. They are at the frontlines of California's fight against cancer.

These five NCI-designated centers have come together to form the University of California Cancer Consortium (UCCC). Together, they are working to reduce cancer incidence across California, promote health equity by addressing cancer health disparities, and advance cancer research discoveries.

Because cancer is not one disease, determining each patient's course of treatment through data-driven, precision medicine approaches will become more important in delivering the best cancer care. With new discoveries in cancer treatment and prevention emerging all the time and many advances in collecting and analyzing big data, it is now even more critical to coordinate efforts among the most skilled people and institutions.

Display XI-2: 2020-21 UC Medical Center Inpatient Days by Patient Type*



* Inpatient days associated with UCSF include UCSF Benioff Children's Hospital Oakland, a blended component unit of the University of California.

INTEGRAL PART OF CALIFORNIA'S SAFETY NET

In alignment with the mission of public service and educating/training health professionals, UC's academic health centers also provide a critical service in maintaining healthcare access to medically vulnerable populations through UCH facilities and specialty clinics, affiliations with other healthcare organizations, and expansion of telehealth services. UCH hospitals play a significant role in the state's healthcare safety net system, providing patient care regardless of ability to pay. More than two-thirds of UC inpatients have government-supported health care coverage through Medi-Cal or Medicare. Both payors provide reimbursements that are less than the cost of delivering care. Systemwide, just over 34% of inpatient days for 2020-21 are associated with Medi-Cal enrollees (see Display XI-2).

The 2020 economic disruption created by the SARS-CoV-2 (COVID-19) pandemic has increased the state's unemployment rate, which may lead to further increases in the percent of patients with Medi-Cal coverage or without any form of insurance.

TEACHING HOSPITAL FUNDING SOURCES

Changes in healthcare delivery, financing, health insurance coverage, and - most notably - the COVID-19 pandemic are generating unprecedented pressures across the nation's

healthcare systems. In order to thrive in this era of rapid change, and respond to pressures by both public and private sectors to both contain healthcare costs and ensure that revenue remains stable, UCH is working proactively to improve healthcare quality and outcomes; increase market share; decrease expenses; and improve alignment between the faculty practice groups and health centers.

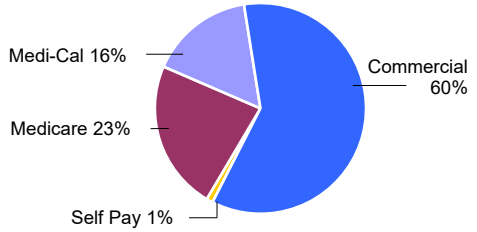
The University's teaching hospitals earn revenue from a variety of sources, each with unique economic constraints, issues, and policies. In 2020-21, 93.9% of UCH's operating revenue comes from reimbursements for the provision of clinical care. UCH has been at the forefront of California's COVID-19 testing, treatment, and prevention efforts. The financial implications in FY 2019-20 of the COVID-19 pandemic included the reduction in revenue-generating clinical services in anticipation of accommodating patient surges driven by COVID-19; and increased expenses to develop and ramp-up SARS-CoV-2 testing, higher costs for purchasing personal protective equipment, surge preparations, and enhanced disinfecting protocols. Clinical revenues are critical not only to the operation of the AHCs, but also to the schools of medicine and the broader University. The health centers provide financial support to UCH Schools of Medicine to fund operating activities, clinical research, faculty practice plans and other programs. In 2020-21, the support was $853.8 million.

In March 2020, the federal government approved the Coronavirus Aid, Relief, and Economic Security (CARES) Act and Paycheck Protection Program and Healthcare Enhancement Act, which provided $515.6 million in support to partially offset the pandemic's financial effects. This amount represents approximately half of the lost revenues and increased expenses caused by the pandemic.

Private Health Plans and Managed Care

Private health plans, in all forms, represent the largest source of revenue for the AHCs. Revenue from this source was $8.9 billion in 2020-21. As commercial and Medicaid health insurance has evolved, healthcare services are increasingly paid for by managed care plans that incentivize reduced or limited cost and utilization of healthcare services. Managed care plans pay providers in various ways, including negotiated fee-for-service rates and "capitation" payments under which providers are paid a predetermined periodic rate for each enrollee in the plan that is assigned or otherwise directed to receive care at a particular hospital. Under each model of managed care, providers assume a financial risk for the cost and scope of institutional care provided to a plan's enrollees. If a health center is unable to adequately contain its costs, net income is adversely affected; conversely, health centers that improve efficiency or reduce incurred costs maximize revenue. This is another area in which data-driven insights not only improve patient care, but also have meaningful effects on financial performance.

Display XI-3: 2020-21 UC Medical Center Revenue by Source* (Total: $14.8 Billion)



*UCSF Medical Center financial statements include UCSF Benioff Children's Hospital Oakland, a blended component unit of the University of California.

Medicare

Patient care reimbursements from Medicare, the federal governmental health insurance system for eligible elderly and disabled persons, constituted 23%, or $3.4 billion, of health center revenues in 2020-21 (see Display XI-3). Each of the health centers is currently certified as a provider for Medicare services and intends to continue to participate in the Medicare program. Periodically, the requirements for Medicare certification change, which can require UCH to alter or upgrade facilities, equipment, billing processes, policies, personnel, and services in order to remain certified.

Medicare Graduate Medical Education Payments

Graduate Medical Education (GME) programs provide in-depth residency training in specialties of medicine after graduation from medical school. All of UC's academic health centers provide residency programs and fund a substantial number of them without traditional federal support.

In the 1960s, Medicare began paying for a substantial

portion of the cost of residency programs. In 1997, it limited the number of residencies that would be funded. The cap on Medicare-funded residencies has not been revised upward since 1997, despite an increase in the number of medical students nationally, an increase in the U.S. population, an age wave of seniors with more complicated healthcare needs, and a growing number of licensed physicians nearing retirement.

As a result, UC AHCs began absorbing costs for residency training slots. In 2020-2021, UCH trained 6,007 health sciences residents. Of those, 5,708 are medical residents trained through UCH-sponsored and longstanding UCH-affiliated family medicine programs. This currently includes more than 800 positions for which UC received no federal GME direct support.

Additional funding for California GME programs comes through a portion of Proposition 56 funds, as well as from the Song-Brown Healthcare Workforce Training Program, which seeks to increase the number of students and residents receiving quality primary care education and training in areas of unmet need throughout California. For Prop 56 GME funding, $7.1 million was allocated for UCH awardees in the 2019-2020 grant cycle, and $47 million was allocated to UCH awardees for the 2020-21 grant cycle.

Medicaid/Medi-Cal

Medicaid (known as Medi-Cal in California) is a program of medical assistance, funded jointly by the federal government and the states, for low-income individuals, persons with disabilities, and their dependents. Under Medicaid, the federal government provides grants to states with medical assistance programs consistent with federal standards. Medicaid programs are operated by states and use various mechanisms to pay hospitals. About one-third of Californians are now covered by Medi-Cal. The State selectively contracts with general acute care hospitals to provide inpatient services to Medi-Cal patients, and each of UC health center has a Medi-Cal contract. According to data from the Office of Statewide Health Planning and Development, UCH is one of the largest providers of inpatient care and hospital-based outpatient care for Medi-Cal enrollees.

Despite Medi-Cal patients accounting for 34% of inpatient volume, Medicaid/Medi-Cal provided only 16%, or $2.4 billion, of health center revenue in 2020-21. Medi-Cal reimbursement covers an estimated 50% to 70% of the cost of care per patient. UCH values the significant role Medi-Cal plays in preserving and improving the health of the State, but especially as the pandemic unfolds, the effects to the financial sustainability of UCH is likely to be further affected by these uncovered costs.

Current Medi-Cal Waiver. Since 2005, UCH has relied heavily on a Medicaid Waiver to help cover the growing expenses related to serving Medi-Cal beneficiaries. Section 1115 of the Social Security Act allows states to waive certain federal statutory Medicaid program requirements or obtain federal matching funds for costs or investments that would not otherwise be allowed under the Medicaid program. As the State has moved more Medi-Cal beneficiaries into systems of managed care, UCH and the State have worked together on new supplemental payments outside of a Medicaid Waiver and consistent with local managed care plan payments and utilization.

These new payments include the Enhanced Payment Program (EPP), the Quality Incentive Program (QIP), and the Graduate Medical Education Program (GME), which provide new supplemental Medicaid payments to help cover the unreimbursed expenses related to providing Medicaid services. These programs also provide an infrastructure to transition payments that were historically paid under the Waiver program. For example, the Medicaid Waiver Public Hospital Redesign and Incentives in Medi-Cal program (also called “PRIME”) payments are being transitioned to the QIP, which is tied to Medicaid utilization.

As a result of these efforts, the Waiver is providing less in payments to UCH. Nonetheless, UCH is working closely with the State to maintain every possible Waiver funding resource. Additionally, the University’s academic health centers continue to receive a fixed percentage of the statewide Medicaid Disproportionate Share Hospitals (DSH) allotment and the Safety Net Care Pool that were created in prior waiver agreements, but now paid outside the Waiver program.

Hospital Quality Assurance Fee. To help cover hospitals’

Medi-Cal costs, California developed a Medi-Cal provider fee program called the Hospital Quality Assurance Fee (QAF). Under QAF, selected hospitals self-assess fees on their operations and the resulting funds serve as non-federal share of Medi-Cal payments to hospitals. As a result of a successful ballot initiative in 2016, certain aspects of the provider fee program became permanent. UC and other public hospitals receive a portion of the QAF funding. While these payments are modest, they remain an essential component of total Medicaid payments.

Other Sources

Clinical Teaching Support (CTS). State General Funds have been appropriated to the University in recognition of the need to maintain a sufficiently large and diverse patient population, and in keeping with the University's public service mission and long history of providing care for uninsured and underinsured patients. These CTS funds were historically used to provide financial support for patients who were essential for the teaching program because their cases were rare or complicated (providing important training experience), but who were unable to pay the full cost of their care. In response to budget cuts associated with the Great Recession, campuses were given (and still retain) the flexibility to reduce CTS funds to help address budget shortfalls.

County Funding Programs. California counties reimburse certain hospitals for selected indigent patients, using local tax dollars from their general fund to subsidize this healthcare. Downturns in the state's economy affect local county revenues, creating increased competition among local services for reduced funds and constraining the ability of local governments to adequately fund healthcare services for the uninsured. County reimbursements to the academic health centers were just 0.16% of net patient revenue in 2020-21.

LEVERAGING SCALE FOR VALUE

Recognizing the need to reduce costs and increase revenue, UCH launched a Leveraging Scale for Value (LSfV) program in March 2014. Aligned with the UC Office of the President's push to identify cost savings and operational efficiencies, projects in 2014-15 initially focused on areas of supply chain and revenue cycle. This project saved $182.5 million in 2015-16, $261 million in 2016-17, $286 million in 2017-18, $239 in 2018-19, $580 million in 2019-20, and over $200 million in 2020-21, for a cumulative impact of more than $1.7 billion over the past six fiscal years. LSfV continues to demonstrate how systemwide efficiencies produce savings and quality improvement in the ever-changing landscape of healthcare. In 2020, UCH hospitals were recognized by Global Healthcare Exchange as among the "Best 50" in the U.S. for their ability to demonstrate improved operational performance and drive down costs through supply chain automation. In 2017, the system was awarded a Healthcare Supply Chain Achievement Award from the ECRI Institute (formerly the "Emergency Care Research Institute").

UC SELF-FUNDED PLANS

The University of California offers self-funded PPO and flex-funded HMO coverage options to its employees, retirees, and their dependents: UC Care, Core, Health Savings Plan and UC Blue & Gold HMO. Additionally, the University offers three Medicare supplement plans that are self-funded. UC Care is a custom three-tier PPO plan. Tier 1 includes UC Health System providers from the five academic health campuses as well as other providers in markets that do not have UC health centers. Both Core and the Health Savings PPO plans are high deductible health plans. The Health Savings plan combines the flexibility of a PPO with the tax-saving benefits of a Health Savings Account (HSA). UC funds the Health Savings Account (HSA) up to $1,000 for those employees with family coverage. UC Blue & Gold is an HMO with a custom network of providers created exclusively for UC that includes more than 240 hospitals, 10,000 PCPs and 26,100 specialists across 30 counties.

Over the long term, the oversight of self-funded plans will provide the University with the ability to more proactively manage healthcare costs and aim for better population health. Currently, all forms of self-funded health plans have enrolled approximately 203,000 UC employees, dependents, and retirees.

CURRENT CHALLENGES AND ISSUES

UC's academic health centers are subject to a wide variety of pressures that affect their financial outlook over the next

several years, including:

- Continued financial uncertainties driven by the COVID-19 pandemic, which include higher expenses, reduced use of non-emergency services, and the shifting of an unknown number of patients into governmental programs that reimburse at lower rates compared to private insurance.
- Reimbursement rates for emerging treatment capabilities, such as chimeric antigen receptor T-cell therapy for some types of cancer, which are significantly lower than the cost of care.
- Reduction in 340B Drug Pricing Program proceeds (which enable safety net hospitals to purchase drugs at a substantial discount from participating drug manufacturers).
- Scheduled reductions in federal Medicaid Disproportionate Share Hospital (DSH) payments, have been repeatedly delayed by Congress. Legislative efforts in response to the pandemic to further delay these cuts have likewise been successful. Delays in scheduled reductions will likely not be indefinite.
- Downward pressure on Medi-Cal supplemental payments.
- Rising labor costs related to restrictions on contract labor and non-cash allocations for pension and other post-employment benefits (OPEB).
- Rising costs of pharmaceuticals and medical supplies.
- Increasing salary and health and welfare benefit costs.
- Financing the seismic safety retrofits mandated by SB 758 and other significant capital needs.
- Increasing demand for certain services and capacity constraints.
- Increasing demand on medical centers to support the academic enterprise.

Despite these economic issues, UC hospitals must generate sufficient funds to meet their teaching mission and help support the schools of medicine and other health professional schools. The financial viability of the UCH hospitals depends upon payment strategies that recognize the need to maintain an operating margin sufficient to cover debt, provide working capital, purchase state-of-the-art equipment, invest in infrastructure and program expansion, support medical education, and allow provision of care for the poor. Higher commercial insurance reimbursements help fill the funding gap created by shortfalls in lower Medi-Cal and Medicare reimbursements. The academic health centers continue to expand access to care and fulfill their missions, but the current landscape presents challenges.

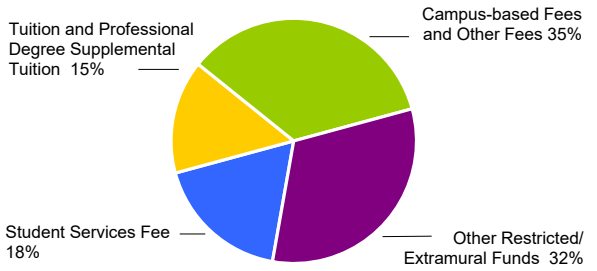
Student Services

Student services at the University of California are co-curricular programs and activities that contribute to the intellectual, cultural, and social development of students outside of UC's three-pronged mission of instruction, research, and public service. These services can have a significant influence on students' academic outcomes and personal development, and can help to build bridges between what students learn in the classroom, as well as how they apply their knowledge and skills on campus and in the broader community.

Student services are supported largely by non-State funds. Total expenditures for student services were $987 million in 2020-21 (see Display XII-1), most of which were generated from student fees. The University features a variety of student services programs. Elements of these programs are described below (also see Display XII-2).

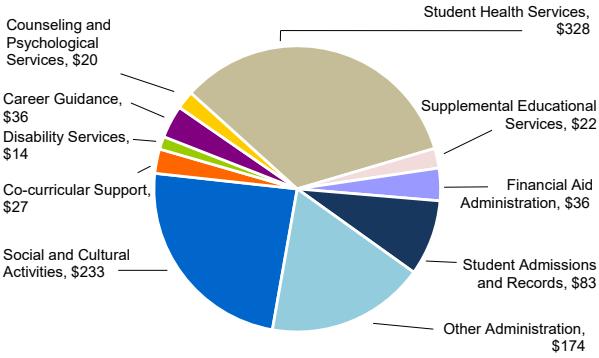
- **Campus admissions and registrar operations** include the processing of applications for admission, course registration, scheduling of courses, maintaining and updating of student academic records, preparing of diplomas, and reporting of statistics.
- **Campus financial aid offices** counsel students about their financing options; determine and monitor the eligibility of students for financial assistance; and develop financial aid packages for students, which include scholarships, fellowships, grants, fee waivers/remissions, and loans and work-study jobs from federal, State, UC, and private sources.
- **Counseling and psychological services** are available to all registered students. Campus services include emergency response, short-term counseling, outreach and prevention services, and faculty/staff consultation. All are aimed at maintaining the emotional health and wellness of individuals within the campus community.
- **Student health services** provide primary care and other services to keep students healthy, including general outpatient medical care; specialized medical care; psychiatry; and health education about wellness and stress reduction, among other topics.
- **Academic support services** include individual and group tutorial services in writing, mathematics, and study skills, as well as support for graduate school exam-preparation.
- **Co-curricular support and engagement** includes, for example, services for student veterans, undocumented students, transfer students, international students, LGBTQ students, cross-cultural centers, leadership programs, fellowship programs, and student government.
- **Services for students with disabilities** include accommodations such as readers for blind students, interpreters for deaf students, note-takers, mobility assistance, adaptive educational equipment, and other disability-related services.
- **Social and cultural activities** provide opportunities for students to participate in student organizations, recreational and sport activities, and various forms of art (music, dance, painting, etc.).
- **Career guidance activities** assist students with academic performance, choice of major, graduate or professional school applications, internships, career opportunities, and assessment of interests and aptitudes.

Display XII-1: 2020-21 Student Services Expenditures by Fund Source (Total: $987 Million)



Student fee revenue, including campus-based fee revenue, provides over 70% of the funding for student services. Total includes administrative activities.

Display XII-2: 2020-21 Student Services Expenditures by Category, Dollars in Millions (Total: $987 Million)



In 2020-21, 91% of student services expenditures were for non-administrative activities in counseling, cultural and social activities, and student health services.

Student Services Fee Background

The Student Services Fee (formerly the University Registration Fee) is set by the UC Board of Regents and is charged to all registered students systemwide, with few exceptions.[1] The majority of Student Services Fee (SSF) funds are spent on services like counseling and career guidance, cultural and social activities, and student health. In addition, some SSF revenue is used for capital improvements that provide extracurricular benefits for students. For more information, see the *Student Tuition and Fees* chapter of this document.

History of Student Services Funding

Student services, as with many University programs, suffer from persistent underfunding. Beginning in the early 1990s, student services were adversely affected by severe budget cuts when the University was forced to make substantial reductions due to the State's fiscal crisis. At that time, student services were State-funded and have since been shifted to non-State funds, primarily tuition and the Student Services Fee. From 1995-96 through 2004-05, the SSF was $713 per year. In 2002-03, student services programs were further reduced by a targeted midyear cut of $6.3 million, which grew to $25.3 million in 2003-04 – equivalent to a 20% reduction in SSF-funded programs. These reductions occurred when student enrollment was increasing, with corresponding growth in demand for student services, including during the summer.

From 2005-06 through 2011-12, the SSF increased (by an average of $37 per year) to $972. Despite these increases, students' needs continued to evolve. UC enrollment increased annually, along with program costs, making it difficult to continue providing adequate services.

From 2012-13 through 2014-15, the SSF did not increase. Renewed investment in UC from the State, announced by Governor Jerry Brown in the May Revision to the 2015-16 State budget, included a framework that initiated much-needed predictability in its long-term fiscal outlook and a solid foundation from which to plan. The budget framework also acknowledged the need for additional revenue for student services.

Thus, the UC Regents approved a plan starting in 2015-16 for increases of 5% annually to the Student Services Fee through 2019-20. Half of the revenue generated by the increase (net of aid) was designated for the hiring of direct mental health services providers, with the other 50% for critical student services. In 2016-17 and 2017-18, the UC Regents approved 5% increases to the SSF. For 2018-19 and 2019-20 however, there was no permanent increase to the SSF, with the fee remaining flat at the 2017-18 level. In 2020-21, the SSF level was $1,128. In 2021-22, the fee remained flat at the 2021 level.

STUDENT MENTAL HEALTH SERVICES

Issues concerning student mental health continue to see heightened national attention, with colleges and universities reporting increasing numbers of students in psychological distress. The University of California has not been immune to this trend. A comprehensive systemwide review of student mental health issues and the challenges associated with providing these compulsory services were presented to the UC Regents in September 2006. The following was noted:

- Consistent with national trends, UC students are presenting mental health issues (e.g., suicidal thoughts, depression, stress, and anxiety) with greater frequency and complexity (e.g., prescribed psychotropic medications in combination with psychological counseling).
- Budget constraints limit campus capacity to respond to mental health issues (e.g., by increasing psychological counseling staff) and result in longer student wait times, difficulty retaining staff, and decreased services and programs.
- Increasing demand and declining capacity pose a threat to the learning environment because of the significant adverse effects on faculty, staff, and fellow students when students are inadequately cared for through the existing mental health system.

Recommendations in the final 2006 Student Mental Health report were organized within a three-tier model: Critical Mental Health Services, Targeted Interventions for Vulnerable Groups, and Creating Healthier Learning Environments. The model was created to provide a framework for meeting the fundamental mental health

[1] See https://www.ucop.edu/operating-budget/fees-and-enrollments/other-fee-information/exemptions-reductions.html#exemption for more information about tuition and fee exemptions.

needs of students, and for providing safe and healthy campus environments across the system. The recommendations included:

- **Tier I:** restoring critical mental health services to fully respond to students who have demonstrated at-risk behavior and to reduce wait times;
- **Tier II:** implementing and augmenting targeted interventions through education, support, and prevention programs, and restoring staffing levels in those units best poised to assist high risk students of concern, as well as students from vulnerable populations; and
- **Tier III:** taking a comprehensive approach to creating healthier learning environments by enhancing the full spectrum of student life services and by revising administrative policies and academic practices in order to promote communication and collaboration.

In response to the urgent priority to enhance mental health services, in 2007-08 and 2008-09, the University dedicated $12 million (28% of the recommended $43 million) in funding from SSF increases for this purpose over a two-year period. Much of the funding from the increase in 2007-08 supported critical mental health and crisis response services, such as increasing counseling center staffing to meet the high demand for counseling intervention. Revenue from the 2008-09 SSF increase has been used to develop programs that target vulnerable groups (e.g., foster youth and veterans); expand outreach; provide mental health internships for students, staff, and faculty; and develop interventions for students at high risk for alcohol and drug abuse.

Substantial progress was made in expanding mental health services. However, in 2009-10, a student mental health survey was administered to determine the effect of the SSF augmentations. Findings indicated that while the wait period to see a mental health professional had decreased, campuses were continuing to see increased severity of student issues and greater demand for mental health services.

In response, the campus Student Affairs divisions and the UC Office of the President collaborated on a successful bid for a $6.9 million student mental health grant funded by the California Mental Health Services Authority (CalMHSA) through Proposition 63. In 2011, each campus received $500,000, with the remaining money set aside for systemwide initiatives such as training and forums, programming, the development and maintenance of a systemwide mental health website, and grant management. Funds were used to enhance existing mental health services and create new prevention and early intervention programming. Programmatic efforts include:

- training for students, faculty, staff, and graduate teaching/research assistants on how to recognize and respond to students in distress;
- development of a comprehensive, systemwide approach to suicide prevention;
- creation of a social marketing campaign to reduce stigma and discrimination of those living with a mental illness;
- development of an online resource clearinghouse to facilitate collaboration with other mental health stakeholders across California;
- the launch of an anonymous online interactive suicide prevention screening tool;
- enhanced training materials, including the development and strengthening of crisis response protocols for all faculty and staff;
- production of systemwide public service announcements and training videos to support the social media campaign;
- hiring counselors with expertise in working with diverse student populations (e.g., LGBTQ students, students of color, military veterans); and
- the development of a full-text handbook for faculty and staff with in-depth information about mental health and the role of faculty and staff in supporting students of concern.

In 2012, UC applied for additional CalMHSA funding, and in January 2013 was awarded $877,224. Of this total, $127,224 was retained by the UC Office of the President for system-level programming consistent with campus mental health staff priorities. The remaining $750,000 was distributed to the campuses. This funding provided UC with an opportunity to further expand its response to Tiers II and III of the student mental health recommendations.

In 2014, CalMHSA awarded UC an additional $250,000 to support a systemwide best practice conference and sustain campus awareness campaigns and suicide prevention screenings through December 2015. State legislation that would have brought additional mental health funding to UC through Proposition 63 was vetoed by Governor Jerry Brown in 2016 and again in early 2017. No additional

funding is anticipated from CalMHSA at this time.

In August 2019, UC Health presented to the Regents a 5-year cost estimate to support student mental health. The 2020-25 estimate outlined the support needed: $55 million to fund clinical providers; and $121 million to fund campus prevention, early intervention, and the development of healthy campus learning environments. The total 5-year estimate of funding needed for student mental health was $176 million. This translates to an annual request of $35.2 million through 2025.

In 2019, $5.3 million in funding for student mental health was included in the State budget. This appropriation allowed UC to maintain mental health staffing levels, but precluded UC from reaching desired staffing levels and keeping staffing levels in line with enrollment growth.

In spring 2020, counseling centers across the UC system shifted quickly to meet the needs of students during the COVID-19 pandemic by providing virtual telehealth and telepsychology services. This effort required counseling centers to establish quality assurance guidelines and practices to ensure compliance with state laws and requirements.

In 2021, $15 million in funding for student mental health was included in the State budget. This State General Fund appropriation is expected to assist campuses with increasing Tier I critical mental health services and expanding Tier II and Tier III services. UC continues to advocate for increased funding, developing strategies to build capacity and coordinate statewide support across public higher education segments and local counties. In addition, the Student Mental Health Oversight Committee identified four priorities as a response to the COVID-19 pandemic and persistent challenges with meeting behavioral health needs of students. These priorities expand upon the 2006 Student Mental Health Report and provide an update to existing goals, needs and strategies:

1. Implement a holistic student mental health and well-being framework, rooted in evidence-based practices.
2. Develop faculty and community engagement efforts to support student success.
3. Develop a central data analytics repository to identify and establish key performance indicators for the system.
4. Advocate for a variety of funding strategies to meet the holistic and diverse needs of students.

Student Mental Health data from 2020-2021 reflects a year of remote services with counseling centers serving 29,549 unique clients and 130,707 counseling visits (including individual counseling, case management, follow-ups, psychological assessment, intakes, triage, and urgent contacts). Access to counseling appointments for students with urgent mental health issues remains a priority at all campuses, with 98-99% of students seen on a same-day basis. Access to initial intake appointments for routine issues remains good. The percentage of students seen within two weeks for initial counseling visits has increased from 68% in 2018-19, to 76% in 2019-20, to 79.4% in 2020-21. The COVID-19 pandemic has had detrimental effects on student mental health. College students have had to accommodate abrupt shifts to remote learning, increased social isolation, and financial losses. Between summer 2019 and 2020, individual counseling visits have increased by 17.5%. This increase demonstrates a growing need for additional resources for Tier II and Tier III approaches to address the full spectrum of services needed to support student mental health and well-being.

Psychiatry services data from academic year 2020-21 shows that 5,564 unique patients were seen for a total of 30,180 visits. There has been a 3.7% decrease in individual psychiatry visits, and a 13% decrease in unique individual psychiatry patients. There is currently no change in the average wait time for initial routine psychiatry intake appointments (11 days), nor in the average wait time for first follow-up appointments (24 days).

UC continues to work to reduce wait times, with the goal of routinely seeing 80% of students within 14 calendar days. Other approaches to mitigating demand include the prevention and early intervention strategies outlined in Tiers II and III of the comprehensive service model. Given that the increase was earmarked specifically for staffing, additional funds are still needed to address those areas.

UC STUDENT HEALTH INSURANCE PLAN

To ensure that UC students have access to high-quality healthcare services, the University requires all students to carry a minimum level of health insurance coverage.

Students can meet this requirement either by enrolling in a UC-sponsored insurance plan or by demonstrating adequate coverage through a plan of their own.

The largest UC-sponsored plan is the UC Student Health Insurance Program (UC SHIP), a self-funded PPO plan first established in 2011. This program incorporates a shared governance structure whereby all key decisions are voted on in the Executive Oversight Board forum, which meets monthly and comprises leaders from campus student health services, student representatives, and UCOP executive leadership.

UC students at Davis, Hastings College of the Law, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara and Santa Cruz campuses were automatically enrolled in UC SHIP for the 2020-21 academic year. Students already covered by a health insurance plan can waive enrollment to UC SHIP by submitting a waiver application prior to the start of each new academic year. UC SHIP offers medical, pharmacy, dental and vision care benefits, and mental health and substance use disorder services for undergraduate and graduate students and their dependents. Berkeley provides medical, dental, and vision benefits administered at the campus level and is not part of UC SHIP. By leveraging the purchasing power of students across multiple campuses, the University provides students with access to excellent coverage at affordable prices.

UC SHIP provides benefits that match or exceed those required by the Affordable Care Act (ACA) even though, as a self-funded student health plan, it is not required to do so. University sponsorship of student health insurance plans remains relevant in this era of health care reform. Most students can obtain stronger benefits at a lower cost with a UC-sponsored student health plan than if they purchase an individual plan through the State insurance exchange. In 2015, UC SHIP applied to be a Minimum Essential Coverage (MEC) plan (as required by the Affordable Care Act), so students can avoid paying a fee for not having insurance. The University's medical centers treat all patients who require services without regard to race, color, religion, national origin, citizenship or other protected characteristics.

BASIC NEEDS

Since 2014, the University evolved from having no systemwide basic needs data or programs to launching operative basic needs centers at all ten campuses. These State-funded hubs serve thousands of students annually. The tremendous success of the basic needs movement at UC is the result of a collaborative effort by all stakeholders—students, University leaders, Regents, and State policymakers—who galvanized their efforts toward a common goal: providing a college experience wherein all students have everything they need to thrive personally and academically.

The Budget Act of 2019 (Assembly Bill 74) included $15 million to address food and housing insecurity at the University of California (UC), with an additional $3.5 million to support rapid rehousing efforts for homeless and housing-insecure students at UC. Prior to attaining ongoing, sustainable funding, campuses varied greatly in the levels and duration of resources dedicated to campus-based basic needs programs. This included material resource contributions; revenues from campus-based fees introduced via student fee referenda; budget line items; external donations and grants; and specific project award and allocations. In addition to campus-generated funds (from student service fees and tuition revenue) allocated to individual campus basic needs programs and services, UCOP provided campuses with one-time funding for campus-based programs to address food security-related issues in 2015–16, 2016–17, and 2017–18, and the State Budget Act provided additional funding in 2017–18 and 2018–19.

In 2018, the UC Regents formed a special committee to further the discussion on basic needs, identify the root causes of basic needs insecurity, and develop a long-term strategy to eliminate basic needs insecurity at the University. In 2020, the committee concluded its work with the release of a report: *The University of California's Next Phase of Improving Student Basic Needs*. The report serves to guide UC's long-term strategic vision to convey potential solutions to basic needs insecurity at the University and beyond to administrators, policymakers, practitioners, and researchers.

Food Support

Campuses currently offer a variety of ongoing food assistance programs, educational workshops, and food operations. The enduring effects of the COVID-19 pandemic on financial instability have underscored the importance of sustaining basic needs services to support student success. To ensure continued food assistance during the pandemic, all campuses applied creative modifications to ensure public health safety with their services, such as contactless pick-up of grocery bags, socially distanced workplaces, and scheduled food support appointments, among other adaptations.

Housing Support

To address the unique student housing needs resulting from the COVID-19 pandemic, UC campuses used the state's rapid rehousing funds in a variety of ways, including housing services and support, direct student housing awards, emergency relief and crisis resolution, virtual student education and workshops, and staffing for both student and career positions. Although housing services and programs varied by campus, campuses maintained a number of supporting activities during the pandemic. These activities included assisting students with rental deposits and first-month rent costs, and establishing bridge housing programs that provide temporary shelter to students who lack the resources to secure or maintain adequate housing during University breaks and holidays.

PRESIDENTIAL PROGRAMS

During her seven-year tenure, President Emeritus Napolitano was committed to addressing critical student challenges and needs. Several student-focused projects initiated under her leadership are described below.

Undocumented Students. In 2013, the University allocated $5 million for financial aid and support services for undocumented UC students. Funding for this initiative came primarily from excess reserves in the Mortgage Origination Program (MOP) and was distributed across all campuses. As a result, campuses have designated primary contacts for undocumented student services at each campus and focus on providing a range of support services that help undocumented students balance being full-time students with other day-to-day challenges. The Office of the President also formed the President's Advisory Council on the Undocumented Community and Immigration to advise the University on future challenges and solutions, and established a pilot legal center at UC Davis to help students navigate immigration issues. In May 2015, UC hosted a National Summit on Undocumented Students from which a number of recommendations and strategies emerged for better serving undocumented students at UC.

In spring 2016, the Office of the President announced an additional three-year commitment of $25.2 million to support the University's efforts to assist undocumented students. The funding supports UC's DREAM Loan Program, student services, staff coordinators, and UC's Immigrant Legal Services Center. After the 2016 U.S. presidential election (and in response to concerns about possible changes to federal policy that would affect undocumented students), the University issued its *Statement of Principles in Support of Undocumented Members of the UC Community*, reaffirming its commitment to vigorously protect the privacy and civil rights of undocumented members of the UC community.

On September 5, 2017, the federal administration announced it would rescind the DACA program by March 5, 2018. Following this announcement, the University filed a lawsuit against the federal administration for violating administrative procedures and constitutional due process requirements by abruptly ending Deferred Action for Childhood Arrivals (DACA). The program had been established in part by President Emeritus Napolitano in 2012, while she served as Secretary of the Department of Homeland Security. The Office of the President called on Congressional leaders to immediately pass bipartisan legislation that would provide a permanent solution. The University also reaffirmed UC's unwavering support for all undocumented students and staff and expressed its commitment to ensuring that the University continues to be a welcoming and supportive place for students, faculty, and staff from all backgrounds. The Office of the President pledged that UC will continue to provide a broad range of support and legal services for undocumented students and will remain steadfast in upholding the *Statement of Principles in Support of Undocumented Members of the UC Community* issued in 2016.

The Principles state, in part, that campus police officers will not contact, detain, question or arrest an individual solely on the basis of suspected undocumented immigration status or to discover the immigration status of an individual, except as required by law. The Principles also clarify that the University will not release immigration status or related information from confidential student records, without permission from the student, to federal agencies or other parties without a judicial warrant, a subpoena, a court order, or as otherwise required by law. The Office of the President directed the advisory committee on undocumented students to determine additional necessary measures to best support and protect current and future UC students who rely on DACA.

In 2018, more than 117,000 young immigrants extended their authorization to legally live and work in the United States under the DACA program, which was a direct result of a federal injunction that forced the Department of Homeland Security to continue to process DACA renewal applications. The President's Advisory Council identified strategies to financially support undocumented students and prepare them for post-graduation career opportunities. The strategies focus on three areas: 1) support for undocumented students to earn a living; 2) provision of career services; and 3) fundraising to support and strengthen undocumented student services. The University subsequently collaborated with Immigrants Rising, a community organization that helps undocumented students reach their educational and career goals, and conducts trainings focused on income-generation for immigrants, regardless of legal status. Immigrants Rising delivered such trainings in person and online in fall 2019 to a number of UC stakeholders, including directors and coordinators of undocumented student services, financial aid directors, career center staff, instructional faculty, hiring managers, UC students, and alumni from across the University system. In addition, Immigrants Rising, with UCOP support, produced the *Income Generation Options for Undocumented Students Toolkit*, a resource that provides guidance on how to earn a living as an independent contractor, confers advice on how to incorporate a business, and shares supporting materials that are available both on and off UC campuses.

In 2018-19, the University's budget earmarked $4 million to support legal services for undocumented and immigrant students, faculty, and staff. These funds allowed the University to expand the legal resources it provides to this population.

In spring 2020, shortly after the COVID-19 pandemic led to shelter-in-place orders, the federal government enacted the Coronavirus Aid, Relief, and Economic Security (CARES) Act. The CARES Act provides nearly $14 billion to address higher education challenges created by the COVID-19 pandemic. Of this amount, $12.6 billion has been allocated directly to colleges and universities using an enrollment-based formula that favors institutions that enroll higher numbers of Pell Grant recipients. Of the amount received by each institution, at least 50% must be used "to provide emergency financial aid grants to students for expenses related to the disruption of campus operations due to coronavirus (including eligible expenses under a student's cost of attendance, such as food, housing, course materials, technology, health care, and child care)."

The U.S. Department of Education, however, limited the awards to students eligible for Title IV financial aid authorized under the Higher Education Act. This decision meant that undocumented and international students would not be eligible for support using these federal dollars. Consequently, the UC Office of the President encouraged campuses to leverage their own institutional aid resources to ensure that emergency grants could be made available to undocumented students in need who are also eligible to receive aid (i.e., AB 540 students). Undergraduate students must have filed a Free Application for Federal Student Aid (FAFSA) to be considered. Graduate students, the majority of whom do not file a FAFSA, were encouraged to either file one or complete an affidavit with their campus to confirm their eligibility for Title IV funding (e.g., citizenship status). The Office of the President also encouraged campuses to consider identifying financial resources to take the place of CARES Act funding, should the Department of Education subsequently issue additional guidance limiting the eligibility to those who have filed a FAFSA.

On June 18, 2020, the U.S. Supreme Court ruled in favor of the University's lawsuit against the federal administration's

decision to end DACA. The Supreme Court found that the way the administration ended DACA was arbitrary and not justified, and therefore violated the Administrative Procedure Act. Following the Supreme Court ruling, the University issued a statement calling on Congress to pass legislation to permanently protect DACA recipients and provide a path to citizenship. Despite the Supreme Court's ruling, the legality of DACA continues to be challenged. In July 2021, a Texas federal court ruled against the DACA program. The Texas ruling prohibits new applications. Individuals with DACA at the time of the ruling or were in the processing of renewing their status, are unaffected by the Court's decision. An appeal is likely to occur; however, undocumented students hoping to apply for DACA remain unable to do so and anxieties over lack of legal protection are further exacerbated.

In 2021, the current federal administration made several changes to federal policy, including ceasing to apply the Public Charge rule, which blocked undocumented students from accessing CalFresh, MediCal, and other federal public benefits. Undocumented students are also now eligible for student emergency grants from the Higher Education Emergency Relief Fund (HEERF) and the Coronavirus Response and Relief Supplemental Appropriations Act (CRSSA). In addition, the federal administration's budget request for 2022 currently includes extending Pell Grant eligibility to "Dreamers".

The federal administration is also advancing federal legislation that would benefit undocumented students. The U.S. Citizenship Act includes a pathway to citizenship for undocumented individuals. UC Office of the President's Federal Government Relations has been working to amend the visa portion of the bill to be inclusive of all of UC's doctoral degrees in Science, Technology, Engineering, and Mathematics (STEM). Moreover, the American Dream and Promise Act would grant "Dreamers" with conditional legal permanent residence (LPR) for 10 years if they meet certain criteria. In order to obtain full LPR, an individual would need to acquire a degree from a higher education institution in the U.S.

Military-Affiliated Students. In 2014, the University established the President's Advisory Council on Student Veterans to advise the President on how best to address the particular challenges experienced by military-affiliated students. With the Advisory Council's support, the University implemented a three-pronged "Red, White and Blue" approach for identifying emerging issues and challenges: Red (outreach to veterans interested in attending UC), White (campus services for current UC student veterans), and Blue (transition support to career and/or graduate school for current UC student veterans).

Current military-affiliated educational support programs and services include admissions outreach; priority course registration; affordable housing; academic support; career development; graduate school support; and staff training. A systemwide military-affiliated resource website provides military-affiliated students with information on admissions, residency, educational benefits via the post-9/11 G.I. Bill, and campus mental health and counseling resources.[2] In addition to the website, every campus has a designated military-affiliated services coordinator who connects students with supporters and advocates in health services, career centers, academic advisors, student mentors, and military-affiliated student groups across campus. Activities are offered that support military-affiliated students' transition to careers and/or graduate school. In 2020, the University also facilitated a Memorandum of Agreement between campus military-affiliated services and the Veterans Health Administration to provide students with free on-campus clinical services (e.g., psychotherapy and medical services).

Lesbian, Gay, Bisexual and Transgender (LGBT) Students, Faculty, and Staff. In 2014, the LGBT Advisory Council worked with the Office of the President to help identify and address specific student needs and strategies and create a more welcoming and inclusive environment for LGBTQ students, faculty, and staff. With the Advisory Council's support, the University added sexual orientation and gender identity questions to undergraduate and graduate admissions applications, allowing students to indicate a preferred name that appears on certain campus

records. In June 2015, the University also issued guidelines for implementing gender inclusive facilities in University-owned buildings and facilities that are either new or undergoing major renovations, including restrooms and changing rooms.

The University continues to address the needs of sexual and gender variant student populations. Beginning in fall 2019, all mandatory systemwide sexual violence and sexual harassment (SVSH) prevention trainings (supervisory/faculty, non-supervisory, graduate student, and undergraduate student) now address gender identity harassment, and feature other gender-inclusive content such as gender transitions, pronouns, and lived-name changes.

In May 2019, the Office of the President approved the development of a presidential policy on *Gender Recognition and Lived Name*, which became finalized in November 2020. Three key issues are addressed in the policy: 1) the University must provide three equally recognized gender options on university-issued documents and information systems — woman, man and nonbinary; 2) the University must provide an efficient process for students and employees to retroactively amend their gender designations and lived names on university-issued documents and in information systems; and 3) the legal name of University students, employees, alumni and affiliates, if different from the individual's lived name, must be kept confidential and not published in documents or displayed in information systems that do not require a person's legal name. UC locations have until December 31, 2023 to complete implementation.

Sexual Violence and Sexual Harassment. A Task Force was formed in July 2014 with the goal of transforming UC into a national model for preventing and combating sexual violence and sexual assault. This goal was to be achieved through the completion of two phases, as described below.

- **Phase I:** Identify steps to improve the University's current processes that will make a difference in effecting cultural change in sexual violence and assault prevention.
- **Phase II:** Develop recommendations for implementing strategies to support excellence in prevention, response, and reporting of sexual violence, harassment, and sexual assault based on evidence-informed solutions and approaches.

In September 2014, the Task Force presented Phase I, which introduced a national model for campuses to address the issues of sexual violence and sexual assault based on five key functions: Prevention, Education, Advocacy, Response and Reporting (PEAR). The Task Force also made the following seven recommendations:

- Establish a consistent "response team" model at all campuses.
- Adopt consistent systemwide investigation and adjudication standards.
- Develop a comprehensive training and education plan.
- Implement a comprehensive communication strategy to educate the community and raise awareness about UC programs.
- Establish an independent, confidential advocacy office for sexual violence and sexual assault on each campus.
- Establish a comprehensive systemwide website with campus customization capabilities.
- Initiate/develop a systemwide standard data collection system.

In July 2015, the Task Force presented Phase II to the UC Regents and outlined how UC has successfully implemented recommendations aimed at improving services and response to sexual violence, and ensuring consistency across the system. These recommendations included:

- establishing a CARE Advocate Office for Sexual and Gender-Based Violence and Sexual Misconduct at every campus;
- implementing a standardized two-team response model at all UC campuses for addressing sexual violence; and
- launching a new systemwide website designed to serve as a user-friendly, one-stop portal for quick access to campus resources and important information.

At the September 2015 Regents meeting, the Task Force provided an update on Phase II, primarily on the training efforts that had been implemented to address the recommendation to develop a comprehensive training and education plan for students, staff, and faculty. The presentation consisted of an overview of the training efforts

for undergraduate and graduate student education and awareness related to sexual assault and sexual violence.

In January 2017, UC's first Systemwide Title IX Director was appointed to oversee the University's work to effectively address sexual violence and sexual harassment. Director responsibilities include improving UC's policies and procedures, developing effective education and prevention programs, ensuring fair and efficient investigation and adjudication processes, and ultimately changing the culture to create a safe and respectful learning environment for all students.

In 2018, the Office of the President established a 20-member Title IX Student Advisory Board, including one undergraduate and one graduate student from each campus, which meets at least twice a year. The Student Advisory Board is tasked with providing input to the University on issues related to sexual harassment, which includes sexual violence. Members advise the Systemwide Title IX Office on its ongoing prevention and response efforts. They also assist in identifying emerging issues related to sexual harassment and sexual violence and contribute to the policy review process.

On July 31, 2019, the University issued a revised systemwide *Sexual Violence and Sexual Harassment* (SVSH) *Policy*. The revised policy addresses critical concerns identified through an extensive review process that included input from students, faculty, and staff from across the system. The policy also includes changes required by the U.S. Department of Education's Office for Civil Rights, as specified in its February 2018 resolution agreement with UC Berkeley, along with additions recommended by the California State Auditor in its June 2018 report.

On the same date, the University issued a revised SVSH Student Investigation and Adjudication Framework. This policy details the systemwide procedures for investigating, adjudicating, and imposing sanctions on sexual violence and sexual harassment cases involving student respondents. The framework was revised primarily in response to a January 2019 California appellate court ruling that colleges and universities in the state must hold live hearings to resolve certain sexual misconduct cases.

On May 6, 2020, the U.S. Department of Education (DOE) issued Title IX regulations detailing how schools across the country must respond to certain sexual harassment reports. These regulations impose new requirements for how the University responds to those reports, in some circumstances. Most significantly, the Title IX regulations require the University to follow a specific grievance process (the DOE Grievance Process) in response to complaints of conduct covered by the regulations (DOE-Covered Conduct). The DOE Grievance Process requires many components already included in University procedures, such as detailed written notices at the beginning and conclusion of the process; the right to an advisor; the opportunity to identify witnesses and present evidence, review and respond to evidence gathered, and pose questions to the other party and witnesses; and other measures to ensure access to University programs and activities.

Notably, the DOE Grievance Process also requires live hearings and appeals in cases with faculty and staff respondents, which the University has not previously provided, along with other elements that the University does not believe are reflective of best practices, such as the ability of parties to question each other through their advisors at the live hearing.

The University identified serious concerns with the new regulations when the DOE first proposed them. Despite the University's advocacy for changes, the DOE retained many of the most problematic parts in the final rules. The University nonetheless had to implement them by their effective date of August 14, 2020.

In order to comply with the mandate, the Office of the President convened a diverse systemwide workgroup inclusive of student, staff, and faculty representatives to help guide the University's implementation of the regulations through the issuance of interim policies.

It is important to note that the University continues to prohibit all forms of misconduct as specified in the *Sexual Violence and Sexual Harassment* (SVSH) *Policy*, and to treat allegations of misconduct with the same seriousness and care. The scope of the SVSH Policy is unchanged, as

is the University's commitment to preventing and responding to reports of sexual harassment.

On August 14, 2020, the University implemented the DOE Grievance Process in response to DOE-Covered Conduct, while maintaining existing processes for all other reports under the SVSH Policy. Although it may be confusing to have two processes for similar conduct, this approach provides the most protection for the University community. The University is strongly resolved to protect students and employees from sexual harassment and violence, and remains committed to fostering a culture of safety and respect for students and employees, while ensuring a fair and consistent process for responding to reports of sexual harassment.

In March 2021, the federal administration issued an executive order directing Education Secretary Miguel Cardona to re-examine the Title IX regulations issued under the former administration. In response to the executive order, the Office for Civil Rights initiated a comprehensive review of the U.S. Department of Education's actions under Title IX, including a first-ever virtual national public hearing focused on strengthening the Department's enforcement of Title IX. Representatives from the University of California participated in the hearing, and the University will continue to actively engage with the Office for Civil Rights as they continue to conduct their review.

FUTURE NEEDS

The University has identified a number of critical needs for additional student services funding to support higher levels of completion of baccalaureate and graduate degrees. These critical needs include:

- Additional support for academic support programs, such as tutoring in writing, mathematics, and study skills, as well as preparation for graduate and professional school exams.
- Support for students with disabilities. There continues to be an increase in demand for interpreting and/or real-time captioning services (and costs have increased for interpreters), as well as services for those suffering from repetitive stress injuries, as they tend to require multiple forms of auxiliary services and assistive technology.
- Support for health equity initiatives to ensure students have unencumbered access to care and holistic well-being support. Examples of health equity initiatives would include provision of ongoing tele-health and tele-mental health services and support, and provision of appointments outside of regular business hours.
- Major student information systems (e.g., registration, admissions, student billing, financial aid, accounting, student information, and web-based services) to meet the current and future needs of students and student service organizations.

Institutional Support

Institutional support services provide the administrative infrastructure for the University's operations. Grouped into five broad categories, institutional support activities include:

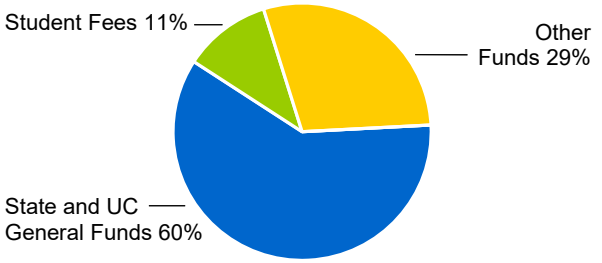
- **Executive Management** — Offices of the President, Vice Presidents, Chancellors, Vice Chancellors, Regents' Officers, the Academic Senate, and Planning and Budget
- **Fiscal Operations** — accounting, audit, contract and grant administration, and insurance management
- **General Administrative Services** — information technology, human resources, and environmental health and safety
- **Logistical Services** — purchasing, mail distribution, police, construction management, and transportation services
- **Community Relations** — alumni and government relations, development, and publications

The University faces a growing body of unfunded mandates affecting institutional support, including new accounting standards, growing accountability requirements, and increased compliance reporting in areas ranging from environmental health and safety to fair employment practices and compensation issues. To address these unfunded mandates, the University has absorbed increased costs of developing new data collection processes, changing existing information and reporting systems, and growing its analytical staff.

Despite these added expenses, institutional support expenditures as a proportion of total University expenditures have steadily decreased over the last 30 years (see Display XIII-3). Institutional support budgets are often one of the first areas of the budget to be reduced in difficult economic times. In response to budget cuts, UC administrative units have implemented new processes, improved use of technology, and consolidated operations to increase productivity in order to meet increasing workload demands under constrained budget situations.

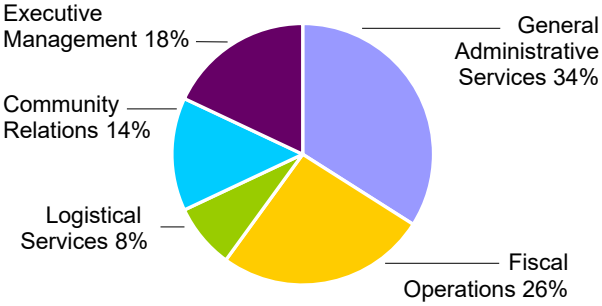
Since the early 1990s, as each recession has occurred, legislative intent language and the shared desire of the University and the State to protect core academic programs has meant that institutional support has often been targeted for additional cuts. Examples include the following:

Display XIII-1: 2020-21 Institutional Support Expenditures by Fund Source



Core funds provide 71% of institutional support funding. Significant other sources include private funds, endowment earnings, and indirect cost recovery for contract and grant administration.

Display XIII-2: 2020-21 Institutional Support Expenditures by Category



Logistical services, fiscal operations, and general administrative services comprise over half of institutional support expenditures.

- Between 1995-96 and 1998-99, budget reductions totaled $40 million, consistent with productivity improvements mandated under a four-year Compact with then-Governor Pete Wilson.
- In 2003-04 and 2004-05, institutional support and academic support budgets were reduced by a total of $81.9 million.
- For 2008-09, the State directed that $32.3 million be reduced from institutional support.

Reduced funding for institutional support limits essential investment in UC's technology infrastructure and constrains fundraising and development activities at a time when such activities are critical to sustain the institution.

THE OFFICE OF THE PRESIDENT AND UNIVERSITYWIDE ACADEMIC PROGRAMS

The 2021-22 UC Office of the President (UCOP) budget is $960.6 million. Funds will be used to support the functions described below.

Central and administrative services. These services support critical systemwide services to campuses and UCOP internal operations. These services include:

- Governance and administrative services, as performed by officers reporting directly to the Board of the Regents, the Academic Senate, and the immediate offices of senior administrative leadership
- Central service functions, such as systemwide budget management, external relations, management of the retirement and benefit systems, banking services, cash management, corporate accounting, risk services, and strategic sourcing
- Academic programs, including central administration of a single digital library system

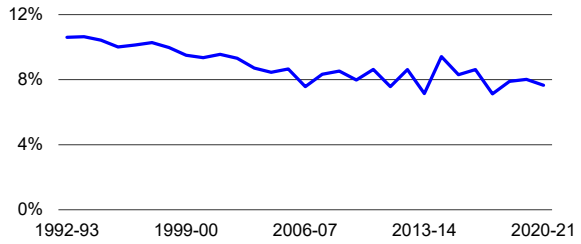
Systemwide programs. These programs are administered at and/or funded from the center to benefit the UC system. They include the UCPress, Laboratory Fees Research Program, UC Observatories, public service programs, Agriculture and Natural Resources, Tobacco-Related Disease Research, and the UC Center for Health Quality and Innovation.

The UCPath Center. A crucial component of the University of California's high priority project to centralize, streamline and standardize the university's HR, payroll benefits, general ledger, work force administration and academic processes.

The Strategic Priorities Fund. This fund supports short-term programmatic needs, administrative projects, emergent or urgent priorities, and presidential initiatives.

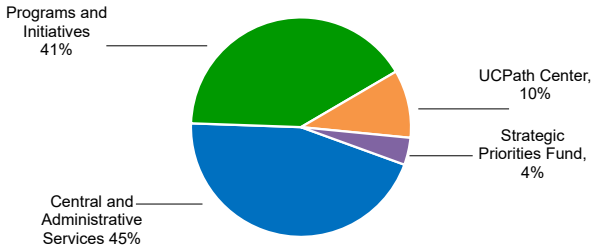
As shown in Display XIII-4, 41% of the UCOP budget supports Programs and Initiatives. The total central budget represents about 2.1% of the UCOP budget are funds that pass through UCOP to campuses, California researchers, and the public. UCOP coordinates activities that allow a complex and unique system to operate efficiently as one university, furthering its instruction, research, and public service missions. This structure reduces redundancy across the system and helps strategically position the campuses to excel.

Display XIII-3: Institutional Support as a Percentage of University Spending



Spending on institutional support as a percentage of total UC expenditures has dropped from over 11% in 1990-91 to about 8.0% in 2020-21.

Display XIII-4: 2020-21 UCOP Budget by Category



The total UCOP budget for 2020-21 is $960.6 million.

ADMINISTRATIVE EFFICIENCIES

The University is committed to achieving a level of administrative excellence equivalent to that of its teaching and research enterprises. To that end, the University has coordinated a number of systemwide efforts to leverage its size and scale to achieve operational efficiencies. Examples include:

- **Connexxus Travel**, a centrally managed travel program offering online and agent-based reservation options and discounts to UC and CSU travelers. To increase utilization, the Connexxus team recently redesigned the web portal to strengthen the user experience at all UC locations.
- **Procurement and Supply Chain** are driving a University-wide program to leverage UC's substantial combined buying power across all campuses when sourcing goods and services and managing the end-to-end supply chain. Through the development and implementation of best practice strategic sourcing, business processes and technology, UC Procurement expands the value delivered on funds expended across the UC network. The program also generates revenue for the campuses via commercial partnerships and other

value incentive programs. This program also seeks to maximize UC's contribution to the California economy by proactively seeking opportunities to partner with small and diverse businesses.

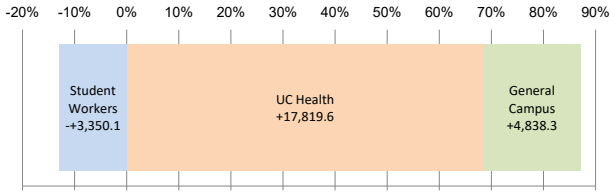
- **Fiat Lux Risk and Insurance Company (Fiat Lux),** a wholly-owned, single-parent, not-for-profit captive insurance company established by the UC Regents in 2012. As an incorporated and licensed insurance company, Fiat Lux provides the University a unique mechanism with which to finance UC's systemwide risks. It also allows UC to capture underwriting profits and corresponding investment income that would normally be retained by traditional insurance companies. Fiat Lux now purchases a majority of the insurance to cover the University's risks systemwide. Whereas in the past, UC purchased this insurance on a retail basis through brokers, Fiat Lux purchases reinsurance directly from the markets (on a wholesale basis), increasing UC's capacity and reducing its expense.
- **UCPath,** a project launched to modernize UC's payroll system and standardize payroll, benefits, and human resources for all UC employees. As of July 2020, UCPath officially supports all 230,000 employees of UC at all ten campuses, five medical centers, UCOP, UC Agriculture and Natural Resources, UC Hastings College of the Law, and the Associated Students of UCLA. Its portal provides employees 24/7 access to UC employment information, enabling them to update personnel and payroll information, update tax withholdings, view or enroll in benefits, and review vacation and sick leave balances.

EMPLOYEE TRENDS AT UC

The growth in academic versus non-academic personnel is a topic that reemerges periodically, particularly during times of budgetary shortfalls and during salary negotiations for specific employee groups. The most recent budget crisis rekindled concerns about growth in administration and how it compares to growth in student enrollments and faculty. Although there has been growth in staffing at the University as a whole, it has been due largely to a growing population of students on UC campuses and patients in UC medical centers. Administrative staff levels have grown very little overall and have actually declined in programs that are supported from core funds.

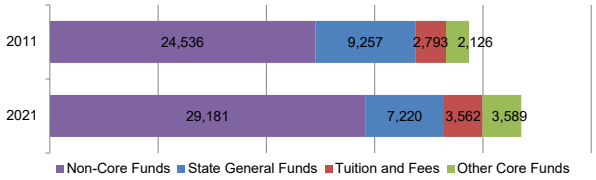
An analysis of employee trends between October 2011 and October 2021 helps identify where personnel growth has occurred:

Display XIII-5: UC Staff FTE, October 2011 and 2020



General campus staff has increased by 1.3% annually.

Display XIII-6: General Campus, Non-Student FTE by Fund



- The majority of staff growth (92% of the increase) is UC Health staff, which parallels increases in medical center revenue and expansion of services. UC Health staff are primarily supported by non-core funds (98%), with the remainder in health science academic programs.
- General campus student workers account for a reduction in FTE due to the COVID-19 pandemic.
- The remaining growth occurred in general campus staff. General campus non-student staff supported by State General Funds has declined by 2,037 FTE, even though overall FTE increased by 4,838. Meanwhile staff supported by non-core funds grew by 4,644 FTE. See Displays XIII-5 and XIII-6 for details.
- Over this same period, Senior Management Group (SMG) staff has decreased by 13%. Managers and Senior Professionals (MSP) staff increased by 7,205 FTE with 83% of the growth coming from Technical/Senior Professional staff. This growth is a reflection of the professionalization of UC's workforce, which mirrors changes seen in the wider labor market over the last several years.

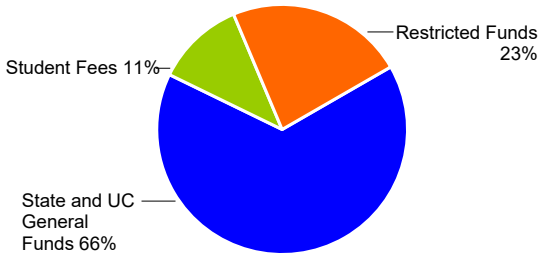
Operation and Maintenance of Plant

An essential activity in support of the University's core mission of instruction, research, and public service is the operation and maintenance of facilities, grounds, and infrastructure, collectively known as operation and maintenance of plant (OMP). UC maintains and/or occupies nearly 146 million gross square feet of space in over 5,800 buildings, 2,033 of which are buildings that are at least 10,000 square feet. These buildings, spread across the ten campuses, five medical centers, and nine agricultural research and extension centers, include classrooms, laboratories, animal housing facilities, libraries, and specialized research facilities. Historically, the State funded space according to use; space used for classrooms, laboratories, offices, and some research uses tend to be eligible for State support. Currently, over 69 million square feet (approximately 47% of UC's total) are eligible for State-supported maintenance. The remaining square feet house self-supporting activities, such as medical centers and auxiliary enterprises, OMP costs for which must be included in their budgets. OMP expenditures for State-eligible space totaled $722 million in 2020-21.

Operation and maintenance of plant funding typically falls into four basic categories: *facilities operations,* including facilities management, grounds maintenance, janitorial services, utilities operations, and purchased utilities; *facilities maintenance,* which includes preventive and repair activities necessary to realize the originally anticipated life of a fixed asset, including buildings, fixed equipment, and infrastructure; *capital renewal*, the systematic replacement of building systems and campus infrastructure to extend useful life; and *deferred maintenance*, the unaddressed backlog of renewal resulting from chronic underfunding of ongoing OMP support and the lack of regular and predictable investment in capital renewal.

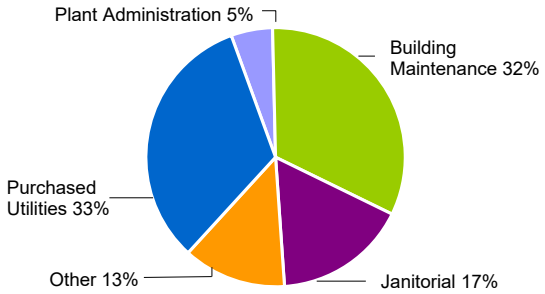
Between 2007-08 and 2011-12, the University was compelled to cut funding for the operation and maintenance of facilities to help protect core academic programs. Although some of this reduction was mitigated due to increased efficiency – which is good for the fiscal health of the University – much of the reduction resulted from austerity measures, such as cuts in building maintenance activities, scaled-back or eliminated preventive maintenance programs, and reduced custodial and grounds maintenance services.

Display XIV-1: 2020-21 OMP Expenditures by Fund Source (Total: $722 Million)



The majority of OMP expenditures is supported by core funds (State funds, UC General Funds, and student Tuition and fees).

Display XIV-2: 2020-21 OMP Expenditures by Category (Total: $722 Million)



Purchased utilities for UC facilities account for 33% of OMP expenditures. Building maintenance accounts for about a third.

The University requires stable, ongoing funding to address the current deferred maintenance backlog and the extensive needs across its growing building and infrastructure portfolio. Chronic underfunding of basic maintenance has shortened the useful life of UC's building systems and exacerbated the maintenance needs of its substantial inventory of aging facilities. Approximately 57% of the University's State-eligible space is more than 30 years old, as Display XIV-3 helps illustrate. These aging facilities, some of which are at or beyond their useful life,

THE EFFECTS OF COVID-19 ON OMP

As a result of the COVID-19 pandemic, the University faces existential challenges, especially in fulfilling its OMP obligations. In particular, public health considerations demand greater performance specifications and frequencies in the custodial services function. Additional and necessary cleaning and disinfection efforts strain logistics support, staff, materials (including personal protective equipment and unique cleaning devices), and budgets.

Additional demand to inspect and adjust mechanical equipment operation, to extend operating run times, and to enhance filtration has increased operating and maintenance costs and potentially shortened the useful life of UC's infrastructure. The design, installation, and maintenance of support signage; hand washing and disinfecting stations; paper towel dispensers; hands-free door opening solutions; plexiglass barriers; and other support functions have diverted funds and attention away from typical operations and maintenance activities. Newly modified working conditions have also increased challenges and costs. Specifically, the physical distancing of workers, increased need for personal protective equipment, and special handling required for most activities have added to the time and skillsets necessary to perform OMP-related functions.

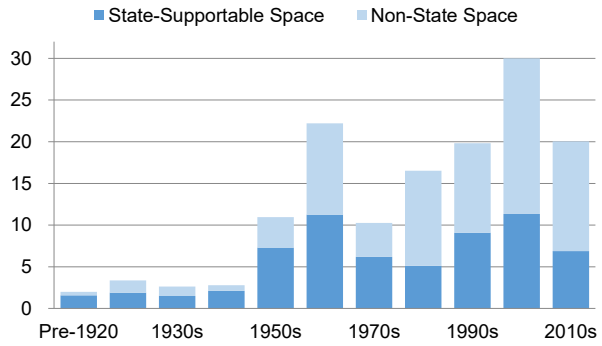
Onsite in-person activities at UC campuses stopped almost entirely. This shutdown created a 10-15% drop in campus energy use, varying by location. Although this reduction resulted in savings, they were lower than some expected. Investigation by UC researchers and staff revealed that many high intensity buildings still needed to operate at close to full capacity even if only a handful of people were present, due to minimum airflow and lighting needs. Ongoing energy use was also driven by audio-video and computer network equipment, along with exterior lighting.

are a principal driver of the University's escalating capital renewal needs. Moreover, specialized research facilities constitute a growing percentage of the University's inventory of State-eligible space. These facilities strain limited OMP funds with higher maintenance and utility costs.

BUILDINGS AND GROUNDS MAINTENANCE

Funding for operation and maintenance of new space is an essential annual budget need; however, OMP is often one of the first functions to be cut in times of fiscal uncertainty and one of the last to be restored when conditions improve. Funding for OMP has not been stable or predictable since

Display XIV-3: All Space by Decade of Construction (Gross Square Feet in Millions)



The University's physical plant expanded rapidly in the 1950s and 1960s and again in the late 1990s and 2000s.

the mid-1990s, when the State provided $8 to $25 million annually. The history of State funding for UC is discussed more in the *Historical Perspective* chapter of this document.

Starting in the mid-1990s, the State acknowledged the need to provide funding in recognition of more than two decades of chronic underfunding of the University's OMP needs. Funding agreements with three former Governors (Wilson from 1996-99, Davis from 1999-2003, and Schwarzenegger from 2003-11) attempted to tie OMP funding to annual base budget adjustments; ensuing fiscal crises, however, prevented most of the augmentations from occurring. Similarly, OMP funding was eventually included in the renegotiated marginal cost of instruction formula (described in more detail in the *General Campus Instruction* chapter) in 2006-07.

On several occasions the University has been forced to redirect its own resources to address its most serious OMP needs. With no State funding for OMP in 2008-09 due to the State's fiscal crisis, UC redirected $9.7 million of permanent savings to OMP by restructuring the UC Office of the President. The University also redirected one-time savings from debt restructuring to provide $11.2 million in 2009-10 and $19.5 million in 2010-11 to cover maintenance of new space.

CAPITAL RENEWAL AND DEFERRED MAINTENANCE

In addition to requiring funding for new space, along with building and grounds maintenance, the University faces

growing costs to renew its existing buildings and to support infrastructure. This annual investment is needed for the normal replacement and renewal of building systems and components. Replacement and renewal cycles may occur several times during the life of a building.

Heating, ventilation, and air conditioning (HVAC) systems; elevator and conveying; plumbing; and electrical systems are all essential to UC's daily operations and have finite useful lives. As a result of the large underlying portfolio size, aging plant, and enrollment growth, the University's annual capital renewal needs are projected to increase. Campus infrastructure, including utility generation and distribution systems, roads, bridges, hardscape, and seawater systems, also requires substantial ongoing investment in renewal. Regular funding for the systematic replacement of building systems and campus infrastructure is currently not included in either the University's operating or capital budgets, though such funding is proposed in the University's ten-year capital financial plan.

The estimates of funding needs for capital renewal and deferred maintenance in this chapter have previously been based on the Facilities Infrastructure Renewal Model (FIRM) developed by the University in 1998. FIRM included a high-level inventory of all State-supportable facilities at each campus, detailing infrastructure and buildings systems that need to be renewed on a predictable basis between 15 and 50 years, such as roofs, fire alarm systems, heating and ventilation systems, central plant chillers, and underground utility cabling. The model assumed standard life cycles and costs for renewing each system, and from these elements developed a profile for each building and infrastructure system, projecting the renewal date and cost over a 50-year period.

In the long term, failure to invest adequately in capital renewal and ongoing maintenance presents growing risks to the University. These risks range from disruptions of programs caused by a breakdown of a building's mechanical system or a facility's underperformance, to entire campus shutdowns caused by the failure of a utility distribution (or other mission-critical) system. This risk of catastrophic failure was highlighted by the rupture of a city water distribution line on the Los Angeles campus in August 2020 in the same location as an earlier leak in 2014 that cost millions in damages.

Given the age and current condition of University facilities and infrastructure, there is a critical need at the campus and system levels to make sound, detailed data-driven capital renewal decisions based on accurate information that identifies, prioritizes, and quantifies renewal and deferred maintenance needs and their associated risks.

In order to support sound capital renewal and deferred maintenance decisions, the University has established a process and system that can identify, quantify, estimate, prioritize, and track capital renewal and deferred maintenance needs known as the Integrated Capital Asset Management Program (ICAMP).

ICAMP allows the University to better understand the consequences of its decisions and thus reduce risk. ICAMP performed initial real-time condition assessments on all University-related buildings, as well as more detailed tracking of infrastructure assets. The ICAMP process identifies and estimates facility-related, condition-based deferred maintenance across the system, using industry standard asset classification specifications and construction project cost estimation data. All information is maintained in ICAMP's state-of-the-art software, which provides consistent and reliable information. The process includes a detailed inventory of all major building and infrastructure systems (and components), as well as an overall risk assessment of each.

Additionally, the University is able to project and forecast capital renewal needs (above and beyond specifically identified deferred maintenance items) based on plant items that have exceeded their anticipated lives. Regular state support for priority deferred maintenance items and capital renewal is paramount for enabling efficient and effective planning and execution and extending the operating capability of the portfolio.

PURCHASED ENERGY UTILITIES

In addition to the volume of energy used, the volatility of electricity and natural gas prices affects the ability of campuses to manage overall OMP costs. The "commodity" portion of electricity rises and falls based on a combination

of supply and demand expectations and infrastructure (electric grid, gas transmission, and distribution system) capacity. The physical grid that moves and delivers power, and the distribution systems that move and deliver natural gas, are also subject to their own cost increases related not only to safety and maintenance, but also to incorporating new renewable supply sources of power and gas. Natural gas has seen a substantial rise in commodity prices and meaningful cost increases in delivery rates; future energy costs associated with electricity are uncertain due volatile gas markets, reduced dispatchable generation, and increasing renewable electricity standards in California.

Key Cost Drivers and Market Activity

The New York Mercantile Exchange (NYMEX) natural gas commodity future price projections are near record highs. California has had regional gas constraints that continue to bring high prices and volatility to the market, particularly in the SoCalGas system. SoCalGas has endured explosions and multiple outages on their gas transmission over the past few years. Due to the more constrained local gas supply, the University has witnessed pricing volatility on wholesale gas and power prices.

As a result of increased production of electricity from solar projects, driven by aggressive state-wide renewable energy mandates, wholesale electricity markets in California have experienced hourly electricity prices that change significantly throughout the day. Prices for wholesale electricity during periods of solar generation can be quite low, and prices for electricity are higher in the three hours preceding and following each day's solar production. This wholesale price pattern has led California's investor-owned utilities to shift their peak time-of-use periods to the late afternoon and evening when solar output is low and declining. UC has made large investments in on-campus solar energy generation, so the changes in utility rates may make these projects less cost-competitive over time, especially as utility tariff grandfathering periods for existing projects begin to expire.

Additionally, in 2019 Southern California Edison (SCE) and Pacific Gas and Electric (PG&E) commenced a preemptive electricity shutoff program known as Public Safety Power Shutoff (PSPS). The PSPS program is an attempt by the utilities to prevent the start of wildfires from electrical equipment during strong and dry winds. These "preemptive" power shutoffs occurred throughout the state and affected campuses such as UC Santa Cruz and UC Berkeley. Such outages have helped to create strong renewed interest in local/onsite electricity generation to ensure a reliable supply of power to meet critical campus needs.

Cap and Trade

California implemented a cap and trade program in 2013 after the approval of AB 32, the Global Warming Solutions Act of 2006, which required the state's air resources board to undertake a statewide effort to reduce global warming pollution. Under the cap and trade program, the State established an overall limit on greenhouse gas (GHG) emissions (the "cap" in cap and trade) for each year through 2020. The Legislature extended the program in July 2017, to run through 2030 (Assembly Bill 398) with the goal of lowering California's GHG emissions to 40% below 1990 levels by December 31, 2030.

Eight UC campuses participate in the program, as their emissions exceed the threshold of 25,000 metric tons of carbon-dioxide-equivalent per year, or they have opted to participate voluntarily. Like all obligated entities, the University campuses must obtain permits (California Carbon Allowances) equivalent to their GHG emissions through State-run auctions or secondary markets (the "trade" in cap and trade). To help the University transition financially to this practice, the Air Resources Board (ARB) allocates a portion of the allowances UC needs to comply with the regulations. The amount of allowances allocated, however, declines each year at the same rate as the statewide cap (3-5% annually). Although the University is able to avoid much of the expense of compliance through the State allocation, it will experience higher prices when UC enters the carbon allowance market (likely in 2026) to cover any shortfalls.

Carbon Neutrality Initiative

President Drake has continued to prioritize UC's Carbon Neutrality Initiative that Emeritus President Napolitano launched at the November 2013 Regents meeting. The initiative calls for UC to achieve carbon neutrality for University-owned buildings and vehicles by 2025, which would make UC the first major research university system to

do so. To achieve the goal of becoming net carbon neutral, the University needs to reduce its energy consumption, transform its energy sources (gas and electricity), and mitigate any remaining carbon emissions. The University is pursuing five strategies to meet its carbon neutrality goals: Campus Energy Efficiency, On-campus Renewable Energy, Off-campus Clean Electricity, Biogas Procurement, and Procurement and Management of Environmental Attributes. From a long-term perspective, each campus needs to address large fossil fuel based central plant infrastructure from a carbon neutrality perspective. The University continues to invest in energy improvements, and to date has implemented over 1,000 efficiency projects, and more than 100 onsite renewable energy installations. As UC approaches the 2025 goal, there is an increasing focus on efforts to obtain environmental attributes in the form of renewable energy credits, biogas that meets California's cap and trade rules, and high quality carbon offsets. Those environmental attributes and commodities, when netted against the University's carbon footprint, can result in carbon neutrality.

Strategic Efforts to Manage Purchased Energy Utility Costs and Reduce Carbon Emissions

The University continues efforts to obtain favorable commodity supply contracts while implementing a long-term strategy for energy procurement that will reduce costs and advance efforts to meet the goal of becoming carbon neutral in operations by 2025.

To reduce carbon emissions from the combustion of natural gas on each UC campus and health system, the University has signed long-term supply agreements with renewable natural gas (biogas) suppliers, and is pursuing additional supply agreements. Biogas can be created from a decaying landfill or from organic waste. As of 2021, UC has three operating supplies of biogas, and another supply projected to come on-line in fall 2021. UC continues to look for cost-effective biogas supply to bolster this solution.

Energy Efficiency

In addition to commodity rates, purchased utilities costs and UC's carbon emissions are affected by energy consumption levels. UC has sought to mitigate rising purchased utilities costs and reduce its carbon footprint by aggressively managing energy consumption across buildings. These efforts include installing energy monitoring and metering systems, retrofitting existing facilities, implementing efficient lighting systems, and optimizing HVAC systems. To support carbon emissions reductions, UC adopted an internal policy goal to reduce growth-adjusted energy use intensity by 2% each year. It is important to note that UC is unique among other California higher education segments due to the significant number of highly energy-intensive buildings in the system, such as laboratories, medical centers, and other specialized research facilities.

Historically, many of the University's energy efficiency projects have been subsidized by the state's investor-owned utilities under the auspices of the Statewide Energy

PURCHASED UTILITY TERMINOLOGY

Biogas: methane produced from the decomposition of organic matter, sourced from the anaerobic digestion of agricultural waste, landfills, and wastewater treatment facilities.

Carbon allowances: permits used in the State's cap and trade program. Each allowance must be surrendered by obligated entities for every metric ton of carbon equivalent emissions.

Carbon (equivalent) emissions: the emission of carbon dioxide into the atmosphere, which is a major contributor to global warming.

Co-generation: on-campus sequential generation of electricity and steam for operations.

Commodity pricing/costs: the price paid for the generation component of electricity, excluding transmission and distribution services provided by the utilities.

Direct access: procurement by a retail customer of an electric commodity from an Electric Service Provider. The electric commodity is delivered by the local utility.

Electricity deliveries: the role of a distribution utility in furnishing the infrastructure to deliver third party generated energy.

Electric Service Provider (ESP): a non-utility entity that offers electric service to customers within the service territory of an electric utility.

Renewable energy content: the ratio of renewable energy in the energy commodity (e.g., electricity).

Statewide Energy Partnership (SEP): a partnership between the University, and the four California investor-owned utilities (e.g., PG&E) to incentivize energy efficiency projects.

Partnership (SEP). Results projected through 2021 indicate that since it began in 2004, the Partnership has completed more than 1,100 energy efficiency projects that will have generated approximately $100 million in incentive payments from the utilities to offset project costs. By the end of 2021, all of the completed energy efficiency projects will have delivered over $345 million in cumulative avoided costs to the participating campuses. In order to continue to support campuses as the current Partnership agreement comes to an end in 2022, UC has worked with Southern California Edison and the California Public Utilities Commission (CPUC) to create a next generation incentive program that targets reductions in carbon emissions based on measured whole-campus performance. The incentive program started as a pilot in July 2019, and in October 2020 made more than $3 million in incentive payments to participating UC campuses that generated annual eligible carbon emissions reductions of more than 5,500 metric tons of carbon dioxide.

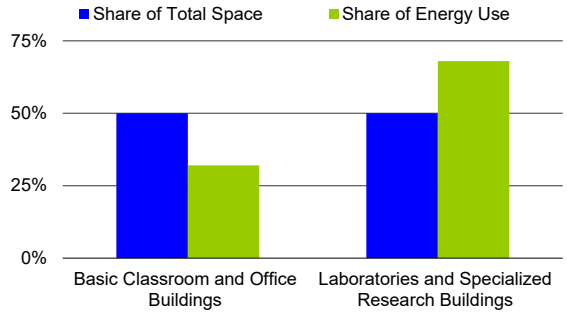
Electricity Procurement

The University of California began directly supplying electricity to many of its campuses and medical centers in 2015 as part of the overall carbon neutrality strategy. The goal is to supply campuses with cost effective, carbon-free electricity. As of 2019, UC's Clean Power Program is providing carbon-free electricity to all participating campus electricity accounts and continues to do so at a lower cost than what campuses would be incurring through their local utility company.

UC became a registered Electric Service Provider (ESP) in 2014 and is able supply electricity through California's Direct Access rules. Direct Access is an optional service that allows retail customers to purchase electric supplies and additional energy services directly from an ESP. In 2020, approximately 30% of UC's electricity came from Direct Access service. The remaining electric supply came from traditional utility service, municipal utilities, community choice aggregators, or federal supply.

As part of UC's effort to secure renewable energy supply, UC has two long-term power purchase agreements (PPAs) for the output from 125 megawatts of utility-scale solar capacity across three California-based projects. Two of the projects, totaling 80 megawatts, are currently operational and the third is under development. Together, they will allow UC to supply approximately 300 gigawatt-hours per year of carbon free solar energy to California's electrical grid.

Display XIV-4: Energy Use by Building Type



Laboratories and specialized research facilities consume on average more than two times the energy used by campus classroom and office buildings.

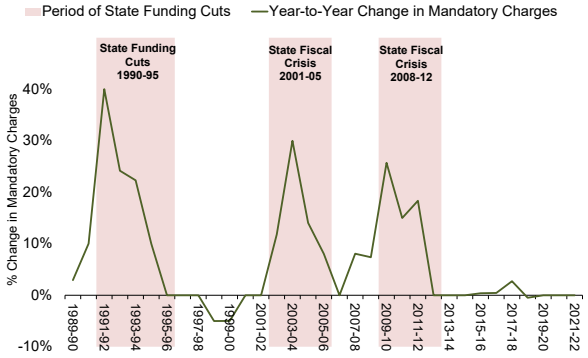
Student Tuition and Fees

To support its core educational programs and the services for them, the University relies primarily on revenue from three fund sources: State General Funds, student tuition and fees, and UC General Funds (collectively termed "core funds"). Tuition and fees have remained nearly flat for California residents during the last nine years. Although State support has increased during times of fiscal stability, these increases have not been enough to both fully restore prior funding levels and keep pace with enrollment growth. Since 2000-01, core funding per student has declined by over 33%.[1] The continued decline in core funding per student continues to create challenges for the campuses in maintaining the quality of a UC education (discussed further in the *Cross-Cutting Issues* chapter).

The University has also increased its reliance on student tuition and fees. The composition of UC's core funds has changed, with a greater share derived from student tuition and fees (including those covered by Cal Grants, discussed further in the *Student Financial Aid* chapter) and UC General Funds, and a smaller share from direct State support. As a percentage of the University's core fund operating budget, student tuition and fees[2] have grown from less than 10% in 1980-81 to 57% in 2020-21, while State support has declined from 87% in 1980-81 to 39% in 2020-21. In 2020-21, tuition and fees provided about $5.7 billion[2] to help support basic operations.

Trends in State support have affected both the size and the volatility of tuition increases. Aligning closely with economic downturns, as shown in Display XV-1, the past three decades have seen periods of rapid increase in student tuition and fees as well as periods of great stability. Between 2000 and 2011, for example, undergraduate in-state tuition increased in nine out of ten years, with increases ranging from $384 to $1,818. By contrast, since 2011, in-state tuition has increased once, by $282 or 2.5%, in 2017. The substantial, variable increases of the early 2000s, which were implemented in response to large declines in State support, created planning and fiscal challenges for students and families. Because they were not always accompanied by anticipated increases in State support, UC's nearly flat tuition levels since 2011, on the other hand, have created planning challenges for campuses.

Display XV-1: Year-to-Year Percentage Change in Mandatory Charges
(Not Adjusted for Inflation)



UC's tuition levels have been subject to chronic volatility, with increases closely mirroring the State's fiscal condition. Tuition has increased to offset State budget cuts.

Within this context, it is important to note that UC's average tuition and fees for state residents remain low relative to the amounts charged by most of the public institutions that serve as UC comparators, and its nonresident surcharges remain competitive. As shown in Display XV-2 on the following page:

- UC's in-state tuition and fees are lower than the amounts charged by three of UC's four public comparison institutions for undergraduate students and all four of UC's four public comparison institutions for graduate students.
- UC's nonresident tuition and fees are lower than the amounts charged by two of UC's four public comparison institutions for undergraduate students and three of UC's four public comparison institutions for graduate students.

[1] This figure accounts for financial aid, debt service, retirement plan contributions, and inflation.
[2] This amount includes mandatory systemwide charges, Professional Degree Supplemental Tuition, and Nonresident Supplemental Tuition, but excludes fees charged at the campus level (discussed later in the chapter), self-supporting graduate professional degree program fees, and UC Extension fees.

Display XV-2: 2021-22 University of California and Public Comparison Institution Fees

	Undergraduate		Graduate	
	Resident	Nonresident	Resident	Nonresident
Public Comparison Institutions				
SUNY Buffalo	$10,782	$28,702	$14,388	$26,178
Illinois				
Lowest	$15,224	$31,794	$16,364	$31,652
Highest	$20,536	$43,334		
Average	$17,880	$37,564		
Michigan				
Lowest	$16,178	$53,232	$25,230	$50,464
Highest	$22,278	$61,788		
Average	$19,228	$57,510		
Virginia				
Lowest	$17,418	$51,948	$20,904	$33,518
Highest	$28,104	$63,030		
Average	$22,761	$57,489		
UC	$14,098	$43,852	$13,521	$28,623

Note: Comparison institution figures include tuition and required fees. UC figures include campus-based fees, mandatory systemwide charges, and Nonresident Supplemental Tuition for nonresident students. Waivable health insurance fees are not included. Undergraduate figures for Illinois, Michigan, and Virginia represent the average of the highest and lowest rates at each school. Actual rates may vary by major and/or year in school.

- While not shown in the display, UC's tuition and fees remain lower than those of its private comparison institutions – Harvard, MIT, Stanford, and Yale.

Furthermore, as described in the *Student Financial Aid* chapter, about half of UC's California undergraduates earn their degree without incurring any student loan debt. University grants and scholarships have allowed the UC to remain financially accessible to students across socioeconomic levels despite rising costs of attendance, as evidenced by the large number of UC undergraduates who qualify for federal Pell Grants (reserved for those with the fewest financial resources) and UC students' comparatively low student loan indebtedness upon graduation.

TYPES OF CHARGES

UC students[3] at the University of California pay the following types of charges:

- **Tuition**, a mandatory systemwide charge assessed to all registered students providing general support for UC's operating budget
- The **Student Services Fee**, a mandatory systemwide charge assessed to all registered students that supports services benefiting students such as career and guidance counseling and student mental health and other services to keep students healthy
- **Nonresident Supplemental Tuition**, charged to nonresident students in addition to mandatory systemwide charges and any applicable Professional Degree Supplemental Tuition charges, in lieu of State support for their cost of education
- **Professional Degree Supplemental Tuition**, paid by students enrolled in a number of graduate professional degree programs to support instruction and specifically to sustain and enhance program quality
- **Fees Charged at the Campus Level**, which vary across campuses and by student level, and fund student-related expenses not supported by other fees

Display XV-3: 2021-22 Student Tuition and Fee Levels

Student Services Fee	$1,128
Tuition	$11,442
Professional Degree Supplemental Tuition	$4,818-$51,200
Nonresident Supplemental Tuition	
Undergraduate	$29,754
Graduate Academic	$15,102
Graduate Professional	$12,245
Campus-based Fees*	
Undergraduate	$688-$2,130
Graduate	$429-$1,590

* Waivable health insurance not included.

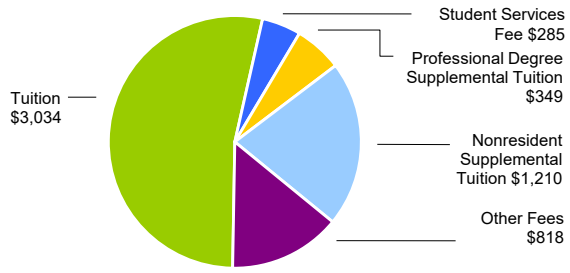
Display XV-3 lists the level of each charge in 2021-22. Their respective contributions to the University's core operating budget and financial aid in 2020-21 are shown in Display XV-4 on the following page. Each type of charge is described in greater detail on the following pages.

Tuition

Established as the Educational Fee in 1970 for capital outlay purposes, Tuition is charged to all registered students and provides general support for the University's operating budget, including costs related to general campus and health sciences faculty and instructional support, libraries and other academic support, student services, institutional support, and operation and maintenance of facilities. Tuition revenue is also used to provide student financial support. For the 2021-22 academic year, Tuition is $11,442, the same level since 2018-19.

[3] Though included in student enrollment counts, medical and health sciences residents (house staff) are not assessed student fees.

Display XV-4: 2020-21 Student Tuition and Fee Revenue (Dollars in Millions) (Total: $5.7 Billion)



In 2020-21, student tuition and fees generated $5.7 billion to support the University's core operating budget and student financial aid. Campus-based/other fees totaling $818 million support specific programs outside the core budget, such as student government and transportation.

The Regents set Tuition levels annually in accordance with the 1994 Student Tuition and Fee Policy,[4] which directs the President of the University to recommend annual Tuition levels to the Regents, taking five factors into consideration:

- the resources necessary to maintain access under the Master Plan, to sustain academic quality, and to achieve the University's overall mission;
- the full cost of attending the University;
- the amount of support available from different sources to assist needy students;
- overall State General Fund support for the University; and
- the full cost of attendance at comparable public institutions.

Under the 1994 Student Tuition and Fee Policy, Tuition revenue may only be used for general support of UC's operating budget and not for capital expenditures as initially intended when established in 1970. In 2020-21, Tuition generated $3.03 billion for operations.

Student Services Fee

The Student Services Fee is also charged to all registered students. Revenue from the fee funds services and programs that are not part of the University's programs of instruction, research, or public service. In 2020-21, $285 million in Student Services Fee revenue was collected, a majority of which was spent on student services, including counseling and career guidance, cultural

THE UNIVERSITY'S TUITION STABILITY PLAN

In July 2021, the UC Board of Regents approved a multi-year Tuition Stability Plan that affects Tuition, the Student Services Fee, and Nonresident Supplemental Tuition (NRST) for undergraduate and graduate students in State-supported programs. Effective fall 2022, the Plan provides tuition stability and predictability for students and parents, enhances financial aid and affordability for students with financial need, and supports campus operations to maintain and improve the quality of a UC education.

For undergraduate students:

- Students who enrolled prior to fall 2022 will continue to pay 2021-22 rates through 2026-27 for Tuition, the Student Services Fee, and NRST.
- For students entering fall 2022 and later, the three charges will be assessed on a **cohort basis** – all three charges for each entering cohort are expected to be higher than the amounts charged to prior cohorts, but remain flat for the duration of a student's enrollment, up to six years.
- Annual adjustments from one cohort to the next are expected to decline over time, from inflation plus 2% for fall 2022 to inflation only for fall 2026.
- Forty-five percent of new revenue generated by adjustments to Tuition and the Students Services Fee will be set aside for financial aid. Twenty percent of new revenue generated by adjustments to NRST will be set aside for financial aid.

For graduate students:

- Tuition, the Student Services Fee, and NRST will continue to be assessed on a **uniform basis** – the same rate will apply to both new and continuing students, regardless of a student's entering cohort.
- Commencing fall 2022, Tuition and the Student Services Fee will be adjusted annually based on inflation. Graduate NRST will remain unchanged.
- For students in programs that charge Professional Degree Supplemental Tuition, 40% of new revenue generated by adjustments to Tuition and the Student Services Fee will be set aside for financial aid.

For any year in which the increase to a student charge exceeds five percent, the increase will be capped at five percent unless the Regents took action to approve a different amount. Student tuition and fee charges are subject to change by the UC Board of Regents for any reason an in its sole discretion. The Plan described here does not create any legal right or cause of action.

[4] See https://regents.universityofcalifornia.edu/governance/policies/3101.html.

and social activities, and student health services. Student Services Fee revenue is also used for capital improvements that provide extracurricular benefits for students. As with Tuition, the Regents set Student Services Fee levels annually in accordance with the 1994 Student Tuition and Fee Policy. A portion of the Student Services Fee is provided as financial aid to the neediest students.

Chancellors are authorized to determine specific allocations of Student Services Fee income on their campuses, within applicable University policies and guidelines. Each campus has a Student Fee Advisory Committee, the membership of which is at least half students, to advise the chancellor. In 2021-22, the Student Services Fee is $1,128 for all students.

Professional Degree Supplemental Tuition

Professional Degree Supplemental Tuition was established in 1994-95 to allow UC's professional schools to maintain program quality as program costs grew faster than other funding sources. Assessed in addition to mandatory student charges and, if applicable, Nonresident Supplemental Tuition, Professional Degree Supplemental Tuition (PDST) levels during 2021-22 range from $4,818 to $51,200, depending on the program, campus, and student residency. See Appendix Display 15 for a list of programs that assess PDST and their accompanying PDST levels in 2021-22. In 2020-21, these charges generated $349 million for the respective professional school operations.

Historically, many of UC's professional schools have held a place of prominence in the nation, promising an exceptional education at a reasonable price. State budget cuts reduced resources available to the professional schools. Consequently, they faced reduced capacity to recruit and retain excellent faculty, provide an outstanding curriculum, and attract high caliber students. New revenue generated from PDST increases has been critical to attracting high-caliber faculty and students, improving diversity, and regaining and maintaining excellence despite budget cuts.

The Regents approve PDST charges in the context of multi-year plans that advance the mission and academic plans of each graduate professional degree program per the PDST Policy[5]. Multi-year planning with regard to PDST is a vital and fiscally prudent strategy that:

- provides a more stable planning environment for professional schools;
- allows the schools to act on long-term investment needs such as new faculty positions, facility needs, and financial aid program development;
- provides each program the opportunity to comprehensively analyze its program needs, the costs to address those needs, and the revenue available to support those needs;
- allows each program to examine its competitiveness with other institutions on a number of measures, including the "sticker price" of attendance, financial aid programs and their effect on the net cost to students, and other indicators of national competitiveness of the program;
- helps inform decision making by clearly identifying each degree program's goals and objectives and the steps needed to achieve them;
- enables each program to consult with students and faculty about long-term plans and tuition levels; and
- includes specific conditions for ensuring that the University's commitment to access, affordability, diversity, and students' public service career decisions are not adversely affected by fee increases for professional degree students.

At their January and March 2021 meetings, the Regents established PDST levels for one new program and approved increases in PDST levels for 17 current programs starting in academic year 2021-22. Also effective academic year 2021-22, the President approved requests from four programs to assess PDST at a reduced level from the maximum levels set by the Regents.

Nonresident Supplemental Tuition

In addition to other applicable tuition and fees, UC students who do not qualify as California residents are required to pay Nonresident Supplemental Tuition (NRST). Enrollment of nonresident students, including undergraduate and graduate international students and domestic students from other states, generated $1.2 billion in 2020-21. The California Education Code provides direction about setting NRST levels (see "State Law Regarding Nonresident Tuition" on the prior page). NRST levels in 2021-22 vary by student level and program: $29,754 for undergraduate

[5] See https://regents.universityofcalifornia.edu/governance/policies/3103.html.

students, $15,102 for graduate academic students, and $12,245 for graduate professional students.

Undergraduates who enroll as nonresidents typically pay NRST every term that they attend UC, unless a student's parents move to California or the student is deemed financially independent (a standard that is difficult to meet). Domestic graduate students are generally presumed to be financially independent and typically establish residency after one year. International students cannot establish residency and hence pay NRST every year (although graduate academic students are exempt from this charge for up to three years once they advance to candidacy).

Fees Charged at the Campus Level

Campuses may also charge fees for specific needs related to campus life and safety or instruction. Among the largest fee types assessed at the campus level are campus-based fees and Course Materials and Services Fees. Campuses have modified aspects of their operations and shifted a substantial portion of classes to remote instruction in response to the COVID-19 pandemic in academic year 2021-22. Many of the costs that these fees are intended to cover will continue while others will not or will continue in a reduced or otherwise modified capacity.

Campus-based Fees. Campus-based fees[6] cover a variety of student-related expenses that are not supported by Tuition or the Student Services Fee. These fees help fund programs such as student government; the construction, renovation, and repair of sports and recreational facilities; and other programs and activities such as transit. As shown in Display XV-5, the number and dollar amounts of campus-based fees vary across campuses and between undergraduate and graduate students.

Campus-based fees for 2021-21 range from $429 at San Francisco (graduates) to $2,130 at San Diego (undergraduates); in 2021-22, average campus-based fees are $1,528 for undergraduates and $951 for graduates.[7] Generally, students must vote to establish or increase campus-based fees, but these fees also can be set by chancellors (with the concurrence of the Regents) if a fee is necessary to help ensure the safety of students (e.g., to pay for the seismic retrofit of a building funded by student fees). In recent years, a return-to-aid component has been built into newly established campus-based fees. Generally, students must vote to establish or increase campus-based fees, but these fees also can be set by chancellors (with the concurrence of the Regents) if a fee is necessary to help ensure the safety of students (e.g., to pay for the seismic retrofit of a building funded by student fees). In recent

STATE LAW REGARDING NONRESIDENT TUITION

Section 68052 of the California Education Code directs California's public institutions of higher education to acknowledge the following when establishing nonresident student tuition levels:

- nonresident tuition methodologies used by California's public postsecondary education segments should consider: 1) the total nonresident charges imposed by each of their public comparison institutions, and 2) the full average cost of instruction;
- nonresident tuition plus required fees should not fall below the marginal cost of instruction;
- increases in the level of nonresident tuition should be gradual, moderate, and predictable; and
- in the event that State revenues and expenditures are substantially imbalanced due to factors unforeseen by the Governor and the Legislature, nonresident tuition will not be subject to the law's provisions.

Display XV-5: 2020-21 Campus-based Fee Levels

Campus	Undergraduate	Graduate
Berkeley	$1,656	$1,590
Davis	$2,075	$1,038
Irvine	$1,205	$786
Los Angeles	$688	$466
Merced	$1,087	$637
Riverside	$1,172	$897
San Diego	$2,130	$994
San Francisco	N/A	$429
Santa Barbara	$1,847	$1,011
Santa Cruz	$1,500	$1,325
Average	$1,528	$951

[6] UC's Policy on Compulsory Campus-Based Student Fees is available at https://policy.ucop.edu/doc/2710528/PACAOS-80.
[7] Campus-based fee figures are weighted by enrollment and do not include waivable health insurance premiums.

years, a return-to-aid component has been built into newly established campus-based fees.

Course Materials and Services Fees. Course Materials and Services Fees cover costs specific to a course, such as materials used in a studio art class, travel costs for an archeological dig, or laboratory supplies related to a specific course. The fees are set by the chancellors and may not exceed the actual cost of the materials and services provided for the course.

HISTORY OF STUDENT FEES

The University first assessed student fees in the 1920s with the establishment of the Incidental Fee. In 1960, the California Master Plan for Higher Education affirmed that UC should remain tuition-free, but allowed that fees could be charged for costs not related to instruction. In the late 1960s, the Incidental Fee was renamed the Registration Fee, and revenue was used to support student services and financial aid. In 2010, the Registration Fee was renamed the Student Services Fee.

The Educational Fee was established in 1970-71 and was originally intended to fund capital outlay. Each year, however, a greater proportion of this fee was allocated for student financial aid. Consequently, in the late 1970s, the Regents stipulated that Educational Fee income was to be used exclusively for student financial aid and related programs. In 1981, the Regents extended the Educational Fee's use to include basic student services, which had lost State General Fund support.

In 1994, the University of California Student Fee Policy established that the Educational Fee may be used for general support of the University's operating budget. In addition, a goal of the policy is to maintain the affordability of a high-quality educational experience at the University for low- and middle-income students. In 2011, the Educational Fee was renamed Tuition.

Over time, UC's tuition and fee levels have largely tracked the state's economy. In more economically stable years, such as the mid-1980s and the late 1990s, charges were held steady or were reduced. In years of fiscal crisis – during the early 1990s and during the early 2000s, for example – tuition and fees increased dramatically in

RECENT HISTORY OF UNIVERSITY OF CALIFORNIA STUDENT TUITION AND FEE LEVELS

2013-14	Due to the Governor's proposed multi-year plan, mandatory systemwide charges did not increase in fall 2013. Professional Degree Supplemental Tuition increased by 8% for UC's nursing programs and was held flat for all 53 other programs.
2014-15	Mandatory systemwide charges did not increase in fall 2014. The President announced the University's Tuition and Financial Aid Stabilization Plan to bring predictability to UC's systemwide charges.
2015-16 to 2016-17	Under the long-term funding framework, Tuition did not increase in 2015-16 or 2016-17, extending the Tuition freeze to six consecutive years. The Regents approved annual increases of 5% to the Student Services Fee for 2015-16 and 2016-17. Undergraduate Nonresident Supplemental Tuition increased by 8% and Professional Degree Supplemental Tuition increased moderately during this period.
2017-18	A Tuition increase in 2017-18 was pegged to inflation and the Student Services Fee increased by 5%. Professional Degree Supplemental Tuition increased up to 5% for 44 programs, with the remaining programs keeping levels unchanged. Undergraduate Nonresident Supplemental Tuition increased by 5%.
2018-19 to 2019-20	With the State buy-out of Tuition and the Student Services Fee increases, Tuition levels were reduced by $60 and the Student Services Fee remained unchanged in 2018-19. The University held Tuition and the Student Services Fee flat in 2019-20. Professional Degree Supplemental Tuition and undergraduate Nonresident Supplemental Tuition increased moderately during this period.
2020-21	Due to the COVID-19 pandemic, the Regents deferred action on the cohort-based tuition model proposal, as well as proposed increases in Tuition and the Student Services Fee. Systemwide mandatory charges remained at the same levels as the prior year.
2021-22	The Regents approved the Tuition Stability Plan at their July 2021 meeting. Effective 2022-23, fee increases, including assessing fees based on cohort year, will be implemented. Also at their July 2021 meeting, the Regents approved two new non-mandatory, systemwide opt-out fees to support the University of California Student Association and the University of California Graduate and Professional Council. Systemwide mandatory charges for 2021-22 remained at the same levels as the prior year.

response to significant reductions in State funding, although these increases only partially compensated for the reductions in State support. The appendices to this document include historical tuition and fee levels for UC students by level and residency.

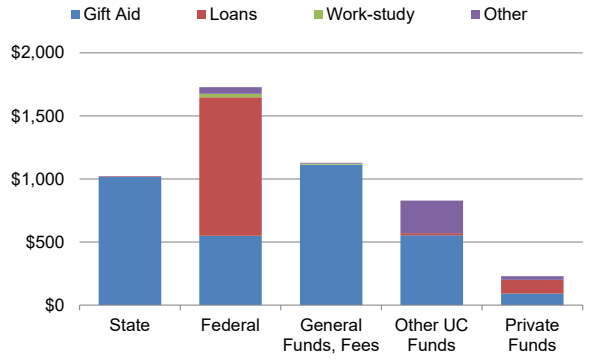
Student Financial Aid

Guided by the Regents' financial aid policy, the University's financial aid programs are closely linked to UC's goals of expanding student access and helping the state meet its professional workforce needs.[1] In 2019-20 (the most recent year for which information is available), UC students received $4.9 billion in financial aid, of which $1.95 billion (40%) was funded by UC. Maintaining robust undergraduate and graduate aid programs remains among the University's highest budget priorities.

At the undergraduate level, the goal of UC's financial aid program is to ensure that the University remains financially accessible to all California students. During the 2019-20 academic year, 71% of California resident undergraduates received grant or scholarship aid averaging $18,545 per recipient, while 55% of all California resident undergraduates received grant or scholarship assistance that fully covered their mandatory systemwide charges. The University of California is recognized as a national leader in enrolling an economically diverse pool of undergraduate students. In 2019-20, 36% of all UC undergraduates, and 43% of California undergraduate residents, were low-income Pell Grant recipients – more than at any other comparably selective research institution. In addition, 44% of UC's 2019-20 graduating undergraduates had no student loan debt. The average debt among the other 51% who borrowed was $17,747 ($20,000 for students who were admitted as freshmen), well below the national average of $28,950.

At the graduate level, the Regents' financial aid policy calls upon the University to attract a diverse pool of highly qualified students by providing a competitive level of support relative to other peer institutions. Competitive support is key because graduate student enrollment is critical both to the University's research enterprise and to helping the state meet its academic and professional workforce needs. In 2019-20, 68% of graduate students received grant or fellowship support averaging about $19,582 per recipient. In addition, teaching assistantships and research assistantships provide support to 53% of graduate students.

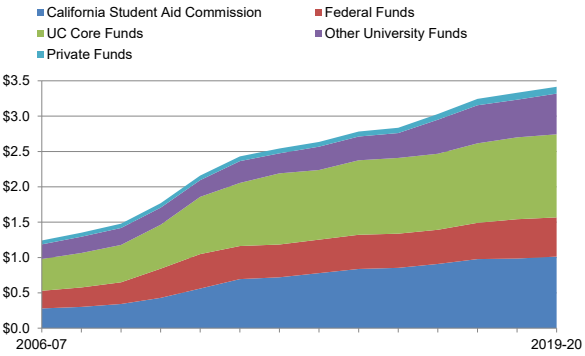
Display XVI-1: 2019-20 Financial Aid by Type and Source of Funds (Dollars in Millions) (Total: $4.9 Billion)



	State	Federal	General Funds, Fees	Other UC	Private
Gift Aid	$1,017.8	$549.0	$1,112.9	$553.0	$91.2
Loans	$4.6	$1,098.5	$0.0	$16.7	$109.1
Work-study	$0.0	$28.1	$7.8	$0.0	$0.0
Other	$1.2	$52.8	$7.5	$258.5	$28.0
Total	$1,023.5	$1,728.5	$1,128.2	$828.1	$228.4

State, federal, and University sources each provide large amounts of gift aid (i.e., scholarships and grants) for UC students, while federal funds provide the bulk of student loans.

Display XVI-2: Gift Aid Expenditures by Source (Dollars in Billions)



To offset tuition and fee increases and maintain the promise of higher education for all Californians, both the University and the State have invested heavily in student financial support. Total gift aid reached $3.4 billion in 2019-20, half of which was generated from University sources.

[1] The UC Financial Aid Policy is available at http://regents.universityofcalifornia.edu/governance/policies/3201.html.

The University has faced challenges in recent years related to achieving its goals of affordability at the undergraduate level and competitiveness at the graduate level. During the last decade, tuition and fee increases were implemented in response to declining State support for the University's budget. Tuition and fee levels have increased by less than 4% over the last five years, while other elements of the total cost of attendance (e.g., living expenses, books, and supplies) have increased at higher rates. Increases in Professional Degree Supplemental Tuition, which were implemented to help professional schools maintain the quality of their programs, also increased the demand for financial aid. Without tuition increases, fewer funds are available to provide financial aid to cover rising non-tuition costs for an increasing number of needy students being successfully admitted to UC.

The University has responded to these challenges by adopting measures to expand the availability of student support and to mitigate student cost increases – for example, by augmenting funding for grants and fellowships, raising philanthropic support for scholarships, limiting Nonresident Supplemental Tuition increases for graduate students, and expanding loan repayment assistance programs for professional degree students choosing public interest careers.

Each year UC prepares a comprehensive report for the Regents describing the grant and scholarship aid, student loans, and University employment undergraduate and graduate students receive to finance their education.[2] The University will continue to closely monitor the effectiveness of its financial aid programs in achieving the goals, articulated by the Regents, of affordability at the undergraduate level and competitiveness at the graduate level.

UNIVERSITY OF CALIFORNIA BLUE AND GOLD OPPORTUNITY PLAN

The Blue and Gold Opportunity Plan ensures that financially needy California resident undergraduates with total family incomes under $80,000 have their Tuition and Student Services Fee covered by scholarship or grant awards, up to the student's need. This plan, introduced in 2009-10, helps ensure that these charges do not deter the half of California households with incomes below $80,000 from aspiring to attend UC. Over half of California resident undergraduates at UC are expected to qualify for the plan in 2021-22.

FUND SOURCES FOR FINANCIAL AID

UC students may receive scholarships, fellowships, grants, loans, work-study jobs, and tuition and fee remissions to assist them in paying the educational costs of attending UC. The cost of attendance includes tuition and fees, living expenses, books, and other expenses. UC students receive assistance from four major fund sources: State aid programs, federal aid programs, University funds, and private entities.

State Aid Programs

California students at all eligible California colleges and universities may receive financial support from programs administered by the California Student Aid Commission (CSAC), including the Cal Grant A and B Programs:

- The Cal Grant A Program is the largest of the State's student aid programs and provides grants covering UC systemwide charges for financially needy, meritorious undergraduates.
- The Cal Grant B Program provides grants covering systemwide charges and a small stipend for living expenses to undergraduates from particularly low-income backgrounds. Generally, first-year recipients receive only the stipend and the stipend plus a tuition grant in subsequent years.

The Cal Grant programs are designed to promote access to postsecondary education and to foster student choice among California institutions of higher education. Cal Grant awards for recipients attending UC and the California State University (CSU) cover systemwide student charges, but only Cal Grant B provides minimal assistance to help students cover other costs of attendance, such as housing.

In 2019-20, approximately 91,100 UC students were awarded over $1 billion in State-sourced financial aid. Cal Grant funding comprised the bulk of the funding but the Middle Class Scholarship (MCS) Program comprised $33.9 million of the total. State financial aid for UC students

[2] The *Annual Report on Student Financial Support* is available at https://www.ucop.edu/enrollment-services//data-and-reporting/reports-to-the-regents-on-student-financial-support/index.html.

has increased as UC's enrollment and systemwide charges have increased. Administered by UC and discussed further on the following page, the Dream Loan program, totaling $5 million per year, is jointly funded by the State and the University. UC works with the other segments of California higher education and stakeholders to ensure that the State maintains its historic commitment to the Cal Grant program, and that the program continues to be funded at necessary levels in the event of future increases in tuition and fees.

The MCS Program was designed to ensure that eligible students with limited or no financial aid receive scholarship assistance to cover a portion of in-state tuition for students with family incomes and assets from $127,000 to $191,000 in 2021-22. The MCS Program is being redesigned to address the total cost of attendance that students face.

Additionally, 2021 Budget Act made permanent $4 million for summer-term financial aid for UC students who are both California residents (including students receiving an exemption from Nonresident Supplemental Tuition) and eligible for State financial aid.

Federal Aid Programs

UC students who are U.S. citizens or legal permanent residents receive federal financial aid in the following four ways:

- Federal grants and scholarships worth $549 million in 2019-20;
- 3% of all grants and scholarships received by UC students that year;
- Loans totaling $1.1 billion in 2019-20;
- Work-study funds totaling $28 million in 2019-20; and
- Federal tax credits, which benefit many UC families. Nationally, the value of these federal benefits has grown steadily since their introduction in 1997. Tax credits are described in greater detail at the end of this chapter.

While distinct from federal financial aid programs, federal research grants also provide financial support to many students, primarily those in graduate doctoral programs.

University Funds

University funds consist of two components: University core operating funds and other University aid funds. The University designates over $1.1 billion in UC core operating funds – student tuition and fee revenue, UC General Funds, and State General Funds – for student financial support. Approximately $553 million in other University aid funds are provided through campus-based programs funded by endowment income, current gifts, and campus discretionary funds in the form of fellowships, scholarships, and grants.

Historically, the University has funded its systemwide aid programs largely by setting aside a portion of revenue from tuition and fee increases for financial aid for needy students. This practice is called "return-to-aid." When the Regents increase undergraduate Tuition and/or the Student Services Fee, the University sets aside 33% of new revenue for need-based grant assistance. Together with the State's Cal Grant program, this assistance is enough to offset the increases in tuition and fees for over half of California resident undergraduate students, and to provide the neediest students with additional assistance to help offset other cost increases described above.

Consistent with past practice, UC also sets aside 50% of the new revenue from Tuition and Student Services Fee increases charged to graduate academic students, and 33% of the increases charged to students in graduate professional degree programs, for graduate student support. Graduate professional degree programs are also expected to supplement financial aid resources by an amount equivalent to at least 33% of new Professional Degree Supplemental Tuition (PDST) revenue, or to maintain a base level of financial aid equivalent to at least 33% of total PDST revenue. In addition, campuses are expected to set aside a minimum of 25% of the revenue from newly enacted campus-based fees for return-to-aid.

As part of the 2019-20 Regents Budget, a return-to-aid on Nonresident Supplemental Tuition (NRST) was mandated as part of an increase to that charge. Campuses have long had the flexibility to return a portion of NRST revenue to financial aid, but the 2019-20 Budget included a set-aside of 10% of the increased revenue to provide financial aid to help continuing students afford the increase.

As UC more fully recognized student financial need not covered by external resources, and as student need increased over time, the percentage of revenue from tuition and fee increases dedicated to financial aid also increased. In 1987-88, the percentage of new tuition and fee revenue

dedicated to financial aid was 16%; this proportion is now 33% for undergraduates.

In 2015-16, the University implemented the Dream Loan program for undocumented undergraduate AB 540 students – see the "Other Financial Assistance" section on the AB 540 Tuition exemption. Starting in 2020-21, this program was extended to qualifying graduate students. This program helps level the playing field for undocumented students, who have never had access to federal loan programs – the primary source of loans for documented UC students. In 2019-20, UC administered $5 million in Dream loans.

In 2019, the Legislature passed SB 77, which allows the University to provide aid funded by money received for that purpose (e.g., endowed scholarships) to undocumented students who do not qualify under the California Dream Act until June 30, 2021. This is in addition to the University and State financial aid available since 2013 to UC's undocumented students who qualify under AB 540. In 2019-20, UC AB 540 undocumented students received $ 45million in Cal Grants and $61 million in UC-funded need-based financial aid.

Private Support for Financial Aid

Private entities also provide student financial support through scholarships and other forms of aid. Funds in this category include traineeships and fellowships from private firms, funds from associations and foundations (e.g., the Gates Millennium Scholars program and the American Cancer Society), and small scholarships from community organizations. In 2019-20, $91.2 million was awarded to UC students from private agency programs, representing 2% of the gift aid students received during that year.

Private loans are a financing option for students with unique circumstances, such as international students and students who have already borrowed the maximum allowable amount under federal student loan programs. Graduate students with excellent credit can also qualify for private loans with better terms than federal student loans. UC students borrowed $109 million from private lenders in 2019-20. UC makes extensive efforts to identify lenders that offer private student loans with competitive terms in order to help students in various programs make well-

FEDERAL EMERGENCY GRANT FUNDING IN RESPONSE TO COVID-19

The Coronavirus Aid, Relief, and Economic Security (CARES) Act provided nearly $14 billion in Higher Education Emergency Relief Funds (HEERF) in spring 2020 to address higher education challenges created by the COVID-19 pandemic. At least 50% of the funding was used "to provide emergency financial aid grants to students for expenses related to the disruption of campus operations due to coronavirus (including eligible expenses under a student's cost of attendance, such as food, housing, course materials, technology, health care, and child care)." UC campuses received $260 million and provided $130 million to students in the form of emergency grants. Two additional rounds of HEERF monies were provided by Congress in 2021.

UC campuses developed plans with an overarching goal to ensure that students could continue to make progress towards graduation despite the financial and other challenges created by the COVID-19 pandemic. The Financial Aid Offices, which managed the student emergency grants, were encouraged to consult with key leaders on campus, including Graduate Deans, Basic Needs Centers, and Associated Students. Given conflicting advice from the federal government about their eligibility, all campuses identified UC funding for emergency grants for undocumented students.

Given the flexibility in systemwide guidance and differing levels of per student HEERF funding, campus implementation plans varied, although with common themes. For graduate students, campuses generally provided CARES funding equivalent to their proportion of total campus enrollment. Graduate student support ranged from $550 to $1,500. Some campuses used financial need to scale awards, while others provided flat awards to all graduate students. For undergraduate students, awards were tiered by financial need as shown below.

Undergraduate Student Categories	Range of Emergency Grants
Highest need students (e.g., Pell Grant eligible) from vulnerable populations (e.g., Independent, Parenting Students, etc.)	$1,500-$1,700
Highest need dependent students	$900-$1,300
UC Grant eligible, not Pell eligible	$850-$1,100
Some financial need	$200-$850
Additional Considerations	
Summer retention & technology grants	$500-$1,200
Spring term appeals for additional emergency grants	$500-$1,500

informed decisions about private loans.

UNDERGRADUATE STUDENT FINANCIAL AID

The University of California is committed to access for undergraduate students across income groups, particularly low-income students. In 2019-20, 36% of UC undergraduates were low-income Pell Grant recipients – more than at any other comparably selective research institution. Displays XVI-3 and XVI-4 provide a summary of undergraduate student financial aid.

Financial aid also contributes greatly to the University's ability to enroll a diverse population of undergraduate students. African American, Chicano(a)/Latino(a), and Asian American undergraduate students are disproportionately low-income; 42%, 47%, and 27%, respectively, of these students have annual parent incomes of less than $40,000 or are financially independent (generally financially independent students are low-income). Collectively, African American, Asian American, and Chicano(a)/Latino(a) undergraduate students received 78% of all undergraduate gift aid in 2019-20.

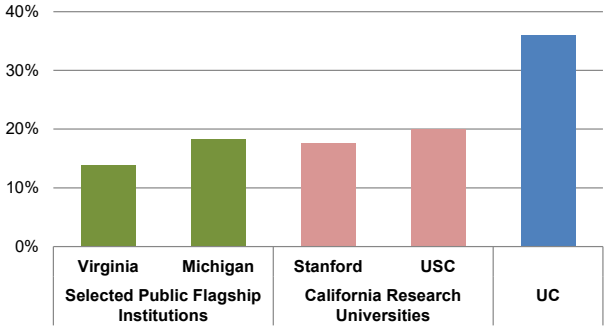
As noted earlier in the chapter, the State's Middle Class Scholarship Program provides awards to students with annual family incomes of up to $191,000. The University is closely monitoring this population, together with income trends among California families more generally.

The estimated average net cost of attendance for UC students in 2020-21 was $14,100 (see "UC Grant Assistance Under the Education Financing Model" on the following page), which represents the actual cost of attending the University for undergraduates after taking into account scholarship and grant assistance and is a good general measure of affordability. In 2020-21, the University's *total* cost of attendance before financial aid is projected to be lower than the total cost of attendance at one of the University's four public comparison institutions, as shown in Display XVI-5 on the following page. After adjusting for gift aid, UC's *net cost* of attendance for resident need-based aid recipients remained lower than the estimated net cost at two of the University's four public comparison institutions.

Display XVI-3: All Undergraduate Student Financial Aid At-A-Glance, 2019-20 All Year

Total Aid (includes Summer)	$3.4 billion
Aid Recipients	66%
Gift Aid	
Total gift aid	$2.6 billion
Gift aid recipients	62%
Average gift aid award	$17,464
Gift aid awards based on need	Over 89%
Student Loans	
Students who took out loans	37%
Average student loan	$9,362
Students graduating with debt	44%
Avg. debt at graduation among borrowers	$17,917
Student Employment	
Students who worked	42%
Students who worked more than 20 hours per week	9%

Display XVI-4: 2019-20 Undergraduate Pell Grant Recipients



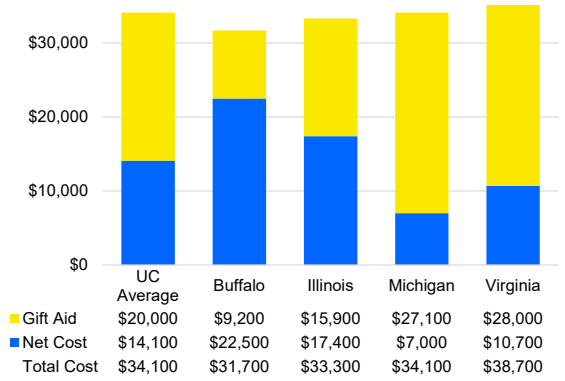
UC remains accessible for students from low-income families. UC has a very high proportion of federal Pell Grant recipients – 36% during 2019-20 (the most recent year from which there are data), more than at any comparable public or private research institution.

The Education Financing Model

Consistent with the financial aid policy for undergraduate students adopted by the Regents in January 1994, the University uses an integrated framework – the Education Financing Model (EFM) – to assess UC's role in funding its financial support programs, to allocate financial aid across campuses, and to guide the awarding of aid to individual students. The framework is based on four principles:

- The University must acknowledge the total cost of attendance: resident student fees, living and personal expenses, and costs related to books and supplies, transportation, and health care.

Display XVI-5: 2020-21 Estimated Net Cost of Attendance for Undergraduate Aid Recipients



In 2020-21, undergraduate need-based aid recipients at UC are estimated to have received an average of $20,000 in gift aid, resulting in a *net cost* of $14,100. UC's net cost in 2020-21 was lower than the net cost at two of its four public comparison institutions. For comparison purposes, this chart is limited to new freshmen.

- To maintain equity among undergraduate students, all students, no matter which campus they attend or their income level, are expected to make a generally similar contribution from student loans and employment to help finance their education.
- Financing a UC education requires a partnership among students, their parents, federal and state governments, and the University.
- Flexibility is needed for students in deciding how to meet their expected contributions and for campuses in implementing the EFM to serve their particular student bodies.

These principles are reflected in the framework for determining the components of a student's financial aid package (see "UC Grant Assistance Under the Education Financing Model" in the right inset).

Parent Contribution. Parents are expected to help cover the costs of attending the University if their children are considered financially dependent (which is the case for most UC undergraduates). The amount of the parental contribution is determined by the same formula used to determine need for federal and State aid programs. This formula takes into account parental income and assets (other than home equity and retirement accounts), the size of the family, the number of family members in college, and non-discretionary expenses. Particularly low-income parents have an expected contribution of zero.

UC GRANT ASSISTANCE UNDER THE EDUCATION FINANCING MODEL

The Total Cost of Attendance

Minus	Grants from federal and state programs
Minus	A reasonable contribution from parents
Minus	A manageable student contribution from work and borrowing
Equals	University grant aid needed

Student Contribution. Undergraduates are expected to cover a portion of their educational expenses through part-time employment and borrowing. The expected contribution should be manageable so that students can make steady progress toward their degree objective and repay their loans after graduation. The EFM includes ranges for manageable loan and work expectations based on the University's estimates of the minimum and maximum manageable loan/work levels, adjusted annually for inflation and periodically for market changes in student wages and expected post-graduation earnings.

The University's goal is to provide sufficient systemwide funding to ensure that a student's expected contribution from work and borrowing falls within the manageable range established by the EFM. The determination of funding levels for the University's need-based grant program, how those funds are allocated across the campuses, and guidelines for awarding those funds to students are made in accordance with the EFM principles.

For 2021-22, UC grant recipients will be expected to work for or borrow, on average, about $10,500 to finance their education. Students can compete for UC scholarships and outside awards that effectively reduce their expected contribution. (During the 2019-20 academic year, 24% of undergraduates received scholarships worth $5,152 on average.)

Outcomes of the Undergraduate Aid Program

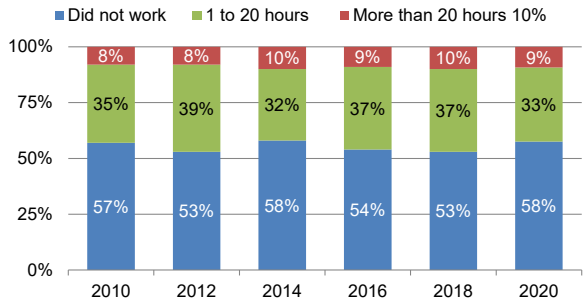
The University monitors a variety of outcome measures related to student support to evaluate the effectiveness of its undergraduate financial aid programs. These outcome measures are designed to answer the following questions:

- **Does the University enroll students from all income levels?** The University has achieved remarkable success at enrolling a high percentage of low-income undergraduate students. In fact, during the last period of consistent tuition and fee increases (2008-2011), the proportion of low-income students enrolling at UC increased to match the proportion they represented in the state as a whole (roughly 36%).
- **Do UC students work manageable hours?** The University funds and administers its financial aid programs such that no student is expected to work more than 20 hours per week in order to finance their education. Surveys conducted over time depict similar patterns of work, indicating that increases in UC's cost of attendance have not significantly affected this outcome measure. Display XVI-6 shows students' self-reported work hours from the University of California Undergraduate Experience Survey (UCUES); periodic UCUES results indicate that the percentage of students working more than 20 hours per week has not increased.
- **Do students' financial circumstances affect their academic success?** Despite increases in tuition, fees, and other expenses, trends in student persistence remain stable for students at every income level. In addition, financial considerations do not seem to influence students' ability to graduate from UC. While students from lower-income families take longer, on average, to graduate, their 6-year graduation rate is on par with that of wealthier students who enrolled at UC with similar levels of academic preparation.
- **Do students graduate with manageable debt?** Under the EFM, debt that requires between 5% and 9% of a student's annual postgraduate earnings is considered manageable. Among students who borrow, average cumulative debt has changed little during the past few years. Among undergraduate students who graduated in 2019-20, 44% borrowed at some point while enrolled at UC; their average cumulative borrowing at graduation was $17,197 ($20,000 for students who were admitted as freshmen), well below the national average of $28,950.

GRADUATE STUDENT FINANCIAL AID

No State or federal grant programs similar to Cal Grants or Pell Grants exist for covering tuition and fees at the graduate level. For graduate students, the burden of covering increases in the cost of attendance – including increases in tuition and fees – falls upon the University, research and training grants funded by federal and other extramural sources, private foundations, and students. Display XVI-7 contains summary statistics of graduate student financial aid.

Display XVI-6: Trends in Student Work Hours, 2010-2020



University of California Undergraduate Experience Survey figures from 2010 to 2020 show only slight changes in students' work patterns during this period.

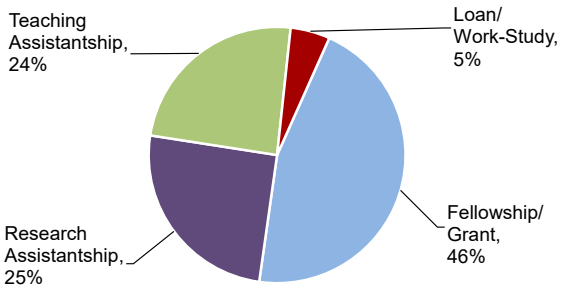
Display XVI-7: Graduate Student Financial Aid At-A-Glance, 2019-20

Total Aid	$2.25 billion
From gift aid	35%
From loans/work-study	22%
From assistantships	43%
Aid recipients	87%
Gift Aid	
Gift aid recipients	71%
Average gift aid award	$19,582

Graduate academic and graduate professional programs differ in a number of ways, including the intended outcomes of the programs, typical program length, and competitive markets for students. Because of these differences, the types of financial support provided to these two groups of graduate students differ greatly. In general, graduate academic students receive more grant aid and traineeships and graduate professional students receive more loans.

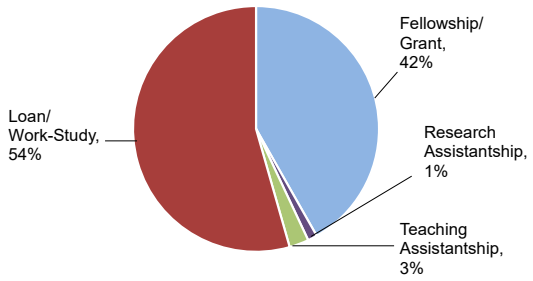
As shown in Display XVI-8, 46% of support for graduate academic students was in the form of fellowships and grants in 2019-20. Graduate academic students also serve as teaching and research assistants and hence receive substantial funding – about $539 million in 2019-20 – from extramural faculty research grants and University teaching funds. Fellowship, grant, and assistantship support are viewed as more effective than loans for recruiting and retaining doctoral students whose academic programs are lengthy and whose future income prospects are relatively modest compared to professional degree students. Combined, fellowships, grants, and assistantships

Display XVI-8: 2019-20 Graduate Academic Financial Support by Program Type and Aid Type



More than 90% of graduate academic financial aid is in the form of fellowships and grants, teaching assistantships, and research assistantships.

Display XVI-9: 2019-20 Graduate Professional Financial Support by Program Type and Aid Type



In contrast to graduate academic financial aid, most aid for professional school students is in the form of loans and less from research and teaching assistantships.

represent over 90% of all support received by graduate academic students. In contrast, nearly 55% of the support for graduate professional students in 2019-20 was in the form of student loans and work-study and approximately 40% was in the form of fellowships, grants, and assistantships, as shown in Display XVI-9 on the right inset. In 2019-20, the per-capita loan amount for graduate professional students accounted for 54% of their assistance.

Graduate Academic Student Aid

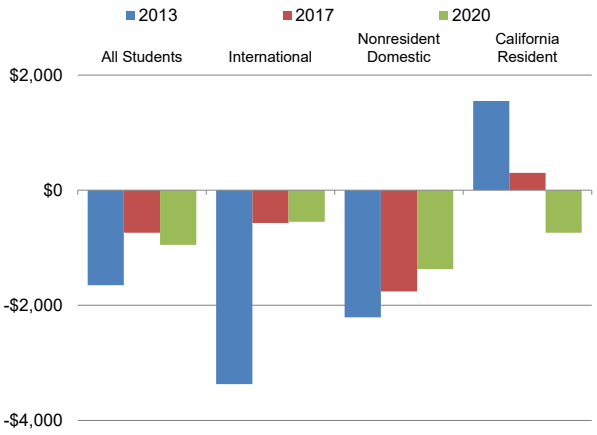
The competitiveness of student support for UC graduate academic students and its effect on the ability of the University to enroll top students from across the world has been a longstanding concern. Top graduate students receive competitive multi-year funding offers from peer institutions, and if the University of California cannot guarantee funding support, the best academic doctoral candidates will likely elect to attend other institutions. Excellent graduate students are needed for undergraduate instruction support and for faculty research.

The University has taken several steps to address the gap between graduate student support demand and supply, including the following:

- UC dedicates 50% of new tuition and fee revenue from graduate academic students to graduate student support. These funds allow the University to cover cost increases associated with UC teaching assistantship and fellowships that cover students' tuition and fees.
- The University has not increased graduate academic Nonresident Supplemental Tuition levels since 2004-05. The foregone revenue is seen as a worthwhile trade-off in order to avoid further demands on limited fellowship and research assistantship funding. In effect, this practice has reduced, in real terms, the costs associated with covering Nonresident Supplemental Tuition for out-of-state and international graduate academic students.
- The University has reduced costs for academic doctoral candidates. Effective in fall 2006, graduate doctoral students who advance to candidacy are exempt from paying Nonresident Supplemental Tuition for three years. This practice provides an incentive for these students to complete their dissertation work promptly and reduces the burden on research grants and other fund sources that are often used to fund this cost as part of a student's financial support package.

Since 2004, surveys of students admitted to the University's academic doctoral programs have repeatedly shown that UC's financial support offers are, on average, less than the offers students receive from competing institutions. Recent surveys suggest that efforts such as those described above have begun to narrow that gap, as shown in Display XVI-10 on the following page. While UC remains less competitive than other institutions on average – and especially for international and domestic nonresident students – the difference between UC and non-UC offers has been decreasing over time. These findings indicate progress in this important metric of graduate student support, along with the need for continued investment in the University's ability to recruit highly talented students in a very competitive environment.

Display XVI-10: Competitiveness of UC Financial Support Offers to Academic Doctoral Students



Data from 2013 to 2020 show an overall decline in the difference between UC's financial support offers to academic doctoral students and the offers students received from competing institutions. UC's competitive advantage for California residents has declined.

Professional School Student Aid

The Regents' Policy on Professional Degree Supplemental Tuition[3] (PDST) stipulates that graduate professional degree programs are expected to supplement financial aid resources by an amount equivalent to at least 33% of new Professional Degree Supplemental Tuition revenue, or to maintain a base level of financial aid equivalent to at least 33% of total Professional Degree Supplemental Tuition revenue. The policy has been amended in recent years to include specific conditions for ensuring that the University's commitments to access, affordability, diversity, and students' public service career decisions are not adversely affected by PDST increases.

The University sets aside less return-to-aid funding from Tuition and Student Services Fees for professional school students (33%) than for graduate academic students (50%). In addition to this return-to-aid set aside for the neediest graduate students, graduate degree programs use the return-to-aid set aside from PDST revenue, as well as funding from philanthropic sources, to pursue their affordability goals. Nearly two-thirds of financial support awarded to graduate professional degree students is in the form of loans, primarily from federal loan programs. A greater reliance on loans and a smaller return-to-aid percentage are appropriate for professional school students because their programs are shorter and their incomes after graduation tend to be higher than those of graduate academic students.

University funds are also used for loan repayment assistance programs (LRAPs) in certain disciplines. These programs acknowledge that students who choose careers in the public interest often forego higher incomes and, hence, may be less able to meet their debt repayment obligations. Other LRAPs are funded at the federal, state, or regional level to encourage students to serve specific populations (e.g., to work as a physician in a medically underserved area). In recent years, every UC law school has significantly expanded its LRAP to provide a higher level of debt repayment relief to a broader population of graduates. Other professional schools are continuing to evaluate the appropriate mix of loan assistance and fellowship support to ensure that public interest careers remain a viable choice for their graduates.

Since 2009-10, students have been able to avail themselves of income-driven repayment plans for federal student loans, which are designed to make loan repayments easier for students who take jobs with lower salaries. The amount of debt repayment is determined not by the loan amount but by the borrower's discretionary income, and repayment will never exceed 15% of net disposable income.

COVID-19 FINANCIAL AID

The COVID-19 pandemic disrupted the University's education delivery, moving nearly all courses online. The pandemic also had several effects on students, parents, and how they paid for college costs. The figures and tables reported in this chapter exclude funding from both CARES act and UC institutional COVID-19 emergency grant.

Students who were living in on-campus housing were largely forced to move home with their families or into off-campus housing. Those who would have faced hardship moving off-campus were provided with accommodation. Because living off-campus and, particularly with their

[3] See https://regents.universityofcalifornia.edu/governance/policies/3103.html.

families, is less expensive, the aggregate financial need for students was reduced. This reduction in aggregate need extended into 2020-21.

The Federal Coronavirus Aid, Relief, and Economic Security (CARES) Act provided $12.6 billion directly to colleges and universities using an enrollment-based formula that favors institutions that enroll higher numbers of Pell Grant recipients. Half of the funding was intended for emergency grants to students. Across UC campuses, $130 million was made available through CARES for student support, about $112.6 million, or 86% of which was deployed in Spring 2020, providing an average of $834 to 135,000 recipients (46% of total students). In 2019-20, Undergraduate Cares spending was about $96 million, with 47% students receiving the grant with an average of $846 per recipient. Graduate spending was a total of about $16.5 million, with 41% recipients with an average of $772. The rest of the CARES funding will be spent in 2020-21 along with HEERF II and III grants and will be reported next year.

UC supplemented CARES emergency grants with $7.5 million in 2019-20 to provide equivalent support for students without access to CARES funds (e.g., undocumented students), both from institutional funds and from basic needs funding received from the State. This provided an average award of $866 to 8,678 students. For undergraduate students, a total of $5.6 million was spent; 2% of enrolled undergraduate students received a grant of $955 on average. For graduate students, about $1.9 million was spent; 5% of enrolled graduate students received a grant of $680 on average. In 2020-21, UC received $1 million in State COVID Emergency Grants to provide support to undocumented students without CARES funding; 3,745 undocumented AB 540 students received a grant of $267 on average.

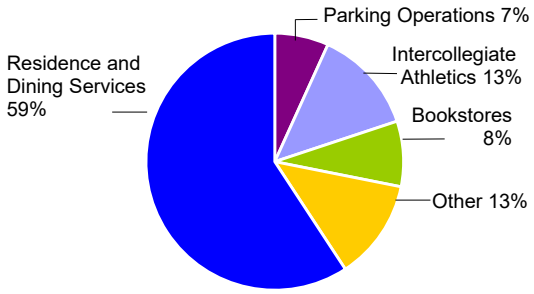
The federal government extended flexibility for colleges and universities to pay Federal Work Study earnings to students who were no longer able to work as a result of campus closures and returning to distant learning.

Auxiliary Enterprises

Auxiliary enterprises are activities that provide non-instructional support in the form of goods and services to students, faculty, staff and other individuals upon payment of a specific usage charge or fee. Student and faculty housing, dining services, and campus bookstores are the largest auxiliaries, with parking and some intercollegiate athletics making up the remaining components. Auxiliary enterprises are defined as self-supporting activities; however, they are not required to be entirely self-supporting as Chancellors may subsidize auxiliary enterprises with appropriate available campus funds. Certain activities may be considered hybrid auxiliaries since the activities include both student services and the collection of fees. For hybrid auxiliaries, the campus chancellors have discretion over the source of funds that will be used for direct and indirect costs of activities. Auxiliary enterprises expenditures totaled $862 million in 2020-21 (see Display XVII-1).

Like all functional areas of the University, auxiliary enterprises have sought to reduce costs through increased efficiencies in administration and operations. Savings achieved through these programs help to offset higher campus assessments for central operating costs and mandatory cost increases.

Display XVII-1: 2020-21 Auxiliary Enterprises Expenditures by Service Type (Total: $862 Million)



Residence and dining services account for nearly two-thirds of the expenditures by auxiliary enterprises.

Display XVII-2: Auxiliary Enterprises At-A-Glance, Fall 2021

Student Housing:	
Single student residence bed spaces	54,582
Student family apartments	51,894
Student housing occupancy rate	102%
Faculty Housing:	
Mortgage loans provided	9,292
Faculty provided housing assistance	9,252
Parking:	
Parking spaces	129,921

STUDENT, FACULTY, AND STAFF HOUSING

UC's largest auxiliary enterprise is student housing, comprising 54,582 University-owned residence hall and single student bed spaces and 51,894 student apartments, for a total of 106,476 spaces in fall 2021 (see Display XVII-2).

Student Housing

Affordable student housing is an important component of the University's ability to offer a high-quality education and residential life experience. Campus housing is also important in addressing the University's sustainability goals and long-range enrollment planning targets. Enrollment growth over the last decade has made it challenging for the University to create enough affordable student housing to meet student demand.

In accommodating this demand, campuses have identified guaranteed housing for all freshmen as one of their highest priorities, as well as providing additional housing options for transfer and graduate students.

In fall 2021, the systemwide student housing occupancy rate was 102% (compared to 38% in fall 2020). In response to the COVID-19 pandemic, and in accordance with State and local public health guidelines, UC campuses have taken preventative measures such as reducing occupancy density in facilities, reserving spaces for quarantine and isolation needs, increasing cleaning of common areas, encouraging responsible physical distancing, expecting campus community members to follow public health face covering recommendations, and limiting in-dining seating.

EFFECTS OF THE COVID-19 PANDEMIC ON AUXILIARY ENTERPRISES

Throughout 2020-21, the Governor's State of Emergency order remained in effect due to the COVID-19 pandemic. Campuses kept on-campus dormitories and apartments closed or operated at limited occupancy to comply with local public health requirements. During the 2020-21 academic year, campus housing and dining units estimated that they had lost revenue totaling $993 million. Beginning in fall 2021, campuses will reopen housing and dining facilities to students at or below pre-pandemic occupancy levels.

HOUSING INITIATIVE

In January 2016, Emeritus President Napolitano announced a Student Housing Initiative aimed at increasing the amount of affordable housing available to undergraduate and graduate students and to support future enrollment growth across the UC System. The initiative established a goal of providing 14,000 new beds by fall 2020. From 2016 to 2019, the University added over 8,200 beds to the housing stock through the construction of new housing. UC exceeded the goal of providing 14,000 new beds by fall 2020, with an additional 15,021 beds that came online in fall 2021.

Faculty Housing

The high price of housing in California makes the University's faculty recruitment efforts, particularly for junior faculty, challenging. To help facilitate this effort, the University has prioritized increasing the number of available faculty and staff housing units. Beginning in 1978, the University has conducted multiple surveys to better understand the current housing needs and preferences of new faculty hires. As a result of these surveys, various programs have been implemented to help alleviate faculty concerns about housing. Examples include:

- Rental housing units are made available to newly appointed faculty according to criteria established by each campus. These units are self-supporting without subsidy from student rental income.
- The University of California's Mortgage Origination Program and Supplemental Home Loan Program provide mortgage loans to full-time faculty members and other designated employee classes. The available loan products have favorable interest rates, no lender points or fees, and low down payment requirements. The participants must use the property securing the loan as their primary residence, and the loan documents contain a condition of employment provision that requires repayment of the loan in the event the participant leaves the University.
- The Faculty Recruitment Allowance Program provides grants to faculty members to assist with housing-related costs. The Recruitment Allowance can be paid as a lump sum or over a period of up to ten years. The program is limited to eligible participants who are within two years of their qualifying appointment.
- Five campuses have developed for-sale housing on land owned by the University. Approximately 1,400 homes have been sold to faculty and other eligible participants subject to a long-term ground lease. Affordability of these homes is maintained by restricting the maximum sales price at the time of resale.

BOOKSTORES

University of California bookstores provide campus communities with products, services, and technologies that ensure academic success, and promote campus pride.

Five campuses (Davis, Los Angeles, San Diego, Santa Barbara, and Santa Cruz) operate University-managed bookstores. These bookstores provide a wide variety of products and services, including textbooks (print and digital), general books, computer products, art supplies, school supplies, sporting goods, groceries, branded clothing and gifts, dormitory and apartment living supplies, and a variety of other products. Each independent bookstore is operated by the Student Affairs or Business Services divisions at its respective campus. The campus-owned and campus-operated bookstores provide financial support which benefits student programs and services.

Five campuses (Berkeley, Irvine, Merced, Riverside, and San Francisco) have outsourced the management of their bookstore and bookstore services to private operators.

Each campus bookstore serves the unique needs of the campus within the context of the local marketplace. There are, however, common trends among UC

bookstores and their counterparts serving other research universities, including:

- Textbooks continue to shift from non-interactive print versions from commercial publishers and University presses to the following:
  - Adaptive Digital Content, where each student has a unique experience depending on the knowledge they start with;
  - eBooks, which are digital equivalents of print;
  - textbooks, with some limited interactive features;
  - Open Educational Resources which come with low or no cost to students; and
  - Digital Distribution through the campus Learning Management System or other online platform, to complement remote instruction.
- As first generation and low income students are increasing in numbers, they are arriving to campus with greater economic challenges than previously seen. Campus bookstores have responded by working more closely with basic needs groups on campus, financial aid offices, and other campus services to ensure these students have the same access to the tools of education that higher income students can afford. Programs, such as Inclusive Access at UCLA and UC San Diego, and Equitable Access at UC Davis, aim to lower the cost of course content for students, while accepting Cal Fresh in support of addressing food insecurities.
- Ecommerce, or online sales, continues to increase over time and allow campus bookstores to better serve alumni and athletics communities, as well as provide added convenience for campus departments. However, the additional online sales did not replace the lost revenue from campus closures during remote instruction.
- UC bookstores continue to be some of the largest employers of students on campus, providing valuable work experience while allowing students to earn extra money with an employer that offers the flexibility college students need.
- UC bookstores deliver programs, services and experiences that promote student success, wellbeing, and engagement while building an inclusive campus community that seeks to address inequities so that every student can thrive. In addition to the newly launched Equitable Access program at UC Davis, all stores collaborate with various campus entities to support programs that provide free or low cost academic materials and technology products to students in need.
- UC bookstores evaluate programs and services in a coordinated and intentional manner to inform strategic decision making utilizing benchmarks, such as affordability, for improving student outcomes.
- The COVID-19 pandemic dramatically reduced the in-person utilization of UC bookstores. Each bookstore has responded by developing new strategies and models to effectively serve both on-campus and remote students, faculty, staff, such as expanding their online product assortments to support the transition to remote learning. The technology accessory categories have grown to include support for students and faculty. Select bookstores have partnered with local financial institutions to coordinate zero or low interest loans for technology purchases. Bookstores have also offered free shipping for academic materials and expanded the availability of digital titles to provide quicker access to textbooks.
- Bookstores continue to look at their product mix to support UC's efforts in sustainability, such as transitioning single use plastic bottles to can or glass containers and using recyclable or compostable utensils in our eating establishments.
- With commencement being both remote and in-person for 2021, UC bookstores offered flexible options in providing regalia to students to enable the graduating class to have a more fulfilling experience during their commencement ceremonies.
- Lastly, each UC bookstore is scheduled to be fully open and operational to service UC students, faculty, and staff for the 2021-22 academic year.

PARKING AND TRANSPORTATION

UC's parking program is another major auxiliary, with 129,921 spaces in 2021 for students, faculty, staff, and visitors. Campuses have successfully encouraged students, faculty, and staff through their Transportation Demand Management (TDM) programs to commute to campus via alternative modes. Alternative mode commuting reduces vehicle trips, parking demand, and greenhouse gas emissions. In support of the *UC Sustainable Practices Policy* and in conformance with campus Long-Range Development Plan Environmental Impact Reports (EIRs), all campuses have implemented extensive TDM programs, including carpools, vanpools, shuttles, transit pass subsidies, car-share vehicles, and similar initiatives.

Campus Long-Range Development Plan EIRs require mitigation of University-created traffic impacts; thus, the more the campus population commutes via alternative transportation modes, the less that the impact on

off-campus intersections and roadways can be attributed to UC, and the less obligation UC has to contribute toward off-campus transportation improvements. TDM programs are funded, in part, by parking revenues; as TDM participation increases, parking revenue decreases, thus creating a challenge to continue and expand TDM programs. Lastly, the parking programs are installing and increasing the number of electric vehicle charging stations to both serve campus permit holders (who already have electric vehicles), and to encourage the use and/or purchase of electric vehicles.

INTERCOLLEGIATE ATHLETICS

Most UC campuses operate recreation and intercollegiate athletics programs exclusively as student services. Athletic programs at certain campuses may be considered hybrid auxiliaries. The Berkeley and Los Angeles campuses – both hosting large intercollegiate sports programs – operate a portion of their recreational and intercollegiate athletics programs as auxiliary enterprises with revenue generated from ticket sales, concessions, and other sources. The San Francisco campus also runs its recreational facilities and programs as self-supporting auxiliary enterprises, with modest subsidies from Student Services Fee revenue.

Provisions for Allocation

Provisions for allocation serve as a temporary repository for certain funds until final allocation decisions are made. For instance, funds allocated for across-the-board cost increases, such as salary adjustments, employee benefit increases, and price increases that occur in most program areas, may be held in provision accounts pending final allocation. Such cost increases are discussed in the *Compensation, Employee and Retirement Benefits, and Non-Salary Cost Increases* chapter of this document. Provisions for allocation also include negative appropriations, e.g., undesignated reductions in State General Fund budgets awaiting allocation decisions or budgetary savings targets.

The 2013-14 Budget Act provided for the transfer of $200.4 million to UC's base budget to cover State General Obligation Bond debt service related to University capital projects. The portion of the University's appropriation that is annually required for debt service is, in effect, a pass-through that is not available for UC's operating needs. However, including the amount in the University's base budget increases the base from which future budget adjustments are calculated. For 2020-21, a total of $329.5 million in the Provisions for Allocations included in the Governor's Budget accounts for the following: $226.5 million for General Obligation Bond actual debt service payment, $103.0 million for Lease Purchase actual debt service payment.

Compensation, Employee and Retirement Benefits, and Non-Salary Cost Increases

The University of California is a people-driven institution. Consequently, employee salaries and benefits represent the single largest category of expenses for the University, as it does for other knowledge and service based organizations. Increased salary costs are largely driven by the need to hire and retain faculty, other academic appointees, and staff at market-competitive rates that fairly compensate them for their services. Benefits and other non-salary increases are driven by inflation and price increases imposed by providers. To a large extent, adjustments to the University's budget reflect these rising costs of doing business, rather than initiation of new programs.

Display XIX-1: Compensation and Benefits At-A-Glance, 2020-21

Number of Employees as of April 2021 (base FTE)	
Academic Personnel	49,992
Professional/Support Staff	102,405
Managers/Senior Professionals	16,090
Senior Management	169
Total	168,656
Salaries and Wages	$17.8 billion
Employee Health Benefits	$2.1 billion
UC Retirement Plan as of July 2021*	
Active members (Headcount)	128,645
Normal Cost	$2.6 billion
Retirees and survivors	70,068
Benefits payout for 2020-2021	$3.6 billion
Annuitant Health Benefits*	
Retirees and family members (Headcount)	73,608
Projected Cost for 2021-2022	$347 million

* For campuses and medical centers (excludes DOE Labs).

COMPONENTS OF THE COMPENSATION BUDGET

Academic Merit increases recognize and reward relative levels of performance and contribution, and are critical to the preservation of the quality of the University and to reinforce a pay for performance philosophy. Merit salary increases for faculty and other academic employees provide a reward mechanism to recognize the quality and effectiveness of teaching and research, and enable the University to compete with other major research universities in offering long-term career opportunities. Merit increases are never automatic and are based on demonstrated contributions.

Contractual Wage Increases are established through collective bargaining agreements.

General Compensation Increases:

- **Merit-based/General Salary Program Increases** help the University to compete with other universities for talent and reward employees based on their performance and contribution to the University.
- **General range adjustments** for eligible employees reflect changes in the cost of labor.
- **Market and equity adjustments** help bring individual salaries to a competitive market level for individual employees in jobs with significant external market gaps and/or internal equity issues, or address recruitment and retention challenges.

Other Compensation Related Items:

- **Pension Contribution Increases** are paid by both the employer and the employee.
- **Health and Welfare Benefit Cost Increases** are paid by both the employer and employee, driven by rates negotiated with UC's health plan providers.
- **Retiree Health Cost Increases** are needed to cover similar cost increases in health benefits for annuitants.

COMPENSATION FOR ACADEMIC AND STAFF EMPLOYEES

The University's annual budget plan typically includes funding for compensation adjustments for eligible employees paid from core funds. Compensation increases for employees funded from other fund sources – including teaching hospital income, auxiliary enterprises, federal funds, and other sources – are expected to be accommodated from within those fund sources and to conform to the University's established systemwide salary programs for core-funded employees.

In 2009, a study of UC's total compensation program indicated that, in general, average UC salaries were substantially below the market median, but the total compensation package, including salary and health and welfare benefits for employees, as well as post-employment

benefits (pension and retiree health), helped make up some of the shortfall. A 2014 update to this study, however, which focused on ladder rank faculty, indicated that the value of benefits had decreased to such an extent that total remuneration for faculty was 10% behind market and cash compensation was lagging by nearly 12%.

The value of the benefit package has decreased as new pension tiers with reduced benefits were implemented in 2013 and 2016 for new hires. Also, employee contributions to the UC Retirement Plan have risen to help ensure the solvency of the retirement program and are either 7%, 8%, or 9% of salary, depending on the UCRP member tier. In addition, inflationary increases for health benefit costs have required employees to contribute a larger share toward their medical premiums.

Faculty Salary Gap

To evaluate its market position, UC compares its faculty salaries with 4 public and 4 private institutions, all of which are competitors in hiring. This methodology was negotiated with the Department of Finance, the Legislative Analyst's Office, and the former California Postsecondary Education Commission. The goal was to ensure UC excellence among American public higher education by keeping faculty salaries the highest paid of the public institutions and competitive with the best private institutions. Due to State budget cuts during the early 2000s, UC's average faculty salaries declined from parity with these comparators to a 9.6% lag by 2006-07. In 2007-08, the University instituted a four-year plan to eliminate the lag and return faculty salaries to market levels, and after one year of the plan, the faculty salary gap was reduced to 7.1%. However, the State's ongoing fiscal crisis prevented continuation of this plan, and the gap widened to 12.8% by 2010-11. Subsequently, this gap has narrowed to 4.1% in 2020-21 as the University has been able to fund annual general increases for faculty. The 2019-20 academic salary program included a 3% general range adjustment for non-represented academic appointees and an additional 1% special salary plan for a total annual rate increase of 4% for ladder rank faculty. Due to budget concerns related to the COVID-19 pandemic, in 2020-21 there was no general range adjustment for non-represented academic appointees, but for 2021-22 there was a 3% general range adjustment for this population.

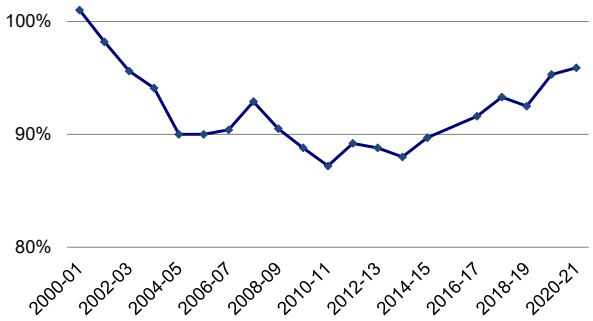
While the merit and promotion system for academic employees has been maintained, estimated at an incremental annual cost of about $35.0 million, the University is concerned about the effects of the salary lag and reduced health and welfare, pension, and annuitant health benefits on faculty recruitment and retention, particularly for UC's promising junior faculty who are often supporting young families in high-cost environments. As endowments at private institutions recoup their losses and other states stabilize funding for public institutions, it is expected that those institutions will rapidly move to restore academic programs by recruiting faculty away from other universities. A 2016 study showed that among faculty members who left UC for another institution, salary was the most often cited reason.

UC already finds itself struggling to retain its own high-quality faculty. Recruiting and hiring faculty to fill a vacancy can exceed $500,000 for an Assistant Professor and $1 million for a tenured associate or full professor. Additionally, recruitment of new faculty, which substantially slowed during the recent fiscal crisis, has improved but remains a concern in the face of increasing student enrollments and sizable faculty retirements. Salary lags pose challenges to attracting the best faculty candidates, and there is a reputational cost associated with an inability to adequately compensate faculty.

Staff Salary Gap

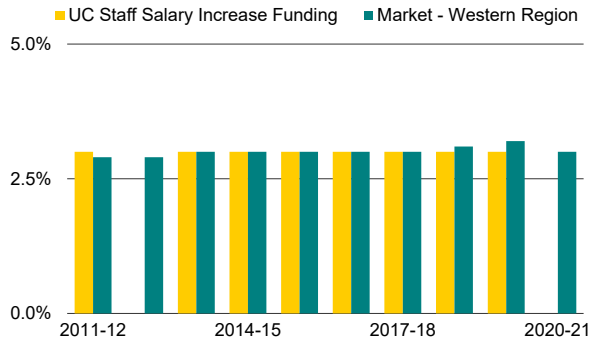
Staff salaries in most workforce segments present a similar competitive market problem for the University. UC was unable to provide salary increases in two out of the ten years since 2011-12, as noted in Display XIX-3. Market salaries over the period have been increasing at approximately 3.0% per year, but UC staff salary increases have not kept pace at approximately 2.4%. Detailed information about the limited and sporadic adjustments to non-represented staff salaries since 2008 is provided in the highlighted section titled "Recent History of Salary Increases for Non-Represented Staff." The UC system competes to retain and hire well qualified leadership talent with the top public and private universities in the country, as well as other employers in the local labor market. While the University does not have the same financial resources that

Display XIX-2: Ladder Rank Faculty Salaries as a Percentage of Market



Due to funding constraints, the University has struggled to bring faculty salaries to par with comparators. In 2020-21, UC's faculty salaries were 4.1% below market.

Display XIX-3: Increases in Funding for Staff Salaries Compared to Market



In two of the last ten years, UC was unable to provide increases in staff salaries, resulting in significant market disparities. (Source: World at Work Annual Salary Budget Survey, which represents data from over 1,000 employers from all sectors in the western United States.)

private universities have, it nonetheless competes with them for talented academics and leaders. Many top public research universities compensate their staff (as well as faculty) more highly than UC. The University must pay competitive wages in order to continue to offer the highest quality research-driven education to students and contribute to a strong California economy.

That can be a challenge, however, when other universities are offering more than the UC system. The labor market is no different from other markets for goods and services. As the demand for experienced leaders has grown over the last decade or so, compensation costs of these leaders also has increased. UC needs high-performing employees at all levels, including senior leadership, to continue UC's success into the future. In order to attract and retain these

2014 TOTAL REMUNERATION STUDY

Past cuts to the University's budget have resulted in disparities in faculty and staff salaries compared to the market. To determine how these disparities have changed since they were last evaluated, former President Yudof commissioned a total remuneration study in July 2013 for general campus ladder rank faculty. Prohibitive costs prevented a study of all employee categories. The purpose of the study was to evaluate the University's current position for total remuneration compared to the market and to determine the effects of the 2013 Tier post-employment benefits on total remuneration. (Currently, UC employees who are members of UCRP are governed by the 1976 Tier, 2013 Tier, or 2016 Tier plan provisions.)

The study found that salaries for UC's ladder rank faculty lag market by 12% across all pooled ranks; health and welfare benefits are 7% below market; total retirement packages (including the defined benefit plan and retiree health plan) are 6% above market; and UC's total remuneration position is 10% below market, due primarily to non-competitive salaries.

The study also compared UC's competitive position in 2009 (when the last total remuneration study was undertaken) and 2014. The findings about UC's changing competitive position were of particular concern because they identified longer term trends in UC's competitiveness relative to its principal comparator institutions.

The major findings included the following: UC's position with respect to total remuneration fell 8% between 2009 and 2014, from 2% below market to 10% below market; salaries fell from 10% below market to 12% below market; health and welfare benefits declined from 6% above to 7% below; changes to UC's retirement plans since 2009 based on the 2013 Tier have reduced UC's positioning against the market from 29% above market to 2% below market; total retirement decreased from 33% above market to 6% above market; and total benefits decreased from 18% above market to 1% below market.

The study found that the total remuneration mix changed substantially between 2009 and 2014. In 2009, salaries and benefits represented 68% and 32% of total remuneration, respectively. In 2014, salaries increased by 10% (to 78%) of total remuneration and benefits decreased by 10% (to 22%), underscoring the need for competitive salaries to address further erosion of UC's market position. Other staff salaries in most workforce categories exhibit similar downward trends. The University is concerned about UC's competitiveness with respect to compensation and the widening gap between funds available for compensation and the resources needed to fund competitive salaries.

RECENT HISTORY OF SALARY INCREASES FOR POLICY-COVERED STAFF

2001-02 and 2002-03: Staff salary increases were lower than planned because of limited State funding.

2003-04 and 2004-05: The University instituted additional internal budget cuts in order to fund academic merit increases for faculty, but no employees received a general range adjustment and staff employees received no merit increases.

2005-06 through 2007-08: The Compact with the Governor provided funding for academic and staff salary increases.

2008-09 through 2010-11: Due to budget shortfalls, general salary increases were not provided to faculty or staff. However, the University continued to fund faculty merit increases by redirecting funds from existing resources.

2009-10: The Regents approved a one-year salary reduction/furlough plan effective September 1, 2009 to August 31, 2010. The plan instituted a tiered system of furloughs and pay reductions, based on employee pay; employees were furloughed from 10 to 26 days per year, with the lowest paid employees (up to $40,000) subject to the fewest furlough days. Pay reductions ranged from 4% to 10% per year for employees. The plan is estimated to have saved $136 million in General Funds to help address the State funding shortfall and $236 million from all fund sources.

2011-12: For the first time since 2007-08, policy-covered staff were eligible for merit salary increases (excludes Senior Management earning over $200,000 per year).

2012-13: No salary increases were given to policy-covered staff.

2013-14: General salary increases of 2% for academic personnel and 3% for policy-covered staff were implemented.

2014-15: General salary increases of 3% for policy-covered staff and academic personnel were implemented.

2015-16 through 2019-20: Merit-based salary increases averaging 3% for policy-covered staff and academic personnel were implemented.

2020-21: No salary increases were given to policy-covered staff.

employees, UC needs to have predictable, fair, and competitive compensation programs.

Illustrating UC's staff compensation gap problem is the total compensation of UC chancellors. The average compensation for this group lags behind that of Association of American Universities (AAU) institutions by 53%. Among their peers at other public members of the AAU, compensation for UC chancellors trails by 37%, falling in the bottom third, despite the size, complexity, and stature of UC campuses.

For the four of the last five years the University has been able to provide modest salary increases to non-represented staff due in part to increases in the State budget. In addition to helping to restore staff morale, these actions also assist the University's efforts to retain skilled, experienced employees. These increases have started to address the lack of salary increases during the Great Recession and years immediately following that significant economic downturn. Represented staff have received contractually negotiated salary increases on schedule.

EMPLOYEE HEALTH AND WELFARE BENEFITS

As part of the total compensation package for faculty and staff, the University seeks to provide competitive health and welfare benefits including medical, dental, vision, basic disability and life coverage. UC offers a range of medical plans to meet the varying needs of its employees, including HMOs for employees wanting predictable out of pocket costs, PPOs for those who prioritize choice of providers, and a Health Savings Plan that provides members with more financial control. For additional protection from adverse life events, employees may purchase optional voluntary disability, supplemental life, accidental death and legal insurance. Depending upon appointment type, the University may pay on average 35% to 40% of an employee's annual base salary in employer benefits.

The University continues its commitment to manage healthcare expenses despite health costs that are growing faster than the US economy and the uncertain future of the Affordable Care Act. To strengthen efforts on managing costs, UC Health and Human Resources created an innovative partnership, leveraging the University's capabilities as both provider and payer of health care to improve health outcomes while maintaining costs. These strategies include:

- Self-funding all PPO plans, including the Health Savings Plan.

- Providing incentives for employees and retirees to seek care at the world-renowned UC Medical Centers through a tiered benefit structure.
- Creating risk-sharing arrangements between UC Medical Centers and health plan administrators. By forming Accountable Care Organizations, UC health care providers assume some of the financial risk for their patients' care, encouraging them to create the most effective and cost-efficient care delivery systems and ensuring the best health outcome for patients.
- Strengthening disease and case management programs to improve the health of the UC population across the system and for early detection of at-risk candidates, further controlling costs over time.

This leading-edge approach, forging new collaboration between UC's health care providers and the benefits management team, is designed to improve patients' experiences and health outcomes while limiting cost escalation.

Additional strategies are being employed to help control benefits costs. A request for proposals (RFP) was issued for the Blue & Gold health maintenance organization (HMO) in 2017 for launch in 2019. Similarly, an RFP was issued for dental plans in 2018 for launch in 2019. These actions helped to ensure that UC secured the best-in-class plan administration which will provide members with strong customer service at a reasonable costs.

The University, through its Human Resources Compliance unit, continues the Family Member Eligibility Verification review for health benefits, ensuring that only those eligible for coverage by University benefits were enrolled in UC-funded plans. The annualized savings from this ongoing effort is approximately $8 million.

For 2021, the UC faculty and staff medical program cost increase will be held at 4.0% over 2020. The University will fund $1.9 billion of the $2.2 billion total cost of employee medical benefits. Furthermore, no change in premium on the active employee dental plans and decrease to vision premiums result in an overall health benefit package budget increase of 3.6%.This increase in the health program is below national trend: two surveys of consulting firms show health care costs are expected to rise by 4-5% in 2021[1].

SALARY VERSUS TOTAL COMPENSATION

Job seekers often focus on salary to determine where to apply for employment. Salaries are the largest component of a compensation package and job seekers are not necessarily aware of the value of the benefits the University offers. If salaries are too low, job seekers may not even consider the total compensation package and apply elsewhere. In order to attract quality faculty and staff, the University cannot rely solely on its benefits package and must offer competitive salaries as well.

The University's goal is to offer a total compensation package that is competitive with the market. However, due to the rising costs of health and retirement benefits, and the increasing costs to employees, the value of the University's compensation package is diminishing. As these costs continue to rise, the University will experience greater difficulty recruiting and retaining high-quality faculty and staff, particularly if salaries are not competitive.

UC's progressive medical premium rate structure is designed to help offset the effects of the employee's share of the medical plan premiums on lower-paid employees. UC pays approximately 86% of medical premiums for employees on an aggregate basis, and has made a strategic decision to cover an even larger portion of the premium for those in lower salary brackets. The Medicare Advantage plans brought about significant premium savings in the retiree health population for the University. Costs increases were limited to 1.5% as opposed to the anticipated medical inflation rate of 5.1%.

Despite the University's extensive efforts to stabilize benefits expenses, UC expects the upward trend of health care costs will continue due to external factors outside of the control of UC. It is anticipated that in coming years, there will be a need to pass along a greater share of rising costs to employees through increased premiums.

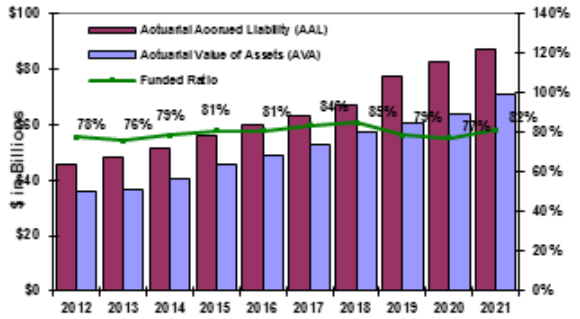
RETIREMENT BENEFITS

Pension Benefits

The University of California Retirement Plan (UCRP) is a governmental defined benefit plan that provides pension benefits for more than 70,000 retirees and survivors and has more than 128,000 active employee members as of

[1] 2021 Milliman Medical Index and WTW 2021 Global Medical Trends Survey Report

Display XIX-4: UCRP Historical Funded Status (Campus and Medical Centers, Dollars in Billions)



The UC Retirement Plan funded percentage was 82% on an actuarial value of assets (AVA) basis as of July 2021.

July 1, 2021[2]. UCRP promotes recruitment of talented individuals and provides incentives for long careers with UC. Because UCRP provides guaranteed benefits, career faculty and staff gain income security over the span of their retirement years. UCRP disbursed $3.64 billion in retirement benefits in 2020-21.

Employer and Member Contributions

Prior to November 1990, contributions to UCRP were required from all employer fund sources and from employees (members). In the early 1990s, the Regents suspended University and member contributions to UCRP after actuaries determined that UCRP was adequately funded to provide benefits for many years into the future. The University estimates that in the nearly 20 years during which employer contributions were not required, the State saved over $2 billion in contributions for those UCRP members whose salaries were State-funded. Employer and member contributions were re-started in April 2010.The total cessation of contributions, which was desirable at the time for a variety of reasons, has created a serious problem today. For almost 20 years, faculty and staff continued to earn additional benefits as they accumulated UCRP service credit, yet no funds were collected from the fund sources that were supporting member salaries and invested in UCRP to offset the annual increase in liabilities. Plan liabilities currently increase by over $2.6 billion (about 20% of covered payroll) annually as active members earn an additional year of UCRP service credit.

Transfers to UCRP

April 2011: $1.1 billion from the UC Short Term Investment Pool (STIP)

July 2011: $935 million from external borrowing through the issuance of a variable rate general corporate bond

July 2014: $700 million from STIP

December 2015: $564 million from STIP

2015-16: $96 million from Proposition 2 funding

July – December 2016: $481 million from STIP

2016-17: $171 million from Proposition 2 funding

2017-18: $169 million from Proposition 2 funding

July – December 2017: $392 million from STIP

2018-19: $500 million from STIP

2019-20: $500 million

Future transfers authorized (from STIP):

2020-21: $600 million

2021-22: $700 million

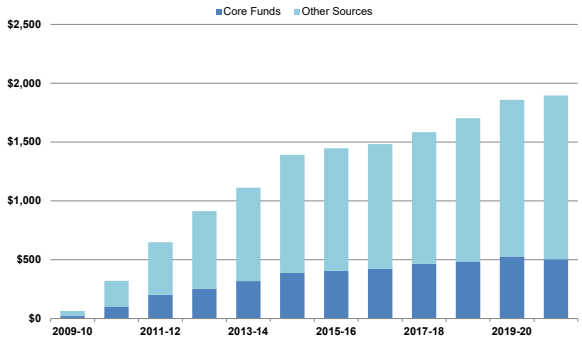
Display XIX-5: Employer and Employee UCRP Contribution Rates[1]

	Employer		Most Prevalent Member Rate
	UCRP	STIP Note/ Bond Debt[2]	UCRP
2010-11	4.00%	0.00%	2.00%
2011-12	7.00%	0.07%	3.50%
2012-13	10.00%	0.63%	5.00%
2013-14	12.00%	0.65%	6.50%[3]
2014-15	14.00%	0.72%	8.00%
2015-16	14.00%	0.60%	8.00%
2016-17	14.00%	1.15%	8.00%
2017-18	14.00%	1.27%	8.00%
2018-19	14.00%	1.70%	8.00%
2019-20	14.00%	2.42%	8.00%
2020-21	14.50%	1.36%	8.00%
2021-22	15.00%	1.36%	8.00%

[1] Measured as a percentage of base pay. Member contribution amounts are pretax minus $19 per month for 1976 Tier members. Member contributions are subject to collective bargaining agreements. Contributions were resumed in April 2010 at the 2010-11 rates shown.
[2] Payroll assessment to cover the principal and interest on the STIP note and bond debt used to avoid further increases in the unfunded liability for UCRP.
[3] Member contributions for employees hired on or after July 1, 2013 (in the 2013 and 2016 tiers) will be 7% with no $19 per month offset.

[2] For campuses and medical centers (excludes DOE Labs).

Display XIX-6: Actual and Projected Employer Contributions to UCRP and Savings Choice by Fund Source (Dollars in Millions)



Employer contributions to UCRP restarted in April 2010. Core-funded programs contributed $503 million to UCRP in 2020-21. Other fund sources contributed the remaining $1.4 billion.

Due to both increasing liability and turmoil in financial markets, the actuarial-funded ratio of UCRP for all locations excluding DOE labs, fell from 156% in July 2000 to 82% in July 2021. The accrued liability exceeds the actuarial value of assets by $16 billion. The extent to which this unfunded liability grows depends on future investment returns, as well as employer and member contributions to UCRP and any future changes in actuarial assumptions or plan provisions. The 2009-10 Governor's Budget acknowledged the need to provide $96 million for its share of employer contributions (covering employees funded from State funds and student fees), representing a rate of 4% to begin on July 1, 2009, rather than the proposed 9.5% employer rate. However, the Governor's budget proposal reduced this amount to $20 million, and ultimately no funding for this purpose was included in the budget act.

In 2012-13, the State provided an augmentation to the University's budget of $89.1 million intended as support of the State's share of the contribution to UCRP.

In September 2010, the Regents approved increases to both employer and member contributions for 2011-12 and 2012-13. Employer contributions rose from 4% in 2010-11 to 7% for 2011-12, to 10% for 2012-13, to 12% for 2013-14, and to 14% effective July 1, 2014. Contributions for most members rose from approximately 2% in 2010-11 to 3.5% for 2011-12, to 5% for 2012-13, to 6.5% in 2013-14, and to 8% effective July 1, 2014.

Changes to actuarial valuation assumptions, mainly assumptions regarding investment returns and mortality rates, significantly increased plan liabilities and decreased the funded status of UCRP. In September 2019, the Regents approved a plan to increase the employer contribution rate from 14% to 17% over six years starting in 2020-21. The funded status of the University's retirement plan improved markedly in 2020-21 on a market valuation basis. As a result, the University is considering a reduction in the employer contribution rate from 15% to 14% effective July 1, 2022.

In December 2010 and March 2011, the Regents gave the President authority to transfer funds from the UC Short Term Investment Pool (STIP) to UCRP to help avoid further increases in the unfunded liability. In November 2015, the Regents again delegated to the President of the University authority and discretion to fully fund the Actuarially Determined Contribution (ADC) for the non-laboratory segment of UCRP during fiscal years 2015-16 through 2017-18. For UCRP the ADC is the total funding policy contribution less expected member contributions. Campus and medical center payroll funds were assessed a fee to cover the principal and interest on the STIP note and bond debt. These cash transfers to UCRP were authorized to prevent future employer contributions to UCRP from rising to unsustainable levels. In addition, in 2015, the State provided a total of $436 million in Proposition 2 funding over three years to help reduce the University's unfunded liability for UCRP, subject to certain conditions described below.

Changes to Post-Employment Benefits

In December 2010, the Regents took action to make changes to post-employment benefits that reduced long-term costs. Most significantly, the Regents approved the establishment of a new tier (2013 Tier) of pension benefits for employees hired or (in certain situations) rehired on or after July 1, 2013, which increased the earliest retirement age from 50 to 55 and the maximum age factor from age 60 to 65. In addition, 2013 Tier members are paying 7% of covered compensation.

In September 2012, the Governor signed legislation to reform the California Public Employees Retirement System (CalPERS) for State employees hired after January 1,

2013. The legislation limited the maximum compensation used for benefit calculations, required State employees to pay 50% of their pension costs, and increased the earliest retirement age from 50 to 52 and the age at which the maximum age factor applies from 63 to 67. The pension reform also included measures (similar to measures the University already has) to prevent abusive practices such as "spiking," when employees are given big raises in their final year of employment as a way to inflate their pensions.

General Accounting Standards Board (GASB) rules require UC to report unfunded pension liabilities on its financial statements. As of June 30, 2021, UC recorded a net pension liability of $6.7 billion.

In 2012-13, the State provided an augmentation to the University's budget of $89.1 million intended as support of the State's share of the contribution to UCRP. This augmentation was a welcomed acknowledgement of the State's responsibility for its share of these costs. In 2020-21, the University is contributing an estimated $553 million from core fund sources and $1.8 billion from all sources to UCRP.

As described earlier, the State provided one-time funding for UCRP totaling $436 million over three years, beginning in 2015-16. This funding could only be used to help fund the unfunded liability associated with UCRP and was conditional on a requirement that the University adopt a cap on UCRP covered compensation consistent with the cap mandated for other California public retirement plans by the Public Employees' Pension Reform Act of 2013 (the PEPRA cap).

In March 2016 the Regents approved a new retirement choice program for employees hired or rehired on or after July 1, 2016. Under this program, new or rehired employees can choose to participate in Pension Choice or Savings Choice.

Employees who choose Pension Choice become members of a new tier (the 2016 Tier) in the current defined benefit plan, UCRP. The 2016 Tier includes a cap on covered compensation for newly hired employees consistent with the PEPRA cap. For 2021, the cap is $128,059 for employees with Social Security and $153,671 for employees without Social Security. All other provisions of the 2016 Tier are the same as for the 2013 Tier, including the employer and employee contribution rates. The employee contribution is 7% and effective July 1, 2021 the University contribution is 15% of covered compensation, but only up to the PEPRA cap for newly hired employees.

In addition to the defined benefit provided by UCRP, employees who chose Pension Choice may be eligible to receive a supplemental benefit under the UC Defined Contribution (DC) Plan. The employee contribution is 7% of covered compensation in excess of the PEPRA cap. The University contribution is 5% of all covered compensation for faculty and certain other academic appointees. For all other employees who choose Pension Choice, the University contribution is 3% of covered compensation that exceeds the PEPRA cap. This supplemental DC plan benefit was adopted to ensure that the University's retirement benefits continue to be competitive.

Employees who choose Savings Choice do not become members of UCRP but instead receive their primary retirement benefits from the DC Plan. The employee contribution is 7% of covered compensation; effective July 1, 2021 the University contribution is 15% (8% to participant accounts and 7% to reduce the UCRP unfunded liability). Contribution amounts are invested in funds selected by the participant. Under Savings Choice, covered compensation is not subject to the PEPRA cap.

Savings Choice was adopted as an alternative to mandatory participation in UCRP to make UC more competitive in the labor markets for specific types of employees who typically have several employers during their careers and, therefore, may prefer the portable benefits provided by a defined contribution plan.

Annuitant Health Benefits

As part of the benefit package, UC provides medical and dental benefits for nearly 74,000 eligible retirees, survivors, and their dependents.[3] Eligible individuals who retire from UC with a monthly pension have health care coverage options similar to those offered to active employees. In

[3] For campuses and medical centers (excludes DOE Labs).

2021, the maximum UC contribution will be 70% of retiree medical premiums for in-state Medicare-eligible retirees and 70% of retiree medical premiums for non-Medicare-eligible retirees under age 65. Currently, the University does not pre-fund retiree health benefits and pays its share of health benefits for annuitants on a "pay-as-you-go" basis, whereby current plan premiums and costs are paid from an assessment on payroll of 2.36%. For 2021-22, UC's costs for annuitant health benefits are projected to be $347 million from all fund sources.

As of June 30, 2021, UC has a Total OPEB liability (TOL) for retiree health of 24.4 billion. This amount represents the cost of benefits accrued to date by current faculty, staff, and retirees based on past service. In December 2010, in order to reduce long-term costs and the unfunded liability for retiree health, the Regents approved changes to retiree health benefits. Changes included gradual reductions in the University's aggregate annual contribution to the Retiree Health Program to a floor of 70% (subject to annual review) and a new eligibility formula for all employees hired on or after July 1, 2013.

General Accounting Standards Board (GASB) rules require UC to report accrued unfunded retiree health liabilities on its financial statements. As of June 30, 2021, UC recorded a net retiree health liability of $24.2 billion.

The budget plan for 2021-22 included funding for the increase in core funded annuitant health benefits.

In January 2018, Emeritus President Napolitano established the Retiree Health Benefits Working Group. The group was charged with exploring potential strategies and developing options for UC leaders to consider to ensure the long-term viability of the Program. After reviewing the group's report and reviewing the cost estimates for retiree health benefits for 2019, the President agreed to the following recommendations: to apply no significant changes to UC's contribution levels or plan design for 2019, and to gradually reduce the UC contribution for eligible retirees age 65 and older who have not elected Medicare coverage (or who are unable to coordinate with Social Security). This gradual reduction is meant to ensure equity between retiree groups.

NON-SALARY PRICE INCREASES

Prices of equipment, supplies, utilities, and other non-salary items purchased by the University are also rising. Non-salary items include instructional equipment and supplies such as chemicals, computers, machinery, library materials, and purchased utilities. Increases in non-salary costs without corresponding increases in budgeted funds oblige campuses to find alternative fund sources or efficiencies to cover these costs.

Department of Energy - UC National Laboratories

Since 1931, the University has played a major public service role as manager of three Department of Energy (DOE) and National Nuclear Security Administration (NNSA) laboratories. In this role UC has focused on ensuring the health and vitality of the intellectual environment, promoting the highest integrity and quality standards in research, and sustaining efficient and effective business and operations functions at the national laboratories. UC's partnership with DOE has also provided extensive research opportunities for faculty and students, both via collaborations with national lab scientists and through access to unique research facilities at the laboratories.

Lawrence Berkeley National Laboratory (LBNL)

The University was awarded a new management and operating contract for LBNL in 2005.This contract, which had an initial five-year term, has been extended through 2025 following favorable DOE evaluations. The contract may be extended further through an award term provision that adds contract years, based on excellent annual performance, not to exceed 20 years in total, or until 2025.

Lawrence Livermore National Security Limited Liability Company

Lawrence Livermore National Laboratory (LLNL) is managed and operated by Lawrence Livermore National Security, LLC (LLNS), of which the University is a member. LLNS has managed LLNL since October 1, 2007. The Prime contract had an initial seven-year term that could be extended further, based on performance, through an award term provision for additional years, not to exceed 20 years in total. The LLNS contract currently expires on September 30, 2025, but may be extended for additional years through award terms based on laboratory performance.

Triad National Security Limited Liability Company

The Los Alamos National Security, LLC management and operating contract for LANL expired on October 31, 2018. The University submitted a successful bid for a follow-on contract for LANL with a new partnership, Triad National Security, LLC, which was awarded the contract in 2018 by the Department of Energy's National Nuclear Security Administration (DOE/NNSA). Triad assumed management of LANL on November 1, 2018. The contract includes a five-year base with a five year option period, for a total of ten years if all options are exercised.

REVENUE STREAMS

LLC Income

Net income to UC from LLNS and Triad reflects UC's net share of fee income remaining after payment of unreimbursed costs incurred by the LLCs at the two national laboratories and shares to other LLC owners. The majority of net income available after UC's expenses are allocated is used to fund the UC National Laboratory Fees Research Program, which fosters collaborative research between the UC campuses and LLNL and LANL. At their July 2021 meeting, the Regents approved an expenditure plan for income from Triad and LLNS totaling $27.60 million for 2020-21, as shown in Display XX-1.

Indirect Cost Reimbursement

Under its contract for LBNL, the University receives indirect cost reimbursement from DOE. In accordance with a Memorandum of Understanding between the University and the State Department of Finance, this indirect cost reimbursement contributes to UC General Fund income and helps support the University's research programs. Negotiations are continuing with DOE on the direct and indirect cost allocation methodology for the coming years.

DOE Management Fee

The University's management fees from LBNL are gross earned amounts before the University's payments of unreimbursed costs. For 2020-21, LBNL is eligible to earn a maximum of $7.3 million in management fee revenue. This fee revenue will be used for costs of LBNL-determined research programs not funded by DOE, reserves for future claims, a portion of UCOP indirect support costs, and other unreimbursed costs associated with LBNL.

Display XX-1: Expenditure Plan for Income from LLNS and Triad (Dollars in Millions) for 2021-22

Contract Non-Reimbursable Compensation for LLC Employees in UC-Designated Key Personnel Positions	$1.6
UCOP Oversight	$7.33
Post-Contract Contingency Fund	$2.0
LLC Fee Contingency Fund (maintained at $7.0 million)	$0
UC Laboratory Fees Research Program	$10.0
Livermore Lab Foundation	$0.3
ATOM	$1.0
Capital & Campus Opportunity Fund	$1.7
Triad Reserve Fund	$2.0
Business Development	$1.67
Total allocation 2021-22	$27.60

Historical Perspective

The University's ability to contribute to the economic, intellectual, and cultural vitality of California is due in large part to critical financial support provided by the State of California since the University's inception. That support remains an essential part of the University's core operating budget today. Historically, the University's State-funded budget has reflected the cyclical nature of the State's economy. During times of recession, the State's revenues have declined and appropriations to the University either held constant or were reduced. When the State's economy has been strong, there have been efforts to catch up. Prior to the Great Recession of 2008, significant economic downturns were followed by sustained periods of moderate, and sometimes extraordinary, economic growth. However, although the early 2000s began with an economic downturn, there was no sustained recovery as in prior years. Instead, the State was cast into a second downturn within two years of emerging from the first – and this was the longest and deepest downturn of all. This chapter details the history of State funding of the University over the last several decades.[1] A summary of State budget actions for UC since 2002-03 can be found at the end of this chapter in Display XXI-5.

1995-96 THROUGH 1999-00: THE COMPACT WITH GOVERNOR WILSON

The introduction of Governor Pete Wilson's 1995-96 budget, which included a Compact with Higher Education that was ultimately operational through 1999-00, represented a significant milestone in the recent history of State support for the University. The Compact, described in Display XXI-1, followed years of budget reductions to nearly every aspect of the University's operations, including cuts to the University's core-funded workforce and a substantial gap between UC faculty salaries and those of its comparison institutions. The goal of the Compact was to provide fiscal stability and allow for enrollment growth through a combination of State General Funds and student fee revenue.

DISPLAY XXI-1: PROVISIONS OF THE COMPACT WITH GOVERNOR WILSON, 1995-96 THROUGH 1999-00

- State funding increases to the University's base budget, averaging 4% per year
- Student fee increases averaging about 10% annually
- Further fee increases in selected professional schools
- At least 33% of new student fee revenue dedicated to financial aid
- Added financial aid through State Cal Grant Program
- Additional funding for deferred maintenance
- $10 million budget reduction each year for four years, i.e., built-in cuts of $10 million associated with expected efficiency savings
- $150 million per year for capital budget
- Priority given to life-safety and seismic projects, infrastructure, and educational technology

The funding provided under the Compact was to be sufficient to prevent a further loss of financial ground as the University entered a period of moderate enrollment growth of about 1% per year. The Compact was not intended to provide restoration of funding that had been cut during the early 1990s, but it did provide UC with much-needed fiscal stability after years of cuts, as well as a framework to begin planning for the future.

The Compact of 1995-00 was remarkably successful, allowing the University to maintain the quality, accessibility, and affordability that have been the hallmarks of California's system of public higher education. The University enrolled more students than the Compact anticipated, particularly at the undergraduate level, and the State provided funding to support them. Declining budgets were stabilized and further deterioration of the University's budget was halted.

Ultimately, the Governor and the Legislature not only honored the funding principles of the Compact, but also provided funding above the levels envisioned in the Compact. This additional funding allowed for buyouts of

[1] Information about State funding is also available in the *Sources of University Funds* chapter.

student fee increases and for reductions in student fees for California resident students; provided $35 million for a number of high priority research efforts; and increased funding for K-14 and graduate outreach by $38.5 million to expand existing programs and develop new ones.

Altogether, the State provided nearly $170 million in funding above the level envisioned in the Compact. In addition, general obligation bonds and/or lease revenue bonds were provided each year for high priority capital projects.

2000-01: A NEW PARTNERSHIP AGREEMENT WITH GOVERNOR DAVIS

Governor Gray Davis entered office in January 1999 with a commitment to improve California public education at all levels. For UC, his commitment manifested itself in a new Partnership Agreement, described in Display XXI-2, a comprehensive statement of the minimum resources needed for the University to maintain quality and accommodate enrollment growth projected throughout the decade. The Agreement was accompanied by the expectation that the University would manage these resources so as to maintain quality, improve relationships with K-12 schools, and increase community college transfer enrollment, among other goals.

The significant infusion of State funding over this period was welcome support for the University. Faculty salaries once again reached competitive levels, the University began to address salary lags for staff employees, enrollment growth was fully funded, progress was made to restore funding for core areas of the budget, student fees were kept low, and funds supported a variety of research and public service initiatives of importance to the State and the University.

2001-02 THROUGH 2004-05: ANOTHER STATE FISCAL CRISIS

Unfortunately, by 2001-02, the State's fiscal situation began to deteriorate. The University based its budget request on the Partnership Agreement and included information about other high priorities for the University and the State to be funded when the State's economic situation improved. The Governor's Budget, released in January 2001, proposed full funding for the University's budget request as well as additional funds for initiatives beyond the Partnership Agreement. By the time the May Revision was issued, however, the State's financial situation had weakened to the point of requiring reductions to the funding levels that the Governor had originally proposed – and the State became fully engaged in a major fiscal crisis that was to last four years.

DISPLAY XXI-2: PROVISIONS OF THE PARTNERSHIP AGREEMENT WITH GOVERNOR DAVIS

- 4% increase to the base budget each year to provide adequate funding for salaries and other cost increases
- Marginal cost funding for enrollment growth
- Further 1% annual increase to the base budget to address chronic underfunding of State support for core areas of the budget
- Acknowledgement of the need to either increase fees or provide equivalent revenue
- Commitment to provide State support for summer instruction
- State bond funding of $210 million annually

The Budget Act of 2001 was the first budget in seven years that did not provide full funding of the Partnership Agreement or the earlier Compact. Partnership funds totaling $90 million were eliminated from the University's proposed budget, thereby significantly reducing the funding available for compensation and other fixed costs and eliminating the additional 1% ($30 million) above the 4% base budget increase originally proposed for core needs.

The budget did, however, provide an increase of $131 million, which included partial funding of the Partnership. Several initiatives representing high priorities for the Governor and the Legislature were also funded above the level called for under the Partnership, totaling $75 million in one-time and $3 million in permanent funds. UC's State General Fund budget for 2001-02 totaled $3.3 billion.

By the time development of the 2002-03 budget began, the State's fiscal situation had deteriorated markedly, necessitating the unusual action on the part of the Governor and the Legislature to adopt mid-year budget reductions for UC totaling $45.8 million for the 2001-02 budget. The State's budget deficit for 2002-03 eventually grew to $23.5 billion.

The Budget Act of 2002 provided funding to the University for a 1.5% increase to the base budget — instead of the 4% called for in the Partnership Agreement — to fund compensation, health and welfare benefits, and other increases. Increases to UC's State General Fund budget totaled $149 million. While the increases to the budget were welcome, the budget also included base budget reductions totaling $322 million. State General Funds provided to the University in the 2002-03 Budget Act totaled $3 billion.

Mid-year cuts instituted in December 2002 (though not formally approved by the Legislature until March 2003) included $70.9 million in further base budget cuts for UC. In addition to cuts targeted at specific programs, $19 million was designated as an unallocated reduction[2], which the University offset by instituting a mid-year increase in mandatory systemwide student fees.

By the time the mid-year budget cuts were approved for 2002-03, the State was facing a deficit for 2003-04 that was unprecedented in magnitude. With the release of the May Revision, the Governor estimated the State deficit to total $38.2 billion. For the University, cuts proposed by the Governor in January totaling $373.3 million and affecting nearly every area of the budget were all approved in the final Budget Act; this included $179 million in cuts, offset by increases in mandatory systemwide student fees, that otherwise would have been targeted at instructional programs.

The University took $34.8 million of the total cut that had been targeted at improving the University's student-faculty ratio as an unallocated reduction instead. In addition to cuts proposed by the Governor, the Legislature proposed $98.5 million in unallocated cuts that ultimately were included in the final budget. Of the total, $80.5 million was designated as one-time and $18 million was designated as permanent.

The final budget for 2003-04 did include some funding increases; however, most of the Partnership was not funded and the $29 million reduction in 2002-03 to core areas of the budget that had previously been specified as a one-time cut was not restored. The 2003-04 State General Fund budget approved in the Budget Act for the University was $2.87 billion, $282 million less than the State General Fund budget for 2002-03 adopted in September 2002.

A final round of mid-year reductions occurred in December 2003, totaling $29.7 million. While these mid-year reductions were originally intended by the Governor to be permanent reductions, the budget agreement for 2004-05 restored funding for some programs. Consequently, the mid-year reductions were taken on a temporary basis in 2003-04 and only $15 million associated with the unallocated reduction was ultimately approved as a permanent reduction. That reduction was ultimately offset on a permanent basis as part of the student fee increases approved for 2004-05.

The State remained in fiscal crisis for 2004-05 and the reductions to the University's budget were once again substantial. State funds for 2004-05 totaled $2.72 billion, $147 million less than the funding level provided in the previous year. Base budget reductions included another cut to research and a reduction to academic and institutional support. Once again, another cut had originally been targeted at increasing the University's student-faculty ratio, but was instead taken by the University as an unallocated reduction.

Also included in the total reduction to the University's budget was $183.5 million in cuts, which were offset by increases in student fees. In 2004-05, undergraduate fees rose 14%, graduate academic fees rose 20%, and graduate professional fees rose 30%, which still generated $5 million less than expected. As a result of the shortfall, campuses were asked to absorb a temporary unallocated reduction of $5 million until fees could be raised again in 2005-06. Nonresident tuition was also increased by 20% in 2004-05 for undergraduate and graduate academic students.

One of the most difficult issues facing the University in the 2004-05 budget related to funding for enrollment. For the first time in recent history, the University was asked to reduce enrollment to help meet budget reductions. The

[2] Unallocated reductions represent State budget cuts to the University that are not assigned to any particular budgetary function or existing program.

Governor's January budget had proposed a 10%, or 3,200 FTE, reduction in University freshman enrollments and called for the campuses to redirect these students to the California Community Colleges for their first two years of study before accepting them to enroll for their upper-division work at UC, a program referred to as the Guaranteed Transfer Option (GTO). As part of the actions taken on the final budget for 2004-05, the Governor and the Legislature reached a compromise that lowered the reduction in enrollment from 3,200 FTE to 1,650 FTE, which allowed the University to offer freshman admission to all students who originally received the GTO offer and preserve the Master Plan guarantee of access for eligible students.

Following the compromise, the University immediately sent offers of freshman admission to all eligible students who had not yet received a UC freshman offer. Among the roughly 7,600 applicants initially offered GTO and later offered freshman admission, approximately 1,850 enrolled at UC during 2004-05. Another 500 remained as GTO students with plans to later transfer to the University as upper division students.

Among other actions, the Governor's January budget proposed elimination of all State funds for the Institute for Labor and Employment (ILE) and student academic preparation. As part of the final budget package, the Governor and the Legislature assigned ILE a $200,000 reduction and cut student academic preparation by $4 million, leaving the program with a total of $29.3 million for 2004-05. The final budget did, however, eliminate all remaining funding for the Digital California Project (K-12 Internet) from UC's budget. Also, $80.5 million that was cut as part of a one-time reduction in 2003-04 was restored, consistent with the prior year's Budget Act; consistent with past practice, funding for annuitant health benefits and lease revenue bond payments was provided.

With the 2004-05 budget, as a result of the State's fiscal crisis, the University's State General Fund budget was nearly $1.5 billion below what it would have been if a normal workload budget had been funded for the previous four years. About one-third of this shortfall was accommodated through base budget cuts to existing programs and one-fourth was addressed through student fee increases. The remainder represented foregone salary increases and other unfunded cost increases.

DISPLAY XXI-3: PROVISIONS OF THE COMPACT WITH GOVERNOR SCHWARZENEGGER, 2005-06 THROUGH 2010-11

- Base budget adjustments of 3% in 2005-06 and 2006-07 and 4% for 2007-08 through 2010-11
- Additional 1% base budget adjustments for annual shortfalls in core areas beginning in 2008-09 and continuing through 2010-11
- Marginal cost funding for enrollment growth of 2.5% per year
- Student fee increases of 14% in 2004-05 and 2005-06 for undergraduates, and 20% in 2004-05 and 10% in 2005-06 for graduate students, followed by fee increases consistent with Governor's proposed long term student fee policy beginning in 2007-08
- Annual adjustments for debt service, employer retirement contributions, and annuitant health benefits
- One-time funds and new initiatives when the State's fiscal situation allowed
- At least $345 million of capital outlay annually

A NEW COMPACT WITH GOVERNOR SCHWARZENEGGER

As the State's economic recovery remained slow, Governor Arnold Schwarzenegger's proposed solution to the overall deficit included major budget reductions in most areas of the budget, heavy borrowing, and several one-time actions that would only delay further cuts into future years. The University was gravely concerned about the future of the institution and the potential long term effect on quality of the academic enterprise as the State fought its way out of its economic crisis. The Governor was equally concerned about the University's future and asked his administration to work with the University and with the California State University on a new long-term funding agreement for the four year institutions.

A new higher education Compact was announced by Governor Schwarzenegger in May 2004, shown in detail in Display XXI-3. Negotiation of the Compact with Governor Schwarzenegger helped stem the tide of budget cuts that had prevailed for four years.

According to the Compact, beginning in 2007-08, the University was to develop its budget plan each year based on the assumption that fees would be increased consistent

with the Governor's proposed long-term student fee policy, which said that student fee increases should be equivalent to the rise in California per capita personal income or up to 10% in years in which the University determined that providing sufficient funding for programs and preserving academic quality would require more than the per capita increase rate. Revenue from student fees would remain with the University and would not be used to offset reductions in State support. The Compact also called for UC to develop a long-term plan for increasing professional school fees that considered average fees at other public comparison institutions, the average cost of instruction, the total cost of attendance, market factors, the need to preserve and enhance the quality of the professional programs, the State's need for more graduates in a particular discipline, and the financial aid requirements of professional school students. Revenue from professional school fees would remain with UC and would not be returned to the State.

As with the first iteration of the Compact under Governor Wilson, the new Compact included accountability measures relating to issues that traditionally had been high priorities for the State, including maintaining access and quality; implementing predictable and moderate fee increases; enhancing community college transfer and articulation; maintaining persistence, graduation, and time-to-degree rates; assisting the state in addressing the shortage in science and math K-12 teachers; returning to paying competitive salaries and closing long-term funding gaps in core areas of the budget; and maximizing funds from the federal government and other non-State sources. The University was to report to the Administration and the Legislature on its progress in these areas each year.

With the 2005-06 budget, the Compact represented a true turning point. The first three years of the Compact were very good for the University. In each year, the State provided adequate funding and UC began to address major shortfalls that had occurred in the recent fiscal crisis.

Over that three-year period, base budget adjustments helped support salary cost-of-living, market-based, and equity salary adjustments; merit salary increases; health and welfare benefit cost increases; and non-salary price increases. Enrollment workload funding was provided to support significant enrollment growth. In addition, the marginal cost of instruction methodology was revised in 2006-07 to more appropriately recognize the actual cost of hiring faculty, and to include a component for maintenance of new space, which had not been adequately funded by the State in recent years. In each of the three years, UC was also able to direct $10 million for a multi-year plan to restore $70 million of unallocated reductions that had originally been targeted at instructional programs. Thus, $30 million was put toward this goal. The State also funded several initiatives during this period, including the Science and Math Initiative, the labor and employment institutes, and the Gallo Substance Abuse Program.

Funding for student academic preparation programs was a major issue in the budget process for all three years. In each year, the Governor's January budget proposed eliminating State funds for this program, leaving only the University's $12 million in support for student academic preparation as called for in the Compact. In the end, the final Budget Act each year restored the State support, and in 2006-07, included an augmentation of $2 million for community college academic preparation programs. In 2007-08, the University's budget included $500,000 to support an increase for the California State Summer School for Mathematics and Science (COSMOS), an intensive academic four-week residential program for motivated high school students.

Also in 2007-08, the Governor's January budget had proposed eliminating of State funds for labor and employment research; however, the Legislature augmented the University's budget by $6 million to restore funding for labor research to its original level when the program was initiated in 2000-01.

In 2005-06 and 2007-08, fee increases were implemented, but in 2006-07, the State provided funding to avoid planned increases in student fees.

There were several initiatives the University had proposed in 2007-08 that were not funded in the final budget. The University had requested that employer and employee contributions to the UC Retirement Plan be reinstated (at an estimated cost of $60 million during the first year); however, the final budget did not include these funds. Also

in 2007-08, the January Governor's budget proposed increasing core support for the four California Institutes for Science and Innovation by a total of $15 million to ensure that each Institute had a minimum level of operating support with which to operate, which in turn would serve as seed money to continue to attract funds from industry and governmental sources.

UC's State-funded budget rose 5% in 2005-06, 8.2% in 2006-07, and 5.9% in 2007-08, rising from $2.8 billion in 2005-06 to $3.26 billion in 2007-08.

2008-09 THROUGH 2011-12: A SECOND STATE FISCAL CRISIS IN A DECADE

The 2008-09 academic year began, fiscally, as a very difficult year for the State. The State's ongoing structural deficit was estimated to be about $6 billion when the University developed its plan for 2008-09 in November 2007, and ended up totaling closer to $14.5 billion when the Governor and the Legislature negotiated a final budget in September 2008. The State addressed its problem through a combination of budget cuts, borrowing, and revenue enhancements such as closing tax loopholes, among other actions.

For the University, the budget was constrained, falling short of funding basic costs. In developing the Governor's Budget, the Department of Finance first "funded" a normal workload budget consistent with the Compact with the Governor, and then proposed a 10% reduction (totaling $332 million) to that higher budget to address the State's fiscal situation. The net result in the Governor's January proposal between 2007-08 and 2008-09 was a reduction to the University's base budget of $108 million (excluding lease revenue bond payments and one-time funds). The Governor's May revision proposed to restore $98.5 million of the cut proposed in January, and this restoration was sustained through the signing of the Budget Act. With the adoption of a new State spending plan in September 2008, the University's State-funded budget was essentially flat compared to 2007-08, totaling $3.25 billion.

Unfortunately, the nation, and indeed the world, was entering the worst economic recession since the Great Depression of the 1930s. As a result, estimates of revenue contained in the State's September 2008 Budget Act proved unrealistic and the State began a process of budget negotiations over a ten-month period to resolve its deficit.

First, action occurred in October, after the final Budget Act had been passed, which required the University to achieve $33.1 million in one-time savings during 2008-09. During November, the Governor called a special session of the Legislature to deal with the State's fiscal crisis. That effort ended with a new 18-month budget package adopted in February 2009 that implemented mid-year cuts for 2008-09 and developed a spending plan for 2009-10 instituting additional cuts. Within a matter of weeks, it became evident the revenue estimates used to adopt the February Special Session budget were too optimistic. Late into that summer, the Legislature adopted its third budget for 2008-09 (after the fiscal year had ended) and a revised spending plan for 2009-10 to resolve an estimated $24 billion deficit.

Again, the State used a combination of spending cuts, borrowing, transfers to the General Fund, and increased revenue (through accounting system changes rather than additional taxes) to resolve the budget deficit. The new 18-month State budget included unprecedented cuts for the University. Reductions in 2008-09 totaled $814 million and included both permanent and one-time cuts. These reductions were partially offset by $716.5 million in one-time funds provided by the federal government through the American Recovery and Reinvestment Act (ARRA) as part of a wide-ranging economic stimulus package intended to jump-start economic recovery in a number of sectors, including education. Many of the reductions for 2008-09 were not approved until after the fiscal year had ended. In addition, much of the ARRA money was not provided until the new fiscal year. Thus, the University carried forward a large negative balance at the end of 2008-09.

The funding cuts for the University's 2009-10 budget reflected the continuing fiscal crisis in the State. When compared to the budget adopted in September 2008 before the mid-year cuts began, the University's 2009-10 State-funded budget was $637 million less, totaling $2.6 billion, a reduction of 20%.

The fiscal turbulence that characterized the 20 months between December 2008 and August 2010 for the State of California did not subside with the adoption of the 2009-10

budget. The State remained unable to develop permanent solutions to address its ongoing fiscal deficit.

Thus, with the presentation in January 2010 of a proposed budget for 2010-11, the Governor once again had difficult choices to make. As a signal of the high priority he placed on maintaining funding for higher education, the Governor proposed additional funding totaling $370.4 million for UC, including the following:

- restoration of a $305 million one-time cut adopted as part of the 2009-10 budget package;
- $51.3 million to support 5,121 FTE students (at the time, UC estimated it had enrolled more than 14,000 students for whom it had not received State funding); and
- $14.1 million in annuitant benefits.

While the funding only partially addressed the shortfalls UC had experienced since 2007-08, the Governor's proposal was welcome news for UC's students, faculty, and staff, signaling that adequate funding for UC was important to the state.

Supporting the budget proposals Governor Schwarzenegger submitted in his January budget, the final budget included an additional $264.4 million for the University of California; another $106 million in one-time ARRA funds was approved in early September. Of this total amount, $199 million was permanent funding to partially restore the one-time budget cut agreed to as part of the 2009-10 State budget. When combined with the one-time $106 million in ARRA funds, the total amount restored was $305 million, which is the total restoration the Governor originally proposed. The total also included the $51.3 million to address UC's unfunded enrollment. Another $14.1 million was included for the increase in health care costs for UC's retired annuitants.

The funding of the State's share of the employer contribution to the University's retirement program, estimated to be $95.7 million in 2010-11, was an issue of great concern. The final budget package for 2010-11 did not contain the funding to support this cost. However, the Legislature did approve trailer bill language to eliminate the statutory language prohibiting any new State General Fund dollars from supporting the State's obligation to the University of California Retirement Program. The Legislature also adopted budget bill language asking for the Legislative Analyst's Office, the Department of Finance, and UC to work together to develop a proposal for how UC's retirement plan would be funded in future years. While this language was vetoed by the Governor, the Legislative Analyst's Office began to present the liability for contributions to the University's retirement program as an issue that must be addressed.

DISPLAY XXI-4: MAJOR 2011-12 STATE BUDGET ACTIONS (DOLLARS IN THOUSANDS)

Augmentation and Reductions	
Restoration of One-time Cuts	$106,000
Annuitant Health and Dental Benefits	$7,089
Undesignated Reductions (January)	($500,000)
Undesignated Reductions (June)	($150,000)
Trigger Cut (December)	$100,000
Other Initiatives	
UC Merced (one-time)	$5,000
*Total State Funding = $2.274 billion**	

*Subsequent adjustments reduced this total to $2.272 billion.

Other actions approved in the final package included budget language requiring UC to redirect $10 million from existing resources to support planning for a new medical school at UC Riverside, and $600,000 to be redirected from existing resources for the Institute of Governmental Studies at UC Berkeley.

While some of the earlier cuts in State support imposed on the University in 2008-09 and 2009-10 were restored in 2010-11, the University continued to face significant unfunded mandatory cost increases and a significant budget shortfall. In November 2010, in addition to requesting further restoration of funding, support for contributions to the UC Retirement Plan, and funding to cover the costs of unfunded enrollments from the State, UC implemented an 8% student tuition and fee increase for 2011-12.

Despite the University's request for an increase in funding, in January 2011, newly-elected Governor Jerry Brown proposed the restoration of $106 million that had been funded through ARRA during 2010-11, a $7.1 million

increase to support retiree health benefit cost increases, and a $500 million undesignated reduction in State support for UC. This reduction was part of a budget package seeking, through the referendum process, the extension of temporary tax increases that were set to expire in 2011-12. In spring 2011, the Legislature approved the Governor's proposal for UC for 2011-12. UC also faced $362.5 million in unfunded mandatory costs, bringing UC's total budget gap for 2011-12 at that point to $862.5 million.

Ultimately, the Governor was unable to gain approval for placing the tax extension referendum on the ballot for 2011-12. On June 30, 2011, the Governor signed a second budget package for 2011-12 that included additional targeted reductions for many State programs, including $150 million each for UC and CSU, an assumption of significant revenue increases, and a trigger mechanism for more cuts mid-year if revenue targets were not realized.

The combined reduction for UC totaled $750 million, $100 million of which was not allocated until mid-year. The decrease represented a cut to UC's budget of 26% over the prior year. Combined with the unfunded mandatory cost increases of $360 million, the University's budget shortfall rose above $1 billion.

In response to the additional reduction of $150 million, at their July meeting the Regents approved a 9.6% increase in mandatory systemwide charges, effective for the fall 2011 term, to replace the lost State funding. This increase, combined with the increase approved in November 2010, meant that mandatory charges rose by $1,890, or 18.3%, over 2010-11 charges. These increases covered about 26% of the University's budget shortfall for 2011-12.

The University sought endorsement by the Legislature of its plan to target specific cuts to programs that had received large increases from the State, but had not been reviewed to determine their necessity or appropriate funding level. While many of the targeted program cuts were accepted, several programs were protected by the Legislature.

2012-13: UC BEGINS TO SEE INCREASES IN STATE FUNDING

The budget package adopted by the Governor and the Legislature for 2012-13 resolved about $10 billion of the $15.7 billion gap identified by the Governor in his May Revision, primarily through cuts to Health and Human Services, Social Services, child care, Proposition 98, and other State programs. The 2012-13 State budget assumed adoption of the Governor's revenue-raising initiative (*The Schools and Local Public Safety Protection Act of 2012*) on the November ballot, which was approved by California voters in November 2012 and addressed about $5.6 billion of the gap. (If the Governor's revenue-raising initiative had not been adopted in the November election, the budget

ACTIONS TO ADDRESS BUDGET SHORTFALLS: A SNAPSHOT FROM 2012-13

The 2012-13 academic year marked the fifth year in which UC campuses implemented measures to reduce expenditures, avoid costs, and introduce efficiencies at the local level to address significant budget gaps. Academic and administrative units on the campuses had been assigned cuts ranging in general from 0% to 35%. By 2012-13, more than 4,200 staff had been laid off and more than 9,500 positions had been eliminated or remained unfilled since the beginning of the recent fiscal crisis. Over 180 programs had been eliminated and others consolidated for an estimated savings of over $116 million.

Against this backdrop, it is important to note that at that time, the University was enrolling about 11,500 students for whom it had never received funding from the State. In addition, in 2011-12 total faculty hires were substantially less than total faculty separations, yet enrollment had grown by more than 10,000 students since the fiscal crisis began. All campuses reported moving aggressively toward implementing shared service centers to reduce duplication and streamline processes. All campuses had curtailed faculty recruitment. No campus was applying across-the-board cuts; each used a consultative, deliberative process to determine how reductions should be allocated. All campuses applied disproportionate cuts to administrative programs in order to reduce the effects on academic programs. Campuses also reported taking a wide variety of other measures to avoid or reduce costs and raise new revenue to address budget shortfalls. Examples from campus reports include:

- Between April 2009 and April 2011, Berkeley reduced its staff workforce by more than 900, a 10% drop;
- Riverside reported that the average size of an undergraduate lower-division lecture class increased 33%, from just over 66 in fall 2008 to over 88 in fall 2011; and
- San Francisco eliminated Clinical Nurse Specialist programs in cardiovascular care and neonatal intensive care, as well as nurse practitioner programs.

called for nearly $6 billion in trigger reductions to various State agency budgets, including $250 million to UC and $250 million to the California State University.)

For the University, the 2012-13 budget included no further cuts to the base budget and provided an augmentation of $89.1 million toward the State's share of the employer contribution to the University's retirement plan. The budget also included an augmentation of $5.2 million for annuitant health benefits and $11.6 million for lease revenue bond debt service. The new State funding base for UC in 2012-13 was $2.38 billion, up from $2.27 billion in 2011-12. Considering the $15.7 billion budget gap that the Governor and the Legislature were addressing, UC fared well compared to other State agencies.

The budget deal also provided UC with $125 million in deferred tuition buy-out funding in the 2013-14 budget upon passage of the Governor's revenue-raising initiative passes in November. In addition, UC students were spared major cuts to their Cal Grants in the 2012-13 State budget. (The Governor's January budget had proposed several changes to the entitlement provisions, all of which were rejected by the Legislature.)

2013-14: THE BEGINNING OF THE GOVERNOR'S MULTI-YEAR PLAN

When Governor Brown took office, the State faced a $26.6 billion short-term budget problem and estimated annual gaps between spending and revenues of roughly $20 billion. With submission of the 2013-14 State budget to the Legislature in January 2013, the Governor effectively completed his two-year effort to close the state's structural budget gap. His ability to close such a significant budget gap in a short period of time was due in part to the economic recovery at both the national and state levels, as well as the passage of Proposition 30 in November 2012.

The Governor stated his highest budget priority for 2013-14 was education, as reflected in his funding recommendations for K-12, the California Community Colleges, the California State University, and the University of California. For UC and CSU, these recommendations were embodied in a multi-year funding plan that proposed a level of State funding stability for both university systems over a four-year period. The overall base budget for UC increased from $2.377 billion in 2012-13 to $2.844 billion in 2013-14. However, $400 million of that total was debt service related to capital outlay and was not available for operating budget purposes. Consistent with the 2012-13 Budget Act, the budget for 2013-14 included $125 million to buy out the planned tuition and fee increase from 2012-13, and $125.1 million for a 5% base budget adjustment, the first of four years of base budget adjustments under the Governor's multi-year funding plan for UC. Of this $125.1 million, $15 million was directed to the UC Riverside School of Medicine, $10 million was to be used to advance online education, and $3.6 million was to be used to fund the debt service for a $45 million Classroom and Academic Office Building at the Merced campus. The budget also provided $6.4 million for annuitant health benefit costs and a $10.2 million adjustment for lease revenue bond payments. In addition, the budget shifted $200.4 million of State General Obligation Bond debt service to the University's base; with this shift, the University was put in a position to benefit from future base budget adjustments.

Funding for debt service for capital outlay was changed substantially in 2013-14. With the shift of General Obligation Bond debt service to the University's budget, all State-funded debt service for capital outlay is now contained in the University's base budget. As indicated above, this is important for future base budget increases. Moreover, the State Lease Revenue bond debt has been shifted off of the State's balance sheet and onto the University's (General Obligation Bond debt service cannot be shifted from the State). The University refinanced the Lease Revenue bond debt in September 2013 – and by doing so, reduced the annual debt service by $85 million for ten years, and by $17 million for the subsequent seven years. Thus, about $185 million of the $221.4 million in UC's base budget (that otherwise would have been used to cover the State's debt service payments) was available to help cover operating costs in 2013-14. The Legislature adopted budget trailer bill language requiring that the savings be used to address the University's UCRP unfunded liability. Because these were one-time funds, this requirement temporarily alleviated pressure on the University's operating budget, and helped mitigate the fact that there was no source of funding identified for the cost

increases associated with the tuition-funded portion of the University's core operating budget.

Consistent with the Governor's request, there was no tuition increase proposed for 2013-14; tuition and fees remained flat at 2011-12 levels.

2014-15: ANOTHER YEAR OF FISCAL CONSTRAINT

The 2014-15 budget year marked the second year of the Governor's multi-year plan for UC. In addition to the base budget adjustment proposed by the Governor, other additional funds were targeted for the Governor's and Legislature's priorities. Specifically, the 2014-15 budget included the following provisions:

- an additional $142.2 million from the State General Fund, representing a 5% increase to the University's base State General Fund budget (or a 1.8% increase in total core funds).
- $2 million in one-time funding for the Labor Centers at UC Berkeley and UC Los Angeles;
- $2 million in one-time funding to establish the California Blueprint for Research to Advance Innovations in Neuroscience (Cal BRAIN) program intended to leverage federal funding opportunities to accelerate the development of brain mapping techniques;
- $15 million from the Proposition 63 mental health fund for the Behavior Health Centers for Excellence of California at UC Davis and UC Los Angeles.

The final budget specified that $2 million of the permanent State funds provided to the University must be used for the Labor Research Centers at the Berkeley and Los Angeles campuses (in addition to the one-time funds noted above), and that $770,000 must be used for the Statewide Database Project at the Berkeley campus. In addition, the State budget included funding for the first year of the new Middle Class Scholarship Program, which provides new assistance to students at UC and CSU with family incomes up to $150,000. UC students received $14.7 million in scholarship support from this program in 2014-15. UC students also received an additional $2 million in Cal Grants in 2014-15 due to a modest increase in Cal Grant B awards. Further information about Cal Grant B awards can be found in the *Student Financial Aid* chapter of this document.

The budget package also included $50 million in one-time funds for the Governor's Innovation Awards, provided to the three higher education segments for programs that promote increased graduation rates, decreased time to degree, or improved Community College transfer.

Finally, the budget authorized funding for the UC Berkeley Tolman Hall Seismic Replacement Project, in addition to projects that had already been authorized for 2014-15.

Upon taking office, Emeritus President Napolitano pledged that tuition and fees would not rise in 2014-15 while the University developed a long-term plan to keep student fees as affordable as possible and end sudden spikes in tuition levels, in response to reduced State support. Thus, tuition and fees remained flat in 2014-15.

Despite the University's efforts to secure additional State funds in the 2014-15 budget, the final budget provided no new permanent funds for key components of the University's 2014-15 budget plan, including the State's share of the employer contribution to the University of California Retirement Plan, enrollment growth, and reinvestment in academic quality. Specifically, the University's budget plan requested $35 million from the State for the first year of a multi-year effort to reinvest in critical areas of the academic program that had been adversely affected by the State's recent fiscal crisis. Examples of these critical areas include improving the student-faculty ratio, addressing the competitive gap in faculty and staff salaries, increasing graduate student support, increasing undergraduate instructional support, and supporting start-up costs for new faculty.

The State funds provided in 2014-15 were a welcome departure from past years' base budget cuts. However, the State funds were insufficient alone to fund mandatory cost increases, let alone to support other high-priority costs and begin to reinvest in quality. With tuition and fees held flat, more than half of the University's core budget had no source of funds to support mandatory and high-priority cost adjustments.

2015-16 AND 2016-17: A NEW BUDGET FRAMEWORK WITH THE GOVERNOR

With enactment of the 2015-16 State Budget Act, the University of California found itself in a much better

situation relative to the year before. The 2015-16 budget signed by the Governor included the principal elements of the funding framework that UC negotiated with the Governor and which were incorporated into the Governor's May Revision. The framework agreed upon with the Governor would provide the University with base budget adjustments of 4% annually over the next four years, through 2018-19, extending by two years the horizon of the Governor's original multi-year funding plan for the University. These base adjustments would be expected to increase State funding over the next four years by $507 million.

Under the agreement with the Governor, the University would also receive $436 million in one-time funds over the next three years in Proposition 2 debt repayment funds for UCRP, including $96 million in 2015-16, $170 million in 2016-17, and $170 million in 2017-18. As specified in the State Constitution, Proposition 2 funds must be supplemental above Regent-approved contribution rates and must be used to help pay down the unfunded liability associated with UCRP. This funding was contingent upon the Regents approving a cap on pensionable salary at the same rate as the State's Public Employee Pension Reform Act (PEPRA) cap for the defined benefit plan for employees hired on or after July 1, 2016. The President convened a retirement options task force to advise on the design of new retirement options that would include the new pensionable salary cap consistent with PEPRA. The retirement options were brought to the Regents at the March 2016 meeting for review and were approved. The pension cap previously in place was equivalent to the Internal Revenue Service level, set at $265,000. Under the new design, for employees hired on or after July 1, 2016, pensionable salaries would be capped at $117,020 in 2015-16, for those in the defined benefit plan. New employees will have the opportunity to choose a fully defined contribution plan as a retirement option (an alternative to the PEPRA-capped defined benefit plan). For represented groups, retirement options will be subject to collective bargaining.

These changes to UC's pension obligations were a key priority of the Governor and the Legislature. The one-time money from Proposition 2 could be combined with additional internal borrowing to improve the funding status of UCRP.

The framework also provided $25 million in one-time funding for deferred maintenance. This was the first time since 2002 that the State provided funding to the University to help address its aging physical plant. The $25 million in one-time Cap and Trade funds for energy projects proposed in the framework negotiated by the President and the Governor were not included in the final Budget Act.

The framework also called for no tuition increases in 2015-16 and 2016-17, with tuition increases generally pegged to the rate of inflation to be implemented beginning in 2017-18. The Student Services Fee was to increase 5% ($48) in 2015-16 and each year thereafter with the customary one-third of the increase being directed to financial aid. 50% of the remaining revenue generated from the increase would be used to enhance student mental health services, consistent with the University's priority to build resources to support mental health programs, and the remaining 50% would be distributed to support other student services programs consistent with the Regental policy on the Student Services Fee.

The framework also acknowledged the University's plan to increase nonresident supplemental tuition by up to 8% (or $1,830) for 2015-16 and 2016-17, and 5% thereafter, as approved by the Regents in May 2015. Additionally, the framework recognized the increases in Professional Degree Supplemental Tuition (PDST) approved by the Regents in November 2014 for existing and new programs other than the law schools. The framework called for no increases in law school PDSTs for the next four years.

In addition to these funding elements, the budget framework included a number of performance-related provisions. These provisions were the subject of considerable discussion and examination during the Select Advisory Committee meetings and covered five basic performance areas involving delivery of the academic program.

2015-16 Budget Act Funding. In the final budget negotiations, the Legislature approved all of the major funding elements of the framework between UC and the Administration, and as set forth in the Governor's May

Revision. As noted above, however, the funding framework did not address one significant element of UC's long-term funding plan: UC's desire to substantially increase enrollment of California students. While independent groups have confirmed that UC met its enrollment obligations under the Master Plan, even through the recession of the prior several years, enrollment growth was a key priority both for the University and for the Legislature. The final 2015-16 budget language indicated that the University would receive an additional $25 million above its 4% base budget adjustment if it could demonstrate in the spring of 2016 that it had admitted a sufficient number of resident undergraduate students to achieve an increase in 2016-17 of 5,000 students over the 2014-15 academic year. As explained in more detail in the *General Campus Instruction* chapter of this document, the University met this enrollment goal and received the $25 million at the end of the 2015-16 fiscal year.

The final budget also provided an additional $4 million in permanent funding for the Labor Centers at the Berkeley and Los Angeles campuses above the 4% base budget adjustment, and above the $2 million in permanent funding directed to the centers from the University's base support in 2014-15. The budget also included $1 million in one-time funds for the Wildlife Health Center at the Davis campus.

Additionally, the final budget called for UC to redirect funds within its existing base budget to fund several items that continue to be priorities for various legislators, including planning for a School of Medicine at the Merced campus, the California DREAM Loan Program, and the Statewide Data project at the Berkeley campus.

For 2015-16, per Education Code Sections 92493 and 92496 (AB 94), the Department of Finance also authorized the University to finance 15 capital outlay projects totaling $296.7 million with its State General Fund support appropriation.

Language accompanying the funding called for several reports and actions by the University and others. One provision indicated the Legislature's intent that UC use revenue from enrollment of nonresident students to help fund the 2016-17 enrollment increase. Language in the budget also called for several reports: a report on all "University fund sources legally allowable" to support costs for education; another three-year financial sustainability plan, which was again to be approved by the Board of Regents; and another on the use of funds for support services to increase graduation rates for low-income and underrepresented populations.

In addition, the University was asked to take two more actions: (1) revise Market Reference Zones for Senior Management Group employees to include comparable positions in State government; and (2) post information on its website that explains the details related to the subcategories of personnel within the Managers and Senior Professional personnel category, disaggregating personnel categories by fund source.

The higher education "trailer bill," which was legislation that accompanied the budget to implement certain related statutory provisions, also included two studies of note: one asked the Legislative Analyst to study the need for additional new campuses for CSU and for UC, and another asked the California State University to conduct a new eligibility study with the University's participation. An eligibility study of UC determines the proportion of students eligible for admission to the University, and recommends adjustment of admissions policies in the event of divergence from the Master Plan.

By adopting the provisions of the funding framework agreed upon by the Governor and the University, the budget approved by the Legislature put UC in a strong financial position. The budget provided the University with predictable and stable support for the next four years and enabled students and their families to confidently budget for the costs of a UC education. This outcome was sparked in large part by the plan adopted by the Board in November, which generated spirited debate regarding appropriate funding levels for higher education in California.

2016-17 Budget Act Funding. For 2016-17, ongoing State General Funds totaled $3.279 billion, a 4.6% increase over 2015-16. This included a 4% base budget adjustment and $91 million in one-time funds for a variety of programs of interest to the University, the Legislature, and the Governor. In addition, the State provided $171 million of Proposition 2 funding to help address the unfunded liability associated

with the University of California Retirement Plan (UCRP), consistent with the budget framework agreement, and $3 million in one-time additional support from the State Transportation Account for the Institutes of Transportation Studies.

With regard to enrollment funding, the final budget included a compromise reached between the Governor and the Legislature to fund enrollment growth of 2,500 FTE California resident undergraduates with $18.5 million. Similar to the arrangement in the prior year budget, UC was required to demonstrate by May 1, 2017 that it had taken sufficient action to increase enrollment of California resident undergraduate students by this number in 2017-18 in order to receive the enrollment funding. The level of enrollment increase was consistent with UC's own plan for growing enrollment by 2,500 undergraduates in 2017-18 and in 2018-19. However, the level of funding was less than the University's marginal cost of instruction of $10,000 per student that UC requested; the amount provided was about $7,400 per student, equivalent to the amount CSU receives per student from the State. That said, this was higher than the $5,000 per student provided by the State for enrollment growth in the prior year.

In addition, the University was requested to adopt a policy that specifies a limit on nonresident enrollment. A nonresident undergraduate enrollment policy was developed and presented to the Board in May 2017. The Regents approved the policy, which caps nonresident enrollment on five campuses at 18%, with the other four campuses capped at the proportion that each campus enrolled in the 2017-18 academic year.

As noted above, the Budget Act included funding for several initiatives, including support for the Innovation and Entrepreneurship initiative, a program the University requested funding for early in the legislative process through a bill introduced by Assemblymember Jacqui Irwin. One-time funds totaling $22 million were provided to develop the infrastructure necessary to support innovative startups by sponsoring business training, incubation space, proof-of-concept support, and affiliations with local industry, among other activities. Funding for this initiative demonstrated the State's support for the crucial role UC research plays in the economic development of California.

Also, as part of a package of initiatives proposed by President Pro Tem of the Senate Kevin de León, the budget included $20 million in one-time funds for support services for low-income students and students from underrepresented minority groups, including students who were enrolled in high schools in which more than 75% of the school's total enrollment is composed of pupils who are identified as either English learners, eligible for free or reduced-price meals, or foster youth. These schools, which are eligible for supplemental funding under the state's Local Control Funding Formula (LCFF), are known as "LCFF plus" (LCFF+) schools.

The final budget also included one-time funds for the following purposes:

- $35 million for deferred maintenance;
- $5 million for a firearms research center;
- $4 million for the development of online courses for K-12 students;
- $2 million for a program promoting best practices in equal employment opportunity to help enhance faculty diversity;
- $2 million for the Wildlife Health Center at the Davis campus for support of local marine mammal stranding networks;
- $500,000 for the Underground Scholars Initiative at the Berkeley campus; and
- $100,000 for the Wildlife Health Center for large whale entanglement programs.

2017-18 Budget Act Funding. For 2017-18, the University received overall ongoing State support of about $3.5 billion, including $175.2 million for general obligation bond debt service. This included a 4% base budget increase of about $131 million. In addition, the University received $176 million in one-time funding, including the third installment of Proposition 2 funds in the amount of $169 million toward the unfunded liability associated with the University of California Retirement Plan. The Act also replaced $50 million of State General Funding with $50 million of revenue from the Tobacco Tax Act of 2016 (Proposition 56), to be used for graduate medical education.

The 2017-18 State Budget Act included an expectation that the University would enroll at least 1,500 more resident undergraduate students in 2018-19 compared to 2017-18.

The Act acknowledged that the State and UC should share the cost of enrollment growth. As part of that cost-sharing, the Act requested that UC, the Legislature, and the Department of Finance identify funds to support enrollment growth from those that UC currently expends on systemwide programs or at UCOP. The budget also included $5 million in new General Fund support to enroll an additional 500 graduate students in 2017-18.

The budget conditioned expenditure of $50 million of the University's State General Fund appropriation upon UC demonstrating to the Department of Finance that it had met the following five conditions:

- demonstrate completion of an activity-based costing pilot at two additional campuses;
- attain a ratio at each UC campus (except Merced and San Francisco) of at least one entering transfer student for every two entering freshman students beginning in the 2018–19 academic year;
- by April 1, 2018, implement the recommendations issued by the California State Auditor;
- adopt a policy that does not provide supplemental retirement payments for any new employee designated to be in the Senior Management Group no later than May 1, 2018; and
- provide detailed reporting on revenues and expenditures as highlighted in the recent audit.

The final budget also included one-time funds for the following purposes:

- $2.5 million to address food insecurity;
- $2 million for a program promoting best practices in equal employment opportunity to help enhance faculty diversity;
- $2 million for the Wildlife Health Center at UC Davis for support of local marine mammal stranding networks; and
- $100,000 for the Wildlife Health Center for large whale entanglement programs.

Finally, the 2017-18 State Budget Act created a separate line-item appropriation of State General Funds to replace funding that UCOP would otherwise have received through two assessments. Previously, the general campus assessment supported a portion of the UCOP budget. This assessment was replaced by a State General Fund appropriation of $296.4 million, and a separate assessment attributable to UCPath was replaced by a State General Fund appropriation of $52.4 million.

2018-19 Budget Act Funding. For 2018-19, the University received overall ongoing State support of about $3.5 billion, including $184.4 million for general obligation bond debt service. This included a 2.9% base budget increase totaling $98.1 million. In addition, the University received $248.8 million in one-time funding, including $105 million for general University needs.

The 2018-19 State Budget Act redirected $8.55 million from UCOP to campuses to support a portion of 2018-19 enrollment growth, consistent with the University's proposal in response to provisions of the Budget Act of 2017. In addition, $5 million was included as ongoing funding to support 500 new California undergraduates in 2018-19 (in addition to the 1,500 new California undergraduates funded by the internal reallocation of University resources).

The final budget also included one-time funds for the following purposes:

- $40 million for graduate medical education to backfill, on a one-time basis, General Funds that were cut from the University's budget and replaced with Proposition 56 funds in 2017-18;
- $35 million for deferred maintenance;
- $25 million for UC Berkeley to address its operating deficit;
- $15 million to support residency programs at UC Riverside's School of Medicine that utilize telemedicine and/or increase the number of psychiatry residents who use telemedicine;
- $12 million to support research for Jordan's Syndrome at the Institute for Regenerative Cures at UC Davis;
- $4 million for legal services to undocumented and immigrant students, faculty, and staff;
- $3 million to support UC research efforts to combat Valley Fever;
- $2.8 million to support planning efforts for Aggie Square, a satellite campus for UC Davis in Sacramento;
- $2 million for a program promoting best practices in equal employment opportunity to help enhance faculty diversity;
- $1.8 million for the Ralph J. Bunche Center for African American Studies at UCLA;
- $1.5 million to address food insecurity;
- $1.2 million for a two-year pilot program to provide anti-bias training for administrators, faculty, staff, and student leaders at UC and CSU campuses; and

- $500,000 for the California Vectorborne Disease Surveillance Gateway at UC Davis.

The Budget Act continued to fund UCOP and UCPath as separate line items for General Fund support. It also allowed UCPath to assess campuses for up to $15.3 million in additional expenditures, consistent with projected operating cost increases as UCPath was deployed to more UC campuses in 2018-19. Additionally, the Act created a new, separate line item for Agriculture and Natural Resources as part of the UCOP Budget.

2019-20 Budget Act Funding. For 2019-20, the University received overall ongoing State support of about $3.95 billion, including projected $187 million for general obligation bond debt service. The University received an additional $247.5 million in permanent funding over 2018-19 levels for the following purposes:

- $119.8 million to support ongoing mandatory cost increases, equivalent to a 3.4% adjustment to the University's 2018-19 permanent State General Fund appropriation;
- $49.9 million to support enrollment of 4,860 additional California resident undergraduates over 2018-19 enrollment levels by 2020-21;
- $40 million to restore State General Fund support that was cut in 2017-18 when the University was directed to shift funding for its graduate medical education programs from State General Fund to revenues generated by Proposition 56 (the California Healthcare, Research and Prevention Tobacco Tax Act of 2016);
- $15 million to support student basic needs, including nutrition assistance and housing assistance;
- $10 million to support enrollment growth in 2018-19 beyond the enrollment level previously funded by the State in past budget acts;
- $5.3 million for student mental health services, equivalent to the estimated revenue that would have been generated for this purpose if the University had increased the Student Services Fee by 5% in 2019-20;
- $4 million to provide financial aid to California resident students enrolled in summer session, with continued funding beyond summer 2021 contingent upon estimated State General Fund revenues in 2021-22 and 2022-23; and
- $3.5 million to support rapid rehousing efforts for homeless and housing insecure students.

The final budget also included one-time funds for the following purposes:

- $143.5 million for deferred maintenance;
- $15 million to develop or expand degree and certificate completion programs through UC Extension;
- $10 million to support conservation genomics programs;
- $7.5 million to support Charles R. Drew University, an independent nonprofit university partnered with UCLA to provide training for leaders who will advance medical practice and knowledge in underserved areas;
- $6 million for UC outreach and support to low-income students and students from underrepresented groups;
- $6 million to establish the University of California and California State University Collaborative for Neurodiversity and Learning;
- $3.85 million for the UC Davis Firearms Violence Research Center to support firearms injury and death prevention training;
- $3.5 million to the UCSF Dyslexia Center to support a dyslexia screening and early intervention pilot program;
- $3.5 million to support the Ralph J. Bunche Center for African American Studies at UCLA;
- $2.5 million to support the creation or expansion of equal opportunity employment programs;
- $2.5 million to support the Latino Policy and Politics Initiative at UCLA;
- $2 million for grants administered by the Wildlife Health Center at UC Davis;
- $2 million to support the Asian American and Asian Diaspora Studies Program at UC Berkeley;
- $1.9 million to support the Statewide Database at UC Berkeley;
- $1.5 million for the Center for Labor Research and Education at UC Berkeley;
- $1.3 million for a statewide grant program expanding the number of primary care and emergency medicine residency slots;
- $1.2 million to establish the Marcus Foster Doctoral Fellowship program at the UC Berkeley Graduate School of Education;
- $1 million to support the Bulosan Center for Filipino Studies at UC Davis;
- $250,000 to support the Berkeley Underground Scholars initiative at UC Berkeley; and
- $160,000 for the UC Davis School of Veterinary Medicine.

The Budget Act continued to fund UCOP, UCPath and Agriculture and Natural Resources as separate line items

for General Fund support. It also allowed UCPath to assess campuses for up to $15.3 million in additional expenditures, consistent with projected operating cost increases associated with the deployment of UCPath to more UC campuses in 2019-20.

2020-21 AND 2021-22: THE EFFECTS OF THE COVID-19 PANDEMIC

2020-21 Budget Act Funding. For 2020-21, State funds allocated to the University totaled about $3.47 billion, which reflected a decrease of 7.1% to the University's base budget. In total, the University received a reduction of $259.3 million to its ongoing support, with new permanent funding provided for the following purposes:

- $25 million for the UC Riverside School of Medicine; and
- $15 million for the UCSF Fresno branch campus.

The Budget Act included language stating that if sufficient federal funding were received by October 15, 2020, the University would receive $471.6 million to offset these reductions, for a total allocation of $3.94 billion. This funding would reverse the cuts described above and provide a net increase of $212.3 million (or 5.7%) compared to the University's overall 2019-20 permanent appropriation. (This federal support ultimately did not materialize by October 15, 2020.)

The Budget Act also included changes to funds appropriated in the Budget Act of 2019. The final budget authorized the University to redirect at least $21.6 million from unspent 2019-20 deferred maintenance funding to support undergraduate instruction and student support services. Campuses submitted a list of projects totaling $25.2 million, for which work had not yet commenced. In addition, the final budget converted $4 million for summer-term financial aid from ongoing support to one-time funding.

The Budget Act continued to fund UCOP, Agriculture and Natural Resources, and UCPath as separate line items for General Fund support. Of the total $3.47 billion State General Fund allocation, $187.9 million, $63.4 million, and $45.7 million was used to fund UCOP, Agriculture and Natural Resources, and UCPath, respectively. If federal funding had been received by October 15, 2020, this funding would have reverted to 2019-20 levels. The Budget Act also allowed UCPath to assess campuses for up to $46.8 million in additional expenditures, consistent with projected operating cost increases in 2020-21.

2021-22 Budget Act Funding. For 2021-22, State funds allocated to the University totaled about $4.7 billion, including $728.6 million in one-time funding ($325 million of which is intended to address deferred maintenance across the system). The Budget Act reflects an increase of 15.8% to the University's base budget over 2020-21 levels, and an increase of 7.6% to the University's base budget over 2019-20 levels. In total, the University received an increase of $547.9 million in ongoing support, with $302.4 million provided to restore cuts to the University's budget made in 2019-20, $173.2 million to sustain the University's core operations, and $72.3 million for various programs that benefit the state, such as Agriculture and Natural Resources and Programs in Medical Education (PRIME).

Additionally, the Budget Act no longer funded UCOP, Agriculture and Natural Resources, and UCPath as separate line items for General Fund support.

Display XXI-5: The UC Budget Since 2002-03

Fiscal Year	Total State Funding ($ in Billions)*	Notes
2002-03	$3.15	With the State in fiscal crisis, Partnership funding was provided for enrollment and annuitant benefits, but UC's base increase was lower than planned and partially offset by fee increases, and cuts were made throughout the University.
2003-04	$2.87	Large cuts were made throughout the enterprise, as high as 50% in outreach, but increases to enrollment and annuitant benefits were still provided.
2004-05	$2.70	The effect of the State budget on UC peaked, with increases in student fees and the student-faculty ratio, a smaller freshman class, and large budget reductions throughout the University.
2005-06	$2.84	A return to increases in base budget and enrollment funding and few targeted cuts through the new Compact with Governor Schwarzenegger signaled a turning point in UC's budget after four years of reductions.
2006-07	$3.07	The State provided Compact funding, as well as additional funding for outreach and research, and provided students with fee increase buyouts.
2007-08	$3.26	Compact funding was again available, with some additional funding for outreach.
2008-09	$2.69	With the onset of another fiscal crisis, the Compact was funded, but equivalent unallocated cuts were assigned and institutional support was reduced.
2009-10	$3.04	The Compact was again funded, but equivalent unallocated cuts were assigned; in addition, large and wide-ranging cuts were assigned throughout the University.
2010-11	$3.02	The Governor prioritized investing in higher education, which was reflected in the final State budget with partial restoration of earlier cuts and new funding for enrollment.
2011-12	$2.27	With the Governor unable to place a referendum to extend temporary tax increases on the ballot, higher education was assigned cuts totaling $1.7 billion. Also, for the first time, revenue from student tuition and fees exceeded revenue from the State.
2012-13	$2.38	While most other State agencies received more budget cuts, the University received a budget augmentation to help fund the State's share of the employer contribution to the University's retirement plan. Given the passage of the Governor's revenue-raising initiative in November 2012, no further cuts occurred to the University's budget. A planned tuition increase was avoided with the promise of tuition buy-out funds provided in 2013-14, tied directly to the success of if Proposition 30 on the November ballot.
2013-14	$2.84	The State began implementing the Governor's multi-year funding plan for higher education, increasing the University's base budget 5% and marking the end of a half-decade of base budget cuts and extreme fiscal volatility in State funding. Tuition was held flat.
2014-15	$2.99	The 5% base budget adjustment proposed by the Governor was provided to UC; however, with tuition held flat at the 2011 12 level, there was insufficient funding to meet UC's basic mandatory costs.
2015-16	$3.26	UC's base budget was adjusted upward by 4% and tuition was once again held flat. One-time funds were provided for UCRP, deferred maintenance, and energy projects. A new framework agreed to with the Governor provided a stable base from which to plan.
2016-17	$3.54	Consistent with the framework agreement with the Governor, UC's base budget was adjusted upward by 4% and tuition was held flat. One-time funds were made available for a variety of initiatives of importance to the University, Governor, and Legislature.
2017-18	$3.54	Per the framework agreement with the Governor, UC's base budget was adjusted upward by 4%. In line with the framework, tuition was raised for the first time in six years. The Legislature directly appropriated funding for UCOP and UCPath.
2018-19	$3.69	UC's base budget was adjusted upward by 2.9%, $38.4 million less than the amount the University would have received under the framework agreement with the Governor. Tuition was lowered by $60. The Legislature again directly appropriated funding for UCOP and UCPath.
2019-20	$3.95	UC's base budget was adjusted upward by 7.1%, with a large portion of new funding appropriated additional workload. Funding available to address general operating cost increases increased by 3.4%. The benefit to UC campuses was partly offset, however, by the elimination of $95 million in one-time funding that the University received in 2018-19.
2020-21	$3.47	As a result of the COVID-19 pandemic, UC's base budget was reduced by $259.3 million (7.1%), with new permanent funding provided for the following: $25 million for the UC Riverside School of Medicine and $15 million for the UCSF Fresno branch campus.
2021-22	$4.74	A substantial surplus in the State's revenues resulted in $302.4 million to restore the cuts made to UC in 2020-21 and an additional $245.5 in ongoing support, representing an increase of 15.8% over 2020-21 funding levels. The Legislature no longer directly appropriated funding for UCOP and UCPath.

* Nominal Dollars

Appendix Display 1: Budget for Current Operations and Extramurally Funded Operations (Dollars in Thousands)

INCOME		
	2020-21 Actual	2021-22 Estimated
BUDGET FOR CURRENT OPERATIONS		
General Fund		
State of California	$ 3,247,450	4,561,740
GO Bond Debt Service	226,553	191,065
UC Sources	1,661,700	1,742,000
Total General Funds	$ 5,135,703	6,494,805
Restricted Funds		
State of California	$ 131,491	184,074
U. S. Government Appropriations	43,281	31,000
Educational, Student Services & Professional School Fees	3,668,033	3,947,900
Extension, Summer Session & Other Fees	1,043,310	1,226,000
Teaching Hospitals	14,474,706	16,007,796
Auxiliary Enterprises	1,054,571	1,352,000
Endowment Earnings	289,193	303,000
Other	6,141,592	6,564,223
Total Restricted Funds	$ 26,846,177	29,615,993
TOTAL BUDGET FOR CURRENT OPERATIONS	$ 31,981,880	36,110,798
EXTRAMURALLY FUNDED OPERATIONS		
State of California	$ 390,829	362,000
U.S. Government	3,791,343	3,443,000
Private Gifts, Contracts & Grants	2,407,534	2,312,000
Other	765,391	626,000
TOTAL EXTRAMURALLY FUNDED OPERATIONS	$ 7,355,097	6,743,000
DEPARTMENT OF ENERGY LABORATORY (LBNL)	$ 980,268	1,063,000
TOTAL OPERATIONS	$ 40,317,245	43,916,798

EXPENDITURES		
	2020-21 Actual	2021-22 Estimated
BUDGET FOR CURRENT OPERATIONS		
Instruction:		
General Campus	$ 3,502,439	3,883,610
Health Sciences	2,985,916	3,329,302
Summer Session	7,948	8,000
University Extension	217,326	274,000
Research	761,647	1,037,689
Public Service	295,977	431,900
Academic Support: Libraries	328,131	371,153
Academic Support: Other	2,773,118	2,992,266
Teaching Hospitals	14,474,706	16,007,796
Student Services	918,411	1,001,997
Institutional Support	1,822,043	2,009,031
Operation and Maintenance of Plant	815,340	1,284,174
Student Financial Aid	1,694,723	1,827,873
Auxiliary Enterprises	1,054,571	1,352,000
Provisions	103,031	108,942
Program Maintenance: Cost Increases	226,553	191,065
TOTAL BUDGET FOR CURRENT OPERATIONS	$ 31,981,880	36,110,798
EXTRAMURALLY FUNDED OPERATIONS		
Sponsored Research	$ 4,781,165	4,383,272
Other Activities	2,573,932	2,359,728
TOTAL EXTRAMURALLY FUNDED OPERATIONS	$ 7,355,097	6,743,000
DEPARTMENT OF ENERGY LABORATORY (LBNL)	$ 980,268	1,063,000
TOTAL OPERATIONS	$ 40,317,245	43,916,798

Appendix Display 2: University of California Income and Funds Available (Dollars in Thousands)

	2020-21 Actual	2021-22 Estimated
STATE APPROPRIATIONS		
General Fund	$ 3,247,450	$ 4,561,740
GO Bond Debt Service	226,553	191,065
Special Funds	131,491	184,074
TOTAL, STATE APPROPRIATIONS	$ 3,605,494	$ 4,936,879
UNIVERSITY SOURCES		
General Funds Income		
Student Fees		
Nonresident Supplemental Tuition	$ 1,210,253	$ 1,290,000
Application for Admission and Other Fees	56,305	57,000
Interest on General Fund Balances	1,262	1,000
Federal Contract & Grant Overhead	352,843	353,000
Overhead on State Agency Agreements	32,119	32,000
Other	8,918	9,000
Total UC General Fund Income	$ 1,661,700	$ 1,742,000
Special Funds Income		
GEAR UP State Grant Program	$ 3,500	$ 3,500
CSMP (Cares Act Funding)	6,000	0
United States Appropriations	43,281	31,000
Local Government	192,318	192,000
Student Fees		
Tuition [Educational Fee]	3,033,577	3,254,300
Student Services Fee [Registration Fee]	285,220	323,600
Professional School Fees	349,236	370,000
University Extension Fees	217,356	274,000
Summer Session Fees	7,948	8,000
Other Fees	818,006	944,000
Sales & Services - Teaching Hospitals	14,474,706	16,007,796
Sales & Services - Educational Activities	4,537,690	4,849,543
Sales & Services - Support Activities	1,012,275	1,067,180
Endowments	289,193	303,000
Auxiliary Enterprises	1,054,571	1,352,000
Contract and Grant Off-the-Top Overhead	52,974	57,000
DOE Management Fee	25,228	25,000
University Opportunity Fund	207,255	243,000
Other	104,352	127,000
Total Special Funds	$ 26,714,686	$ 29,431,919
TOTAL, UNIVERSITY SOURCES	$ 28,376,386	$ 31,173,919
TOTAL INCOME AND FUNDS AVAILABLE	$ 31,981,880	$ 36,110,798

Note: Excludes extramural funds.

Appendix Display 3: SAPEP State General Funds and University Funds Budgets (Dollars in Thousands)

This table shows the budget for each SAPEP program in 1997-98, prior to significant funding augmentations; in 2000-01, when SAPEP funding reached its peak; in 2008-09, representative of a few years of stable funding for SAPEP programs; and in 2009-10 and 2011-12, when SAPEP programs were subject to budget reductions. 2012-13 through 2020-21 budget levels remain unchanged from 2011-12 levels.

	1997-98	2000-01	2008-09	2009-10	2011-12	2020-21
Direct Student Services Programs						
Community College Transfer Programs [1]	$1,718	$5,295	$3,279	$3,058	$2,413	$2,413
EAOP	4,794	16,094	8,914	8,416	7,356	7,356
Graduate and Professional School Programs	1,893	8,575	2,661	2,623	2,408	2,408
MESA Schools Program	4,169	9,355	4,861	4,394	3,806	3,806
MESA Community College Program	22	1,309	327	327	327	327
Puente High School Program	-	1,800	1,051	980	793	793
Puente Community College Program	162	757	450	419	340	340
Student-Initiated Programs	-	-	440	440	388	388
UC Links	-	1,656	694	622	622	622
Statewide Infrastructure Programs						
ASSIST	360	360	429	389	377	377
Community College Articulation	-	-	600	600	600	600
Longer-Term Strategies						
K-20 Regional Intersegmental Alliances [2]	-	15,591	1,395	1,361	1,209	1,209
Direct Instructional Programs						
Preuss Charter School	-	1,000	1,000	1,000	-	-
UC Scout (online courses, formerly UC College	-	8,400	3,106	3,059	2,411	2,411
Other Programs						
Evaluation	-	1,386	1,180	1,077	855	855
Other Programs [3]	203	3,887	936	829	652	652
Programs that have been eliminated or consolidated [4]	4,750	9,717	-	-	-	-
Total	$18,071	$85,182	$31,323	$29,594	$24,557	$24,557
General Funds	$16,996	$82,243	$19,323	$17,594	$12,557	$12,557
University Funds	$1,075	$2,939	$12,000	$12,000	$12,000	$12,000

[1] Includes an additional $2 million beginning in 2006-07 for the UC/Community College Transfer Initiative for Access and Success.
[2] Formerly School-University Partnerships.
[3] Currently includes University-Community Engagement, ArtsBridge, and other programs.
[4] Includes Test Preparation, Dual Admissions, Gateways, Informational Outreach and Recruitment, Central Valley Programs, and UC ACCORD.

Appendix Display 4: Expenditures by Fund Category, 1983-84 through 2021-22 (Dollars in Thousands)

	Core Funds[1]	Medical Centers	Other Sales and Services[2]	Government Contracts and Grants[3]	Private Support[4]	Other Sources[5]	Total
1983-84	1,375,660	599,469	520,933	2,009,905	155,344	65,769	4,727,080
1984-85	1,713,333	656,730	585,721	2,301,626	173,915	99,711	5,531,036
1985-86	1,930,560	721,270	678,215	2,463,841	198,812	101,484	6,094,182
1986-87	2,060,597	791,311	786,544	2,624,563	222,154	120,950	6,606,119
1987-88	2,210,321	889,243	852,459	2,763,853	243,764	114,455	7,074,095
1988-89	2,341,127	1,002,931	934,816	3,004,112	272,735	126,654	7,682,375
1989-90	2,479,193	1,135,818	1,079,927	3,136,119	320,818	160,336	8,312,211
1990-91	2,553,581	1,384,994	1,120,365	3,177,571	339,355	159,856	8,735,722
1991-92	2,616,360	1,499,059	1,159,711	3,391,898	365,686	200,862	9,233,576
1992-93	2,583,420	1,570,590	1,253,884	3,549,713	392,237	249,080	9,598,924
1993-94	2,536,244	1,577,936	1,332,303	3,487,858	402,886	211,889	9,549,116
1994-95	2,652,691	1,609,225	1,461,064	3,541,181	456,243	210,963	9,931,367
1995-96	2,749,966	1,821,352	1,627,301	3,486,237	485,694	233,928	10,404,478
1996-97	2,924,341	1,906,454	1,660,431	3,789,774	540,194	245,973	11,067,167
1997-98	3,079,198	1,820,062	1,751,567	4,071,680	602,666	292,693	11,617,866
1998-99	3,461,295	1,811,702	1,936,911	4,459,237	675,989	343,902	12,689,036
1999-00	3,675,637	2,109,383	2,043,538	4,595,925	758,731	359,378	13,542,592
2000-01	4,206,044	2,662,843	2,055,110	4,831,201	851,127	335,733	14,942,058
2001-02	4,460,637	2,880,079	2,098,019	5,463,526	926,355	310,351	16,138,967
2002-03	4,395,681	3,114,683	2,218,477	6,294,983	1,002,227	352,736	17,378,787
2003-04	4,492,468	3,378,824	2,324,417	6,462,902	1,073,828	398,059	18,130,498
2004-05	4,490,079	3,579,653	2,510,067	6,575,227	1,107,101	432,874	18,695,001
2005-06	4,781,469	3,705,005	2,718,023	6,710,678	1,235,546	467,634	19,618,355
2006-07	5,083,748	4,126,066	3,049,629	4,755,621	1,338,356	516,046	18,869,466
2007-08	5,427,851	4,554,364	3,533,777	3,649,040	1,512,588	530,338	19,207,958
2008-09	4,980,495	4,913,330	3,693,711	3,324,549	1,632,435	517,999	19,062,519
2009-10	5,719,980	5,131,765	3,705,881	3,913,403	1,633,590	500,655	20,605,274
2010-11	5,921,179	5,595,563	4,107,989	4,256,858	1,684,369	449,128	22,015,086
2011-12	6,086,352	6,288,149	4,803,190	4,155,490	1,781,530	459,013	23,.573,724
2012-13	6,244,066	6,717,232	5,324,980	4,059,432	1,820,887	606,151	24,772,748
2013-14	6,622,008	7,395,124	5,267,674	4,303,103	1,941,341	471,421	26,000,671
2014-15	7,035,207	7,939,016	6,282,346	3,978,141	2,009,279	395,228	27,639,217
2015-16	7,364,848	9,467,149	6,835,022	4,076,941	2,055,270	473,254	30,272,484
2016-17	8,009,129	10,394,923	7,298,955	4,028,370	2,250,404	401,607	32,383,388
2017-18	8,576,495	10,779,753	7,688,045	4,371,873	2,431,426	378,033	34,225,625
2018-19	8,824,288	12,781,190	8,199,315	4,339,675	2,506,193	407,404	37,058,065
2019-20	9,151,916	14,427,472	8,833,861	4,749,578	2,524,523	546,593	40,233,943
2020-21	8,577,183	14,474,706	8,605,554	5,346,712	2,696,727	389,809	40,090,691
2021-22 Est.	10,251,640	16,007,796	9,312,723	5,086,574	2,615,000	452,000	43,725,733

[1] **Core funds** consists of State General Funds [Excluding GO bond debt service & one-time State contribution to UCRS], UC General Funds, American Recovery and Reinvestment Act (2009) funds, and student tuition and fees.

[2] **Other sales and services** revenue includes support for clinical care staff; auxiliary enterprises such as housing and dining services, parking facilities, and bookstores; University Extension; and other complementary activities such as museums, theaters, conferences, and publishing.

[3] **Government contracts and grants** include direct support for specific research programs as well as student financial support and DOE Laboratory operations.

[4] **Private Support** includes earnings from the Regents' endowment earnings, grants from campus foundations, and other private gifts, grants, and contracts from alumni and friends of the University, foundations, corporations, and through collaboration with other universities.

[5] **Other sources** include indirect cost recovery funding from research contracts and grants and other fund sources.

Appendix Display 5: Core Funds Expenditures by Fund Source, 1983-84 through 2021-22 (Dollars in Thousands)

	State General Funds	UC General Funds[1]	ARRA Funds[2]	Tuition	Student Services Fees	Professional Degree Supplemental Tuition	Total
1983-84	1,110,012	96,695	-	102,984	65,969	-	1,375,660
1984-85	1,457,144	89,100	-	97,322	69,767	-	1,713,333
1985-86	1,641,741	119,936	-	97,025	71,858	-	1,930,560
1986-87	1,788,304	97,462	-	99,357	75,474	-	2,060,597
1987-88	1,888,872	126,870	-	112,102	82,477	-	2,210,321
1988-89	1,970,047	160,524	-	124,815	85,741	-	2,341,127
1989-90	2,076,662	172,676	-	135,944	93,911	-	2,479,193
1990-91	2,135,733	166,407	-	148,891	100,750	$1,800	2,553,581
1991-92	2,105,560	182,250	-	223,690	103,046	1,814	2,616,360
1992-93	1,878,531	237,954	-	360,883	104,232	1,820	2,583,420
1993-94	1,793,236	223,104	-	418,623	99,461	1,820	2,536,244
1994-95	1,825,402	246,121	-	473,374	104,423	3,371	2,652,691
1995-96	1,917,696	249,124	-	479,480	90,238	13,428	2,749,966
1996-97	2,057,257	270,258	-	473,991	102,182	20,653	2,924,341
1997-98	2,180,350	281,911	-	480,804	105,304	30,829	3,079,198
1998-99	2,517,773	301,996	-	489,944	114,096	37,486	3,461,295
1999-00	2,715,762	340,779	-	460,913	114,014	44,169	3,675,637
2000-01	3,191,614	370,631	-	472,287	127,904	43,608	4,206,044
2001-02	3,322,659	428,115	-	525,943	130,663	53,257	4,460,637
2002-03	3,150,011	480,256	-	577,056	130,956	57,402	4,395,681
2003-04	2,868,069	549,393	-	860,935	131,596	82,475	4,492,468
2004-05	2,698,673	544,258	-	993,607	143,548	109,993	4,490,079
2005-06	2,838,567	554,151	-	1,118,723	147,278	122,750	4,781,469
2006-07	3,069,339	560,594	-	1,171,290	161,427	121,098	5,083,748
2007-08	3,257,409	577,299	-	1,299,590	165,575	127,978	5,427,851
2008-09[2]	2,418,291	616,872	$268,500	1,358,365	164,856	153,611	4,980,495
2009-10[2]	2,591,158	626,413	448,000	1,722,946	163,595	167,868	5,719,980
2010-11[2]	2,910,697	691,238	106,553	1,816,444	190,703	205,544	5,921,179
2011-12	2,271,410	792,340	-	2,584,272	200,188	238,142	6,086,352
2012-13	2,376,805	848,466	-	2,549,871	211,196	257,728	6,244,066
2013-14[3]	2,644,064	891,422		2,606,111	221,913	258,498	6,622,008
2014-15[3]	2,797,495	1,072,026		2,678,868	226,119	260,699	7,035,207
2015-16[3]	2,959,247	1,194,188		2,702,598	239,228	269,587	7,364,848
2016-17[3]	3,148,838	1,418,345		2,896,443	254,277	291,226	8,009,129
2017-18[3]	3,225,725	1,541,576		3,203,628	297,624	307,939	8,576,495
2018-19[3]	3,512,607	1,585,283		3,093,612	311,101	321,685	8,824,288
2019-20[3]	3,751,318	1,582,794		3,156,649	314,186	346,969	9,151,916
2020-21[3]	3,247,450	1,661,700		3,033,577	285,220	349,236	8,577,183
2021-22 Est.[3]	4,561,740	1,742,000		3,254,300	323,600	370,000	10,251,640

[1] UC General Funds includes Nonresident Supplemental Tuition, application fees, a portion of indirect cost recovery from federal and state contracts and grants, a portion of patent royalty income, and interest in General Fund balances.
[2] State Fiscal Stabilization Funds authorized by the 2009 American Reinvestment and Recovery Act.
[3] State General Funds exclude GO bond debt service & one-time State contribution to UCRS.

Appendix Display 6: General Campus and Health Sciences Full-Time Equivalent Student Enrollment

	2020-21 Actual	2021-22 Estimated
Berkeley		
General Campus	40,853	41,153
Health Sciences	744	715
Total	41,597	41,868
Davis		
General Campus	36,959	37,639
Health Sciences	2,465	2,463
Total	39,424	40,102
Irvine		
General Campus	34,765	34,432
Health Sciences	2,063	2,350
Total	36,828	36,782
Los Angeles		
General Campus	40,558	41,173
Health Sciences	3,833	3,981
Total	44,391	45,154
Merced		
General Campus	9,288	9,164
Riverside		
General Campus	25,434	25,348
Health Sciences	440	529
Total	25,874	25,877
San Diego		
General Campus	38,227	40,533
Health Sciences	2,551	2,625
Total	40,778	43,158
San Francisco		
Health Sciences	4,711	4,703
Santa Barbara		
General Campus	26,676	26,553
Santa Cruz		
General Campus	19,747	20,201
Totals		
General Campus	272,507	276,196
Health Sciences	16,807	17,366
Total	289,314	293,562

Appendix Display 7: General Campus Full-Time Equivalent Student Enrollment

	2020-21 Actual	2021-22 Estimated
Berkeley		
Undergraduate	32,811	32,742
Graduate	8,042	8,411
Total	40,853	41,153
Davis		
Undergraduate	31,972	32,556
Graduate	4,987	5,083
Total	36,959	37,639
Irvine		
Undergraduate	30,443	29,983
Graduate	4,322	4,449
Total	34,765	34,432
Los Angeles		
Undergraduate	33,597	33,564
Graduate	6,961	7,609
Total	40,558	41,173
Merced		
Undergraduate	8,563	8,415
Graduate	725	749
Total	9,288	9,164
Riverside		
Undergraduate	22,693	22,534
Graduate	2,741	2,814
Total	25,434	25,348
San Diego		
Undergraduate	32,978	34,364
Graduate	5,249	6,169
Total	38,227	40,533
Santa Barbara		
Undergraduate	23,809	23,724
Graduate	2,867	2,829
Total	26,676	26,553
Santa Cruz		
Undergraduate	17,883	18,272
Graduate	1,864	1,929
Total	19,747	20,201
General Campus		
Undergraduate	234,749	236,154
Graduate	37,758	40,042
Total	272,507	276,196

Appendix Display 8: Enrollment History, 1980-81 through 2021-22

	General Campus		Health Sciences		Total
	Undergraduate	Graduate	Undergraduate	Graduate	
1980-81	88,963	24,704	697	11,755	126,119
1981-82	90,476	25,037	492	12,030	128,035
1982-83	92,771	24,470	370	12,102	129,713
1983-84	94,469	24,192	354	11,807	130,822
1984-85	96,613	24,996	344	11,752	133,705
1985-86	99,392	25,440	344	11,752	136,928
1986-87	103,506	26,229	347	11,694	141,776
1987-88	108,141	25,676	358	11,808	145,983
1988-89	112,377	25,676	364	11,903	150,320
1989-90	114,365	26,142	380	11,976	152,863
1990-91	116,546	26,798	412	12,125	155,881
1991-92	117,297	26,511	407	12,156	156,371
1992-93	115,133	26,374	410	12,318	154,235
1993-94	113,548	25,930	400	12,324	152,202
1994-95	113,869	25,546	400	12,235	152,050
1995-96	116,176	25,346	356	12,320	154,198
1996-97	117,465	25,318	315	12,289	155,387
1997-98	119,852	25,682	278	11,999	157,811
1998-99	123,227	25,629	292	12,252	161,400
1999-00	127,208	26,114	274	12,304	165,900
2000-01	132,026	26,666	274	12,279	171,245
2001-02	143,853	28,725	287	12,439	185,304
2002-03	152,320	30,738	321	12,809	196,188
2003-04	156,243	32,385	162	13,106	201,896
2004-05	156,066	31,872	127	13,338	201,403
2005-06	159,515	32,397	131	13,325	205,368
2006-07	166,966	32,882	202	13,596	213,646
2007-08	173,703	33,652	350	13,608	221,313
2008-09	180,210	33,939	462	13,714	228,325
2009-10	183,515	34,673	512	13,913	232,613
2010-11	185,442	34,851	504	14,075	234,872
2011-12	187,566	34,865	470	14,156	237,057
2012-13	188,991	34,556	435	14,138	238,156
2013-14	193,012	34,817	383	14,034	242,246
2014-15	199,995	35,341	353	14,098	249,787
2015-16	203,129	35,489	352	14,519	253,489
2016-17	213,213	35,829	358	14,557	263,957
2017-18	219,909	36,999	367	14,830	272,104
2018-19	226,115	37,709	364	14,957	279,145
2019-20	231,259	38,490	354	15,124	285,227
2020-21	234,749	37,758	1,347	15,460	289,314
2021-22 (est.)	236,154	40,042	1,595	15,771	293,562

Appendix Display 9: UC Mandatory Student Charge Levels

		Tuition					
	Student	Undergraduate		Graduate Academic		Professional[1]	Surcharge[2]
	Services Fee	Resident	Nonresident	Resident	Nonresident		
1982-83	510	725	725	785	785	785	
1983-84	523	792	792	852	852	852	
1984-85	523	722	722	782	782	782	
1985-86	523	722	722	782	782	782	
1986-87	523	722	722	782	782	782	
1987-88	570	804	804	804	804	804	
1988-89	594	840	840	840	840	840	
1989-90	612	864	864	864	864	864	
1990-91	673	951	951	951	951	951	
1991-92	693	1,581	1,581	1,581	1,581	1,581	
1992-93	693	2,131	2,131	2,131	2,131	2,131	
1993-94	693	2,761	2,761	2,761	2,761	2,761	
1994-95	713	3,086	3,086	3,086	3,086	3,086	
1995-96	713	3,086	3,086	3,086	3,086	3,086	
1996-97	713	3,086	3,086	3,086	3,086	3,086	
1997-98	713	3,086	3,086	3,086	3,086	3,086	
1998-99	713	2,896	3,086	3,086	3,086	3,086	
1999-00	713	2,716	3,086	2,896	3,086	3,086	
2000-01	713	2,716	3,086	2,896	3,086	3,086	
2001-02	713	2,716	3,086	2,896	3,086	3,086	
2002-03[3]	713	3,121	3,491	3,301	3,491	3,491	
2003-04	713	4,271	4,751	4,506	4,751	4,751	
2004-05	713	4,971	5,451	5,556	5,801	4,751	
2005-06	735	5,406	5,922	6,162	6,429	5,357	$700
2006-07	735	5,406	5,922	6,162	6,429	5,357	1,050
2007-08	786	5,790	6,342	6,594	6,888	5,736	60
2008-09	864	6,202	6,789	7,062	7,374	6,144	60
2009-10[4]	900	7,998	8,742	7,998	8,352	7,920	60
2010-11	900	9,342	10,200	9,342	9,750	9,252	60
2011-12	972	11,160	11,160	11,160	11,160	11,160	60
2012-13	972	11,160	11,160	11,160	11,160	11,160	60
2013-14	972	11,160	11,160	11,160	11,160	11,160	60
2014-15	972	11,160	11,160	11,160	11,160	11,160	60
2015-16	1,020	11,160	11,160	11,160	11,160	11,160	60
2016-17	1,074	11,160	11,160	11,160	11,160	11,160	60
2017-18	1,128	11,442	11,442	11,442	11,442	11,442	60
2018-19	1,128	11,442	11,442	11,442	11,442	11,442	0
2019-20	1,128	11,442	11,442	11,442	11,442	11,442	0
2020-21	1,128	11,442	11,442	11,442	11,442	11,442	0
2021-22	1,128	11,442	11,442	11,442	11,442	11,442	0

[1] Charged to professional degree students. Through 2010-11, excludes students paying Architecture, Environmental Design, Information Management, International Relations and Pacific Studies, Physical Therapy, Preventive Veterinary Medicine, Public Health, Public Policy, Social Welfare, and Urban Planning Professional Degree Supplemental Tuition.

[2] The temporary surcharge was assessed to professional degree students *only* prior to 2007-08 and then assessed to *all* students from 2006-07 to 2017-18 to cover the costs associated with the *Kashmiri v Regents* and the *Luquetta v Regents* settlements. The temporary $60 surcharge built into Tuition was eliminated in 2018-19.

[3] Mid-year increases were applied to spring academic term. Figures shown are annualized levels.

[4] Mid-year increases were applied in January 2010. Figures shown are annualized levels.

Appendix Display 10: UC Average Annual Student Charges for Resident Undergraduate Students

	Mandatory Charges	Increase	Campus-based Fees[1]	Total Charges	Total Increase
1981-82	938	30.50%	60	998	28.60%
1982-83	1,235	31.70%	65	1,300	30.30%
1983-84	1,315	6.50%	72	1,387	6.70%
1984-85	1,245	-5.30%	79	1,324	-4.50%
1985-86	1,245	0.00%	81	1,326	0.20%
1986-87	1,245	0.00%	100	1,345	1.40%
1987-88	1,374	10.40%	118	1,492	10.90%
1988-89	1,434	4.40%	120	1,554	4.20%
1989-90	1,476	2.90%	158	1,634	5.10%
1990-91	1,624	10.00%	196	1,820	11.40%
1991-92	2,274	40.00%	212	2,486	36.60%
1992-93	2,824	24.20%	220	3,044	22.40%
1993-94	3,454	22.30%	273	3,727	22.40%
1994-95	3,799	10.00%	312	4,111	10.30%
1995-96	3,799	0.00%	340	4,139	0.70%
1996-97	3,799	0.00%	367	4,166	0.70%
1997-98	3,799	0.00%	413	4,212	1.10%
1998-99	3,609	-5.00%	428	4,037	-4.20%
1999-00	3,429	-5.00%	474	3,903	-3.30%
2000-01	3,429	0.00%	535	3,964	1.60%
2001-02	3,429	0.00%	430	3,859	-2.60%
2002-03[2]	3,834	11.80%	453	4,287	11.10%
2003-04	4,984	30.00%	546	5,530	29.00%
2004-05	5,684	14.00%	628	6,312	14.10%
2005-06	6,141	8.00%	661	6,802	7.80%
2006-07	6,141	0.00%	711	6,852	0.70%
2007-08	6,636	8.10%	881	7,517	9.70%
2008-09	7,126	7.40%	901	8,027	6.80%
2009-10[3]	8,958	25.70%	938	9,896	23.30%
2010-11	10,302	15.00%	977	11,279	14.00%
2011-12	12,192	18.30%	989	13,181	16.90%
2012-13	12,192	0.00%	1,008	13,200	0.10%
2013-14	12,192	0.00%	1,030	13,222	0.20%
2014-15	12,192	0.00%	1,125	13,317	0.70%
2015-16	12,240	0.40%	1,211	13,451	1.00%
2016-17	12,294	0.40%	1,258	13,552	0.80%
2017-18	12,630	2.70%	1,334	13,964	3.00%
2018-19	12,570	-0.50%	1,386	13,956	-0.10%
2019-20	12,570	0.00%	1,452	14,022	0.50%
2020-21	12,570	0.00%	1,507	14,077	0.40%
2021-22	12,570	0.00%	1,528	14,098	0.10%

[1] Beginning in 1998-99, campus-based fees are calculated on a weighted basis using enrollments.

[2] Mid-year charge increases were applied to spring academic term. Figures shown are annualized charge levels.

[3] Mid-year charge increases were applied in January 2010. Figures shown are annualized charge levels.

Appendix Display 11: UC Average Annual Student Charges for Nonresident Undergraduate Students

	Mandatory Charges	Increase	Campus-based Fees[1]	Nonresident Supplemental Tuition	Increase	Total Charges	Total Increase
1981-82	938	30.5%	60	2,880	20.0%	3,878	22.1%
1982-83	1,235	31.7%	65	3,150	9.4%	4,450	14.7%
1983-84	1,315	6.5%	72	3,360	6.7%	4,747	6.7%
1984-85	1,245	-5.3%	79	3,564	6.1%	4,888	3.0%
1985-86	1,245	0.0%	81	3,816	7.1%	5,142	5.2%
1986-87	1,245	0.0%	100	4,086	7.1%	5,431	5.6%
1987-88	1,374	10.4%	118	4,290	5.0%	5,782	6.5%
1988-89	1,434	4.4%	120	4,806	12.0%	6,360	10.0%
1989-90	1,476	2.9%	158	5,799	20.7%	7,433	16.9%
1990-91	1,624	10.0%	196	6,416	10.6%	8,236	10.8%
1991-92	2,274	40.0%	212	7,699	20.0%	10,185	23.7%
1992-93	2,824	24.2%	220	7,699	0.0%	10,743	5.5%
1993-94	3,454	22.3%	273	7,699	0.0%	11,426	6.4%
1994-95	3,799	10.0%	312	7,699	0.0%	11,810	3.4%
1995-96	3,799	0.0%	340	7,699	0.0%	11,838	0.2%
1996-97	3,799	0.0%	367	8,394	9.0%	12,560	6.1%
1997-98	3,799	0.0%	413	8,984	7.0%	13,196	5.1%
1998-99	3,799	0.0%	428	9,384	4.5%	13,611	3.1%
1999-00	3,799	0.0%	474	9,804	4.5%	14,077	3.4%
2000-01	3,799	0.0%	535	10,244	4.5%	14,578	3.6%
2001-02	3,799	0.0%	430	10,704	4.5%	14,933	2.4%
2002-03[2]	4,204	10.7%	453	12,009	16.6%	17,137	14.8%
2003-04	5,464	30.0%	546	13,730	10.0%	19,740	15.2%
2004-05	6,164	12.8%	628	16,476	20.0%	23,268	17.9%
2005-06	6,657	8.0%	661	17,304	5.0%	24,622	5.8%
2006-07	6,657	0.0%	711	18,168	5.0%	25,536	3.7%
2007-08	7,188	8.0%	881	19,068	5.0%	27,137	6.3%
2008-09	7,713	7.3%	901	20,021	5.0%	28,635	5.5%
2009-10[3]	9,702	25.8%	938	22,021	10.0%	32,661	14.1%
2010-11	11,160	15.0%	977	22,021	0.0%	34,158	4.6%
2011-12	12,192	9.2%	989	22,878	3.9%	36,059	5.6%
2012-13	12,192	0.0%	1,008	22,878	0.0%	36,078	0.1%
2013-14	12,192	0.0%	1,030	22,878	0.0%	36,100	0.1%
2014-15	12,192	0.0%	1,125	22,878	0.0%	36,195	0.3%
2015-16	12,240	0.4%	1,211	24,708	8.0%	38,159	5.4%
2016-17	12,294	0.4%	1,258	26,682	8.0%	40,234	5.4%
2017-18	12,630	2.7%	1,334	28,014	5.0%	41,978	4.3%
2018-19	12,570	-0.5%	1,386	28,992	3.5%	42,948	2.3%
2019-20	12,570	0.0%	1,452	29,754	2.6%	43,766	1.9%
2020-21	12,570	0.0%	1,507	29,754	0.0%	43,831	0.1%
2021-22	12,570	0.0%	1,528	29,754	0.0%	43,852	0.0%

[1] Beginning in 1998-99, campus-based fees are calculated on a weighted basis using enrollments.
[2] Mid-year charge increases were applied to spring academic term. Figures shown are annualized charge levels.
[3] Mid-year charge increases were applied in January 2010. Figures shown are annualized charge levels.

Appendix Display 12: UC Average Annual Student Charges For Resident Graduate Academic Students

	Mandatory Charges	Increase	Campus-based Fees[1]	Total Charges	Total Increase
1981-82	998	28.1%	45	1,043	26.6%
1982-83	1,295	29.8%	51	1,346	29.1%
1983-84	1,375	6.2%	58	1,433	6.5%
1984-85	1,305	-5.1%	63	1,368	-4.5%
1985-86	1,305	0.0%	64	1,369	0.1%
1986-87	1,305	0.0%	82	1,387	1.3%
1987-88	1,374	5.3%	100	1,474	6.3%
1988-89	1,434	4.4%	125	1,559	5.8%
1989-90	1,476	2.9%	222	1,698	8.9%
1990-91	1,624	10.0%	482	2,106	24.0%
1991-92	2,274	40.0%	557	2,831	34.4%
1992-93	2,824	24.2%	608	3,432	21.2%
1993-94	3,454	22.3%	703	4,157	21.1%
1994-95	3,799	10.0%	786	4,585	10.3%
1995-96	3,799	0.0%	836	4,635	1.1%
1996-97	3,799	0.0%	868	4,667	0.7%
1997-98	3,799	0.0%	923	4,722	1.2%
1998-99	3,799	0.0%	839	4,638	-1.8%
1999-00	3,609	-5.0%	969	4,578	-1.3%
2000-01	3,609	0.0%	1,138	4,747	3.7%
2001-02	3,609	0.0%	1,305	4,914	3.5%
2002-03[2]	4,014	11.2%	1,327	5,341	8.7%
2003-04	5,219	30.0%	1,624	6,843	28.1%
2004-05	6,269	20.1%	1,606	7,875	15.1%
2005-06	6,897	10.0%	1,811	8,708	10.6%
2006-07	6,897	0.0%	1,973	8,870	1.9%
2007-08	7,440	7.9%	2,281	9,721	9.6%
2008-09	7,986	7.3%	2,367	10,353	6.5%
2009-10[3]	8,958	12.2%	2,505	11,463	10.7%
2010-11[4]	10,302	15.0%	602	10,904	-4.9%
2011-12	12,192	18.3%	606	12,798	17.4%
2012-13	12,192	0.0%	616	12,808	0.1%
2013-14	12,192	0.0%	621	12,813	0.0%
2014-15	12,192	0.0%	697	12,889	0.6%
2015-16	12,240	0.4%	801	13,041	1.2%
2016-17	12,294	0.4%	807	13,101	0.5%
2017-18	12,630	2.7%	884	13,514	3.2%
2018-19	12,570	-0.5%	898	13,468	-0.3%
2019-20	12,570	0.0%	931	13,501	0.2%
2020-21	12,570	0.0%	963	13,533	0.2%
2021-22	12,570	0.0%	951	13,521	-0.1%

[1] Beginning in 1998-99, campus-based fees are calculated on a weighted basis using enrollments.
[2] Mid-year charge increases were applied to spring academic term. Figures shown are annualized charge levels.
[3] Mid-year charge increases were applied in January 2010. Figures shown are annualized charge levels.
[4] Beginning in 2010-11, campus-based fee figures for graduate students do not include waivable health insurance fee.

Appendix Display 13: UC Average Annual Student Charges For Nonresident Graduate Academic Students

	Mandatory Charges	Increase	Campus-based Fees[1]	Nonresident Supplemental Tuition	Increase	Total Charges	Total Increase
1981-82	998	28.1%	45	2,880	20.0%	3,923	21.7%
1982-83	1,294	29.8%	51	3,150	9.4%	4,495	14.6%
1983-84	1,375	6.2%	58	3,360	6.7%	4,793	6.6%
1984-85	1,305	-5.1%	63	3,564	6.1%	4,932	2.9%
1985-86	1,305	0.0%	64	3,816	7.1%	5,185	5.1%
1986-87	1,305	0.0%	82	4,086	7.1%	5,473	5.6%
1987-88	1,374	5.3%	100	4,290	5.0%	5,764	5.3%
1988-89	1,434	4.4%	125	4,806	12.0%	6,365	10.4%
1989-90	1,476	2.9%	222	5,799	20.7%	7,497	17.8%
1990-91	1,624	10.0%	482	6,416	10.6%	8,522	13.7%
1991-92	2,274	40.0%	557	7,699	20.0%	10,530	23.6%
1992-93	2,824	24.2%	608	7,699	0.0%	11,131	5.7%
1993-94	3,454	22.3%	703	7,699	0.0%	11,856	6.5%
1994-95	3,799	10.0%	786	7,699	0.0%	12,284	3.6%
1995-96	3,799	0.0%	836	7,699	0.0%	12,334	0.4%
1996-97	3,799	0.0%	868	8,394	9.0%	13,061	5.9%
1997-98	3,799	0.0%	923	8,984	7.0%	13,706	4.9%
1998-99	3,799	0.0%	839	9,384	4.5%	14,022	2.3%
1999-00	3,799	0.0%	969	9,804	4.5%	14,572	3.9%
2000-01	3,799	0.0%	1,138	10,244	4.5%	15,181	4.2%
2001-02	3,799	0.0%	1,305	10,704	4.5%	15,808	4.1%
2002-03[2]	4,204	10.7%	1,327	11,132	4.0%	16,663	5.4%
2003-04	5,464	30.0%	1,624	12,245	10.0%	19,333	16.0%
2004-05	6,514	19.2%	1,606	14,694	20.0%	22,814	18.0%
2005-06	7,164	10.0%	1,811	14,694	0.0%	23,669	3.7%
2006-07	7,164	0.0%	1,973	14,694	0.0%	23,831	0.7%
2007-08	7,734	8.0%	2,281	14,694	0.0%	24,709	3.7%
2008-09	8,298	7.3%	2,367	14,694	0.0%	25,359	2.6%
2009-10[3]	9,312	12.2%	2,505	14,694	0.0%	26,511	4.5%
2010-11[4]	10,710	15.0%	602	14,694	0.0%	26,006	-1.9%
2011-12	12,192	13.8%	606	15,102	2.8%	27,900	7.3%
2012-13	12,192	0.0%	616	15,102	0.0%	27,910	0.0%
2013-14	12,192	0.0%	621	15,102	0.0%	27,915	0.0%
2014-15	12,192	0.0%	697	15,102	0.0%	27,991	0.3%
2015-16	12,240	0.4%	800	15,102	0.0%	28,143	0.5%
2016-17	12,294	0.4%	807	15,102	0.0%	28,203	0.2%
2017-18	12,630	2.7%	884	15,102	0.0%	28,616	1.5%
2018-19	12,570	-0.5%	898	15,102	0.0%	28,570	-0.2%
2019-20	12,570	0.0%	931	15,102	0.0%	28,603	0.1%
2020-21	12,570	0.0%	963	15,102	0.0%	28,635	0.1%
2021-22	12,570	0.0%	951	15,102	0.0%	28,623	-0.0%

[1] Beginning in 1998-99, campus-based fees are calculated on a weighted basis using enrollments.

[2] Mid-year charge increases were applied to spring academic term. Figures shown are annualized charge levels.

[3] Mid-year charge increases were applied in January 2010. Figures shown are annualized charge levels.

[4] Beginning in 2010-11, campus-based fee figures for graduate students do not include waivable health insurance fee.

Appendix Display 14: 2021-22 Total Charges for Undergraduates and Graduate Academics[1]

	Without Health Insurance		With Health Insurance	
	Undergraduate	Graduate	Undergraduate	Graduate
Berkeley				
Residents	$14,226	$14,160	$18,014	$20,248
Nonresidents	43,980	29,262	47,768	35,350
Davis				
Residents	14,654	13,608	17,402	18,828
Nonresidents	44,399	28,710	47,156	33,930
Irvine				
Residents	13,775	13,356	15,737	18,037
Nonresidents	43,529	28,458	45,491	33,139
Los Angeles				
Residents	13,258	13,036	16,057	17,756
Nonresidents	43,012	28,138	45,811	32,858
Merced				
Residents	13,657	13,207	15,829	16,462
Nonresidents	43,411	28,309	45,583	31,564
Riverside				
Residents	13,742	13,467	15,510	17,431
Nonresidents	43,496	28,569	45,264	32,533
San Diego				
Residents	14,700	13,564	16,671	17,485
Nonresidents	44,454	28,666	46,425	32,587
San Francisco				
Residents	n/a	12,999	n/a	19,103
Nonresidents	n/a	28,101	n/a	34,205
Santa Barbara				
Residents	14,417	13,581	17,699	18,435
Nonresidents	44,171	28,683	47,453	33,537
Santa Cruz				
Residents	14,070	13,895	17,028	18,905
Nonresidents	43,824	28,997	46,782	34,007

Appendix Display 15: 2021-22 Total Charges for Professional Degree Students by Program and Campus

	Professional Degree Supplemental Tuition		Total Charges[1]	
	Residents	Nonresidents	Residents	Nonresic
Applied Economics and Finance				
Santa Cruz	$9,561	$9,561	$28,608	$40,8
Architecture				
Los Angeles	9,972	9,972	27,649	39,89
Art				
Los Angeles	8,478	5,298	26,231	35,29
Biomedical and Translational Science				
Irvine	13,392	13,392	33,106	45,35
Biotechnology Management				
Irvine	15,315	14,241	33,353	44,52
Business				
Berkeley	51,200	45,412	71,564	78,02
Davis	29,241	29,241	48,124	60,36
Irvine	29,508	27,219	47,562	57,51
Riverside	32,148	32,148	49,878	62,12
San Diego	34,965	29,511	52,554	59,34
Civil and Environmental Engineering				
Berkeley	6,686	13,024	27,070	45,66
Dentistry				
Los Angeles	29,412	28,302	48,712	59,84
San Francisco	33,915	33,915	53,027	65,27
Development Practice				
Berkeley	21,138	21,138	41,502	53,74
Educational Administration/Leadership				
Berkeley (M.A.)	6,000	6,000	26,364	38,60
Berkeley (Ed.D.)	8,000	8,000	33,224	45,46
Davis (Ed.D.)	4,818	4,818	23,701	35,94
Engineering (M.Eng.)				
Berkeley	33,700	29,700	54,064	62,30
Engineering Management				
Irvine	16,044	16,044	34,082	46,32
Environmental Data Science				
Santa Barbara	19,998	19,998	43,159	55,40
Environmental Science and Engineering				
Los Angeles	8,160	8,160	25,837	38,08
Environmental Science and Management				
Santa Barbara	9,999	9,999	28,467	40,71
Games and Playable Media				
Santa Cruz	9,978	9,978	29,025	41,27
Genetic Counseling				
Irvine	12,663	12,663	30,701	42,94
Los Angeles	18,900	18,900	37,761	50,00
Health Informatics				
Davis	7,890	7,890	26,773	39,01
Human Computer Interaction				
Santa Cruz	21,984	21,984	40,877	53,12
Information Management				
Berkeley	8,264	8,264	28,648	40,89
International Affairs				
San Diego	10,089	10,089	27,456	39,70

[1] Total charges include estimated campus-based fees and health insurance. Total charges also include mandatory systemwide charges (i.e., Tuition and the Student Services Fee totaling $12,570); Professional Degree Supplemental Tuition; and Nonresident Supplemental Tuition, disability, and other fees where applicable.

Appendix Display 15 (continued): 2021-22 Total Charges for Professional Degree Students by Program and Campus

	Professional Degree Supplemental Tuition		Total Charges[1]	
	Residents	Nonresidents	Residents	Nonres
Journalism				
Berkeley	$7,876	$7,876	$28,488	$40,7
Law				
Berkeley	42,668	35,708	63,041	68,3
Davis	38,072	36,770	56,922	67,8
Irvine	38,532	34,530	56,571	64,8
Los Angeles	38,532	34,558	57,129	65,3
Management				
Merced	23,152	23,152	43,088	55,3
Medicine				
Berkeley	24,468	24,468	43,574	55,8
Davis	24,488	24,488	48,156	60,4
Irvine	24,492	24,492	42,621	54,8
Los Angeles	27,488	27,488	45,228	57,4
Riverside	25,188	25,188	42,686	54,9
San Diego	25,953	25,953	43,361	55,6
San Francisco	24,486	24,486	43,599	55,8
Natural Language Processing				
Santa Cruz	21,220	21,220	41,895	54,1
Nursing				
Davis	12,795	12,795	35,780	48,1
Irvine	12,795	12,795	32,413	44,6
Los Angeles	12,795	12,795	30,548	42,7
San Francisco	12,795	12,795	31,883	44,1
Optometry				
Berkeley	20,974	20,750	41,338	53,3
Pharmacy				
Irvine (4-yr program)	30,996	30,996	49,035	61,2
San Diego (4-yr program)	28,626	28,626	46,105	58,3
San Francisco (3-yr program)	31,260	31,260	54,788	67,0
Physical Therapy				
San Francisco	13,362	13,362	36,771	49,0
Preventive Veterinary Medicine				
Davis	6,060	6,540	24,909	37,6
Product Development				
Berkeley	32,414	32,414	52,798	65,0
Public Health				
Berkeley	10,176	10,176	30,540	42,7
Davis	8,850	8,850	30,604	42,8
Irvine	7,896	7,896	25,934	38,1
Los Angeles	7,200	7,656	24,953	37,6
Public Policy				
Berkeley	11,286	12,194	31,845	44,9
Irvine	8,376	8,376	26,414	38,6
Los Angeles	10,257	10,941	27,934	40,8
Riverside	5,952	5,952	23,410	36,6
San Diego	10,089	10,089	27,456	39,7
Serious Games				
Santa Cruz	9,978	9,978	29,025	41,2

[1] Total charges include estimated campus-based fees and health insurance. Total charges also include mandatory systemwide charges (i.e., Tuition and the Student Services Fee totaling $12,570); Professional Degree Supplemental Tuition; and Nonresident Supplemental Tuition, disability, and other fees where applicable

Appendix Display 15 (continued): 2021-22 Total Charges for Professional Degree Students by Program and Campus

	Professional Degree Supplemental Tuition		Total Charges[1]	
	Residents	Nonresidents	Residents	Nonresi
Social Welfare				
Berkeley	$5,612	$5,612	$25,976	$38,2
Los Angeles	7,524	8,082	25,201	38,0(
Statistics				
Berkeley	21,104	24,120	41,468	56,7
Teacher Education				
Berkeley	6,000	6,000	26,364	38,6(
Technology Management				
Santa Barbara	37,113	37,113	55,613	67,8
Theater, Film & Television				
Los Angeles	13,413	13,413	31,090	43,3
Translational Medicine				
Berkeley (Jt. UCSF)	35,154	35,154	55,538	68,7
Urban and Regional Planning/Environmental Design				
Berkeley	7,702	7,702	28,066	40,3
Irvine	6,489	6,489	24,528	36,7
Los Angeles	8,133	8,733	25,810	38,6
Veterinary Medicine				
Davis	16,544	16,544	37,951	50,1

[1] Total charges include estimated campus-based fees and health insurance. Total charges also include mand systemwide charges (i.e., Tuition and the Student Services Fee totaling $12,570); Professional Degree Supplemental Tu and Nonresident Supplemental Tuition, disability, and other fees where applicable.

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