



CHAPTER TWELVE

Institutional Performance

Photo: picking oranges at the Citrus Experiment Station, Riverside, 1940

1867

Governor Frederick Low proposes that the existing College of California be merged with the state's Agriculture, Mining and Mechanical Arts College, making the case to trustees that they would be stronger together.

“You have here in your scholarship, organization, enthusiasm and reputation, but not money. We, in undertaking the state institution, have none of these things, but we have money. What a pity they could not be joined together.”

INSTITUTIONAL PERFORMANCE

History

In 1867, the trustees of the College of California donated 160 acres of land with “An earnest hope and confident expectation that the State of California will forthwith organize...upon this site a University of California which shall include a College of Mines, a College of Agriculture and an Academical College, all of the same grade and with courses of instruction equal to those of Eastern Colleges.”

The results of the 1916 Chicago International Livestock Show offered a glimpse into the importance of the University in the realm of animal husbandry when livestock from the University Farm swept the championships.

In 1996, UC Irvine and UC Davis joined UC Berkeley, UCLA, UC San Diego and UC Santa Barbara as members of the prestigious Association of American Universities, a group of 62 leading public and private research institutions in the United States and Canada. AAU members are consistently recognized for excellence in academic research and scholarship. UC is the only university system in the nation with more than one AAU member.

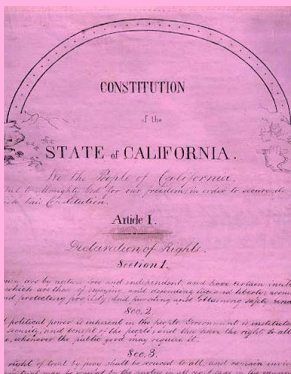
Overview

UC requires significant resources and planning to support its instruction, research and public service missions. Several indicators can provide insight into the financial health of the University, the state of capital and space resource, and the environmental sustainability of campus operations and growth.

Financial trends

The University’s revenues, totaling over \$32 billion in 2016–17 (excluding the Department of Energy Laboratories), fund its core mission and a wide range of support activities. Nearly one-third of that total directly funds the five UC medical centers, which have collectively nearly doubled in size in the past decade. Contracts and grants are the next largest source of funds and help sustain UC’s research mission.

State general funds, tuition and fees as well as UC general funds make up the core revenues for the University’s instructional mission. State funds used to be the largest single source of support for instruction; however, cuts in state funding over the past decade reduced this resource significantly. Today, state educational appropriations are still lower in inflation-adjusted dollars than they were in 2006–07, and over \$1 billion lower than what they were in 2000–01, despite significant enrollment growth that occurred during that same period. The decline in state support has been offset in part by additional revenues from student tuition and fees from both enrollment growth and increased rates. Importantly, financial aid increases over this period offset the tuition and fee increases for many UC students. Improvements in the California economy since 2012, combined with the passage of Proposition 30, have brought some stability to the state budget and thus to the University’s core budget. Modest increases in state funds have allowed for greater stability in tuition and fees and better planning for enrollment growth.



1879

The new Constitution gives the Regents “full powers of organization and government, subject only to such Legislative control ... to insure compliance with the terms of the endowments of the University ...”



1956

The university “seems to me more and more to be California’s highest, most articulate idea of itself, the most coherent perhaps the only coherent expression of the California possibility.”
— Joan Didion, UCB, ‘56

As core revenues per student have declined, the University has sought to increase revenues from other sources. Gift funds have become increasingly important. Private giving has increased significantly over the past decade; however, almost 99 percent of these funds are for restricted purposes. The largest areas of gifts are for research, departmental support and capital projects. The small amounts for instruction and student support cannot offset needs created by enrollment growth that has far outpaced growth in the core revenues. Private giving varies by campus and relates to the campus's age, number of alumni and the presence of health science programs.

Salaries, wages and benefits for academic and support staff are the largest areas of expenditures, which is typical for public and private universities. Chronic shortfalls in priority areas—graduate student support, faculty salaries, the ratio of students to faculty, capital renewal, the need to upgrade outdated information systems and a focus on sustainability—present ongoing financial challenges.

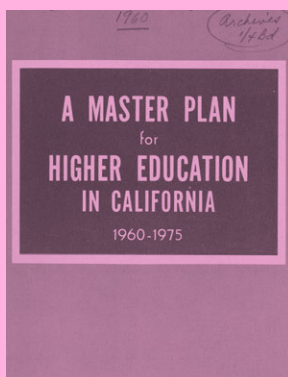
Capital program and funding

The University maintains approximately 6,000 buildings enclosing 143 million gross square feet on approximately 30,000 acres across its ten campuses, five medical centers, nine agricultural research and extension centers, and the Lawrence Berkeley National Laboratory. With such a substantial infrastructure, the University strives to be a good steward of the capital resources entrusted to its care.

UC's capital program is funded by a combination of state and non-state funds. Historically, the majority of UC's core academic capital projects were funded by the state. With state funds playing a declining role in the University's capital program over the past decade, the University has been forced to rely on other resources to fund capital projects. In the past decade, non-state funds, including external financing that utilizes non-state sources to service the debt, have accounted for 86 percent of UC's capital program funding.

During fiscal year 2016–17, UC approved capital project budgets totaling \$3.6 billion, close to triple the value of project approvals in 2015–16. This dramatic increase is due to the approvals of: the Merced 2020 project, which builds out the second phase of the campus; projects related to the President's Housing Initiative to increase the supply of on-campus beds for students; and expansion of research space. Approximately 57 percent of the cost of capital projects in 2016–17 was met through debt financing. The remaining capital projects were funded by non-state sources, including the public-private partnership in support of the Merced 2020 project.

In the recent past, the majority of capital projects were aimed at growing core academic programs and replacing aging facilities. In 2016–17, there was a dramatic increase of projects that addressed enrollment growth as well as program improvements. UC must maintain and upgrade its facilities, more than half of which are at least 35 years old, and many of which are in need of seismic upgrades.



1960

The Master Plan for Higher Education was revolutionary. With its passage, California became the first place in the world to promise a spot in higher education to anyone who wanted it.



1966

UC Davis bans almost all motor vehicle use from its central core roadways after Chancellor Emil Mrak asked UC Davis campus architects to “plan for a bicycle-riding, tree-lined campus.”

UC sustainability

The University of California is a national leader in sustainability. The University affirmed its leadership position in 2007 when all ten Chancellors signed the American College & University Presidents' Climate Commitment. Furthering this leadership, in November 2013, UC announced an initiative to achieve carbon neutrality by 2025. This initiative will make UC the first major research university system to achieve carbon neutrality.

The initiative builds on UC's work on climate and carbon neutrality research and furthers its leadership in sustainable business practices. Even as the campuses expand, overall greenhouse gas emissions have continued to drop due to improvements in energy efficiency, developing new sources of renewable energy and enacting a range of related strategies to cut carbon emissions.

Upfront investments in energy efficiency are often costly, but Energy Efficiency Partnership projects across the system have so far netted over \$220 million in cumulative avoided energy costs. Moreover, UC's policy requiring that all new construction projects and major renovations receive LEED® (Leadership in Energy and Environmental Design) certification helps assure that campus growth does not increase energy costs and climate pollution as much as it would otherwise. As of 2017, UC has 276 LEED certifications, the most of any higher education institution in the country.

The University's Sustainable Practices Policy, updated in 2017, has multiple areas of focus: Climate Action, Green Building, Clean Energy, Transportation, Zero Waste, Sustainable Procurement, Sustainable Food Services and Water, demonstrating the University's commitment to wise stewardship of its resources and the environment.

For more information

UC's Operating Budget: ucop.edu/operating-budget/budgets-and-reports/index.html

Annual Financial Reports: reportingtransparency.universityofcalifornia.edu

Annual reports on University private support: ucop.edu/institutional-advancement

UC's capital programs: ucop.edu/capital-resources-management/index.html

Annual Major Capital Projects Report: ucop.edu/design-services/resources/major-capital-projects-implementation-reports/index.html

Ten-Year Capital Financial Plan: ucop.edu/capital-planning/resources/index.html

Information on UC's sustainability: ucop.edu/sustainability



2014

The University of California announces that it will make the largest solar energy purchase by any U.S. higher education institution to help power its campuses and medical centers more sustainably.



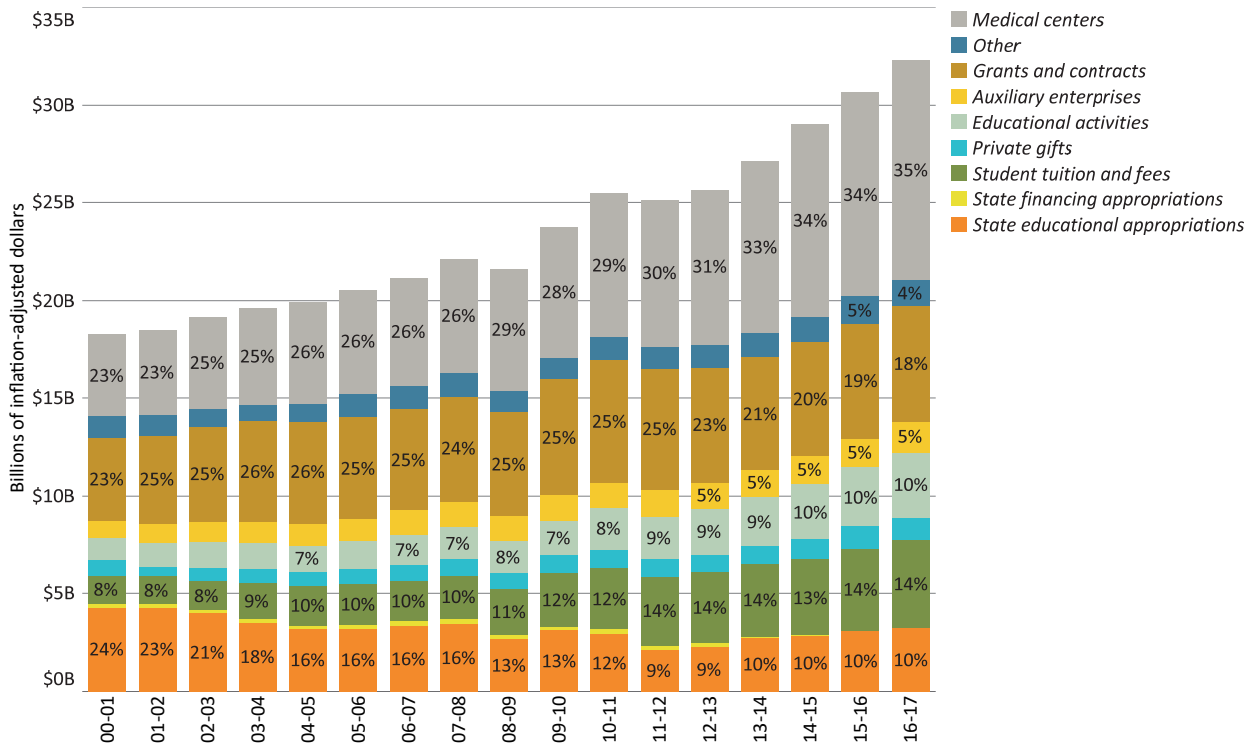
2016

UC Merced launches the 2020 Project to roughly double the physical capacity of campus with 13 new buildings, all of which will achieve at least a LEED Gold sustainability certification.

12.1 FINANCES

Over time, different sources of UC revenue have grown at different rates.

12.1.1 Revenues by source, Universitywide, 2000–01 to 2016–17



Source: UC Revenues and Expense Trend Report. Amounts do not include Department of Energy Laboratories.

Two major trends are reflected in the University's revenue sources over time. First, revenues associated with the University's medical centers and related activities have grown substantially since 2000–01. Medical center revenues now represent 35 percent of all UC revenues. On top of this category, a significant portion of revenues shown as "Educational activities" above is also related to health services.

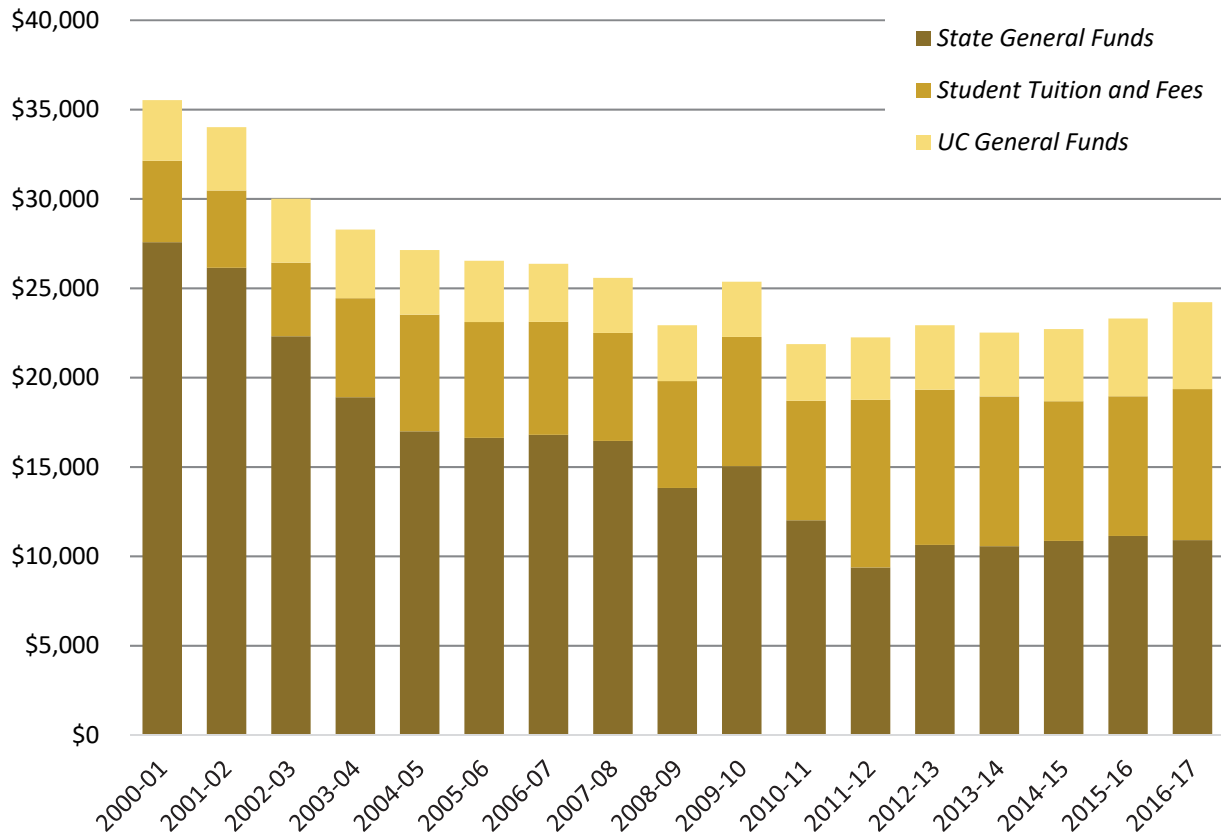
Second, among the University's core fund revenues, state appropriations now contribute less to the University's operating budget than student tuition and fees. UC used to receive 8.1 percent of all state general funds in 1966–67, while today it receives only 2.5 percent of those funds.

Historically, state funding had been the largest single source of support for the University's core budget. State educational appropriations are for educational and other specific operating purposes, whereas state financing appropriations provide principal and interest payments for lease-purchase agreements.

12.1 FINANCES

Since 2000–01, available core revenues per student have declined by 31.8 percent.

12.1.2 Per-student average inflation-adjusted core revenues, Universitywide, 2000–01 to 2016–17



Source: UC Budget Office

Since 2000–01, average inflation-adjusted revenues per student have declined 31.8 percent. During the same period, the state general fund portion has fallen even more steeply, by nearly 61 percent.

In some years, the University increased student tuition and fee levels to partly offset the long-term decline in state support. Financial aid increases have covered some or all of these cost increases for families with financial need. These increases in student fee revenue have not, however, fully offset the reduction in state funding per student.

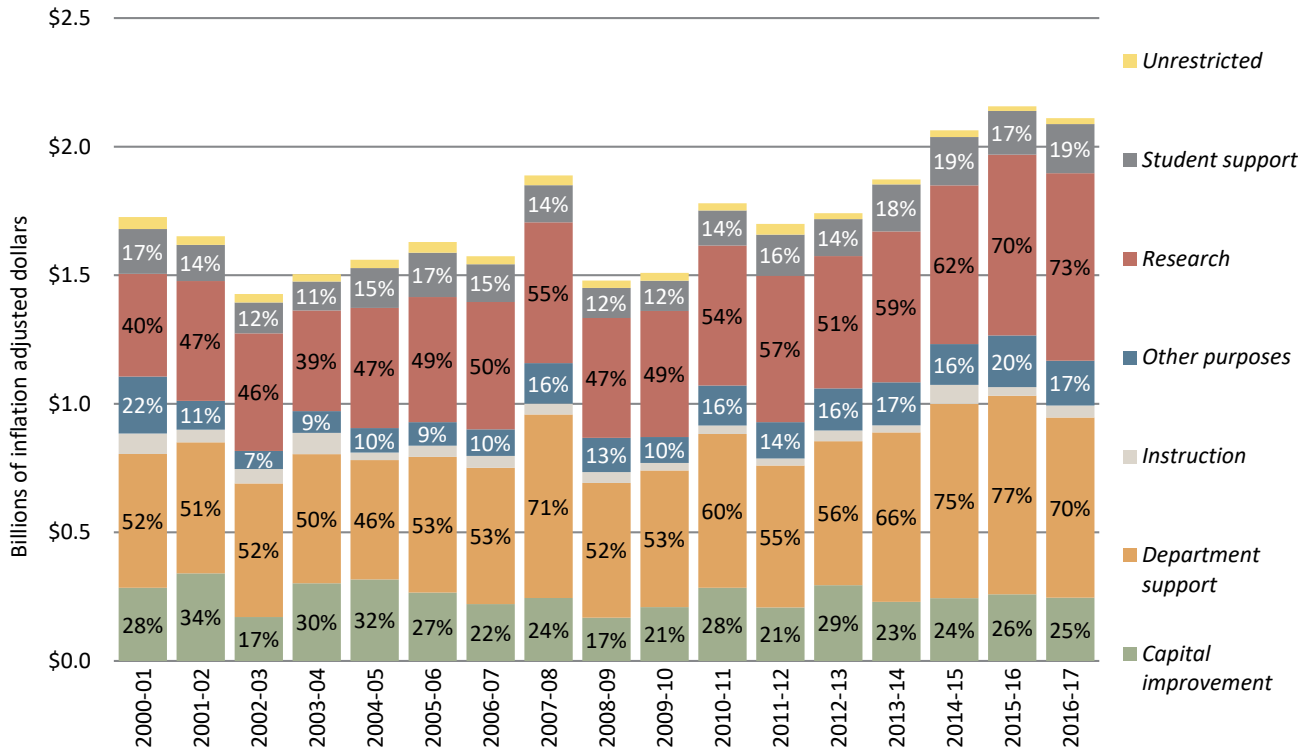
UC general funds are composed mostly of nonresident supplemental tuition revenue and indirect cost recovery from research contracts and grants.

Overall, less core revenue per student has put downward pressure on the spending per student, as seen in indicator 12.1.5. Ultimately, this pullback may affect the quality of instruction and the student experience.

12.1 FINANCES

Virtually all gift funds (99 percent) are restricted by donors in how they may be used.

12.1.3 Current giving by purpose, Universitywide, 2000–01 to 2016–17



Source: UC Institutional Advancement

The University is energetically pursuing increased philanthropic giving as a means to help address budget shortfalls and expand student financial aid.

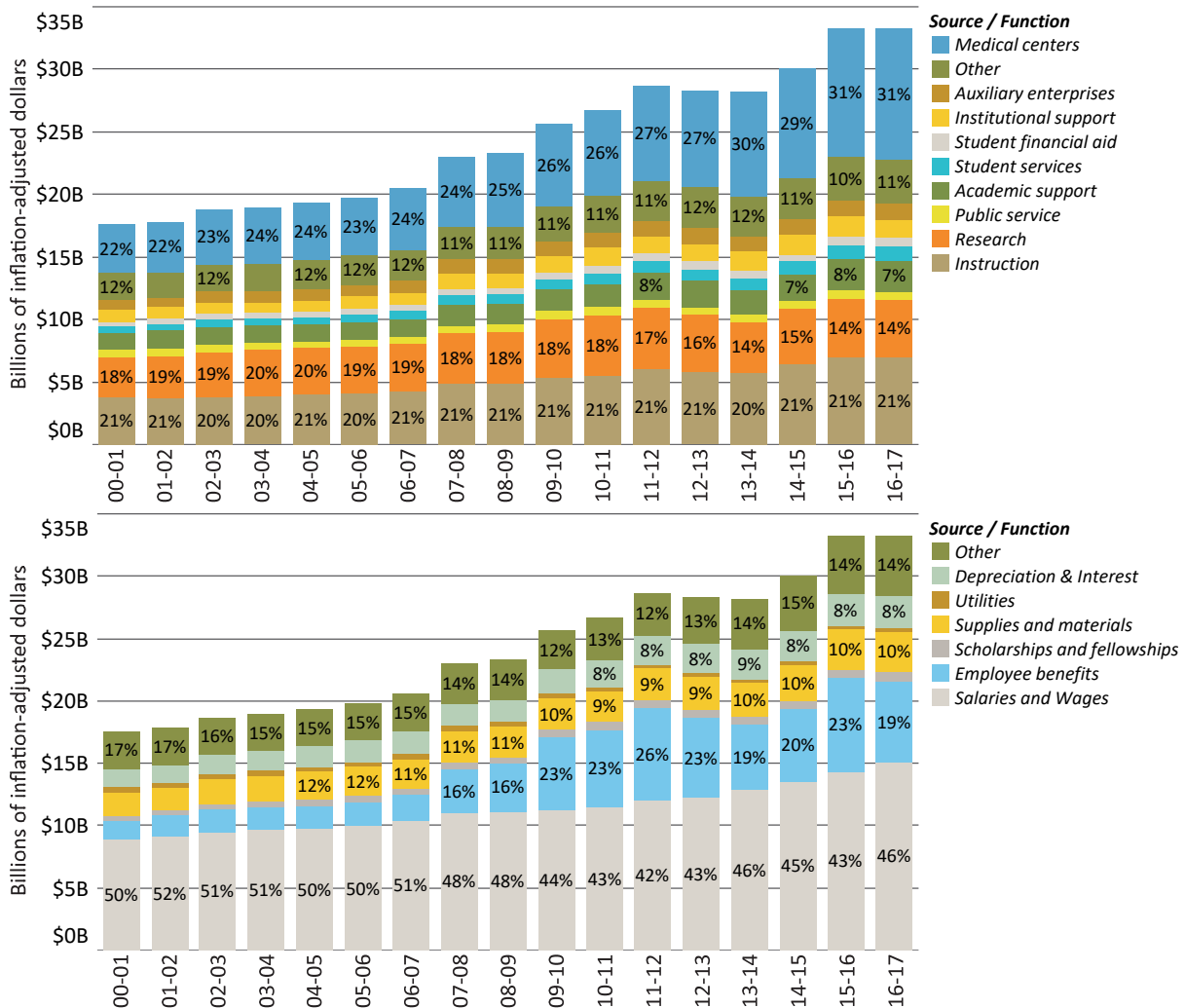
In 2016–17, new gifts to the University totaled about \$2.1 billion. Virtually all of these funds are restricted for specific purposes and are not available to support general operating costs. In addition, approximately \$434 million was designated for endowment, so only the income/payout is available for expenditure. Gifts designated for department support are only eligible for use by a specific department or academic division.

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 among the nation's public colleges and universities in generating philanthropic funds. These gifts reflect the high regard in which the University is held by its alumni, corporations, foundations and other supporters.

12.1 FINANCES

Personnel costs and medical centers are an increasing portion of UC expenditures.

12.1.4 Expenditures by function and type, Universitywide, 2000–01 to 2016–17



Source: UC Revenue and Expense Trends Report. Dollars are inflation-adjusted dollars using CCPI-W. Amounts do not include Department of Energy Laboratories.

When viewed by function, the combination of instruction, research and public service accounted for 36.8 percent of total expenditures during 2016–17, while medical centers (UC’s teaching hospitals) accounted for 31 percent. Other expenses by function is comprised of interest, depreciation, and miscellaneous expenditures.

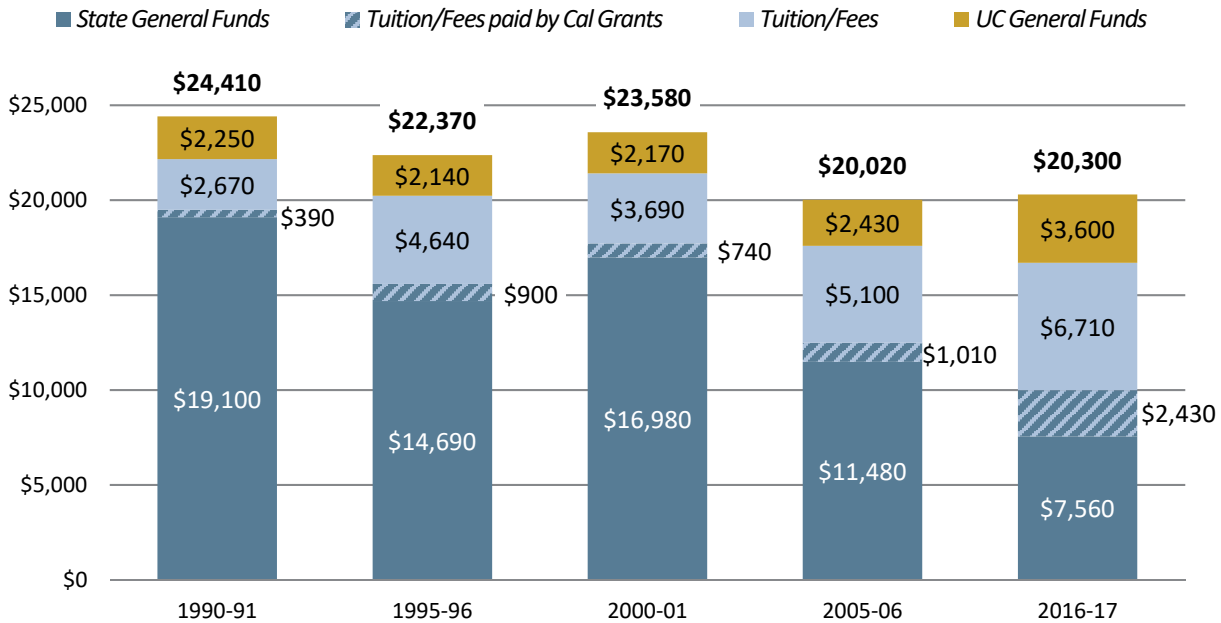
Looking at expenditure types, nearly 65 percent are dedicated to personnel costs since higher education,

health care delivery and research are inherently labor-intensive enterprises. Salary costs have increased both due to higher average salaries and increased full-time equivalent (FTE) employees, particularly at the medical centers. These increases also affect employee benefits; however, benefits costs also fluctuate due to variations in investment returns on the pension and the discount rate for retiree health.

12.1 FINANCES

Since 1990–91, total instructional expenditures per UC student have declined by 17 percent, yet students and their families bear a greater share of that cost.

12.1.5 Average general campus core fund expenditures for instruction per student, 1990–91 to 2016–17



Source: UC Budget Office, inflation-adjusted amounts.

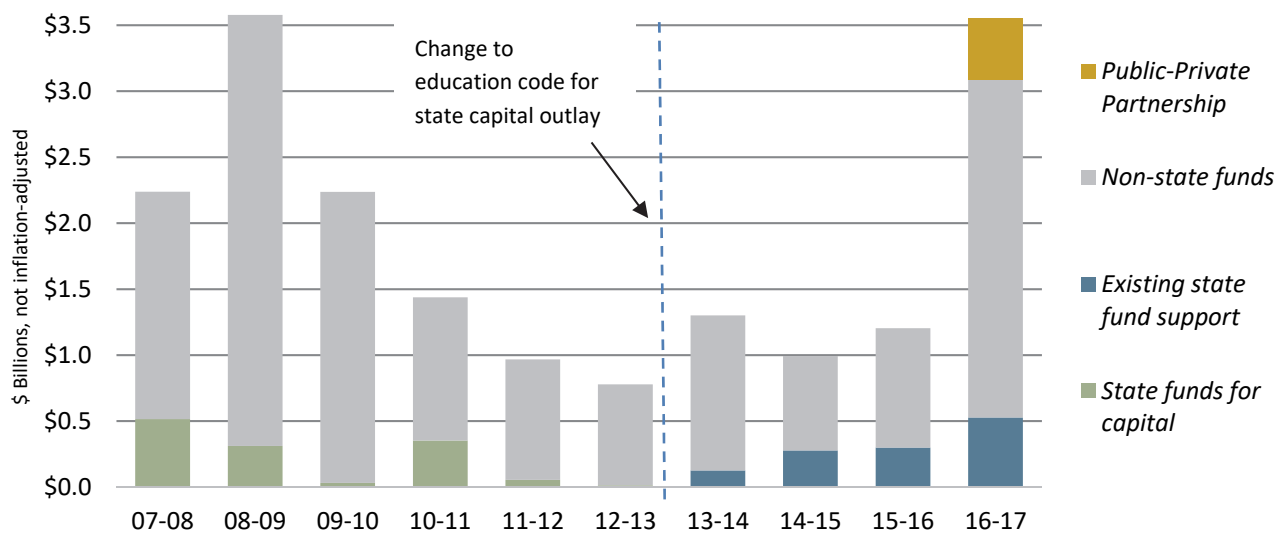
Since 1990–91, average expenditures for instruction per student from core funds have declined by 17 percent in inflation-adjusted dollars. Of this amount, the share provided by state support for the University’s budget declined from 78 percent in 1990–91 to only 37 percent of the total in 2016–17. In contrast, the contribution from tuition and fees has increased from 13 percent to 45 percent during the same period.

The state’s Cal Grant program has covered tuition and fee increases for many California resident undergraduate students. However, even after taking Cal Grants into account, state funding covered only 49 percent of instructional expenditures from core funds in 2016–17 compared to 80 percent in 1990–91.

12.2 CAPITAL PROJECTS

The majority of UC's capital project funding over the last ten years continues to be derived from non-state fund sources. The last year UC received state support of any appreciable amount for its capital program was in 2011–12; starting in 2013–14, changes to the California Education Code allowed UC to direct a portion of its existing state fund support to capital.

12.2.1 Sources of capital project funding by year of approval Universitywide 2007–08 to 2016–17



Source: UC Capital Asset Strategies

UC's capital program is funded by a combination of state and non-state funds. State funds were historically the primary source of funding for core academic facilities and seismic compliance for acute care hospitals. Non-state sources fund self-supporting enterprises, such as housing, parking, athletics and medical enterprises, which are generally not eligible for state funding.

As illustrated in indicator 12.2.1, the dominant source for capital is non-state resources. UC used to receive state funds specially designated for capital projects; however, the last state General Obligation (GO) bond benefitting UC was in 2006, and the last State Lease Revenue (SLR) bond funds for capital was in 2011.

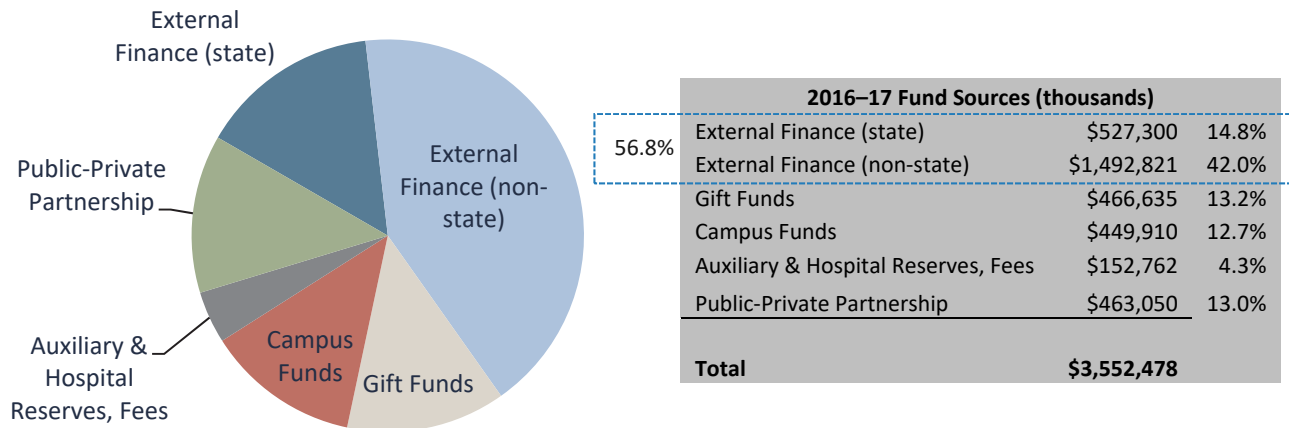
Legislation in 2013–14 and 2016–17 enacted a major change in how UC could fund its debt service, availability payments and expenditures for capital outlay. Instead of receiving dedicated capital funding from the state, UC can direct a portion of its state General Fund appropriations to fund debt service for state-eligible capital projects. The portion of General Funds that is directed to capital does not represent new state funding and is made up of funds that historically would have been used for operations.

In the past decade, non-state resources have accounted for the majority of UC's capital projects funding. To the extent that non-state funds are used to support core academic capital needs, less funding is available to support other high priority needs such as deferred maintenance, seismic and enrollment growth.

12.2 CAPITAL PROJECTS

Approximately \$2 billion of external financing supports UC's 2016–17 capital program.

12.2.2 Sources of capital spending detail, Universitywide, Project budgets approved in 2016–17



Source: UC Capital Asset Strategies

Financial challenges require each campus to carefully consider how to deploy resources to optimize the benefits to academic programs and the campus mission as a whole.

With state funding playing a declining role in the University's capital program over the past decade, the University has been forced to rely on other means to fund capital projects. As noted in indicator 12.2.2, almost 15 percent of capital funding for the 2016–17 capital program utilized external financing covered by state General Funds¹ that could have been used to support operations.

In addition, in the absence of new state funding for capital, campuses have decided to fund critical projects that cannot be delayed. In these cases, campuses redirect non-state funds to projects that otherwise would have been funded with state resources.

External financing that utilizes non-state sources to service the debt continued to play a central role in funding capital needs. In 2016–17, non-State financing supported student housing projects as well

as research projects related to program improvements in the sciences. About 42 percent of capital project funding in 2016–17 came from non-state external financing. Together with external financing using state general funds, about 57 percent of project funding relies on external financing .

UC is expanding its use of public private partnerships (P3) to implement its capital program. The P3 funding shown above supports the Merced 2020 project.

Gift funds comprise a significant portion of the 2016–17 capital program. UCLA received large gifts to support the graduate art program, education, and to expand facilities for the Anderson School of Management. San Francisco received gifts to support research at the Mission Bay campus.

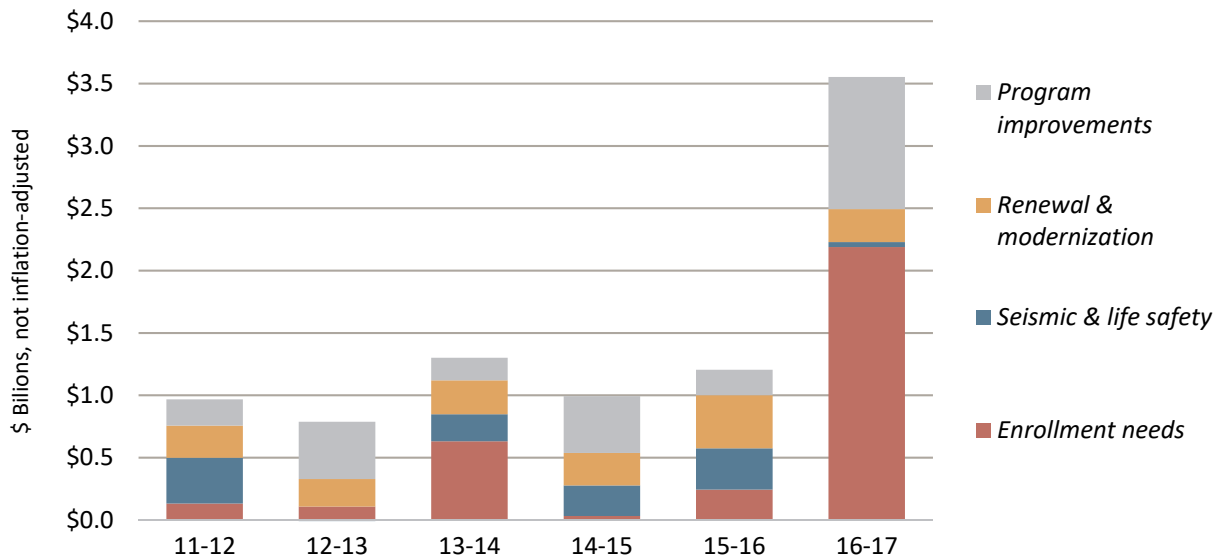
The remainder of UC's capital program is funded by campus funds and other non-state sources. These campus funds are derived from a variety of sources including indirect cost recovery and investment earnings.

¹This external financing was approved by the Regents in March of 2016 and supports the 2016–17 Budget for State Capital Improvements.

12.2 CAPITAL PROJECTS

The majority of capital funds approved for expenditure in 2016–17 supported projects addressing core academic programs and aging facilities.

12.2.3 Types of capital projects, based on budgets approved by year, Universitywide, 2011–12 to 2016–17



Source: UC Capital Asset Strategies

Capital projects may address several objectives. Continuing enrollment growth has largely driven the University's requirement for new teaching laboratories, classrooms, student housing and recreational facilities. In 2016–17 alone, UC approved almost \$2.2 billion for projects that address enrollment needs, far greater than any recent year. At \$1.3 billion, the Merced 2020 project builds out (approximately 790,000 square feet)—an entire second phase of the campus. In addition, the President's Student Housing Initiative to provide affordable housing supports enrollment as well. Lastly, the campuses must expand teaching laboratories and classrooms to meet the increases in enrollment. Nearly all of these projects occurred without dedicated state funding.

Program improvements are another large area of capital investment. Modern program initiatives require state-of-the-art space, often necessitating the repurposing of existing facilities or new construction. In 2016–17, UC devoted over \$1 billion

to program improvements to address academic, research and clinical priorities. This is more than double the amount spent on these sorts of projects in any recent year. This increase is attributable to the expanded research space at UCSF's Mission Bay Campus.

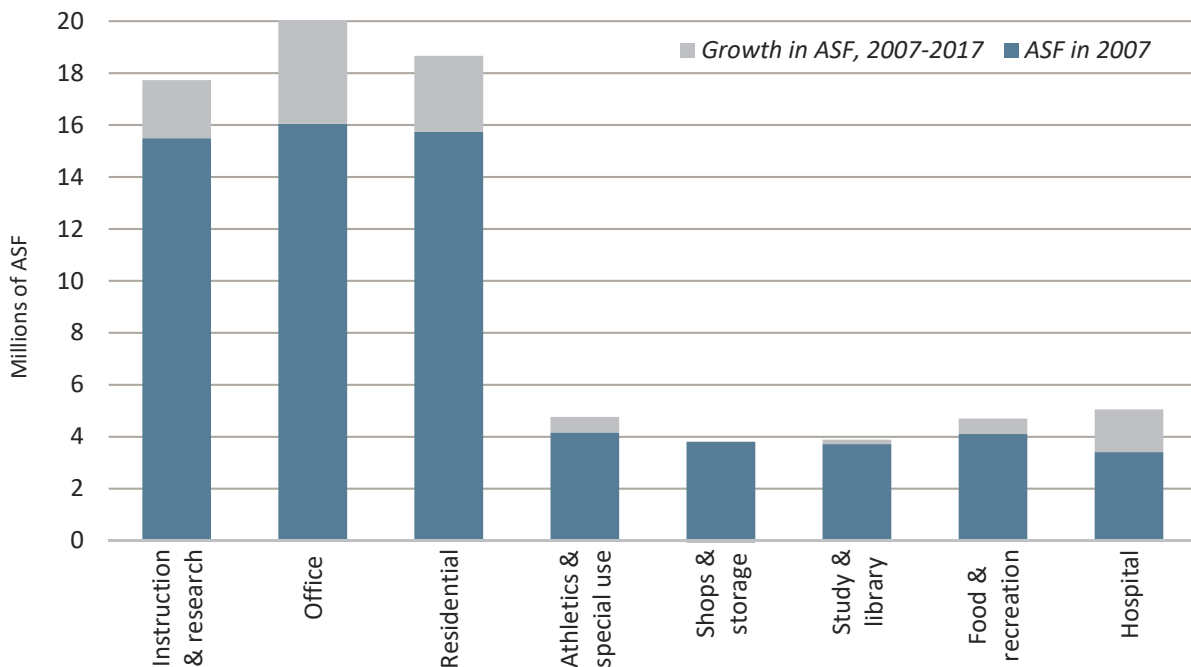
Campus facilities age and must be renewed and modernized to ensure safety, extend the useful life of the buildings and improve energy efficiency. Building systems, elevators and roofs need periodic replacement and renewal during the lifespan of a building. In the past five years, UC approved \$1.45 billion for these types of projects.

In addition to general renewal, the University continues to review the seismic safety of its facilities, prioritize buildings for remediation and implement seismic upgrades. While the investment in 2016–17 was modest, over the past 5 years, UC devoted \$824 million to seismic and life-safety corrections to buildings.

12.2 CAPITAL PROJECTS

In the past decade, UC space has increased by approximately 21 percent, with most of the growth targeted for instruction and research, offices and residential uses.

12.2.4 Assignable square footage (ASF), Universitywide 2006–2017



Source: UC Capital Asset Strategies

Assignable square footage (ASF) is the space available for programs or assigned to specific uses. It does not include corridors, bathrooms or building infrastructure.

Indicator 12.2.4 illustrates the growth in space over the last decade, according to categories for assignable space. Since 2007, space has increased by 12.0 million ASF for a total of 78.5 million ASF.

In the past decade, instructional and research space increased by about 2.2 million ASF, office space by 4 million ASF, and residential space by 2.9 million ASF. The space increase for these areas is roughly proportional to the increase in enrollment for the same period.¹ Residential space has grown as

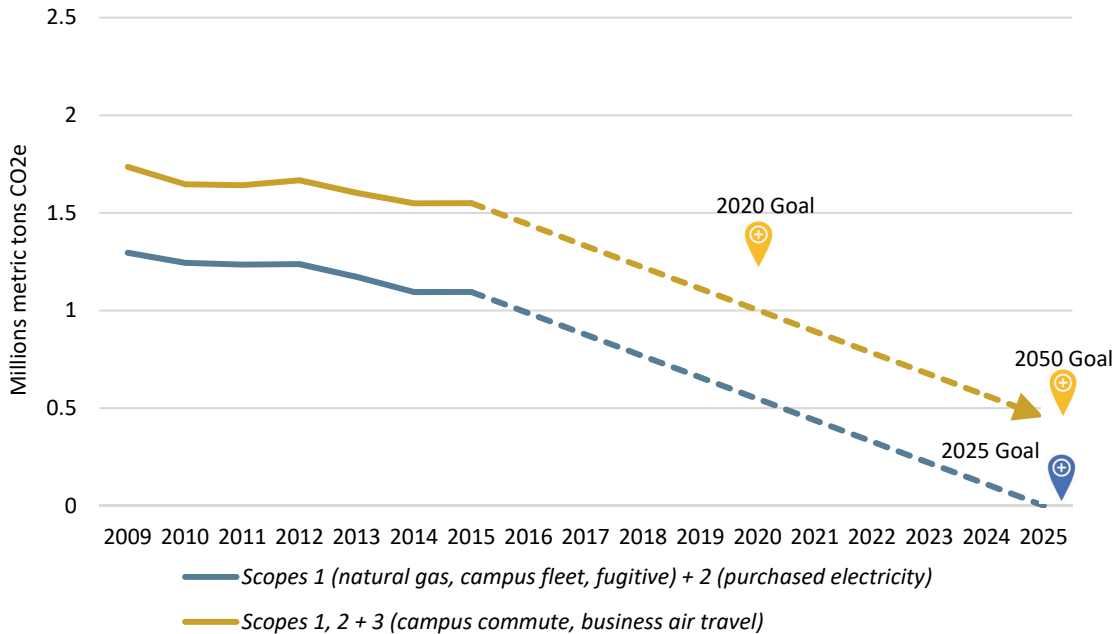
campuses strive for more on-campus student housing to improve student life in living/learning communities and to reduce environmental impacts from commuting. Increases in the student population have also required additions to athletic, recreational and food service space.

Hospital space significantly grew in the past decade. All five medical centers experienced growth but most of the growth in hospital space can be attributed to the Ronald Regan UCLA Medical Center (2008), UCSF Medical Center at Mission Bay and Ron Conway Family Gateway Medical Building (2015), and the Jacobs Medical Center at UC San Diego Health (2016).

¹ Budget for Current Operations, 2018–19, Appendix Display 8: Enrollment History, 1980–81 Through 2017–18.

UC has made consistent progress toward its greenhouse gas emission goals.

12.3.1 Greenhouse gas emissions compared to climate goals Universitywide 2009–2025



Source: UCOP Energy and Sustainability Office

The University's greenhouse gas (GHG) emissions decreased slightly in 2016 compared to 2015. This included a 7 percent increase in Scope 1 emissions, a 17 percent decrease in Scope 2 emissions, and a minor increase in Scope 3 emissions. The overall reduction has occurred even as campus built space has expanded rapidly in recent years. Emissions are expected to decrease further in 2017 as UC's Wholesale Power Program procures more renewable energy. The University's total emissions continued to fall below 2000 levels, maintaining the 2014 UC policy goal.

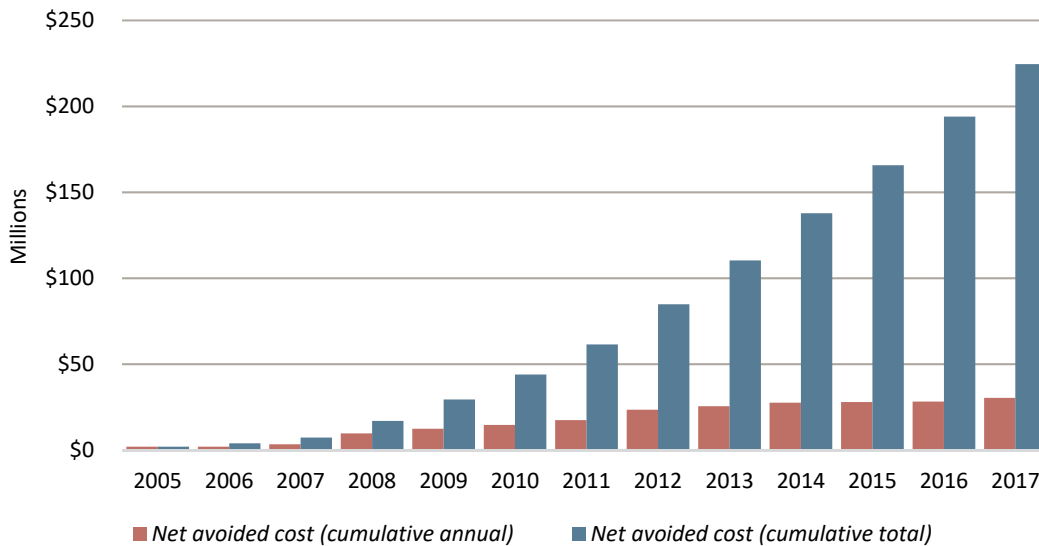
All campuses have a climate action plan identifying measures to reduce GHG emissions. UC Berkeley, UC Santa Barbara, and UCLA have exceeded the 2020 goal of reducing Scope 1, 2, and 3 greenhouse gas emissions to 2020 levels, and UC Riverside is within 2 percent of the target.

Campuses are currently in the process of updating these plans to include the 2025 carbon neutrality goal. To meet that goal, UC will have to reduce emissions by more than one million MTCO₂e. Systemwide progress continues to be made toward these goals. This year it included such highlights as:

- 40 MW of solar electricity generation capacity is in operation across all 10 campuses, one medical center and ANR
- UC Wholesale Power Program's two large-scale solar projects were producing renewable electricity for the entire year after coming online in 2016
- Securing two sources of renewable biogas that will offset approximately 10 percent of UC's natural gas consumption

Energy efficiency upgrades resulted in cumulative net avoided costs for the University of \$224 million by the end of 2017.

12.3.2 Cost avoidance from energy efficiency projects Universitywide 2005–2017



Source: UCOP Energy and Sustainability Office

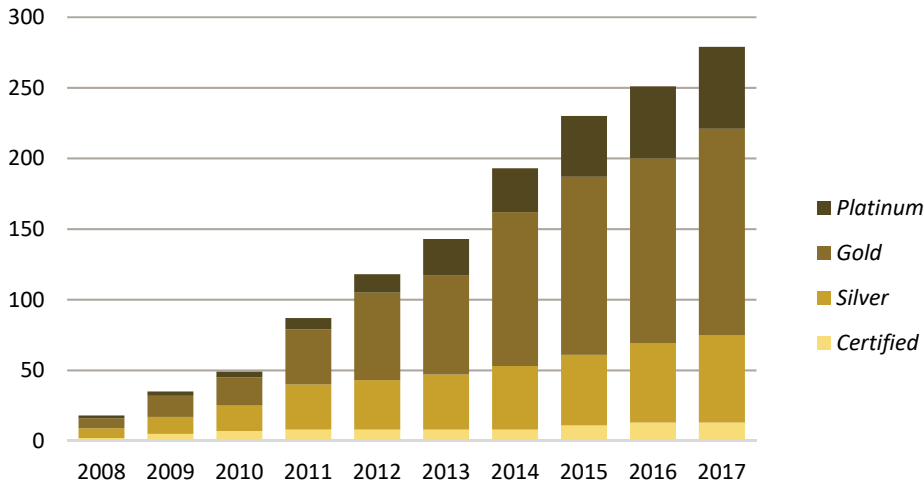
In 2004, the University formed a statewide energy efficiency partnership program with California State University and the state's four investor-owned utilities to improve the energy performance of higher education facilities. The partnership provides funding for equipment retrofits, monitoring based commissioning, and training and education.

Forty-two UC projects participated in the program in 2017, earning \$3.8 million in incentives. Since its inception, over 1,000 energy efficiency and new construction projects have registered with the Energy Efficiency Partnership Program, which has allowed UC campuses to avoid more than \$220 million in utility costs while reducing greenhouse gas emissions.

While campuses have used a portfolio approach to balance projects with shorter and longer paybacks, the future focus on the remaining deeper energy efficiency retrofits to achieve climate goals will result in lower levels of net avoided costs due to larger up-front investments.

By the end of 2017, UC had achieved 276 LEED® certifications, more than any other university in the country.

12.3.3 LEED® certifications, Universitywide, 2000–2017 (cumulative)



Source: UCOP Capital Resources Management

UC's sustainability policy requires that all new buildings and renovations are designed and constructed to a minimum LEED (Leadership in Energy and Environmental Design) for New Construction Silver rating. The policy also states that each campus shall seek to certify as many buildings as possible through the LEED - Existing Buildings, Operations and Maintenance (EBOM) rating system to "green" the day-to-day, ongoing environmental performance of its existing facilities.

UC added approximately 1.5 million square feet of new LEED certified buildings in 2017 and approximately 20 percent of UC building space is now LEED certified. UC has 276 LEED certifications systemwide, with 39 projects certifying under the LEED – EBOM system. In 2017, 5 projects earned LEED Platinum certification, 11 earned LEED Gold, and 5 were LEED Silver. UC's total of 276 LEED certifications is the most of any higher education institution in the country.

UC LEED® certifications are listed at:
<http://ucop.edu/sustainability/policy-areas/green-building/index.html>