UNIVERSITY OF CALIFORNIA

# Annual Financial Report

16/17

For nearly 150 years, the University of California has educated the brightest minds and helped California become a beacon of innovation. UC is a national leader in developing new knowledge and moving our discoveries into the market so they can benefit our society, our economy and our planet.

UNIVERSITY OF CALIFORNIA

# 16/17 Annual Financial Report

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# Letter from the President

This has been a transformative year for the University of California. Our commitment to diversity, innovation and affordability remains strong as we continue to navigate shifting political and economic environments.

The University reaffirmed its commitment to California students by enrolling its largest class of incoming freshman and transfer students this year, and establishing limits on nonresident enrollment at our nine undergraduate campuses. A powerful engine of socioeconomic mobility, UC continues to broaden access to higher education for low-income and first-generation students.

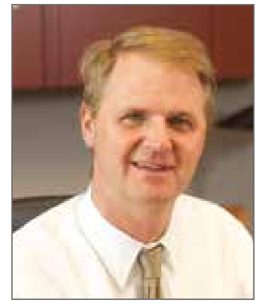
In addition, our campuses have continued to open their doors to undocumented students, postdoctoral fellows and researchers, who represent some of our nation's brightest minds. In 2016, I committed $8.4 million per year through 2018 to expand financial, legal and support services for undocumented students. The principles of diversity and tolerance are central to our mission, and the University will continue to defend these values with vigor as we foster an inclusive environment for all students, faculty and staff.

The University's dedication to combatting global climate change remains unwavering. This year, we have made great strides toward our goal of achieving carbon neutrality by 2025. UC has reduced systemwide emissions by 15 percent since 2009, largely through the adoption of renewable energy sources. In 2016, we made the largest solar energy purchase ever made by a U.S. university, which will eventually supply 14 percent of the University's total energy. As the nation's largest research university, UC performs nearly 10 percent of all academic research and development conducted in the United States. Our scientists and researchers are working diligently to develop innovative and scalable solutions to climate change for the benefit of generations to come.

The University proudly recognizes its ever-growing role in the California economy. UC is the third largest employer in the state of California. Furthermore, 430,000 (or 1 in 46) California jobs are supported by UC operations. UC researchers produce an average of five inventions per day, and 934 startups have been founded on UC patents to date. By sustaining the quality, access and affordability of a UC education, we strive to further our mission of teaching, research and public service to ensure that California remains at the forefront of innovation.

JANET NAPOLITANO
PRESIDENT, UNIVERSITY OF CALIFORNIA

# Letter from the Executive Vice President, CFO



Over the past year, the University of California has made great progress against our ambitious plans to boost college opportunity for students across California. We saw the largest one-year increase in California undergraduate enrollment since World War II with an increase of over 7,400 new California undergraduates entering the University as compared to the last year. In addition to enrolling a greater number of students, we also maintained our commitment to accessibility and affordability with 57% of our undergraduates paying no tuition.

We also continued our long history of enrolling and graduating large numbers of first-generation and low-income students. Almost 90,000 of our students (42% of our 210,369 undergraduates) are first-generation students and 41% of our students are Pell Grant recipients. The New York Times annual survey which ranks U.S. colleges that did the most for low-income students found that the top five (and six of the top ten) were UC campuses. The role the University plays in promoting social mobility for our students is transformational, not only for the students but also for the state of California.

Tuition was moderately increased by less than $300 per student, augmenting the funds available for financial aid by approximately $50 million, demonstrating our commitment to affordability. These additional financial aid funds will cover the tuition increase for 100,000 California undergraduates and provide funds for rent, food, books and other expenses. Despite this modest increase, our tuition remains very low relative to our peer universities and we continue to offer an unmatched return on investment in terms of the quality of education delivered.

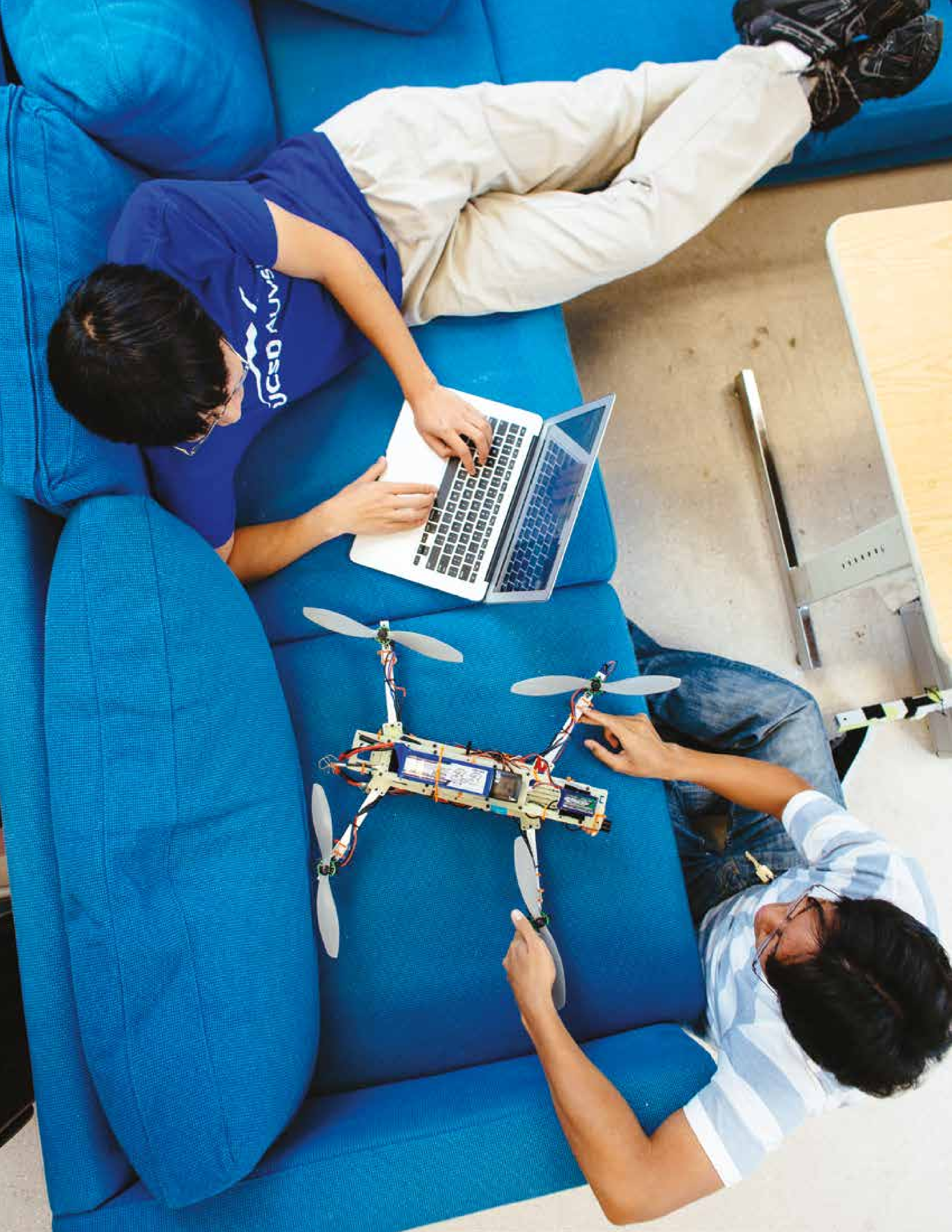
In fact, two of our campuses, UC Berkeley and UCLA, were recognized in Forbes as the #1 and #2 best value colleges based on “tuition costs, school quality, post-grad earnings, student debt and graduation success.”

I am happy to report that the Office of the Chief Investment Officer produced exceptional returns for the year. The office, which manages approximately $111 billion in assets, beat benchmarks across asset classes and returned 14.5% for our pension and 15.1% for our endowment. These returns will certainly help to solidify the University’s financial position.

While we have continued to deliver on our mission of affordability, accessibility and quality, we must continue to address our capital needs and long-term liabilities. We have developed viable plans to address the liabilities from our retirement plan and retiree health benefits, however maintaining existing buildings and adding new facilities to house and educate our growing student body remains challenging. We are actively looking to harness alternate sources of capital and utilize different delivery models to meet our capital needs in the coming years.

Quality, access and affordability are the hallmark of all UC campuses. We have had a strong year in delivering on these values, but we must remain diligent going forward in order to sustain these qualities for future generations.

NATHAN BROSTROM
EXECUTIVE VICE PRESIDENT, CFO
UNIVERSITY OF CALIFORNIA



# Facts in Brief *(Unaudited)*

| | 2017 | 2016* | 2015* | 2014 | 2013 |
|---|---|---|---|---|---|
| STUDENTS | | | | | |
| Undergraduate fall enrollment | 210,369 | 199,127 | 195,078 | 191,369 | 183,498 |
| Graduate fall enrollment | 59,743 | 58,311 | 57,185 | 52,757 | 55,188 |
| **Total fall enrollment** | **270,112** | **257,438** | **252,263** | **244,126** | **238,686** |
| University Extension enrollment | 346,365 | 371,240 | 374,442 | 367,355 | 343,758 |
| **FACULTY AND STAFF** *(full-time equivalents)* | **154,522** | **149,312** | **144,765** | **139,208** | **137,667** |
| **SUMMARY FINANCIAL INFORMATION** *(in thousands of dollars, except for retirement plan participation)* | | | | | |
| **UNIVERSITY OF CALIFORNIA** | | | | | |
| PRIMARY REVENUE SOURCES | | | | | |
| Student tuition and fees, net[1] | $4,477,213 | $4,132,352 | $3,784,046 | $3,585,859 | $3,402,946 |
| Grants and contracts, net | 5,440,977 | 5,272,595 | 5,204,761 | 5,117,736 | 5,078,750 |
| Medical centers, educational activities and auxiliary enterprises, net | 16,153,092 | 14,638,715 | 13,611,153 | 12,108,409 | 10,890,244 |
| State educational, financing and capital appropriations | 3,279,520 | 3,052,540 | 2,812,634 | 2,683,315 | 2,484,877 |
| Federal Pell Grants | 381,650 | 376,264 | 376,186 | 316,064 | 345,910 |
| Private gifts, net | 1,167,395 | 1,091,519 | 971,245 | 890,614 | 801,940 |
| Capital gifts and grants, net | 255,559 | 248,705 | 186,836 | 473,464 | 256,670 |
| Department of Energy laboratories | 1,147,233 | 1,259,768 | 1,234,509 | 1,250,820 | 1,032,350 |
| OPERATING EXPENSES BY FUNCTION | | | | | |
| Instruction | 6,966,479 | 6,814,684 | 6,200,694 | 5,477,857 | 5,477,776 |
| Research | 4,579,067 | 4,618,459 | 4,366,909 | 3,837,361 | 4,287,561 |
| Public service | 670,757 | 639,022 | 580,693 | 581,069 | 554,231 |
| Academic support | 2,416,824 | 2,460,694 | 2,022,401 | 1,835,476 | 2,008,866 |
| Student services | 1,168,883 | 1,099,934 | 1,012,422 | 923,284 | 819,209 |
| Institutional support | 1,443,208 | 1,583,783 | 1,597,486 | 1,463,248 | 1,361,439 |
| Operation and maintenance of plant | 677,034 | 656,635 | 590,602 | 618,030 | 640,712 |
| Student financial aid[2] | 721,538 | 649,258 | 553,340 | 580,807 | 603,805 |
| Medical centers | 10,451,455 | 10,004,181 | 8,513,134 | 7,965,944 | 7,201,528 |
| Auxiliary enterprises | 1,300,590 | 1,265,535 | 1,187,777 | 1,104,050 | 1,153,775 |
| Depreciation and amortization | 1,909,870 | 1,804,046 | 1,661,033 | 1,709,672 | 1,555,254 |
| Impairment of capital assets | 7,354 | 10,127 | 11,219 | 11,201 | 31,441 |
| Department of Energy laboratories | 1,139,232 | 1,271,260 | 1,234,958 | 1,244,335 | 1,026,088 |
| Other | 66,936 | 71,573 | 72,200 | 81,061 | 123,513 |
| INCREASE (DECREASE) IN NET POSITION | 1,065,376 | (2,701,762) | (233,459) | 1,381,385 | (1,334,155) |
| FINANCIAL POSITION | | | | | |
| Investments, at fair value | 24,478,362 | 22,208,767 | 22,492,804 | 21,748,774 | 18,942,008 |
| Capital assets, at net book value | 30,669,753 | 29,688,815 | 28,642,779 | 27,645,157 | 26,179,885 |
| Other assets and deferred outflows | 13,384,911 | 18,234,126 | 12,596,994 | 11,652,661 | 14,808,621 |
| Outstanding debt, including capital leases | (20,502,876) | (19,951,287) | (19,020,755) | (18,030,749) | (17,236,225) |
| Obligations for pension and retiree health benefits | (30,029,779) | (36,920,138) | (29,331,031) | (16,165,378) | (19,915,231) |
| Other liabilities and deferred inflows | (15,615,037) | (11,940,325) | (11,359,071) | (15,137,452) | (12,866,312) |
| Net position | 2,385,334 | 1,319,958 | 4,021,720 | 11,713,013 | 9,912,746 |

*[1] Scholarship allowances, including both financial aid and fee waivers that are not paid directly to students, are recorded primarily as a reduction of student tuition and fees in the statement of revenues, expenses and changes in net position.*

*[2] Includes only financial aid paid directly to students. The state-administered California grant awards are not included as expenses since the government determines grantees. College work study expenses are shown in the programs in which the student worked.*

** Certain revisions in classifications, or restatements, have been made to prior year information in order to conform to current year presentation.*

**SUMMARY FINANCIAL INFORMATION** *(in thousands of dollars, except for participant information)*

| | 2017 | 2016 | 2015 | 2014 | 2013 |
|---|---|---|---|---|---|
| **UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS** | | | | | |
| PRIMARY REVENUE SOURCES | | | | | |
| Private gifts, net | $866,190 | $780,983 | $765,445 | $789,573 | $711,363 |
| PRIMARY EXPENSES | | | | | |
| Grants to campuses | 939,784 | 889,278 | 827,467 | 958,873 | 632,132 |
| INCREASE (DECREASE) IN NET POSITION | 1,065,307 | (13,479) | 455,416 | 849,091 | 746,263 |
| FINANCIAL POSITION | | | | | |
| Investments, at fair value | 8,206,990 | 7,115,278 | 7,084,587 | 6,496,649 | 5,799,788 |
| Pledges receivable, net | 865,979 | 842,423 | 822,530 | 861,005 | 713,710 |
| Net position | 8,602,157 | 7,536,850 | 7,550,329 | 7,094,913 | 6,245,822 |
| **UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM** | | | | | |
| PLAN PARTICIPATION | | | | | |
| Plan membership | 289,429 | 280,185 | 266,254 | 262,988 | 243,140 |
| Retirees and beneficiaries currently receiving payments | 72,995 | 70,077 | 67,321 | 64,191 | 58,934 |
| PRIMARY REVENUE SOURCES | | | | | |
| Contributions[1] | $4,779,464 | $4,551,152 | $4,458,802 | $3,215,712 | $2,175,983 |
| Interest, dividends and other investment income, net | 1,435,299 | 1,316,116 | 1,323,449 | 1,344,731 | 1,254,981 |
| Net appreciation (depreciation) in the fair value of investments | 8,616,400 | (2,300,033) | 1,320,388 | 9,137,618 | 5,106,081 |
| PRIMARY EXPENSES | | | | | |
| Benefit payments | 3,185,062 | 2,974,331 | 2,803,627 | 2,583,223 | 2,396,577 |
| Participant and member withdrawals | 1,514,990 | 1,367,528 | 1,730,362 | 1,369,641 | 1,364,304 |
| INCREASE IN NET POSITION | 10,079,633 | (831,668) | 2,515,920 | 9,701,107 | 4,731,316 |
| FINANCIAL POSITION | | | | | |
| Investments, at fair value | 82,574,019 | 73,196,935 | 71,595,607 | 68,747,604 | 60,104,811 |
| Members' defined benefit pension plan benefits | 62,179,236 | 54,225,589 | 55,122,875 | 52,853,829 | 45,404,828 |
| Participants' defined contribution plan benefits | 22,482,632 | 20,356,646 | 20,291,028 | 20,044,154 | 17,792,048 |
| ACTUARIAL INFORMATION *(as of the beginning of the year)* | | | | | |
| Actuarial value of assets | 57,228,542 | 53,762,286 | 48,327,981 | 43,572,353 | 42,965,028 |
| Actuarial accrued liability | 69,305,423 | 65,841,255 | 60,417,177 | 57,380,961 | 54,619,620 |
| **UNIVERSITY OF CALIFORNIA RETIREE HEALTH BENEFIT TRUST** | | | | | |
| PLAN PARTICIPATION | | | | | |
| Plan membership | 164,089 | 161,072 | 157,221 | 154,930 | 151,458 |
| Retirees and beneficiaries currently receiving benefits | 41,157 | 39,774 | 38,488 | 37,207 | 35,872 |
| PRIMARY REVENUE SOURCES | | | | | |
| Contributions | $328,057 | $310,320 | $315,586 | $343,395 | $267,886 |
| Interest, dividends and other investment income, net | 606 | 155 | 41 | 13 | |
| PRIMARY EXPENSES | | | | | |
| Insurance premiums | 290,234 | 284,836 | 327,019 | 318,490 | 313,105 |
| INCREASE (DECREASE) IN NET POSITION | 34,173 | 21,896 | (14,539) | 20,884 | (45,219) |
| FINANCIAL POSITION | | | | | |
| Investments, at fair value | 97,801 | 53,604 | 24,250 | 37,125 | 7,750 |
| Net position for retiree health benefits | 106,714 | 72,541 | 50,645 | 65,184 | 44,300 |
| ACTUARIAL INFORMATION *(as of the beginning of the year)* | | | | | |
| Actuarial value of assets | 72,541 | 50,645 | 65,184 | 44,300 | 97,435 |
| Actuarial accrued liability | 21,168,812 | 17,320,301 | 14,093,786 | 13,253,215 | 14,559,017 |

[1] *Total contributions to the University of California Retirement Plan and the University of California Retirement Savings Plan.*

# Campus Facts in Brief *(Unaudited)*

| | BERKELEY | DAVIS | IRVINE | LOS ANGELES | MERCED | RIVERSIDE |
|---|---|---|---|---|---|---|
| STUDENTS | | | | | | |
| Undergraduate fall enrollment | 29,310 | 29,557 | 27,331 | 30,873 | 6,815 | 19,814 |
| Graduate fall enrollment | 10,863 | 7,840 | 6,136 | 14,074 | 521 | 3,176 |
| **Total fall enrollment** | **40,173** | **37,397** | **33,467** | **44,947** | **7,336** | **22,990** |
| University Extension enrollment[1] | 37,361 | 61,876 | 27,282 | 116,785 | 14 | 26,418 |
| DEGREES CONFERRED[2] | | | | | | |
| Bachelor | 7,457 | 7,560 | 6,570 | 8,163 | 1,161 | 4,392 |
| Advanced | 3,892 | 2,113 | 2,132 | 4,410 | 75 | 848 |
| Cumulative | 637,843 | 276,913 | 192,513 | 564,773 | 6,274 | 113,682 |
| FACULTY AND STAFF *(full-time equivalents)* | 14,077 | 23,607 | 14,590 | 35,497 | 1,877 | 5,510 |
| LIBRARY COLLECTIONS[3] *(volumes)* | 12,397,095 | 4,689,374 | 3,762,070 | 10,397,818 | 1,537,725 | 3,949,901 |
| CAMPUS LAND AREA *(in acres)* | 8,163 | 7,331 | 1,527 | 465 | 8,195 | 2,050 |
| CAMPUS FINANCIAL FACTS[4] *(in thousands of dollars)* | | | | | | |
| OPERATING EXPENSES BY FUNCTION | | | | | | |
| Instruction | $771,410 | $873,746 | $720,220 | $2,170,179 | $61,915 | $314,352 |
| Research | 554,857 | 537,670 | 261,634 | 790,148 | 24,622 | 116,345 |
| Public service | 79,946 | 93,117 | 13,168 | 139,301 | 5,852 | 6,016 |
| Academic support | 131,756 | 277,291 | 180,450 | 692,741 | 24,863 | 43,778 |
| Student services | 222,631 | 151,953 | 105,006 | 176,063 | 25,741 | 88,177 |
| Institutional support | 261,518 | 161,677 | 83,408 | 262,520 | 60,847 | 71,847 |
| Operation and maintenance of plant | 87,679 | 101,185 | 52,539 | 98,876 | 18,570 | 40,859 |
| Student financial aid | 135,583 | 87,817 | 83,666 | 120,937 | 16,583 | 61,976 |
| Medical centers | | 1,874,451 | 1,010,205 | 2,108,305 | | |
| Auxiliary enterprises | 148,553 | 105,441 | 131,192 | 374,550 | 28,657 | 71,609 |
| Depreciation and amortization | 228,367 | 230,530 | 199,508 | 374,672 | 29,906 | 68,619 |
| Impairment of capital assets | | 1,384 | 771 | 2,305 | | 67 |
| Other[5] | 13,921 | 7,080 | 9,290 | 19,106 | 2,315 | 3,452 |
| **Total** | **$2,636,221** | **$4,503,342** | **$2,851,057** | **$7,329,703** | **$299,871** | **$887,097** |
| GRANTS AND CONTRACTS REVENUE | | | | | | |
| Federal government | $377,872 | $396,905 | $200,535 | $588,609 | $19,117 | $81,825 |
| State government | 79,555 | 131,982 | 18,167 | 55,982 | 1,286 | 9,339 |
| Local government | 12,978 | 18,208 | 2,900 | 62,259 | 88 | 1,965 |
| Private | 179,739 | 141,431 | 77,000 | 241,527 | 4,960 | 29,010 |
| **Total** | **$650,144** | **$688,526** | **$298,602** | **$948,377** | **$25,451** | **$122,139** |
| UNIVERSITY ENDOWMENTS | | | | | | |
| Nonspendable endowments | $394,464 | $121,212 | $13,549 | $283,219 | $16,414 | $14,118 |
| Funds functioning as endowments | 2,108,514 | 595,108 | 466,679 | 2,003,748 | 19,821 | 56,743 |
| Annual income distribution | 87,377 | 32,870 | 6,576 | 42,664 | 1,717 | 2,310 |
| CAMPUS FOUNDATIONS' ENDOWMENTS | | | | | | |
| Nonspendable endowments | 1,123,333 | 245,988 | 241,030 | 1,111,481 | 8,327 | 100,685 |
| Funds functioning as endowments | 786,645 | 159,667 | 131,997 | 849,747 | 2,937 | 59,553 |
| CAPITAL ASSETS | | | | | | |
| Capital assets, at net book value | 3,816,390 | 3,298,211 | 2,737,928 | 6,179,054 | 699,261 | 1,135,739 |
| Capital expenditures | 83,639 | 309,833 | 254,645 | 505,626 | 129,265 | 101,892 |

[1] *For academic year 2016-17.*
[2] *As of academic year 2015-16.*
[3] *As of June 30, 2016.*
[4] *Excludes DOE laboratories.*
[5] *Includes non-capitalized expenses associated with capital projects and write-off, cancellation and bad debt expenses for loans.*

| | SAN DIEGO | SAN FRANCISCO | SANTA BARBARA | SANTA CRUZ | SYSTEMWIDE[6] |
|---|---|---|---|---|---|
| STUDENTS | | | | | |
| Undergraduate fall enrollment | 28,127 | | 21,580 | 16,962 | |
| Graduate fall enrollment | 7,689 | 4,857 | 2,766 | 1,821 | |
| **Total fall enrollment** | **35,816** | **4,857** | **24,346** | **18,783** | |
| University Extension enrollment[1] | 56,995 | | 5,449 | 14,185 | |
| DEGREES CONFERRED[2] | | | | | |
| Bachelor | 6,203 | | 5,235 | 4,016 | |
| Advanced | 2,054 | 938 | 956 | 552 | |
| Cumulative | 194,943 | 53,612 | 230,468 | 114,608 | |
| FACULTY AND STAFF *(full-time equivalents)* | 23,197 | 22,501 | 6,303 | 4,489 | 2,874 |
| LIBRARY COLLECTIONS[3] *(volumes)* | 4,395,656 | 1,172,468 | 3,206,594 | 2,527,566 | |
| CAMPUS LAND AREA *(in acres)* | 2,162 | 205 | 1,127 | 6,088 | 27 |

## CAMPUS FINANCIAL FACTS[4] *(in thousands of dollars)*

| | SAN DIEGO | SAN FRANCISCO | SANTA BARBARA | SANTA CRUZ | SYSTEMWIDE[6] |
|---|---|---|---|---|---|
| OPERATING EXPENSES BY FUNCTION | | | | | |
| Instruction | $918,520 | $330,576 | $292,259 | $182,899 | $330,403 |
| Research | 788,647 | 996,963 | 176,311 | 89,204 | 242,666 |
| Public service | 23,142 | 124,406 | 12,830 | 19,990 | 152,989 |
| Academic support | 480,042 | 315,062 | 61,101 | 36,211 | 173,529 |
| Student services | 142,428 | 26,019 | 98,802 | 90,170 | 41,893 |
| Institutional support | 191,125 | 195,064 | 76,800 | 52,458 | 25,944 |
| Operation and maintenance of plant | 100,863 | 73,692 | 44,728 | 35,831 | 22,212 |
| Student financial aid | 63,157 | 19,952 | 87,014 | 41,776 | 3,077 |
| Medical centers | 1,528,988 | 3,732,262 | | | 197,244 |
| Auxiliary enterprises | 160,731 | 31,271 | 104,558 | 104,159 | 39,869 |
| Depreciation and amortization | 288,735 | 342,704 | 75,129 | 59,138 | 12,562 |
| Impairment of capital assets | 1,691 | 653 | 119 | 364 | |
| Other[5] | 6,062 | 3,726 | 6,121 | 128 | (4,265) |
| **Total** | **$4,694,131** | **$6,192,350** | **$1,035,772** | **$712,328** | **$1,238,123** |
| GRANTS AND CONTRACTS REVENUE | | | | | |
| Federal government | $671,047 | $704,068 | $120,567 | $67,685 | $30,296 |
| State government | 33,489 | 66,514 | 4,686 | 4,426 | 48,781 |
| Local government | 16,868 | 184,092 | 1,547 | 139 | 5,448 |
| Private | 234,400 | 405,834 | 54,725 | 22,660 | 30,466 |
| **Total** | **$955,804** | **$1,360,508** | **$181,525** | **$94,910** | **$114,991** |
| UNIVERSITY ENDOWMENTS | | | | | |
| Nonspendable endowments | $44,858 | $140,719 | $32,502 | $11,310 | $70,701 |
| Funds functioning as endowments | 678,720 | 1,341,300 | 105,466 | 80,937 | 1,237,798 |
| Annual income distribution | 24,739 | 41,879 | 5,297 | 3,190 | 28,600 |
| CAMPUS FOUNDATIONS' ENDOWMENTS | | | | | |
| Nonspendable endowments | 420,533 | 611,579 | 126,898 | 44,071 | |
| Funds functioning as endowments | 213,784 | 495,294 | 67,562 | 52,429 | |
| CAPITAL ASSETS | | | | | |
| Capital assets, at net book value | 4,761,686 | 4,555,316 | 1,560,417 | 1,172,711 | 753,040 |
| Capital expenditures | 695,889 | 290,705 | 190,545 | 101,440 | 313,198 |

*[1] For academic year 2016-17.*
*[2] As of academic year 2015-16.*
*[3] As of June 30, 2016.*
*[4] Excludes DOE laboratories.*
*[5] Includes non-capitalized expenses associated with capital projects and write-off, cancellation and bad debt expenses for loans.*
*[6] Includes expenses for systemwide education and research programs, systemwide support services and administration. Full-time equivalents count, as of fall 2015, includes employees at all campuses involved in systemwide activities, including Agriculture and Natural Resources.*

# Management’s Discussion and Analysis *(Unaudited)*

The objective of Management’s Discussion and Analysis is to help readers of the University of California’s financial statements better understand the financial position and operating activities for the year ended June 30, 2017, with selected comparative information for the years ended June 30, 2016 and 2015. This discussion has been prepared by management and should be read in conjunction with the financial statements and the notes to the financial statements. Unless otherwise indicated, years (2015, 2016, 2017 etc.) in this discussion refer to the fiscal years ended June 30.

The University of California’s financial report communicates financial information for the University of California (the “University”), the University of California campus foundations (“campus foundations”), the University of California Retirement System (“UCRS”) and the University of California Retiree Health Benefit Trust (“UCRHBT”) through five primary financial statements and notes to the financial statements. Three of the primary statements, the statements of net position, the statements of revenues, expenses and changes in net position and the statements of cash flows, present the financial position, changes in financial position and cash flows for the University and the affiliated campus foundations. The financial statements for the campus foundations are presented discretely from the University. Two of the primary statements, the statements of plans’ and trust’s fiduciary net position and the statements of changes in plans’ and trust’s fiduciary net position, present the financial position and operating activities for UCRS and UCRHBT. The notes to the financial statements provide additional information that is essential to a full understanding of the financial statements.

## THE UNIVERSITY OF CALIFORNIA

The University of California, one of the largest and most acclaimed institutions of higher learning in the world, is dedicated to excellence in teaching, research, health care and public service. The University has annual resources of nearly $33.4 billion and encompasses ten campuses, five medical centers, four law schools and a statewide Division of Agriculture and Natural Resources. The University is also involved in the operation and management of three national laboratories for the U.S. Department of Energy (“DOE”).

*Campuses*. The ten campuses are located in Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara and Santa Cruz. All of the campuses, except San Francisco, offer undergraduate, graduate and professional education; the San Francisco campus is devoted exclusively to graduate and professional education in health sciences.

*Health sciences*. The University operates one of the nation’s largest health science and medical training programs. The instructional program is conducted in 16 health professional schools on six campuses. Our health programs include five medical centers, two dental schools, three nursing schools, two public health schools and two pharmacy schools, in addition to a school of optometry and a school of veterinary medicine. The University's medical schools play a leading role in the development of health services and advancement of medical science and research.

*Law schools*. The University has law schools at Berkeley, Davis, Irvine and Los Angeles. Also, the Hastings College of the Law in San Francisco is affiliated with the University, although not included in the financial reporting entity.

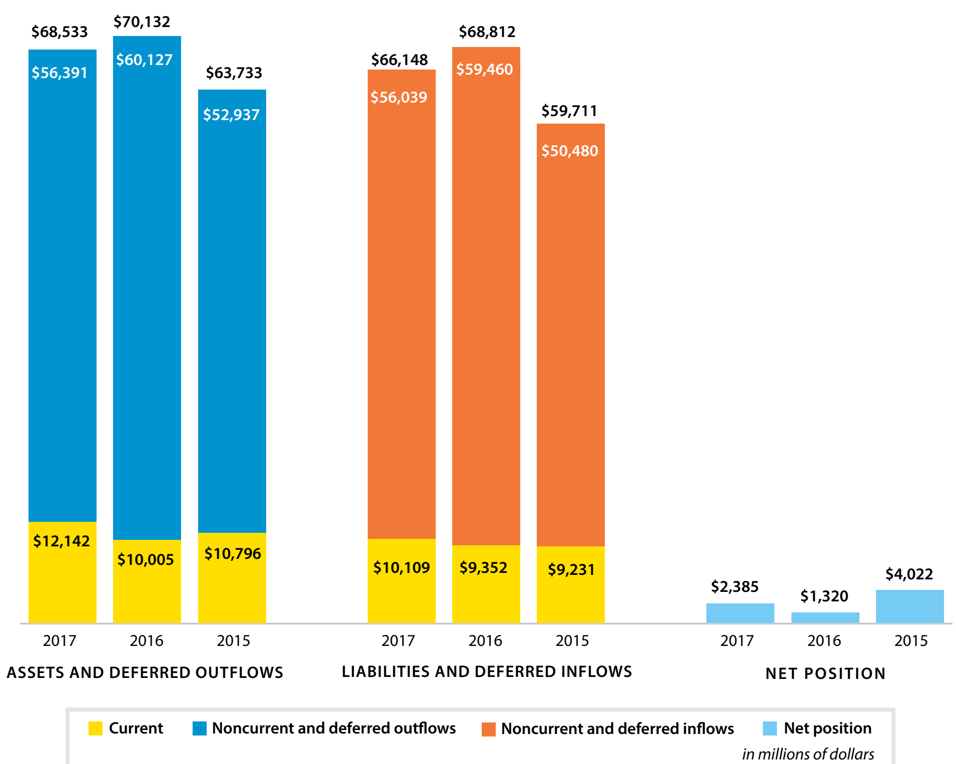
*Agriculture and Natural Resources*. The Division of Agriculture and Natural Resources is a statewide research and public service organization that serves a large and diverse agricultural community. The division collaborates on research with all campuses, and conducts studies at nine research and extension centers and on private land in cooperation with California producers. In addition, research and educational programs are conducted in each of the state's 58 counties.

*University Extension*. The foremost continuing education program of its kind in size, scope and quality of instruction, University Extension offers almost 20,000 self-supporting courses statewide and in several foreign countries.

*National laboratories*. Under contract with the DOE, the University operates and manages the Ernest Orlando Lawrence Berkeley National Laboratory (LBNL) in California. The University is also a member in two separate joint ventures, Los Alamos National Security, LLC (LANS) and Lawrence Livermore National Security, LLC (LLNS) that operate and manage the Los Alamos National Laboratory (LANL) and Lawrence Livermore National Laboratory (LLNL), respectively, under contracts directly with the DOE. The laboratories conduct broad and diverse basic and applied research in nuclear science, energy production, national defense and environmental and health areas.

## THE UNIVERSITY'S FINANCIAL POSITION

The University implemented new accounting policies for retiree health benefits. These changes in accounting policies are designed to improve transparency by requiring recognition of the net retiree health benefits liability in the financial statements. This standard requires recognition of retiree health benefit expense using a systematic method, designed to match the cost of retiree health benefits with service periods for eligible employees. Financial information for 2016 and 2015 have been restated to retroactively apply these new accounting policies.



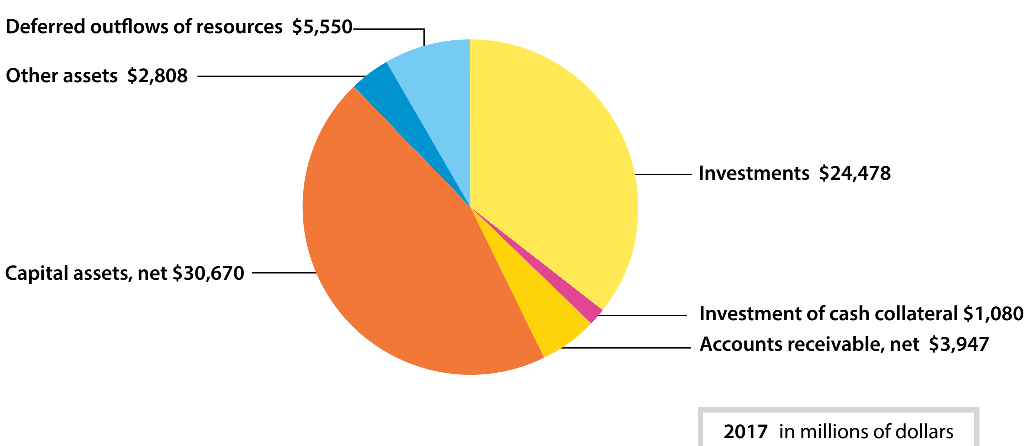

The statement of net position presents the financial position of the University at the end of each year. It displays all of the University's assets, deferred outflows, liabilities and deferred inflows. The difference between assets, deferred outflows, liabilities and deferred inflows is net position.

The major components of the assets, deferred outflows, liabilities, deferred inflows and net position as of June 30, 2017, 2016 and 2015 are as follows:

*(in millions of dollars)*

| | 2017 | 2016 | 2015 |
|---|---|---|---|
| **ASSETS** | | | |
| Investments | $24,478 | $22,209 | $22,493 |
| Investment of cash collateral | 1,080 | 825 | 775 |
| Accounts receivable, net | 3,947 | 3,320 | 3,281 |
| Capital assets, net | 30,670 | 29,689 | 28,643 |
| Other assets | 2,808 | 3,919 | 3,808 |
| **Total assets** | **62,983** | **59,962** | **59,000** |
| **DEFERRED OUTFLOWS OF RESOURCES** | **5,550** | **10,170** | **4,732** |
| **LIABILITIES** | | | |
| Debt, including commercial paper | 20,503 | 19,951 | 19,021 |
| Securities lending collateral | 1,079 | 825 | 775 |
| Net pension liability | 10,739 | 15,125 | 10,671 |
| Net retiree health benefits liability | 19,290 | 21,795 | 18,660 |
| Other liabilities | 8,253 | 7,648 | 7,426 |
| **Total liabilities** | **59,864** | **65,344** | **56,553** |
| **DEFERRED INFLOWS OF RESOURCES** | **6,284** | **3,468** | **3,157** |
| **NET POSITION** | | | |
| Net investment in capital assets | 13,343 | 12,816 | 12,138 |
| Restricted: | | | |
| Nonexpendable | 1,176 | 1,148 | 1,111 |
| Expendable | 7,163 | 6,546 | 7,206 |
| Unrestricted | (19,297) | (19,190) | (16,433) |
| **Total net position** | **$2,385** | **$1,320** | **$4,022** |

## *The University's Assets and Deferred Outflows*




The University's total assets and deferred outflows of resources have decreased to $68.5 billion in 2017, compared to $70.1 billion in 2016 and $63.7 billion in 2015. Capital assets have increased due to continued investments in facilities and investments changed due to financial market returns. Deferred outflows fluctuate due to changes in the University's net pension and retiree health benefits liabilities.

### *Investments*

Investments held by the University are principally carried in three investment pools: the Short Term Investment Pool (STIP), the Total Return Investment Pool (TRIP) and the General Endowment Pool (GEP). Cash for operations and bond proceeds for construction expenditures are invested in STIP. The University uses STIP to meet operational liquidity needs. TRIP provides the opportunity to maximize the return on long-term capital by taking advantage of the economies of scale of investing in a large pool across a broad range of asset classes. TRIP seeks to maximize to a total return objective and is intended to supplement STIP. The University maximizes its use of TRIP while still maintaining sufficient funds in STIP to meet operational and liquidity needs. The GEP is a balanced portfolio and the primary investment vehicle for individual endowments and funds functioning as endowments.

The Regents of the University of California ("The Regents") utilize asset allocation strategies that are intended to optimize investment returns over time in accordance with investment objectives and at acceptable levels of risk. GEP had a positive return of 15.1 percent in 2017, a negative return of 3.5 percent in 2016 and a positive return of 6.1 percent in 2015. TRIP had positive returns of 7.7 percent, 0.3 percent and 2.6 percent in 2017, 2016 and 2015, respectively. STIP had positive returns of 1.3 percent, 1.3 percent and 1.4 percent in 2017, 2016 and 2015, respectively.

### *Investment of cash collateral*

The University participates in a securities lending program incorporating securities owned by both the University and UCRS as a means to augment income. Cash collateral fluctuates in response to changes in demand from borrowers and the availability of securities based upon the University's asset allocation mix.

### *Accounts receivable, net*

Accounts receivable include amounts due from state and federal governments on contracts and grants, patient receivables for medical centers and professional fees, investment income, proceeds from security sales and amounts due for private grants and contracts. Receivables fluctuate based on the timing of collections and investment sales activity.

### *Capital assets, net*

The University's enrollment growth requires new facilities, in addition to continuing needs for renewal, modernization and seismic correction of existing facilities. Capital spending continues at a brisk pace in order to provide the facilities necessary to support the University's teaching, research and public service mission and for patient care. Capital spending includes constructing and renovating academic buildings, research laboratories, libraries, student services, housing facilities, medical centers and clinical facilities, parking structures and infrastructure projects at all ten campuses and five medical centers. The largest project in 2017 and 2016 was the Jacobs Medical Center in San Diego. Total additions of capital assets were $3.0 billion in 2017 as compared to $3.0 billion in 2016 and $2.8 billion in 2015.

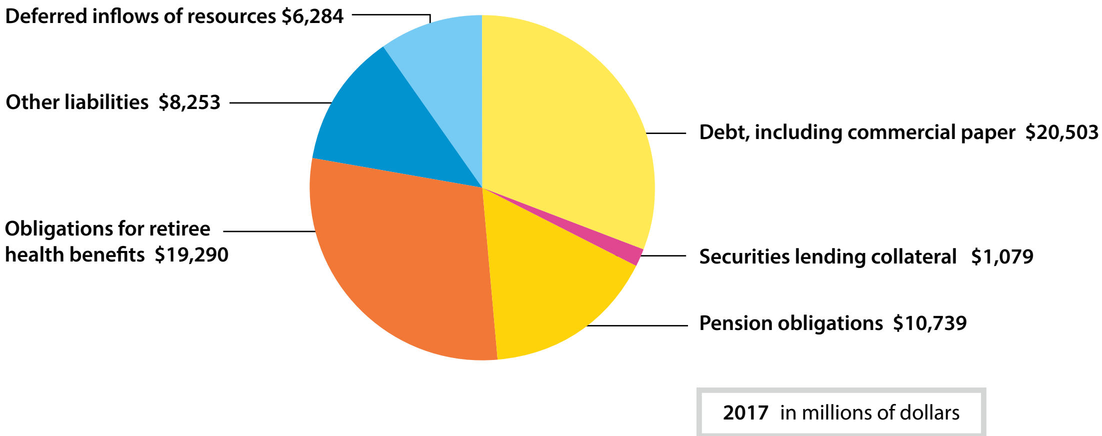
### *Other assets*

Other assets include cash, investments held by trustees, pledge receivables, note and mortgage receivables, inventories and receivables from the DOE. The noncurrent receivable from the DOE, which fluctuates with the net pension and retiree health benefits liabilities due to the DOE's continuing responsibility to contribute for retired and terminated vested members of LLNS and LANL, decreased by $337.8 million in 2017 as compared to 2016 and decreased by $22.7 million in 2016 as compared to 2015. Investments held by trustees decreased by $0.7 billion in 2017 due to the transfer of self-insurance reserves to the University's wholly-owned captive insurance company. Since the captive insurance company is blended with the University, the captive's investments are included with the University's investments.

### *Deferred outflows of resources*

Changes in fair values of the University's interest rate swaps that are determined to be hedging derivatives, losses on debt refundings and certain changes in the net pension and net retiree health benefits liabilities are reported as deferred outflows of resources. In 2017, deferred outflows decreased due to higher than expected investment returns in the University of California Retirement Plan (UCRP) portfolio. In 2016, deferred outflows increased due to lower than expected investment returns in the UCRP portfolio.

## *The University's Liabilities and Deferred Inflows*




The University's liabilities and deferred inflows of resources decreased to $66.2 billion in 2017 as compared to $68.8 billion in 2016 and $59.7 billion in 2015. The changes in both 2017 and 2016 were primarily related to the issuance of additional debt to finance capital projects and the changes in the liabilities for pension and retiree health benefits.

### *Debt, including commercial paper*

Capital assets are financed from a variety of sources, including University equity contributions, federal and state support, revenue bonds, bank loans and leases or structures that involve separate legal entities. Commercial paper and bank loans provide interim financing for capital assets during the construction period.

Outstanding debt increased by $551.6 million and $931.0 million in 2017 and 2016, respectively. A summary of the activity follows:

*(in millions of dollars)*

| | 2017 | 2016 |
|---|---|---|
| **ADDITIONS TO OUTSTANDING DEBT** | | |
| General Revenue Bonds | $1,136 | $813 |
| Medical Center Pooled Revenue Bonds | 1,046 | |
| Limited Project Revenue Bonds | | 532 |
| Capital leases | 55 | 67 |
| Other borrowings | 126 | 200 |
| Blended Component Unit Revenue Bonds | 54 | 283 |
| Bond premium, net | 223 | 195 |
| **Additions to outstanding debt** | **2,640** | **2,090** |
| **REDUCTIONS TO OUTSTANDING DEBT** | | |
| Refinancing and prepayments | (1,321) | (528) |
| Scheduled principal payments | (400) | (340) |
| Payments on other borrowings | (64) | (180) |
| Commercial paper, net | (225) | (47) |
| Amortization of bond premium | (78) | (64) |
| **Reductions to outstanding debt** | **(2,088)** | **(1,159)** |
| **Net increase in outstanding debt** | **$552** | **$931** |

The University's debt, which is used to primarily finance capital assets, includes $812.7 million, $1.0 billion and $1.1 billion of commercial paper outstanding at the end of 2017, 2016 and 2015, respectively. Total debt outstanding was $20.5 billion at the end of 2017 compared to $20.0 billion and $19.0 billion at the end of 2016 and 2015, respectively.

In 2017, $2.2 billion of debt was issued, including General Revenue Bonds totaling $1.1 billion and Medical Center Pooled Revenue Bonds totaling $1.0 billion to finance and refinance certain facilities and projects. Reductions to outstanding debt in 2017 were $2.1 billion, including $1.3 billion for one-time principal payments for the refinancing or refunding of previously outstanding debt. The refinancing and refunding of previously outstanding debt resulted in an economic gain of $151.2 million.

In August 2016, the University entered into an agreement with a developer to design, construct, finance, operate and maintain certain auxiliary, administrative, academic and research facilities of one of its campuses, for which the University will finance $600 million of the total costs. Other borrowings at June 30, 2017 include $43.7 million for the present value of the payments expected to be made over the term of the agreement through 2055 for the repayment of the private debt incurred by the developer during the construction phase. In the event that the agreement with the developer were terminated, the outstanding portion of the private debt incurred by the developer from the construction phase would become an obligation of the University.

Subsequent to year-end, in August 2017, $148.6 million of revenue bonds were issued through a conduit issuer to finance the construction of student housing facilities and the University issued $860.4 million of Limited Project Revenue Bonds.

In 2016, $1.6 billion of debt was issued. The University issued General Revenue Bonds totaling $813.1 million and Limited Project Revenue Bonds totaling $532.1 million to finance and refinance certain facilities and projects of the University. In addition, $282.6 million of revenue bonds were issued through a conduit issuer to refund outstanding bonds which financed the construction of student housing facilities. Reductions to outstanding debt in 2016 were $1.2 billion, including $527.9 million for one-time principal payments for the refinancing or refunding of previously outstanding debt. The refinancing and refunding of previously outstanding debt resulted in an economic gain of $31.5 million.

The University's General Revenue Bond ratings are currently affirmed at Aa2, AA and AA by Moody's Investors Service, Standard & Poor's and Fitch, respectively, all with stable outlooks. The University's Limited Project Revenue Bonds and Medical Center Pooled Revenue Bonds are currently affirmed at Aa3, AA- and AA- by Moody's Investors Service, Standard & Poor's and Fitch, respectively, all with stable outlooks.

Commercial paper borrowings decreased by $225.2 million in 2017 as compared to 2016, and decreased by $47.1 million in 2016 compared to 2015. Commercial paper is primarily used as interim financing for construction projects and equipment financing. Commercial paper fluctuates based upon the timing of refinancing construction projects with the issuance of long-term revenue bonds. The University has various revolving credit agreements totaling $1.1 billion with major financial institutions for the purpose of providing additional liquidity for certain variable-rate demand bonds, commercial paper and for other liquidity needs.

### *Securities lending collateral*

Under the securities lending program, the University records a liability to the borrower for cash collateral received and held by the University for securities on loan at the end of the year. All borrowers are required to provide additional collateral by the next business day if the value of the collateral falls to less than 100 percent of the fair value of the securities lent. The amount of the securities lending collateral liability fluctuates directly with securities lending opportunities and the investment of cash collateral.

### *Net pension liability and retiree health benefits*

The University has a financial responsibility for pension benefits associated with its defined benefit plans and for retiree health benefits. The University's net pension liability was $10.7 billion, $15.1 billion and $10.7 billion in 2017, 2016 and 2015, respectively. The change in net pension liability for 2017 was primarily driven by higher than expected investment returns on the UCRP investment portfolio. The change in net pension liability for 2016 was primarily driven by lower than expected investment returns on the UCRP investment portfolio. UCRP's total investment rate of return was positive 14.5 percent in 2017, negative 2.0 percent in 2016 and positive 4.5 percent in 2015. The discount rate used to estimate the net pension liability was 7.25 percent in 2017, 2016 and 2015.

LBNL participates in the University's defined benefit pension plan, although the DOE has an ongoing financial responsibility to reimburse the University for LBNL's share of the obligation to UCRP. In addition, under certain circumstances the University makes contributions to UCRP for LANL and LLNL retirees and, based upon contractual arrangements with the DOE, is reimbursed by the DOE. The University recorded receivables from the DOE of $615.1 million, $974.7 million and $1.0 billion for 2017, 2016 and 2015, respectively, representing the DOE's share of the net pension liability.

The University's 2016 and 2015 financial statements have been restated as a result of adopting new accounting standards for retiree health benefits. The University's net retiree health benefits liability was $19.3 billion, $21.8 billion and $18.7 billion, in 2017, 2016 and 2015, respectively. The University funds the retiree health benefits through UCRHBT based on a projection of benefits on a pay-as-you-go basis and the assets in the trust are not sufficient to fund retiree health benefits. Therefore, the Bond Buyer 20-year tax-exempt general obligations municipal bond index rate is used to discount the retiree health benefit liabilities. The changes in net retiree health benefits liability have been primarily driven by the changes in discount rates used to estimate the retiree health benefit liability. The discount rates as of June 30, 2017, 2016 and 2015 were 3.58 percent, 2.85 percent and 3.80 percent, respectively.

LBNL participates in the University's retiree health benefit plans and, based on contractual arrangements with the DOE, the University is reimbursed for retiree health benefit costs associated with retirees who previously worked at LBNL. The University recorded receivables from the DOE of $642.8 million, $621.1 million and $577.4 million for 2017, 2016 and 2015, respectively, representing the DOE's share of the net retiree health benefits liability.

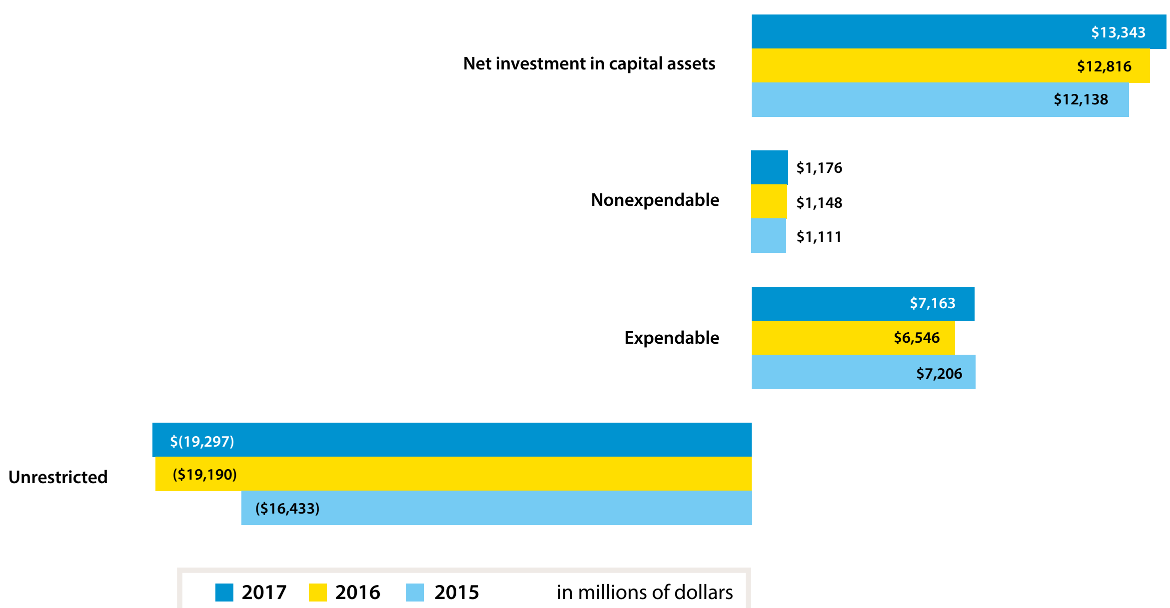
### *Other liabilities*

Other liabilities consist of accounts payable, accrued salaries, other employee benefits, unearned revenue, funds held for others, DOE laboratories' liabilities, federal refundable loans, self-insurance and obligations under life income agreements.

### *Deferred inflows of resources*

Deferred inflows of resources are related to the University's service concession arrangements, gains on debt refundings, sales of certain future patent royalty revenues and certain changes in the net pension and net retiree health benefits liabilities. Deferred inflows of resources increased in 2017 by $2.8 billion due to the increase in the discount rate for estimating the net retiree health benefit liability. Deferred inflows of resources increased slightly in 2016 due to lower than expected investment returns on the UCRP portfolio offset by sales of certain future royalty revenues and the decrease in the discount rate for estimating the net retiree health benefit liability.

## *The University's Net Position*




Net position represents the residual interest in the University's assets and deferred outflows after all liabilities and deferred inflows are deducted. Net position was restated for 2016 and 2015 as a result of adopting new accounting rules. The University's net position was $2.4 billion in 2017 compared to $1.3 billion in 2016 and $4.0 billion in 2015. Net position is reported in the following categories: net investment in capital assets; restricted, nonexpendable; restricted, expendable; and unrestricted.

### *Net investment in capital assets*

The portion of net position invested in capital assets, net of accumulated depreciation and the related outstanding debt used to finance the acquisition, construction or improvement of these capital assets, was $13.4 billion in 2017 compared to $12.8 billion and $12.1 billion for the years ended June 30, 2016 and 2015, respectively. The University continues to invest in its physical facilities to support growth.

### *Restricted, nonexpendable*

Restricted, nonexpendable net position includes the corpus of the University's permanent endowments and the estimated fair value of certain planned giving arrangements. In 2017 and 2016, the increase in restricted nonexpendable net position was principally due to the receipt of new gifts.

### *Restricted, expendable*

Restricted, expendable net position is subject to externally imposed restrictions governing their use. Net position may be spent only in accordance with the restrictions placed upon them and may include endowment income and gains, subject to the University's spending policy; support received from gifts, appropriations or capital projects; trustee-held investments; or other third-party receipts. The increases or decreases in restricted, expendable funds are principally due to unrealized appreciation or depreciation respectively in the fair value of investments related to restricted gifts and funds functioning as endowments.

### *Unrestricted*

Under generally accepted accounting principles, net position that is not subject to externally imposed restrictions governing their use must be classified as unrestricted for financial reporting purposes. Unrestricted net position is negative due primarily to obligations for pension and retiree health benefits exceeding University assets available to pay such obligations. Although unrestricted net position is not subject to externally imposed restrictions, substantially all of the University's reserves are allocated for academic and research initiatives or programs and for capital and other purposes.

## THE UNIVERSITY'S RESULTS OF OPERATIONS

The statement of revenues, expenses and changes in net position is a presentation of the University's operating results, and indicates whether the financial condition has improved or deteriorated. In accordance with the Governmental Accounting Standards Board (GASB) requirements, certain significant revenues relied upon and budgeted for fundamental operational support of the core instructional mission of the University are required to be recorded as nonoperating revenues, including state educational appropriations, private gifts and investment income. Results of operations for 2016 and 2015 have been restated as a result of adopting new accounting policies for retiree health benefits. A summarized comparison of the operating results for 2017, 2016 and 2015, arranged in a format that matches the revenue supporting the core activities of the University with the expenses associated with core activities, is as follows:

*(in millions of dollars)*

| | 2017 | | | 2016 | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|---|
| | OPERATING | NONOPERATING | TOTAL | OPERATING | NONOPERATING | TOTAL | OPERATING | NONOPERATING | TOTAL |
| **REVENUES** | | | | | | | | | |
| Student tuition and fees, net | $4,477 | | $4,477 | $4,132 | | $4,132 | $3,784 | | $3,784 |
| State educational appropriations | | $3,278 | 3,278 | | $3,048 | 3,048 | | $2,792 | 2,792 |
| Federal Pell Grants | | 382 | 382 | | 376 | 376 | | 376 | 376 |
| Grants and contracts, net | 5,441 | | 5,441 | 5,273 | | 5,273 | 5,205 | | 5,205 |
| Medical centers, net | 11,241 | 13 | 11,255 | 10,236 | 15 | 10,251 | 9,477 | 22 | 9,499 |
| Educational activities, net | 3,333 | | 3,333 | 2,973 | | 2,973 | 2,740 | | 2,740 |
| Auxiliary enterprises, net | 1,579 | | 1,579 | 1,430 | | 1,430 | 1,394 | | 1,394 |
| Department of Energy laboratories | 1,147 | | 1,147 | 1,278 | | 1,278 | 1,241 | | 1,241 |
| Private gifts, net | | 1,167 | 1,167 | | 1,092 | 1,092 | | 971 | 971 |
| Investment income, net | | 299 | 299 | | 311 | 311 | | 319 | 319 |
| Other revenues | 939 | 70 | 1,009 | 962 | 51 | 1,013 | 911 | 38 | 949 |
| **Revenues supporting core activities** | **28,157** | **5,209** | **33,366** | **26,284** | **4,893** | **31,177** | **24,752** | **4,518** | **29,270** |
| **EXPENSES** | | | | | | | | | |
| Salaries and wages | 15,160 | | 15,160 | 14,021 | | 14,021 | 13,109 | | 13,109 |
| Pension benefits | 1,888 | | 1,888 | 2,687 | | 2,687 | 1,515 | | 1,515 |
| Retiree health benefits | 1,576 | | 1,576 | 1,875 | | 1,875 | 1,528 | | 1,528 |
| Other employee benefits | 2,938 | | 2,938 | 2,837 | | 2,837 | 2,666 | | 2,666 |
| Scholarships and fellowships | 729 | | 729 | 652 | | 652 | 547 | | 547 |
| Utilities | 292 | | 292 | 283 | | 283 | 273 | | 273 |
| Supplies and materials | 3,240 | | 3,240 | 3,109 | | 3,109 | 2,876 | | 2,876 |
| Depreciation and amortization | 1,910 | | 1,910 | 1,804 | | 1,804 | 1,698 | | 1,698 |
| Department of Energy laboratories | 1,139 | | 1,139 | 1,271 | | 1,271 | 1,235 | | 1,235 |
| Interest expense | | 721 | 721 | | 693 | 693 | | 662 | 662 |
| Other expenses | 4,648 | 60 | 4,708 | 4,411 | 46 | 4,457 | 4,157 | 16 | 4,173 |
| **Expenses associated with core activities** | **33,520** | **781** | **34,301** | **32,950** | **739** | **33,689** | **29,604** | **678** | **30,282** |
| **Income (loss) from core activities** | **$(5,363)** | **$4,428** | **$(935)** | **$(6,666)** | **$4,154** | **$(2,512)** | **$(4,852)** | **$3,840** | **$(1,012)** |
| **OTHER NONOPERATING ACTIVITIES** | | | | | | | | | |
| Net appreciation (depreciation) in fair value of investments | | | 1,722 | | | (473) | | | 544 |
| **Income (loss) before other changes in net position** | | | 787 | | | (2,985) | | | (468) |
| **OTHER CHANGES IN NET POSITION** | | | | | | | | | |
| State capital appropriations | | | 2 | | | 4 | | | 21 |
| Capital gifts and grants, net | | | 255 | | | 249 | | | 187 |
| Permanent endowments | | | 21 | | | 30 | | | 27 |
| **Increase (decrease) in net position** | | | **1,065** | | | **(2,702)** | | | **(233)** |
| **NET POSITION** | | | | | | | | | |
| Beginning of year, as previously reported | | | 1,320 | | | 4,022 | | | 11,282 |
| Cumulative effect of accounting changes | | | | | | | | | (7,027) |
| Beginning of year, restated | | | 1,320 | | | 4,022 | | | 4,255 |
| **End of year** | | | **$2,385** | | | **$1,320** | | | **$4,022** |

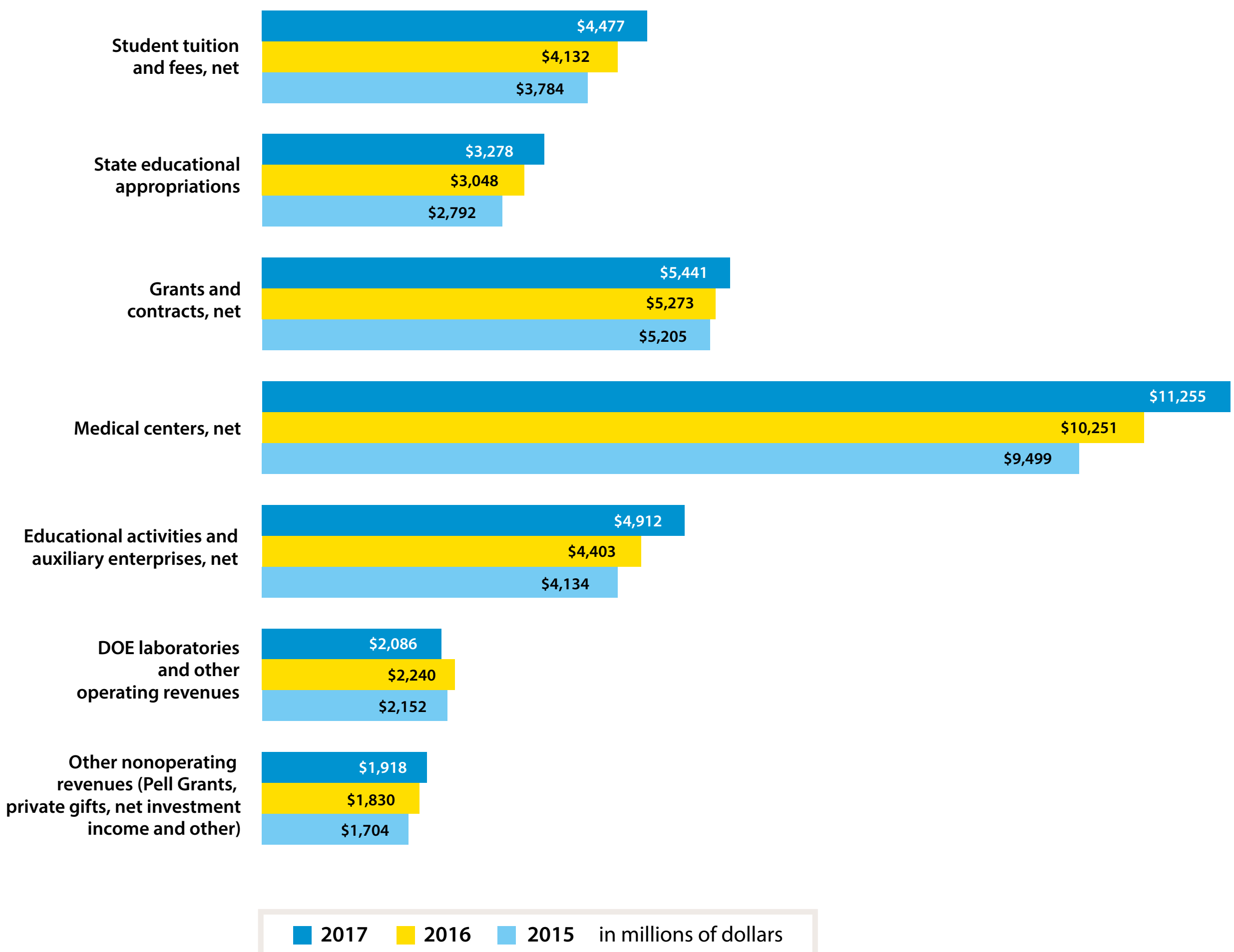
### *Revenues supporting core activities*

Revenues to support the University's core activities, including those classified as nonoperating revenues, were $33.4 billion, $31.2 billion and $29.3 billion in 2017, 2016 and 2015, respectively. These diversified sources of revenue increased by $2.2 billion in 2017 and $1.9 billion in 2016.

The state of California's educational appropriations, in conjunction with student tuition and fees, are the core components that support the instructional mission of the University. Grants and contracts provide opportunities for undergraduate and graduate students to participate in basic research alongside some of the most prominent researchers in the country.

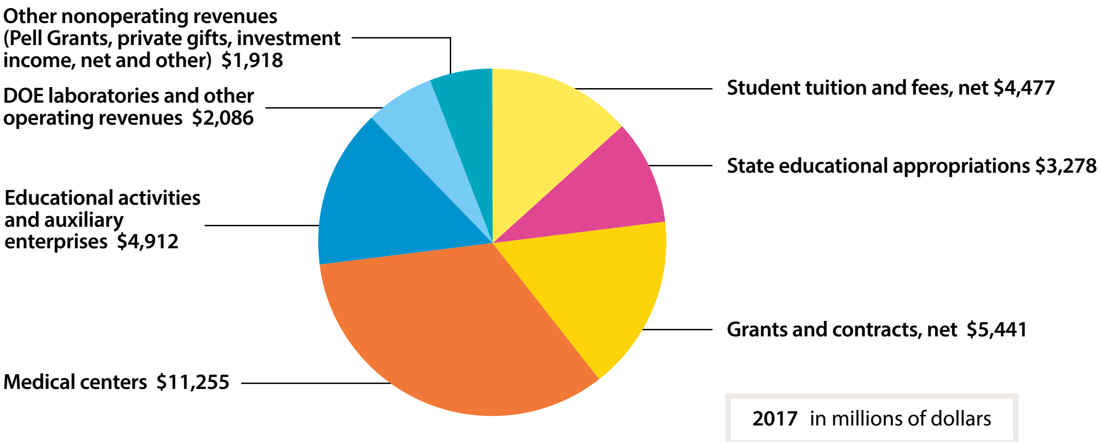
Gifts to the University allow crucial flexibility to faculty for support of their fundamental activities or new academic initiatives. Other significant revenues are from medical centers, educational activities and auxiliary enterprises such as student housing, food service operations and parking.

Revenues in the various categories have changed as follows:




A major financial strength of the University includes a diverse source of revenues, including those from student fees, federally sponsored grants and contracts, medical centers, the state of California, private support and self-supporting enterprises. The variety of fund sources has become increasingly important over the past several years.

Categories of both operating and nonoperating revenue that supported the University's core activities in 2017 are as follows:




## *Student tuition and fees, net*

Net student tuition and fees were $4.5 billion, $4.1 billion and $3.8 billion in 2017, 2016 and 2015, respectively. Scholarship allowances, or financial aid, are the difference between the stated charge for tuition and fees and the amount that is paid by the student and third parties on behalf of the student and are reported as an offset to revenue. Scholarship allowances of $0.9 billion and $1.1 billion in 2017 and 2016, respectively, were netted against student tuition and fees. Student tuition and fees, net of scholarship allowances, increased by $344.9 million and $348.3 million in 2017 and 2016, respectively.

In 2017, enrollment grew by 4.9 percent and in 2016 enrollment grew by 2.1 percent. Mandatory tuition for resident undergraduates did not change in 2017 or 2016. Certain nonresident undergraduates and resident and nonresident graduate students experienced increases in mandatory tuition and fees. Professional degree supplemental tuition varies by discipline; certain increases were approved for 2017 and 2016.

## *State educational appropriations*

Educational appropriations from the state of California were $3.3 billion, $3.0 billion and $2.8 billion in 2017, 2016 and 2015, respectively. State educational appropriations increased in 2017 and 2016 by $229.4 million and $256.7 million, respectively.

The budget framework agreed to in 2015 with the governor called for base budget adjustments of four percent annually over four years, through 2019. The framework also called for no tuition increases in 2017 and 2016, with tuition increases generally pegged to the rate of inflation beginning in 2018. The student service fee increased five percent in 2017 and 2016, with the customary one-third of the increase being directed to financial aid. The framework also acknowledged the University's plan to increase nonresident supplemental tuition by up to eight percent for 2017 and 2016 and five percent thereafter. The framework recognized the increases in professional degree supplemental tuition approved by The Regents in November 2014 for existing and new programs and called for no increases in law school tuition through 2019.

## *Grants and contracts, net*

Revenue from federal, state, private and local government grants and contracts — including an overall facilities and administration cost recovery of $1.1 billion, $1.0 billion and $993.5 million in 2017, 2016 and 2015, respectively — were $5.4 billion, $5.3 billion and $5.2 billion in 2017, 2016 and 2015, respectively.

In 2017, federal grants and contracts revenue increased $14.0 million, or 0.4 percent, as compared to 2016. In 2016, federal grants and contracts revenue increased $37.2 million, or 1.2 percent, as compared to 2015. Federal grants and contracts include federal facilities and administrative cost recovery of $764.0 million, $745.6 million and $720.3 million in 2017, 2016 and 2015, respectively. Federal budget cuts have slowed the University's growth in federal grants and contracts. Grant and contract revenue is from a variety of federal agencies as indicated below:

*(in millions of dollars)*

| | 2017 | 2016 | 2015 |
|---|---|---|---|
| Department of Health and Human Services | $1,987 | $1,917 | $1,847 |
| National Science Foundation | 465 | 469 | 498 |
| Department of Education | 57 | 83 | 70 |
| Department of Defense | 275 | 258 | 259 |
| National Aeronautics and Space Administration | 95 | 135 | 137 |
| Department of Energy (excluding national laboratories) | 107 | 104 | 100 |
| Other federal agencies | 273 | 279 | 296 |
| **Federal grants and contracts net revenue** | **$3,259** | **$3,245** | **$3,207** |

### *Medical centers, net*

Medical center revenues, including state hospital fee grants, net of allowances, increased $1.0 billion, or 9.8 percent, in 2017 and increased $752.2 million, or 7.9 percent, in 2016. Revenues increased in 2017 due to the opening of the new UCSD Jacobs Medical Center in November 2016, increases in supplemental revenues and higher inpatient and outpatient utilization at all of the medical centers. Revenues increased in 2016 due to the new UCSF Mission Bay facility, which opened in February 2015, and was open for all of 2016, contributing to a significant portion of the growth in revenues.

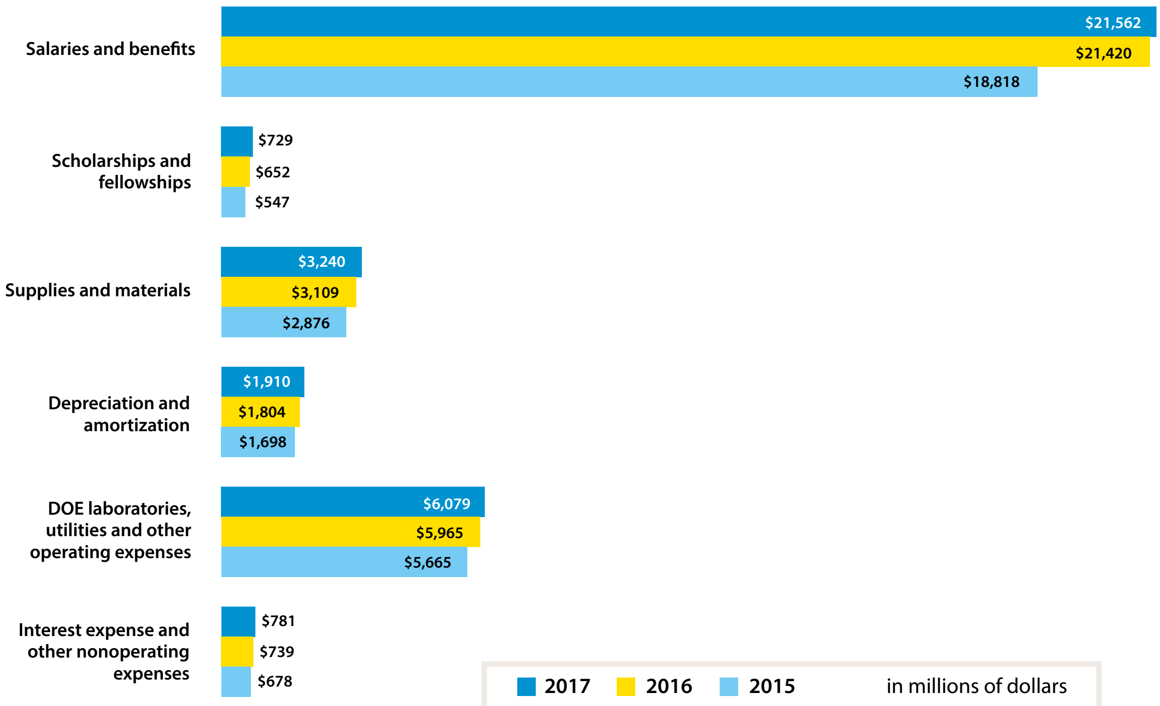
### *Educational activities and auxiliary enterprises, net*

Revenue from educational activities, primarily medical professional fees, net of allowances, grew by $359.8 million, or 12.1 percent, in 2017 and $232.6 million, or 8.5 percent, in 2016. The growth is generally associated with an expanded patient base and improved collections.

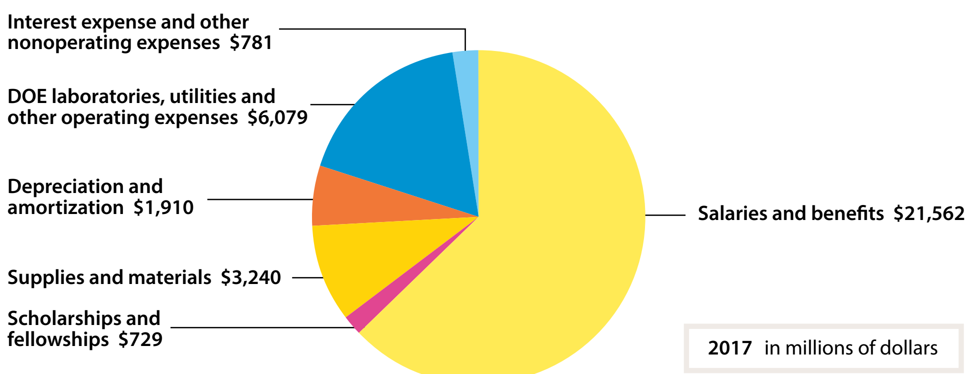
Auxiliary enterprises include housing, food service, parking, bookstores, student centers, unions and childcare centers. Auxiliary revenues have increased consistent with enrollment. Revenue from auxiliary enterprises, net of allowances, grew by $149.2 million, or 10.4 percent, in 2017 and $35.9 million, or 2.6 percent in 2016 which is consistent with changes in enrollment.

### *Expenses associated with core activities*

Expenses associated with the University's core activities, including those classified as nonoperating expenses, were $34.3 billion, $33.7 billion and $30.3 billion in 2017, 2016 and 2015, respectively. Expenses increased in 2017 by $0.6 billion and in 2016 by $3.4 billion, primarily due to growth in the University's operations, principally at the medical centers. Pension expenses decreased in 2017 and increased in 2016 as a result of actual compared to expected earnings on the UCRP portfolio. Expenses in the various categories are as follows:




Categories of both operating and nonoperating expenses related to the University's core activities in 2017 are as follows:




### *Salaries and benefits*

Approximately 62.9 percent of the University's expenses were related to salaries and benefits. There were 154,500 full-time equivalent (FTE) employees in 2017, excluding employees who were associated with LBNL whose salaries and benefits were included as laboratory expenses, as compared to 149,300 FTEs in 2016.

Salaries and benefits increased by 0.7 percent in 2017. In 2017, salaries increased by 8.1 percent, 3.5 percent due to an increase in the number of FTEs and 4.5 percent due to an increase in the average salary per FTE. Employee benefits, excluding pension and post-retirement health care benefits, increased by $100.5 million, or 3.5 percent, in 2017 due to higher health insurance costs. Pension expense decreased by $0.8 billion, or 29.7 percent, due to better than expected investment returns. Retiree health expense decreased by $298.8 million or 15.9 percent due to the higher discount rate in 2017.

Salaries and benefits increased by 13.0 percent in 2016 due to growth in the University's operations. In 2016, salaries increased by 7.0 percent, 3.1 percent due to an increase in the number of FTEs and 3.7 percent due to an increase in the average salary per FTE. Employee benefits, excluding pension and post-retirement health care benefits, increased by $171.4 million, or 6.4 percent in 2016, due to higher health insurance costs. Pension expense increased by $1.2 billion or 77.3 percent due to lower than expected investment returns. Retiree health expense increased by $347.0 million or 22.7 percent due to the lower discount rate in 2016.

### *Scholarships and fellowships*

The University places a high priority on student financial aid as part of its commitment to affordability. Scholarship allowances, representing financial aid and fee waivers awarded by the University, were $2.1 billion, $2.0 billion and $2.0 billion in 2017, 2016 and 2015, respectively. Scholarships and fellowships, representing payments of financial aid made directly to students and reported as an operating expense were $728.6 million, $651.6 million and $547.1 million in 2017, 2016 and 2015, respectively. On a combined basis, as the University continues its commitment to provide financial support for needy students, financial aid in all forms increased by $55.7 million, or 2.8 percent, in 2017 as compared to 2016, and by $34.2 million, or 1.7 percent, in 2016 compared to 2015.

### *Supplies and materials*

During 2017 and 2016, supplies and materials costs increased by $131.0 million, or 4.2 percent and $232.5 million, or 8.1 percent, respectively. The largest increases occurred at the medical centers due to higher patient volumes. In recent years, there has been inflationary pressure on the costs for medical supplies and laboratory instruments and higher costs for general supplies necessary to support expanded medical patient volumes. The University continues to find opportunities to manage the costs of supplies and materials.

### *Other expenses*

Other expenses consist of a variety of expense categories, including travel, rent, insurance, legal settlements and repairs and maintenance, plus any gain or loss on disposals of capital assets and other nonoperating expenses.

### *Operating losses*

In accordance with the GASB's reporting standards, operating losses were $5.4 billion, $6.7 billion and $4.9 billion in 2017, 2016 and 2015, respectively. The operating losses in 2017, 2016 and 2015 were partially offset by $4.4 billion, $4.1 billion and $3.8 billion, respectively, of net nonoperating revenue that supports core operating activities of the University. Expenses associated with core activities in 2017, 2016 and 2015 exceeded revenue available to support core activities by $0.9 billion, $2.5 billion and $1.0 billion, respectively.

### *Other nonoperating activities*

The University's other nonoperating activities, consisting of net appreciation or depreciation in the fair value of investments, are noncash transactions and, therefore, are not available to support operating expenses. In 2017, the University recognized net appreciation in the fair value of investments of $1.7 billion, as compared to net depreciation of $473.3 million during 2016 and net appreciation of $543.6 million during 2015. The University's portfolio experienced positive returns in the equity markets in 2017. The University's portfolio experienced declines in 2016 principally due to declines in the equity markets.

### *Other changes in net position*

Similar to other nonoperating activities discussed above, other changes in net position are also not available to support the University's operating expenses in the current year. State capital appropriations and capital gifts and grants may only be used for the purchase or construction of the specified capital assets. Only income earned from gifts of permanent endowments is available in future years to support the specified program.

## THE UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS

Separate foundations at each individual campus provide valuable assistance in fundraising, public outreach and other support for the missions of the campus and the University. Although independent boards govern each of the foundations, they are affiliated with, and their assets are dedicated for, the benefit of the University of California.

### The Campus Foundations' Financial Position

The campus foundations' statement of net position presents their combined financial position at the end of the year. It displays all of the campus foundations' assets, liabilities, deferred inflows and net position. The difference between assets, liabilities and deferred inflows is net position, representing a measure of the current financial condition of the campus foundation.

The major components of the combined assets, liabilities and net position of the campus foundations at June 30, 2017, 2016 and 2015 are as follows:

*(in millions of dollars)*

| | 2017 | 2016 | 2015 |
|---|---|---|---|
| **ASSETS** | | | |
| Investments | $8,207 | $7,115 | $7,085 |
| Investment of cash collateral | 43 | 42 | 37 |
| Accounts receivable, net | 40 | 33 | 79 |
| Pledges receivable, net | 866 | 842 | 823 |
| Other assets | 277 | 221 | 224 |
| **Total assets** | **9,433** | **8,253** | **8,248** |
| **LIABILITIES** | | | |
| Accounts payable and other current liabilities | 130 | 71 | 247 |
| Securities lending collateral | 43 | 42 | 37 |
| Obligation under life income agreements and funds held for others | 403 | 382 | 370 |
| Other noncurrent liabilities | 253 | 220 | 42 |
| **Total liabilities** | **829** | **715** | **696** |
| **DEFERRED INFLOWS OF RESOURCES** | **2** | **1** | **2** |
| **NET POSITION** | | | |
| Restricted: | | | |
| Nonexpendable | 4,046 | 3,700 | 3,422 |
| Expendable | 4,363 | 3,742 | 4,030 |
| Unrestricted | 193 | 95 | 98 |
| **Total net position** | **$8,602** | **$7,537** | **$7,550** |

Investments increased in 2017 and were flat in 2016 due to the performance of the financial markets. The Board of Trustees for each campus foundation is responsible for its specific investment policy, although asset allocation guidelines are recommended to campus foundations by the Investments Subcommittee of The Regents. The Boards of Trustees may determine that all or a portion of their investments will be managed by the University's Chief Investment Officer. The Chief Investment Officer managed $2.2 billion, $1.6 billion and $1.3 billion of the campus foundations' investments at the end of 2017, 2016 and 2015, respectively.

Restricted, nonexpendable net position includes the corpus of the campus foundations' permanent endowments and the estimated fair value of certain planned giving arrangements. Restricted, expendable net position is subject to externally imposed restrictions governing their use. Net position represents the residual interest in the assets after all liabilities and deferred inflows are deducted. It is only available in accordance with the restrictions placed upon them and may include endowment income and investment gains, subject to each individual campus foundation's spending policy; support received from gifts; trustee-held investments; or other third-party receipts. New gifts and changes in the fair value of investments were the primary reasons for the changes in value in 2017 and 2016.

## The Campus Foundations' Results of Operations

The campus foundations' combined statement of revenues, expenses and changes in net position is a presentation of their operating results for the year. It indicates whether their financial condition has improved or deteriorated during the year.

A summarized comparison of the operating results for 2017, 2016 and 2015 is as follows:

*(in millions of dollars)*

| | 2017 | 2016 | 2015 |
|---|---|---|---|
| **OPERATING REVENUES** | | | |
| Private gifts and other revenues | $869 | $792 | $767 |
| **Total operating revenues** | **869** | **792** | **767** |
| **OPERATING EXPENSES** | | | |
| Grants to campuses and other expenses | 969 | 915 | 852 |
| **Total operating expenses** | **969** | **915** | **852** |
| **Operating loss** | **(100)** | **(123)** | **(85)** |
| **NONOPERATING REVENUES (EXPENSES)** | | | |
| Investment income | 73 | 53 | 65 |
| Net appreciation (depreciation) in fair value of investments | 799 | (225) | 207 |
| Other nonoperating revenues (expenses) | 5 | 4 | (5) |
| **Income (loss) before other changes in net position** | **777** | **(291)** | **182** |
| **OTHER CHANGES IN NET POSITION** | | | |
| Permanent endowments | 288 | 278 | 274 |
| **Increase (decrease) in net position** | **1,065** | **(13)** | **456** |
| **NET POSITION** | | | |
| Beginning of year | 7,537 | 7,550 | 7,094 |
| **End of year** | **$8,602** | **$7,537** | **$7,550** |

Operating expenses generally consist of grants to University campuses, comprised of current-use gifts and endowment income and other expenses, including gift fees. Grants to campuses typically follow the pattern indicated by private gift revenue; however, the campuses' programmatic needs are also taken into consideration, subject to abiding by the restricted purposes of gifts to the endowment and the amounts available for grants in any particular year.

Grants to the campuses can only be made when the cash is received and, in addition, also include endowment investment income, classified as nonoperating income. Therefore, operating losses can occur when grants distributed to the campuses in any particular year exceed private gift revenue.

# THE UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM (UCRS)

UCRS is a valuable component of the comprehensive benefits package offered to employees of the University. UCRS consists of the University of California Retirement Plan (UCRP), a defined benefit plan for members; the University of California Retirement Savings Program (UCRSP) that includes four defined contribution plans (Defined Contribution Plan, Supplemental Defined Contribution Plan, 403(b) Plan and 457(b) Plan) to complement the defined benefit plan, with several investment portfolio options for participants' elective and non-elective contributions; and the California Public Employees Retirement System (PERS) Voluntary Early Retirement Incentive Plan (UC-VERIP) for certain University employees that were members of PERS who elected early retirement.

## UCRS' Financial Position and Result of Operations

The statement of plans' fiduciary net position presents the financial position of UCRS at the end of the fiscal year. It displays all of the retirement system's assets, liabilities and net position. The difference between assets and liabilities is the net position held in trust for pension benefits. These represent amounts available to provide pension benefits to members of UCRP and participants in the defined contribution plans and UC-VERIP. At June 30, 2017, UCRS' assets were $94.0 billion, liabilities were $9.3 billion and net position held in trust for pension benefits were $84.7 billion, an increase of $10.1 billion from 2016. At June 30, 2016, UCRS' assets were $83.3 billion, liabilities were $8.7 billion and net assets held in trust for pension benefits were $74.6 billion, a decrease of $831.7 million from 2015.

The major components of the assets, liabilities and net position available for pension benefits for 2017, 2016 and 2015 are as follows:

*(in millions of dollars)*

| | 2017 | 2016 | 2015 |
|---|---|---|---|
| **ASSETS** | | | |
| Investments | $82,574 | $73,197 | $71,596 |
| Participants' interests in mutual funds | 3,351 | 2,768 | 4,948 |
| Investment of cash collateral | 6,842 | 6,751 | 5,177 |
| Other assets | 1,203 | 571 | 516 |
| **Total assets** | **93,970** | **83,287** | **82,237** |
| **LIABILITIES** | | | |
| Securities lending collateral | 6,838 | 6,750 | 5,178 |
| Other liabilities | 2,470 | 1,955 | 1,645 |
| **Total liabilities** | **9,308** | **8,705** | **6,823** |
| **NET POSITION HELD IN TRUST FOR PENSION BENEFITS** | | | |
| Members' defined benefit plan benefits | 62,179 | 54,225 | 55,123 |
| Participants' defined contribution plan benefits | 22,483 | 20,357 | 20,291 |
| **Total net position held in trust for pension benefits** | **$84,662** | **$74,582** | **$75,414** |

The statements of changes in the plans' fiduciary net position is a presentation of UCRS' operating results. It indicates whether the financial condition has improved or deteriorated during the year. A summarized comparison of the operating results for 2017, 2016 and 2015 is as follows:

*(in millions of dollars)*

| | 2017 | 2016 | 2015 |
|---|---|---|---|
| **ADDITIONS** | | | |
| Contributions | $4,779 | $4,551 | $4,459 |
| Net appreciation (depreciation) in fair value of investments | 8,617 | (2,300) | 1,320 |
| Investment and other income, net | 1,437 | 1,318 | 1,326 |
| **Total additions** | **14,833** | **3,569** | **7,105** |
| **DEDUCTIONS** | | | |
| Benefit payments and participant withdrawals | 4,700 | 4,342 | 4,534 |
| Plan expenses | 53 | 59 | 55 |
| **Total deductions** | **4,753** | **4,401** | **4,589** |
| **Increase (decrease) in net position held in trust for pension benefits** | **$10,080** | **$(832)** | **$2,516** |

The Regents' asset allocation strategies are intended to generate investment returns over time in accordance with investment objectives and at acceptable levels of risk. The overall investment result based upon unit values for UCRP was positive 14.5 percent in 2017 as compared to investment losses of 2.0 percent in 2016 and gains of 4.5 percent in 2015.

The participants' interests in mutual funds, representing defined contribution plan contributions to certain mutual funds on a custodial plan basis, fluctuate based upon market performance of the mutual funds and participant investment elections.

UCRS participates in the University's securities lending program as a means to augment income. All borrowers are required to provide collateral and the University records a liability to the borrower for cash collateral received and held by the University for securities on loan at the end of the year. Investments in cash collateral and the securities lending collateral liability fluctuate in response to changes in demand from borrowers and the availability of securities based upon the UCRS asset allocation mix.

Contributions to UCRP in 2017, 2016 and 2015 were $3.4 billion, $3.4 billion and $3.3 billion, respectively. In 2017 and 2016, contributions include $171.0 million and $96.0 million, respectively, received from the state of California under the budget agreement. Contributions include additional deposits of $481.0 million, $563.6 million and $700.0 million made by the University to UCRP in 2017, 2016 and 2015, respectively. University contribution rates to UCRP were 14.0 percent of covered payroll in 2017, 2016 and 2015. Employee contribution rates ranged between 7.0 percent and 9.0 percent in 2017, 2016 and 2015. In July 2017, The Regents approved increasing the University's contribution rate to UCRP to 15.0 percent effective July 1, 2018.

Benefit payments and participant withdrawals were $358.2 million more in 2017 than in 2016 and $192.1 million less in 2016 than in 2015. Payments from UCRP increase each year due to a growing number of retirees receiving payments and cost-of-living adjustments (COLAs). Benefit payments from UCRSP fluctuate based upon member withdrawals. Participant withdrawals increased by $143.0 million, or 11.6 percent, in 2017 as compared to 2016, and decreased by $320.6 million, or 20.7 percent, in 2016 as compared to 2015. As of June 30, 2017, there were 73,000 retirees and beneficiaries receiving payments from UCRS as compared to 70,000 as of June 30, 2016 and 67,300 as of June 30, 2015.

The net pension liability for UCRP was $10.7 billion in 2017, $15.1 billion in 2016 and $10.6 billion in 2015. The decrease in net pension liability for 2017 of $4.4 billion was due to higher than expected investment returns on the UCRP portfolio. The increase in net pension liability for 2016 of $4.5 billion was due to lower than expected investment returns on the UCRP portfolio. The ratio of plan net position to total pension liability was 85.3 percent in 2017, 78.2 percent in 2016 and 83.8 percent in 2015.

Additional information on the retirement plans can be obtained from the 2017 annual reports of the University of California Retirement System by writing to the University of California, Office of the President, Human Resources and Benefits, Post Office Box 24570, Oakland, California 94623.

## THE UNIVERSITY OF CALIFORNIA RETIREE HEALTH BENEFIT TRUST (UCRHBT)

The UCRHBT was established on July 1, 2007 to allow certain University locations — primarily campuses and medical centers — that share the risks, rewards and costs of providing for retiree health benefits the opportunity to fund such benefits on a cost-sharing basis and accumulate funds on a tax-exempt basis under an arrangement segregated from University assets. The University contributes toward retiree medical and dental benefits, although it does not contribute toward the cost of other benefits available to retirees. The DOE laboratories do not participate in the UCRHBT, therefore the DOE has no interest in the trust's assets.

### UCRHBT's Financial Position and Result of Operations

The statement of trust's fiduciary net position presents the financial position of the UCRHBT at the end of the fiscal year. It displays the UCRHBT's assets, liabilities and net position. The difference between assets and liabilities is the net position held in trust for retiree health benefits. This represents amounts available to provide retiree health benefits to participants.

The major components of the assets, liabilities and net position available for retiree health benefits for 2017, 2016 and 2015 are as follows:

*(in millions of dollars)*

| | 2017 | 2016 | 2015 |
|---|---|---|---|
| **ASSETS** | | | |
| Investments | $98 | $54 | $24 |
| Other assets | 26 | 34 | 39 |
| **Total assets** | **124** | **88** | **63** |
| **LIABILITIES** | | | |
| **Total liabilities** | **17** | **15** | **12** |
| **NET POSITION HELD IN TRUST FOR RETIREE HEALTH BENEFITS** | | | |
| **Total net position held in trust for retiree health benefits** | **$107** | **$73** | **$51** |

The statement of changes in the trust's fiduciary net position is a presentation of the UCRHBT's operating results, and indicates whether the financial condition has improved or deteriorated during the year. Summarized operating results for 2017, 2016 and 2015 are as follows:

*(in millions of dollars)*

| | 2017 | 2016 | 2015 |
|---|---|---|---|
| **ADDITIONS** | | | |
| Contributions | $328 | $310 | $316 |
| **Total additions** | **328** | **310** | **316** |
| **DEDUCTIONS** | | | |
| Insurance premiums and payments | 290 | 284 | 327 |
| Plan expenses | 4 | 4 | 3 |
| **Total deductions** | **294** | **288** | **330** |
| **Increase (decrease) in net position held in trust for retiree health benefits** | **$34** | **$22** | **$(14)** |

Contributions for retiree health benefits are made by the campuses and medical centers based upon projected pay-as-you-go financing. The University acts as a third-party administrative agent on behalf of the UCRHBT to pay health care insurers and administrators amounts currently due.

The retiree health benefits provided under the University's plan and any liabilities related to the future funding requirements for the retiree health benefits are reported by the University. The net retiree health liability for UCRHBT was $18.7 billion, $21.1 billion and $18.0 billion in 2017, 2016 and 2015, respectively.

## LOOKING FORWARD

The University of California is a world center of learning, known for generating a steady stream of talent, knowledge and social benefits, and has always been at the center of California's capacity to innovate. The excellence of its programs attracts the best students, leverages hundreds of millions of dollars in state, federal and private funding and promotes discovery of new knowledge that fuels economic growth.

The budget framework agreed to with the governor provided the University with base budget adjustments of four percent annually from 2016 through 2019. The framework also called for no tuition increases in 2016 and 2017, with tuition increases generally pegged to the rate of inflation beginning in 2018. The Student Services Fee increased five percent in 2016 and each year thereafter with the customary one-third of the increase being directed to financial aid. Fifty percent of the remaining revenue generated from the increase will be used to enhance student mental health services and the remaining 50.0 percent will be distributed to support other student services programs. The framework also acknowledged the University's plan to increase nonresident supplemental tuition by up to eight percent in 2016 and 2017 and five percent thereafter. The framework also recognized the increases in professional degree supplemental tuition approved by The Regents in November 2014 for existing and new programs and calls for no increases in law school tuition through 2019. In addition to these funding elements, the budget framework includes a number of performance-related provisions. The state budget for 2018 also includes one-time funds of $169.0 million for UCRP.

The University remains highly competitive in attracting federal grants and contracts revenue, with fluctuations in the awards received closely paralleling trends in the budgets of federal research granting agencies. Over two-thirds of the University's federal research revenue comes from two agencies, the Department of Health and Human Services, primarily through the National Institutes of Health, and the National Science Foundation. Other agencies that figure prominently in the University's awards are the Department of Education, Department of Defense, the National Aeronautics and Space Administration and the Department of Energy. The University is a unique national resource for helping the nation address competitiveness and economic initiatives.

In July 2017, The Regents approved increasing the University contribution rate for UCRP to 15 percent (from 14 percent) effective July 1, 2018. The University funds retiree health benefits on a pay-as-you-go basis.

The University's medical centers have positive operating margins, although they continue to face financial and competitive challenges in their regional markets, along with the added costs and responsibilities related to their function as academic institutions. The demand for health care services and the cost of providing them continue to increase significantly. In addition to the rising costs of salaries, benefits and medical supplies faced by hospitals across the state, along with the costs of maintaining and upgrading facilities, the University's medical centers also face additional costs associated with new technologies, biomedical research, the education and training of health care professionals and the care for a disproportionate share of the medically underserved in California. Other than Medicare and Medi-Cal (California's Medicaid program), health insurance payments do not recognize the added cost of teaching in their payment to academic medical centers. The growth in costs of the publicly funded programs and health care reform will likely continue to reduce rates or limit payment growth, placing downward pressure on operating results for the medical centers.

The University must have a balanced array of many categories of facilities to meet its education, research and public service goals and continues to assess its long-term capital requirements. Support for the University's capital program is expected to be provided from a combination of sources, including the state of California, external financing, gifts and other sources.

Additional budget information can be found at http://universityofcalifornia.edu/news/budget/welcome.html. Additional information concerning state budget matters and the state's financial condition may be found on the website of the California Department of Finance at http://www.dof.ca.gov.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain information provided by the University, including written as outlined above or oral statements made by its representatives, may contain forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, which address activities, events or developments that the University expects or anticipates will or may occur in the future contain forward-looking information.

In reviewing such information, it should be kept in mind that actual results may differ materially from those projected or suggested in such forward-looking information. This forward-looking information is based upon various factors and was derived using various assumptions. The University does not undertake to update forward-looking information contained in this report or elsewhere to reflect actual results, changes in assumptions or changes in other factors affecting such forward-looking information.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# Report of Independent Auditors

TO THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

We have audited the accompanying financial statements of the University of California (the "University"), a component unit of the state of California, its aggregate discretely presented component units, the University of California Retirement System and the University of California Retiree Health Benefit Trust, as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the University's basic financial statements as listed in the table of contents.

**Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibility**

Our responsibility is to express opinions on the financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the University's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

**Opinions**

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the University, its aggregate discretely presented component units, the University of California Retirement System and the University of California Retiree Health Benefit Trust as of June 30, 2017 and 2016, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed under "Significant Accounting Policies" in the notes to the financial statements, the University changed the manner in which it accounts for Postemployment Benefit Plans Other Than Pension Plans. Our opinion is not modified with respect to this matter.

**Other Matter**

Accounting principles generally accepted in the United States of America require that management's discussion and analysis on pages 12 through 31 and the required supplemental information on pages 110 through 117 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
San Francisco, California
October 12, 2017

UNIVERSITY OF CALIFORNIA

## STATEMENTS OF NET POSITION

| *At June 30, 2017 and 2016 (in thousands of dollars)* | UNIVERSITY OF CALIFORNIA 2017 | UNIVERSITY OF CALIFORNIA 2016 | CAMPUS FOUNDATIONS 2017 | CAMPUS FOUNDATIONS 2016 |
|---|---|---|---|---|
| **ASSETS** | | | | |
| Cash and cash equivalents | $203,370 | $266,565 | $254,100 | $194,912 |
| Short-term investments | 6,249,657 | 4,944,611 | 674,868 | 479,410 |
| Investment of cash collateral | 947,353 | 680,838 | 37,357 | 34,641 |
| Investments held by trustees | 32,516 | 85,467 | | |
| Accounts receivable, net | 3,946,891 | 3,319,518 | 40,012 | 32,562 |
| Pledges receivable, net | 23,181 | 17,056 | 192,484 | 217,971 |
| Notes and mortgages receivable, net | 50,137 | 52,672 | 6 | 6 |
| Inventories | 226,995 | 214,680 | | |
| Department of Energy receivable | 123,896 | 94,307 | | |
| Other current assets | 338,041 | 328,932 | 4,748 | 5,945 |
| **Current assets** | **12,142,037** | **10,004,646** | **1,203,575** | **965,447** |
| Investments | 18,228,705 | 17,264,156 | 7,532,122 | 6,635,868 |
| Investment of cash collateral | 132,476 | 144,093 | 5,224 | 7,332 |
| Investments held by trustees | 66,509 | 765,417 | | |
| Pledges receivable, net | 33,031 | 30,050 | 673,495 | 624,452 |
| Notes and mortgages receivable, net | 314,018 | 327,169 | 427 | 1,014 |
| Department of Energy receivable | 1,257,926 | 1,595,767 | | |
| Capital assets, net | 30,669,753 | 29,688,815 | | |
| Other noncurrent assets | 138,927 | 141,505 | 17,760 | 19,471 |
| **Noncurrent assets** | **50,841,345** | **49,956,972** | **8,229,028** | **7,288,137** |
| **Total assets** | **62,983,382** | **59,961,618** | **9,432,603** | **8,253,584** |
| **DEFERRED OUTFLOWS OF RESOURCES** | **5,549,644** | **10,170,090** | | |
| **LIABILITIES** | | | | |
| Accounts payable | 2,394,554 | 1,623,237 | 21,762 | 18,485 |
| Accrued salaries | 644,500 | 995,235 | | |
| Employee benefits | 394,673 | 440,270 | | |
| Unearned revenue | 1,200,545 | 1,172,308 | 62,750 | 921 |
| Collateral held for securities lending | 1,079,318 | 824,677 | 42,581 | 41,973 |
| Commercial paper | 812,673 | 1,037,857 | | |
| Current portion of long-term debt | 1,519,005 | 1,413,265 | | |
| Funds held for others | 362,621 | 327,429 | 265,159 | 251,472 |
| Department of Energy laboratories' liabilities | 107,514 | 78,862 | | |
| Other current liabilities | 1,593,297 | 1,438,527 | 45,470 | 51,875 |
| **Current liabilities** | **10,108,700** | **9,351,667** | **437,722** | **364,726** |
| Federal refundable loans | 246,131 | 243,913 | | |
| Self-insurance | 584,232 | 558,158 | | |
| Obligations under life income agreements | 34,479 | 32,021 | 137,713 | 130,314 |
| Long-term debt | 18,171,198 | 17,500,165 | | |
| Net pension liability | 10,739,355 | 15,124,690 | | |
| Net retiree health benefits liability | 19,290,424 | 21,795,448 | | |
| Other noncurrent liabilities | 688,802 | 737,355 | 253,288 | 220,234 |
| **Noncurrent liabilities** | **49,754,621** | **55,991,750** | **391,001** | **350,548** |
| **Total liabilities** | **59,863,321** | **65,343,417** | **828,723** | **715,274** |
| **DEFERRED INFLOWS OF RESOURCES** | **6,284,371** | **3,468,333** | **1,723** | **1,460** |
| **NET POSITION** | | | | |
| Net investment in capital assets | 13,342,824 | 12,816,190 | | |
| Restricted: | | | | |
| Nonexpendable: Endowments and gifts | 1,143,067 | 1,111,083 | 4,045,925 | 3,700,049 |
| Nonexpendable: Minority interests | 33,507 | 36,766 | | |
| Expendable: Endowments and gifts | 6,881,101 | 6,084,997 | 4,363,100 | 3,741,932 |
| Expendable: Other, including debt service, loans, capital projects and appropriations | 281,627 | 461,402 | | |
| Unrestricted | (19,296,792) | (19,190,480) | 193,132 | 94,869 |
| **Total net position** | **$2,385,334** | **$1,319,958** | **$8,602,157** | **$7,536,850** |

*See accompanying Notes to Financial Statements.*

UNIVERSITY OF CALIFORNIA
# STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

| *Years ended June 30, 2017 and 2016 (in thousands of dollars)* | UNIVERSITY OF CALIFORNIA 2017 | UNIVERSITY OF CALIFORNIA 2016 | CAMPUS FOUNDATIONS 2017 | CAMPUS FOUNDATIONS 2016 |
|---|---|---|---|---|
| **OPERATING REVENUES** | | | | |
| Student tuition and fees, net | $4,477,213 | $4,132,352 | | |
| Grants and contracts, net: | | | | |
| Federal | 3,258,526 | 3,244,529 | | |
| State | 454,207 | 443,194 | | |
| Private | 1,421,752 | 1,284,753 | | |
| Local | 306,492 | 300,119 | | |
| Medical centers, net | 11,241,269 | 10,235,900 | | |
| Educational activities, net | 3,332,671 | 2,972,830 | | |
| Auxiliary enterprises, net | 1,579,152 | 1,429,985 | | |
| Department of Energy laboratories | 1,147,233 | 1,278,186 | | |
| Campus foundation private gifts | | | $866,190 | $780,983 |
| Other operating revenues, net | 938,678 | 962,394 | 3,099 | 11,492 |
| **Total operating revenues** | **28,157,193** | **26,284,242** | **869,289** | **792,475** |
| **OPERATING EXPENSES** | | | | |
| Salaries and wages | 15,159,736 | 14,021,131 | | |
| Pension benefits | 1,887,570 | 2,686,688 | | |
| Retiree health benefits | 1,575,663 | 1,874,504 | | |
| Other employee benefits | 2,938,133 | 2,837,680 | | |
| Supplies and materials | 3,239,587 | 3,108,907 | | |
| Depreciation and amortization | 1,909,870 | 1,804,046 | | |
| Department of Energy laboratories | 1,139,232 | 1,271,260 | | |
| Scholarships and fellowships | 728,594 | 651,565 | | |
| Utilities | 292,447 | 282,692 | | |
| Campus foundation grants | | | 939,784 | 889,278 |
| Other operating expenses | 4,648,395 | 4,410,718 | 29,731 | 25,890 |
| **Total operating expenses** | **33,519,227** | **32,949,191** | **969,515** | **915,168** |
| **Operating loss** | **(5,362,034)** | **(6,664,949)** | **(100,226)** | **(122,693)** |
| **NONOPERATING REVENUES (EXPENSES)** | | | | |
| State educational appropriations | 3,277,808 | 3,048,384 | | |
| State hospital fee grants | 13,303 | 15,137 | | |
| Build America Bonds federal interest subsidies | 58,424 | 58,550 | | |
| Federal Pell Grants | 381,650 | 376,264 | | |
| Private gifts, net | 1,167,395 | 1,091,519 | | |
| Investment income: | | | | |
| Short Term Investment Pool and other, net | 204,840 | 233,232 | | |
| Endowment, net | 85,540 | 71,761 | | |
| Securities lending, net | 8,504 | 6,282 | 419 | 415 |
| Campus foundations | | | 72,690 | 52,826 |
| Net appreciation (depreciation) in fair value of investments | 1,721,798 | (473,308) | 799,242 | (225,237) |
| Interest expense | (721,243) | (693,027) | (85) | (35) |
| Loss on disposal of capital assets | (59,567) | (47,070) | | |
| Other nonoperating revenues (expenses) | 10,856 | (7,406) | 5,082 | 3,168 |
| **Net nonoperating revenues (expense)** | **6,149,308** | **3,680,318** | **877,348** | **(168,863)** |
| **Income (loss) before other changes in net position** | **787,274** | **(2,984,631)** | **777,122** | **(291,556)** |
| **OTHER CHANGES IN NET POSITION** | | | | |
| Capital gifts and grants, net | 255,559 | 248,705 | | |
| State capital appropriations | 1,712 | 4,156 | | |
| Permanent endowments | 20,831 | 30,008 | 288,185 | 278,077 |
| **Increase (decrease) in net position** | **1,065,376** | **(2,701,762)** | **1,065,307** | **(13,479)** |
| **NET POSITION** | | | | |
| Beginning of year, as previously reported | 1,319,958 | 11,733,067 | 7,536,850 | 7,550,329 |
| Cumulative effect of accounting changes | | (7,711,347) | | |
| Beginning of year, restated | 1,319,958 | 4,021,720 | 7,536,850 | 7,550,329 |
| **End of year** | **$2,385,334** | **$1,319,958** | **$8,602,157** | **$7,536,850** |

*See accompanying Notes to Financial Statements.*

UNIVERSITY OF CALIFORNIA

## STATEMENTS OF CASH FLOWS

| *Years ended June 30, 2017 and 2016 (in thousands of dollars)* | UNIVERSITY OF CALIFORNIA 2017 | UNIVERSITY OF CALIFORNIA 2016 | CAMPUS FOUNDATIONS 2017 | CAMPUS FOUNDATIONS 2016 |
|---|---|---|---|---|
| **CASH FLOWS FROM OPERATING ACTIVITIES** | | | | |
| Student tuition and fees | $4,466,850 | $4,131,891 | | |
| Grants and contracts | 4,808,226 | 5,822,944 | | |
| Medical centers | 11,173,461 | 10,227,768 | | |
| Educational activities | 3,306,961 | 3,018,794 | | |
| Auxiliary enterprises | 1,578,093 | 1,432,083 | | |
| Collection of loans from students and employees | 80,393 | 73,285 | | |
| Campus foundation private gifts | | | $700,024 | $679,092 |
| Payments to employees | (15,492,680) | (14,048,211) | | |
| Payments to suppliers and utilities | (7,691,984) | (7,552,418) | | |
| Payments for pension benefits | (1,881,289) | (2,609,177) | | |
| Payments for retiree health benefits | (333,928) | (325,493) | | |
| Payments for other employee benefits | (2,829,325) | (2,837,415) | | |
| Payments for scholarships and fellowships | (728,428) | (651,600) | | |
| Loans issued to students and employees | (63,972) | (69,701) | | |
| Payments to campuses and beneficiaries | | | (983,250) | (918,027) |
| Other receipts | 1,209,221 | 696,852 | 58,490 | 17,955 |
| **Net cash used by operating activities** | **(2,398,401)** | **(2,690,398)** | **(224,736)** | **(220,980)** |
| **CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES** | | | | |
| State educational appropriations | 3,277,402 | 3,051,306 | | |
| Federal Pell Grants | 380,364 | 375,675 | | |
| State hospital fee grants | 13,303 | 15,137 | | |
| Gifts received for other than capital purposes: | | | | |
| Private gifts for endowment purposes | 22,789 | 31,395 | 228,003 | 234,005 |
| Other private gifts | 1,129,424 | 1,065,909 | | |
| Receipt of retiree health contributions from UCRP | 64,386 | 60,769 | | |
| Payment of retiree health contributions to UCRHBT | (58,198) | (60,123) | | |
| Receipts from UCRHBT | 348,291 | 336,708 | | |
| Payments for retiree health benefits made on behalf of UCRHBT | (360,210) | (345,613) | | |
| Student direct lending receipts | 772,234 | 762,127 | | |
| Student direct lending payments | (772,216) | (762,103) | | |
| Proceeds from debt issuance | 500,000 | | | |
| Refinancing or prepayment of outstanding debt | (500,000) | | | |
| Commercial paper financing: | | | | |
| Proceeds from issuance | 23,497 | 12,300 | | |
| Payments of principal | (15,323) | (20,670) | | |
| Interest paid on debt | (13,966) | (9,546) | | |
| Other receipts (payments) | 48,626 | 538,160 | 24,111 | (6,909) |
| **Net cash provided by noncapital financing activities** | **4,860,403** | **5,051,431** | **252,114** | **227,096** |
| **CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES** | | | | |
| Commercial paper financing: | | | | |
| Proceeds from issuance | 711,453 | 676,700 | | |
| Payments of principal | (944,811) | (715,395) | (192) | (970) |
| Interest paid | (4,825) | (3,457) | | |
| State capital appropriations | 9,602 | 5,319 | | |
| State financing appropriations | | 445 | | |
| Build America Bonds federal interest subsidies | 58,421 | 58,438 | | |
| Capital gifts and grants | 130,397 | 131,012 | | |
| Proceeds from debt issuance | 2,088,512 | 2,045,061 | | |
| Proceeds from the sale of capital assets | 17,720 | 46,037 | | |
| Purchase of capital assets | (2,679,314) | (2,669,898) | | |
| Refinancing or prepayment of outstanding debt | (820,739) | (527,882) | | |
| Scheduled principal paid on debt and capital leases | (461,183) | (518,713) | | |
| Interest paid on debt and capital leases | (787,307) | (811,520) | | |
| **Net cash used by capital and related financing activities** | **$(2,682,074)** | **$(2,283,853)** | **$(192)** | **$(970)** |

*See accompanying Notes to Financial Statements.*

## STATEMENTS OF CASH FLOWS *continued*

| | UNIVERSITY OF CALIFORNIA | | CAMPUS FOUNDATIONS | |
|---|---|---|---|---|
| *Years ended June 30, 2017 and 2016 (in thousands of dollars)* | 2017 | 2016 | 2017 | 2016 |
| **CASH FLOWS FROM INVESTING ACTIVITIES** | | | | |
| Proceeds from sales and maturities of investments | $86,593,485 | $104,492,954 | $1,366,988 | $1,706,275 |
| Purchase of investments | (86,745,271) | (104,786,465) | (1,398,236) | (1,763,467) |
| Investment income, net of investment expenses | 308,663 | 323,973 | 63,250 | 48,682 |
| **Net cash provided (used) by investing activities** | **156,877** | **30,462** | **32,002** | **(8,510)** |
| **Net increase (decrease) in cash and cash equivalents** | **(63,195)** | **107,642** | **59,188** | **(3,364)** |
| Cash and cash equivalents, beginning of year | 266,565 | 158,923 | 194,912 | 198,276 |
| **Cash and cash equivalents, end of year** | **$203,370** | **$266,565** | **$254,100** | **$194,912** |
| **RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES** | | | | |
| Operating loss | $(5,362,034) | $(6,664,949) | $(100,226) | $(122,693) |
| *Adjustments to reconcile operating loss to net cash used by operating activities:* | | | | |
| Depreciation and amortization expense | 1,909,870 | 1,804,046 | | |
| Noncash gifts | | | (147,742) | (83,350) |
| Allowance for uncollectible accounts | 266,431 | 268,673 | 19,245 | 6,591 |
| Loss on impairment of capital assets | 7,354 | 10,127 | | |
| *Change in assets and liabilities:* | | | | |
| Investments held by trustees | 737,280 | (10,247) | 2,094 | |
| Accounts receivable | (960,355) | (319,228) | (931) | 754 |
| Pledges receivable | | | (45,460) | (32,875) |
| Inventories | (12,315) | (7,223) | | |
| Other assets | (2,584) | (100,322) | 2,544 | (681) |
| Accounts payable | 121,451 | 132,482 | 2,413 | 5,681 |
| Accrued salaries | (350,735) | (78,293) | | |
| Employee benefits | (52,110) | (25,244) | | |
| Unearned revenue | 26,000 | 107,436 | 64,259 | 1,219 |
| Department of Energy | 337,841 | 66,348 | | |
| Self-insurance | 73,802 | 76,621 | | |
| Obligations under life income agreements | | | (6,150) | (8,533) |
| Net pension liability | (730,435) | 506,299 | | |
| Net retiree health benefits liability | 1,509,674 | 1,506,853 | | |
| Other liabilities | 82,464 | 36,223 | (14,782) | 12,907 |
| **Net cash used by operating activities** | **$(2,398,401)** | **$(2,690,398)** | **$(224,736)** | **$(220,980)** |
| **SUPPLEMENTAL NONCASH ACTIVITIES INFORMATION** | | | | |
| Capital assets acquired through capital leases | $55,360 | $67,030 | | |
| Capital assets acquired with a liability at year-end | 98,916 | 66,386 | | |
| Change in fair value of interest rate swaps classified as hedging derivatives | 61,891 | (61,030) | | |
| Gifts of capital assets | 122,913 | 111,836 | | |
| Other noncash gifts | 33,194 | 31,132 | $199,500 | $131,084 |
| Interest added to principal | | | 2,934 | |

*See accompanying Notes to Financial Statements.*

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM AND RETIREE HEALTH BENEFIT TRUST

## STATEMENTS OF PLANS' AND TRUST'S FIDUCIARY NET POSITION

| | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM (UCRS) | | UNIVERSITY OF CALIFORNIA RETIREE HEALTH BENEFIT TRUST (UCRHBT) | | TOTAL UCRS AND UCRHBT | |
|---|---|---|---|---|---|---|
| *At June 30, 2017 and 2016 (in thousands of dollars)* | **2017** | **2016** | **2017** | **2016** | **2017** | **2016** |
| **ASSETS** | | | | | | |
| Investments | $82,574,019 | $73,196,935 | $97,801 | $53,604 | $82,671,820 | $73,250,539 |
| Participants' interests in mutual funds | 3,351,454 | 2,767,673 | | | 3,351,454 | 2,767,673 |
| Investment of cash collateral | 6,841,530 | 6,751,492 | | | 6,841,530 | 6,751,492 |
| Participant 403(b) loans | 180,511 | 178,664 | | | 180,511 | 178,664 |
| Accounts receivable: | | | | | | |
| Contributions from University and affiliates | 57,552 | 118,246 | 9,656 | 19,297 | 67,208 | 137,543 |
| Investment income | 80,593 | 95,610 | | | 80,593 | 95,610 |
| Securities sales and other | 884,657 | 178,454 | 147 | 24 | 884,804 | 178,478 |
| Prepaid insurance premiums | | | 16,125 | 15,277 | 16,125 | 15,277 |
| **Total assets** | **93,970,316** | **83,287,074** | **123,729** | **88,202** | **94,094,045** | **83,375,276** |
| **LIABILITIES** | | | | | | |
| Payable to University | | | 17,015 | 15,661 | 17,015 | 15,661 |
| Payable for securities purchased | 2,380,442 | 1,658,231 | | | 2,380,442 | 1,658,231 |
| Member withdrawals, refunds and other payables | 89,590 | 297,089 | | | 89,590 | 297,089 |
| Collateral held for securities lending | 6,838,416 | 6,749,519 | | | 6,838,416 | 6,749,519 |
| **Total liabilities** | **9,308,448** | **8,704,839** | **17,015** | **15,661** | **9,325,463** | **8,720,500** |
| **NET POSITION HELD IN TRUST** | | | | | | |
| Members' defined benefit plan benefits | 62,179,236 | 54,225,589 | | | 62,179,236 | 54,225,589 |
| Participants' defined contribution plan benefits | 22,482,632 | 20,356,646 | | | 22,482,632 | 20,356,646 |
| Retiree health benefits | | | 106,714 | 72,541 | 106,714 | 72,541 |
| **Total net position held in trust** | **$84,661,868** | **$74,582,235** | **$106,714** | **$72,541** | **$84,768,582** | **$74,654,776** |

*See accompanying Notes to Financial Statements.*

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM AND RETIREE HEALTH BENEFIT TRUST

# STATEMENTS OF CHANGES IN PLANS' AND TRUST'S FIDUCIARY NET POSITION

| | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM (UCRS) | | UNIVERSITY OF CALIFORNIA RETIREE HEALTH BENEFIT TRUST (UCRHBT) | | TOTAL UCRS AND UCRHBT | |
|---|---|---|---|---|---|---|
| *Years ended June 30, 2017 and 2016* *(in thousands of dollars)* | **2017** | **2016** | **2017** | **2016** | **2017** | **2016** |
| **ADDITIONS (REDUCTIONS)** | | | | | | |
| *Contributions:* | | | | | | |
| Members and employees | $2,206,455 | $2,020,972 | | | $2,206,455 | $2,020,972 |
| State | 171,000 | 96,000 | | | 171,000 | 96,000 |
| University | 2,402,009 | 2,434,180 | $328,057 | $310,320 | 2,730,066 | 2,744,500 |
| **Total contributions** | **4,779,464** | **4,551,152** | **328,057** | **310,320** | **5,107,521** | **4,861,472** |
| *Investment income (expense), net:* | | | | | | |
| Net appreciation/depreciation in fair value of investments | 8,616,400 | (2,300,033) | | | 8,616,400 | (2,300,033) |
| Interest, dividends and other investment income | 1,386,834 | 1,272,141 | 606 | 155 | 1,387,440 | 1,272,296 |
| Securities lending income | 89,075 | 60,415 | | | 89,075 | 60,415 |
| Securities lending fees and rebates | (40,610) | (16,440) | | | (40,610) | (16,440) |
| **Total investment income (loss), net** | **10,051,699** | **(983,917)** | **606** | **155** | **10,052,305** | **(983,762)** |
| Interest income from contributions receivable | 1,472 | 1,771 | | | 1,472 | 1,771 |
| **Total additions** | **14,832,635** | **3,569,006** | **328,663** | **310,475** | **15,161,298** | **3,879,481** |
| **DEDUCTIONS** | | | | | | |
| *Benefit payments:* | | | | | | |
| Retirement payments | 2,330,361 | 2,170,775 | | | 2,330,361 | 2,170,775 |
| Member withdrawals | 140,666 | 136,249 | | | 140,666 | 136,249 |
| Cost-of-living adjustments | 474,815 | 430,795 | | | 474,815 | 430,795 |
| Lump sum cash outs | 292,270 | 285,780 | | | 292,270 | 285,780 |
| Preretirement survivor payments | 47,778 | 46,835 | | | 47,778 | 46,835 |
| Disability payments | 30,470 | 30,769 | | | 30,470 | 30,769 |
| Death payments | 9,368 | 9,377 | | | 9,368 | 9,377 |
| Participant withdrawals | 1,374,324 | 1,231,279 | | | 1,374,324 | 1,231,279 |
| **Total benefit payments** | **4,700,052** | **4,341,859** | | | **4,700,052** | **4,341,859** |
| *Insurance premiums:* | | | | | | |
| Insured plans | | | 161,142 | 173,635 | 161,142 | 173,635 |
| Self-insured plans | | | 119,667 | 101,477 | 119,667 | 101,477 |
| Medicare Part B reimbursements | | | 9,425 | 9,724 | 9,425 | 9,724 |
| **Total insurance premiums, net** | | | **290,234** | **284,836** | **290,234** | **284,836** |
| *Other deductions:* | | | | | | |
| Plan administration | 39,823 | 48,381 | 4,256 | 3,743 | 44,079 | 52,124 |
| Other | 13,127 | 10,434 | | | 13,127 | 10,434 |
| **Total other deductions** | **52,950** | **58,815** | **4,256** | **3,743** | **57,206** | **62,558** |
| **Total deductions** | **4,753,002** | **4,400,674** | **294,490** | **288,579** | **5,047,492** | **4,689,253** |
| **Increase (decrease) in net position held in trust** | **10,079,633** | **(831,668)** | **34,173** | **21,896** | **10,113,806** | **(809,772)** |
| **NET POSITION HELD IN TRUST** | | | | | | |
| Beginning of year | 74,582,235 | 75,413,903 | 72,541 | 50,645 | 74,654,776 | 75,464,548 |
| **End of year** | **$84,661,868** | **$74,582,235** | **$106,714** | **$72,541** | **$84,768,582** | **$74,654,776** |

*See accompanying Notes to Financial Statements.*

UNIVERSITY OF CALIFORNIA

# Notes to Financial Statements

*Years ended June 30, 2017 and 2016*

## ORGANIZATION

The University of California ("the University") was founded in 1868 as a public, state-supported institution. The California State Constitution provides that the University shall be a public trust administered by the corporation, "The Regents of the University of California," which is vested with full powers of organization and government, subject only to such legislative control necessary to ensure the security of its funds and compliance with certain statutory and administrative requirements. The majority of the 26-member independent governing board ("The Regents") is appointed by the governor and approved by the state Senate. Various University programs and capital outlay projects are funded through appropriations from the state's annual Budget Act. The University's financial statements are discretely presented in the state's basic financial statements as a component unit.

## FINANCIAL REPORTING ENTITY AND SIGNIFICANT ACCOUNTING POLICIES

### Financial Reporting Entity

The University's financial statements include the accounts of ten campuses, five medical centers, a statewide agricultural extension program and the operations of most student government or associated student organizations as part of the primary financial reporting entity because The Regents has certain oversight responsibilities for these organizations. In addition, the financial position and operating results of certain other legally separate organizations are included in the University's financial reporting entity on a blended basis if The Regents is determined to be financially accountable for the organization. Organizations that are not significant or for which the University is not financially accountable, such as booster and alumni organizations, are not included in the reporting entity. However, cash invested with the University by these organizations, along with the related liability, is included in the statement of net position. The statement of revenues, expenses and changes in net position excludes the activities associated with these organizations.

Fiat Lux Risk and Insurance Company ("Fiat Lux"), the University's wholly owned captive insurance company, is a blended component unit of the University. The Regents are the sole corporate and voting member of Children's Hospital & Research Center Oakland ("CHRCO"), a private, not-for-profit 501(c)(3) corporation. Children's Hospital & Research Center Foundation, a nonprofit public benefit corporation, is organized and operated for the purpose of supporting CHRCO. CHRCO, combined with its foundation, is a blended component unit of the University.

The University has eleven legally separate, tax-exempt, affiliated campus foundations, one for each campus and the Lawrence Berkeley National Laboratory (LBNL). The economic resources received or held by the foundations are entirely for the benefit of the campuses. Because of the nature and significance of their relationship with the University, including their ongoing financial support, the campus foundations are reported under Governmental Accounting Standards Board (GASB) requirements as discretely presented component units of the University.

Specific assets and liabilities and all revenues and expenses associated with the LBNL, a major United States Department of Energy (DOE) national laboratory operated and managed by the University under contract directly with the DOE, are included in the accompanying financial statements.

The Regents has fiduciary responsibility for the University of California Retirement System (UCRS) which includes two defined benefit plans, the University of California Retirement Plan (UCRP) and the University of California Voluntary Early Retirement Incentive Plan (UC–VERIP), and four defined contribution plans in the University of California Retirement Savings Program (UCRSP), consisting of the Defined Contribution Plan (DC Plan), the Supplemental Defined Contribution Plan (SDC Plan), the Tax-Deferred 403(b) Plan (403(b) Plan) and the 457(b) Deferred Compensation Plan (457(b) Plan). As a result, the UCRS statements of plans' fiduciary net position and changes in plans' fiduciary net position are shown as a fiduciary fund in the University's financial statements.

The Regents also has fiduciary responsibility for the University of California Retiree Health Benefit Trust (UCRHBT). As a result, UCRHBT's statements of trust's fiduciary net position and changes in trust's fiduciary net position are shown as a fiduciary fund in the University's financial statements. UCRHBT allows certain University locations and affiliates, primarily campuses and medical centers that share the risks, rewards and costs of providing for retiree health benefits, the opportunity to fund such benefits on a cost-sharing basis and accumulate funds on a tax-exempt basis under an arrangement segregated from University assets. The Regents serves as Trustee of UCRHBT and has the authority to amend or terminate the trust.

## Significant Accounting Policies

The financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America, using the economic resources measurement focus and the accrual basis of accounting. The University follows accounting principles issued by the GASB.

GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* was implemented by the University as of July 1, 2016. This Statement establishes financial reporting standards for retiree health benefit plans that are administered through trusts that meet specified criteria. The Statement follows the framework for financial reporting of the retiree health benefit plans in existing guidance by requiring a statement of fiduciary net position and a statement of changes in fiduciary net position. The Statement revises note disclosures and required supplementary information (RSI) related to the measurement of the retiree health benefits liabilities for which assets have been accumulated, including information about the annual money-weighted rates of return on plan investments. Implementation of Statement No. 74 resulted in additional disclosures for UCRHBT.

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions,* was implemented by the University as of July 1, 2016. This Statement revises existing standards for measuring and reporting retiree health benefits provided by the University to its employees. This Statement requires recognition of a liability equal to the net retiree health benefit liability, which is measured as the total retiree health benefits liability, less the amount of the UCRHBT's fiduciary net position. The total retiree health benefits liability is determined based upon discounting projected benefit payments based on claims costs, the benefit terms and legal agreements existing at the UCRHBT's fiscal year end. Projected benefit payments are required to be discounted using a single rate that reflects the expected rate of return on investments, to the extent that plan assets are available to pay benefits, and a tax-exempt, high-quality municipal bond rate when plan assets are not available.

The Statement requires that most changes in the net retiree health benefits liability be included in retiree health benefits expense in the period of change. The effects of reporting Statement No. 75 in the University's financial statements for the year ended June 30, 2016, were as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA AS OF AND FOR THE YEAR ENDED JUNE 30, 2016 | | |
|---|---|---|---|
| | AS PREVIOUSLY REPORTED | EFFECT OF ADOPTION OF STATEMENT NO. 75 | AS RESTATED |
| **STATEMENT OF NET POSITION** | | | |
| Department of Energy receivable | $1,268,771 | $326,996 | $1,595,767 |
| Total assets | 59,634,622 | 326,996 | 59,961,618 |
| Deferred outflows of resources | 5,573,864 | 4,596,226 | 10,170,090 |
| Net retiree health benefit liability | 10,456,840 | 11,338,608 | 21,795,448 |
| Total liabilities | 54,004,809 | 11,338,608 | 65,343,417 |
| Deferred inflows of resources | 1,732,279 | 1,736,054 | 3,468,333 |
| Unrestricted net position | (11,039,040) | (8,151,440) | (19,190,480) |
| Total net position | 9,471,398 | (8,151,440) | 1,319,958 |
| **STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION** | | | |
| Department of Energy laboratories - operating revenues | $1,259,768 | $18,418 | $1,278,186 |
| Total operating revenues | 26,265,824 | 18,418 | 26,284,242 |
| Retiree health benefit expense | 1,448,105 | 426,399 | 1,874,504 |
| Other employee benefits | 2,823,986 | 13,694 | 2,837,680 |
| Department of Energy laboratories - operating expenses | 1,252,842 | 18,418 | 1,271,260 |
| Total operating expenses | 32,490,680 | 458,511 | 32,949,191 |
| Loss from operations | (6,224,856) | (440,093) | (6,664,949) |
| Loss before other changes in net position | (2,544,538) | (440,093) | (2,984,631) |
| Change in net position | (2,261,669) | (440,093) | (2,701,762) |

In December 2015, the GASB issued Statement No. 78, *Pensions Provided Through Certain Multiple-Employer Defined Benefit Pension Plans*, effective for the University's fiscal year beginning July 1, 2016. This Statement amends the scope and applicability of Statement No. 68, *Accounting and Financial Reporting for Pensions — an Amendment of GASB Statement No. 27*, to exclude pensions provided to employees of state or local governmental employers through cost-sharing, multiple-employer defined benefit pension plans that are not state or local governmental pension plans. This Statement establishes requirements for recognition and measurement of pension expense, expenditures and liabilities; note disclosures; and required supplementary information. Implementation of Statement No. 78 had no impact on the financial statements.

The adoption of Statements No. 74, 75 and 78 did not result in any adjustments to the financial statements of the campus foundations or UCRS.

The significant accounting policies of the University are as follows:

***Cash and cash equivalents***. The University and campus foundations consider all balances in demand deposit accounts to be cash. The University classifies all other highly liquid cash equivalents with original maturities less than one year as short-term investments. Certain campus foundations classify their deposits in the University's Short Term Investment Pool as a cash equivalent.

***Investments***. Investments are measured and recorded at fair value. Securities are generally valued at the last sale price on the last business day of the fiscal year, as quoted on a recognized exchange or by utilizing an industry standard pricing service, when available. Securities for which no sale was reported as of the close of the last business day of the fiscal year are valued at the quoted bid price of a dealer who regularly trades in the security being valued. Investment in non-exchange traded debt and equity investments are valued using inputs provided by independent pricing services or by broker/dealers who actively trade in these markets. Certain securities may be valued on a basis of a price provided by a single source.

Investments also include private equities, absolute return funds, real estate, real asset and certain corporate asset-backed securities. Private equities include venture capital partnerships, buyout and international funds. Fair values for interests in private equity, absolute return partnerships and real estate partnerships are based on valuations provided by the general partners of the respective partnerships. The valuations are primarily based on the most recent net asset value (NAV) of the underlying investments. The NAV is reported by the external investment managers, including general partners, in accordance with their policies as described in their respective financial statements and offering memoranda. The most recent NAV is adjusted for capital calls, distributions and significant known valuation changes, if any, of its related portfolio through June 30, 2017 and 2016.

Interests in certain direct investments in real estate are estimated based upon independent appraisals. Because the private equity, real estate and absolute return partnerships, along with direct investments in real estate, are not readily marketable, their estimated value is subject to uncertainty and, therefore, may differ significantly from the value that would be used had a ready market for such investments existed. These investments are generally less liquid than other investments, and the value reported may differ from the values that would have been reported had a ready market for these investments existed.

For other investments, the University considers various factors to estimate fair value, such as the timing of the transaction, the market in which the company operates, comparable transactions, company performance and projections as well as discounted cash flow analysis. The selection of an appropriate technique may be affected by the availability and general reliability of relevant inputs. In some cases, one valuation technique may provide the best indication of fair value while in other circumstances, multiple valuation techniques may be appropriate. Furthermore, the University may review the investment's underlying portfolio as well as engage external appraisers, depending on the nature of the investment.

The University exercises due diligence in assessing the external managers' use of and adherence to fair value principles. In conjunction with these procedures, estimated fair value is determined by consideration of a wide range of factors, including market conditions, redemption terms and restrictions and risks inherent to the inputs of the external investment managers' valuation. In situations where the information provided by the external manager is deemed to not be representative of the fair value as of the measurement date, management evaluates specific features of the investment and utilizes supplemental fair value information provided by the external manager along with any relevant market data to measure the investment's fair value.

Investments in registered investment companies are valued based upon the reported net asset value of those companies. Mortgage loans, held as investments, are valued on the basis of their future principal and interest payments, and are discounted at prevailing interest rates for similar instruments. Insurance contracts are valued at contract value, plus reinvested interest, which approximates fair value. Estimates of the fair value of interests in externally held irrevocable trusts where the University is the beneficiary of either the income or the remainder that will not become a permanent endowment upon distribution to the University are based upon the present value of the expected future income or, if available, the University's proportional interest in the fair value of the trust assets.

Investments denominated in foreign currencies are translated into U.S. dollar equivalents using year-end spot foreign currency exchange rates. Purchases and sales of investments and their related income are translated at the rate of exchange on the respective transaction dates. Realized and unrealized gains and losses resulting from foreign currency changes are included in the University's statement of revenues, expenses and changes in net position.

Investment transactions are recorded on the date the securities are purchased or sold (trade date). Realized gains or losses are recorded as the difference between the proceeds from the sale and the average cost of the investment sold. Dividend income is recorded on the ex-dividend date and interest income is accrued as earned. Gifts of securities are recorded based on fair value at the date of donation.

Campus foundations may invest all or a portion of their investments in University-managed investment pools. Certain securities in these investment pools are included in the University's security lending program. Accordingly, the campus foundations' investments in University-managed investment pools and their allocated share of the securities lending activities have been excluded from the University's financial statements and included in the Campus Foundations' column.

***Funds held by trustees***. The University and campus foundations have been named the irrevocable beneficiary for charitable remainder trusts for which the University and campus foundations are not the trustee. Upon maturity of each trust, the remainder of the trust corpus will be transferred to the University or the respective campus foundation. These funds cannot be sold, disbursed or consumed until a specified number of years have passed or a specific event has occurred. The University and campus foundations are also an income beneficiary of certain trusts where the assets are invested and administered by outside trustees.

Consistent with the University's and campus foundations' recognition policy for pledges of endowments, receivables and contribution revenue associated with these trusts are not reflected in the accompanying financial statements. The University and campus foundations recognize contribution revenue when all eligibility requirements have been met.

***Derivative financial instruments***. Derivative instruments are recorded at fair value. Futures contracts, foreign currency exchange contracts, stock rights and warrants, options and swaptions are valued at the settlement price on the last day of the fiscal year, as quoted on a recognized exchange or by utilizing an industry standard pricing service, when available. Financial institutions or independent advisors have estimated the fair value of the interest rate swaps and total return swaps using quoted market prices when available or discounted expected future net cash flows.

The University has entered into interest rate swap agreements to limit the exposure of its variable-rate debt to changes in market interest rates. Interest rate swap agreements involve the exchange with a counterparty of fixed- and variable-rate interest payments periodically over the life of the agreement without exchange of the underlying notional principal amounts. The net differential to be paid or received is recognized over the life of the agreements as an adjustment to interest expense. The University's counterparties are major financial institutions.

Derivatives are recorded at estimated fair value as either assets or liabilities in the statement of net position. Certain derivatives are determined to be hedging derivatives and designated as either a fair value or cash flow hedge. Under hedge accounting, changes in the fair value of hedging derivatives are considered to be deferred inflows (for hedging derivatives with positive fair values or deferred outflows (for hedging derivatives with negative fair values).

Changes in the fair value of derivatives that are not hedging derivatives are recorded as net appreciation or depreciation of investments in the statement of revenues, expenses and changes in net position.

***Participants' interests in mutual funds.*** Participants in the University's defined contribution retirement plans may invest their account balances in funds managed by the University's Chief Investment Officer or in certain mutual funds.

***Accounts receivable, net***. Accounts receivable, net of allowance for uncollectible amounts, include reimbursements due from state and federal sponsors of externally funded research, patient billings, accrued income on investments and other receivables. Other receivables include local government and private grants and contracts, educational activities and amounts due from students, employees and faculty.

***Pledges receivable, net***. Unconditional pledges of private gifts to the University or campus foundations, net of allowance for uncollectible amounts, are recorded as pledges receivable and revenue in the year promised at the net present value of expected cash flows. Conditional pledges, including all pledges of endowments and intentions to pledge, are recognized as receivables and revenues when the specified conditions are met. Receivables and contribution revenue associated with externally held investment trusts are not reflected in the accompanying financial statements. The University recognizes contribution revenue and the related pledges receivable when all eligibility requirements have been met.

***Notes and mortgages receivable, net***. Loans to students, net of allowance for uncollectible amounts, are provided from federal student loan programs and from other University sources. Home mortgage loans, primarily to faculty, are provided from the University's Short Term Investment Pool and from other University sources. Mortgage loans provided by the Short Term Investment Pool are classified as investments and loans provided by other sources are classified as mortgages receivable in the statements of net position.

***Inventories***. Inventories for the campuses, consisting primarily of supplies and merchandise for resale, are valued at cost, typically determined under the weighted average method, which is not in excess of estimated net realizable value. Inventories for the medical centers consist primarily of pharmaceuticals and medical supplies which are stated on a first-in, first-out basis at the lower of cost or market.

***DOE national laboratories***. The University operates and manages LBNL under a contract directly with the DOE. Specific assets and liabilities and all revenues and expenses associated with LBNL are included in the financial statements. Other assets, such as cash, property and equipment and other liabilities of LBNL are owned by the United States government rather than the University and, therefore, are not included in the statement of net position. The statement of cash flows excludes the cash flows associated with LBNL other than reimbursements, primarily related to pension and health benefits, since all other cash transactions are recorded in bank accounts owned by the DOE.

The University is a member in two separate joint ventures, Los Alamos National Security, LLC (LANS), and Lawrence Livermore National Security, LLC (LLNS), that operate and manage two other DOE laboratories, Los Alamos National Laboratory (LANL) and Lawrence Livermore National Laboratory (LLNL), respectively, under contracts directly with the DOE.

The University's investment in LANS and LLNS is accounted for using the equity method. Accordingly, the University's statement of net position includes its equity interest in LANS and LLNS, adjusted for the equity in undistributed earnings or losses and the statement of revenues, expenses and changes in net position includes its equity in the current earnings or losses of LANS and LLNS.

The DOE is financially responsible for substantially all of the current and future costs incurred at any of the national laboratories, including pension and retiree health benefit costs. Accordingly, to the extent there is a liability on the University's statement of net position for pension or retiree health obligations related to these laboratories, the University records a receivable from the DOE.

***Capital assets, net***. Land, infrastructure, buildings and improvements, intangible assets, equipment, libraries, collections and special collections are recorded at cost at the date of acquisition, or estimated acquisition value at the date of donation in the case of gifts. Estimates of acquisition value involve assumptions and estimation methods that are uncertain and, therefore, the estimates could differ from actual value. Intangible assets include easements, land rights, trademarks, patents and other similar arrangements. Capital leases are recorded at the estimated present value of future minimum lease payments. Significant additions, replacements, major repairs and renovations to infrastructure and buildings are generally capitalized if the cost exceeds $35,000 and if they have a useful life of more than one year. Minor renovations are charged to operations. Equipment with a cost in excess of $5,000 and a useful life of more than one year is capitalized. Incremental costs, including salaries and employee benefits, directly related to the acquisition, development and installation of major software projects are included in the cost of the capital assets. All costs of land, library collections and special collections are capitalized.

Depreciation is calculated using the straight-line method over the estimated economic life of the asset. Equipment under capital leases is amortized over the estimated useful life of the equipment. Leasehold improvements are amortized using the straight-line method over the shorter of the life of the applicable lease or the economic life of the asset.

Estimated economic lives are generally as follows:

| | YEARS |
|---|---|
| Infrastructure | 25 |
| Buildings and improvements | 15–33 |
| Equipment | 2–20 |
| Computer software | 3–7 |
| Intangible assets | 2 – indefinite |
| Library books and collections | 15 |

Capital assets acquired through federal grants and contracts where the federal government retains a reversionary interest are also capitalized and depreciated.

Inexhaustible capital assets, such as land or special collections that are protected, preserved and held for public exhibition, education or research, including art, museum, scientific and rare book collections are not depreciated.

Interest on borrowings to finance facilities is capitalized during construction, net of any investment income earned on tax-exempt borrowings during the temporary investment of project-related borrowings.

***Service concession arrangements***. The University has entered into service concession arrangements with third parties for student housing and certain other faculty and student services. Under these arrangements, the University enters into ground leases with third parties at minimal or no cost, and gives the third party the right to construct, operate and maintain a facility, primarily for the benefit of students and faculty at competitive rates. Rate increases for use of the facilities are subject to certain constraints and ownership of the facilities reverts to the University upon expiration of the ground lease. The facilities are reported as capital assets by the University when placed in service, and a corresponding deferred inflow of resources is reported. The University has not provided guarantees on financing obtained by the third parties under these arrangements.

***Unearned revenue***. Unearned revenue primarily includes amounts received from grant and contract sponsors that have not been earned under the terms of the agreement and other revenue billed in advance of the event, such as student tuition and fees for housing and dining services.

***Funds held for others.*** Funds held for others result from the University or the campus foundations acting as an agent, or fiduciary, on behalf of organizations that are not significant or financially accountable to the University or campus foundations.

***Federal refundable loans***. Certain loans to students are administered by the University with funding primarily supported by the federal government. The University's statement of net position includes both the notes receivable and the related federal refundable loan liability representing federal capital contributions owed upon termination of the program.

***Bond premium***. The premium received in the issuance of long-term debt is amortized as a reduction to interest expense over the term of the related long-term debt.

***Self-insurance programs***. The University is self-insured or insured through a wholly owned captive insurance company for medical malpractice, workers' compensation, employee health care and general liability claims. These risks are subject to various claim and aggregate limits, with excess liability coverage provided by an independent insurer. Liabilities are recorded when it is probable a loss has occurred and the amount of the loss can be reasonably estimated. These losses include an estimate for claims that have been incurred, but not reported. The estimated liabilities are based upon an independent actuarial determination of the present value of the anticipated future payments. Settlements did not exceed self-insured or supplementally insured coverage for each program in any of the past three fiscal years.

***Obligations under life income agreements***. Obligations under life income agreements represent trusts with living income beneficiaries where the University has a residual interest. The investments associated with these agreements are recorded at fair value. The discounted present value of any income beneficiary interest is reported as a liability in the statement of net position. Gifts subject to such agreements are recorded as revenue, net of the income beneficiary share, at the date of the gift. Actuarial gains and losses are included in other nonoperating income (expense) in the statement of revenues, expenses and changes in net position. Resources that are expendable upon maturity are classified as restricted, expendable net position; all others are classified as restricted, nonexpendable net position.

***Pollution remediation obligations***. Upon an obligating event, the University estimates the components of any expected pollution remediation costs and recoveries from third parties. The costs, estimated using the expected cash flow technique, are accrued as a liability. Pollution remediation liabilities generally involve groundwater, soil and sediment contamination at certain sites where state and other regulatory agencies have indicated that the University is among the responsible parties. The liabilities are reviewed annually and may increase or decrease the cost of recovery from third parties, if any, as a result of additional information that refines the estimates, or from payments made from revenue sources that support the activity. There were no expected recoveries at June 30, 2017 and 2016 reducing the pollution remediation liability.

***Deferred outflows of resources and deferred inflows of resources***. Deferred outflows of resources and deferred inflows of resources represent a consumption and acquisition of net position that apply to a future period, respectively. The University classifies gains on refunding of debt as deferred inflows of resources and losses as deferred outflows of resources and amortizes such amounts as a component of interest expense over the shorter of the remaining life of the old or new debt.

The University classifies an increase in the fair value of the hedging derivatives as deferred inflows of resources, and a decrease as deferred outflows of resources. Payments received or to be received by the University from service concession arrangements are reported as deferred inflows of resources.

Changes in net pension liability and net retiree health benefit liability not included in pension expense and retiree health benefits expense, respectively, are reported as deferred outflows of resources or deferred inflows of resources. Employer contributions subsequent to the measurement date of the net pension and retiree health liabilities are reported as deferred outflows of resources.

***Net position***. Net position is required to be classified for accounting and reporting purposes into the following categories:

*Net investment in capital assets.* This category includes all of the University's capital assets, net of accumulated depreciation, reduced by outstanding debt attributable to the acquisition, construction or improvement of those assets.

*Restricted.* The University and campus foundations classify the net position resulting from transactions with purpose restrictions as restricted net position until the specific resources are used for the required purpose or for as long as the provider requires the resources to remain intact.

*Nonexpendable*. The net position subject to externally imposed restrictions, which must be retained in perpetuity by the University or campus foundations, is classified as nonexpendable net position. This includes the University and campus foundation permanent endowment funds.

Also included in nonexpendable net position are minority interests, which include the net position of legally separate organizations attributable to other participants.

*Expendable.* The net position whose use by the University or campus foundations is subject to externally imposed restrictions that can be fulfilled by actions of the University or campus foundations pursuant to those restrictions or that expire by the passage of time is classified as expendable net position.

*Unrestricted*. The net position that is not subject to externally imposed restrictions governing its use is classified as unrestricted net position. The University's unrestricted net position may be designated for specific purposes by management or The Regents. The campus foundations' unrestricted net position may be designated for specific purposes by their Boards of Trustees. Substantially, all of the University's unrestricted net position is allocated for academic and research initiatives or programs, for capital programs or for other purposes.

Restricted or unrestricted resources are spent based upon a variety of factors, including funding restrictions, consideration of prior and future revenue sources, the type of expense incurred, the University's budgetary policies surrounding the various revenue sources or whether the expense is a recurring cost. Unrestricted net position is negative due primarily to liabilities for pension and retiree health benefits exceeding University assets available to pay such obligations.

***Revenues and expenses***. Operating revenues of the University include receipts from student tuition and fees, grants and contracts for specific operating activities and sales and services from medical centers, educational activities and auxiliary enterprises. Operating expenses incurred in conducting the programs and services of the University are presented in the statement of revenues, expenses and changes in net position as operating activities. The University's equity in current earnings or losses of LANS and LLNS is also an operating transaction.

Certain significant revenues relied upon and budgeted for fundamental operational support of the core instructional mission of the University are mandated by the GASB to be recorded as nonoperating revenues, including state educational appropriations, certain federal grants for student financial aid, private gifts and investment income, since the GASB does not consider them to be related to the principal operating activities of the University.

Campus foundations are established to financially support the University. Private gifts to campus foundations are recognized as operating revenues since, in contrast to the University, such contributions are fundamental to the core mission of the campus foundations. Foundation grants to the University are recognized as operating expenses by the foundations. Private gift or capital gift revenues associated with campus foundation grants to the University are recorded by the University as gifts when the foundations transfer the gifts to the University.

Nonoperating revenues and expenses include state educational appropriations, state financing appropriations, state hospital fee grants, Build America Bonds federal interest subsidies, Federal Pell Grants, private gifts for other than capital purposes, investment income, net appreciation (or depreciation) in the fair value of investments, interest expense and the loss on the disposal of capital assets.

State capital appropriations, capital gifts and grants and gifts for endowment purposes are classified as other changes in net position.

***Student tuition and fees***. Substantially all student tuition and fees provide for the current operations of the University. A small portion of the student fees, reported as capital gifts and grants, is required for debt service associated with student union and recreational centers.

The University recognizes scholarship allowances as the difference between the stated charge for tuition and fees, housing and dining charges, recreational center and other fees, and the amount that is paid by the student and third parties on behalf of the student. Payments of financial aid made directly to students are classified as scholarship and fellowship expenses.

Scholarship allowances are netted against student tuition and fees in the statement of revenues, expenses and changes in net position for the years ended June 30 as follows:

| *(in thousands of dollars)* | **2017** | **2016** |
|---|---|---|
| Student tuition and fees | $1,129,720 | $1,124,296 |
| Auxiliary enterprises | 185,038 | 215,049 |
| Other operating revenues | 29,654 | 26,408 |
| **Scholarship allowances** | **$1,344,412** | **$1,365,753** |

***State appropriations.*** The state of California provides appropriations to the University on an annual basis. State educational appropriations are recognized as nonoperating revenue; however, the related expenses for educational, retirement or other specific operating purposes are reported as operating expenses. State appropriations for capital projects are recorded as revenue under other changes in net position when the related expenditures are incurred. Special state appropriations for AIDS, tobacco and breast cancer research are reported as grant operating revenue.

***Grant and contract revenue.*** The University receives grant and contract revenue from governmental and private sources. The University recognizes revenue associated with the direct costs of sponsored programs as the related expenditures are incurred. Recovery of facilities and administrative costs of federally sponsored programs is at cost reimbursement rates negotiated with the University's federal cognizant agency, the U.S. Department of Health and Human Services. For the year ended June 30, 2017, the facilities and administrative cost recovery totaled $1.1 billion, which consisted of $764.0 million from federally sponsored programs and $312.3 million from other sponsors. For the year ended June 30, 2016, the facilities and administrative cost recovery totaled $1.0 billion, which consisted of $745.6 million from federally sponsored programs and $279.4 million from other sponsors.

***Medical center revenue***. Medical center revenue is reported at the estimated net realizable amounts from patients and third-party payors, including Medicare, Medi-Cal and others, for services rendered, as well as estimated retroactive adjustments under reimbursement agreements with third-party payors. Laws and regulations governing Medicare and Medi-Cal are complex and subject to interpretation. Retroactive adjustments are accrued on an estimated basis in the period the related services are rendered and adjusted in future periods as final settlements are determined. It is reasonably possible that estimated amounts accrued could change significantly based upon settlement, or as additional information becomes available.

***Net pension liability.*** The University records net pension liability equal to the net pension liability for its defined benefit plans. The net pension liability is measured as the total pension liability, less the amount of the pension plans' fiduciary net positions. The fiduciary net position and changes in net position of the defined benefit plans has been measured consistent with the accounting policies used by the plans. The total pension liability is determined based upon discounting projected benefit payments based on the benefit terms and legal agreements existing at the pension plan's fiscal year end. Projected benefit payments are discounted using a single rate that reflects the expected rate of return on investments, to the extent that plan assets are available to pay benefits, and a tax-exempt, high-quality municipal bond rate when plan assets are not available.

Pension expense is recognized for benefits earned during the period, interest on the unfunded liability and changes in benefit terms. The differences between expected and actual experience and changes in assumptions about future economic or demographic factors are reported as deferred inflows or outflows and are recognized over the average expected remaining service period for employees eligible for pension benefits. The differences between expected and actual returns are reported as deferred inflows or outflows and are recognized over five years.

Both current employees and retirees at LBNL participate in UCRP. The University makes contributions to UCRP for LBNL employees based upon rates authorized by The Regents and is reimbursed by the DOE. The University also makes contributions to UCRP for LANL and LLNL retirees and terminated vested members, whose benefits were retained in UCRP at the time the joint ventures were formed. The University records a receivable for the net pension liability that is expected to be collected from the DOE. The University deposits funds in UCRP when the DOE makes payments for these contributions. The contributions from the DOE and deposits into UCRP on behalf of DOE are included as DOE laboratory revenue in the statement of revenues, expenses and changes in net position.

***Retiree health benefits and liability.*** The University's net retiree health benefits liability is measured as the total retiree health benefits liability, less the amount of the University of California Retiree Health Benefit Trust (UCRHBT) fiduciary net position. The fiduciary net position and changes in net position of UCRHBT has been measured consistent with the accounting policies used by the trust. The total retiree health benefits liability is determined based upon discounting projected benefit payments based on the benefit terms and legal agreements existing at the health benefit trust's fiscal year end. Projected benefit payments are discounted using a single rate that reflects the expected rate of return on investments, to the extent that plan assets are available to pay benefits, and a tax-exempt, high-quality municipal bond rate when plan assets are not available.

Expense for retiree health benefits is recognized for benefits earned during the period, interest on the unfunded liability and changes in benefit terms. The differences between expected and actual experience and changes in assumptions about future economic or demographic factors are reported as deferred inflows or outflows and are recognized over the average expected remaining service period for employees eligible for retiree health benefits. The differences between expected and actual returns are reported as deferred inflows or outflows and are recognized over five years.

LBNL participates in the University's retiree health plans. The net retiree health benefits liability for LBNL is determined independently from the University's campuses and medical centers. Retiree health benefits expense for LBNL is included with the DOE laboratory expense in the statement of revenues, expenses and changes in net position. The contributions from the DOE are included as DOE laboratory revenue in the statement of revenues, expenses and changes in net position.

The University records a receivable from the DOE for the DOE's portion of the University's net retiree health benefits liability attributable to LBNL. The University does not have any retiree health benefits liability for LANL or LLNL retiree health benefit costs since they do not participate in the University's retiree health plans.

Campus and medical center contributions toward retiree health costs made to UCRHBT, the University's LBNL-related payments made directly to health care insurers and administrators and the corresponding reimbursements from the DOE, are shown as operating activities in the statement of cash flows. Cash flows resulting from retiree health contributions from retirees are shown as noncapital financing activities in the statement of cash flows.

***University of California Retiree Health Benefit Trust***. UCRHBT receives the University's contributions toward retiree health benefits from campuses, medical centers and University affiliates. The University receives retiree health contributions from University affiliates and campus and medical center retirees that are deducted from their UCRP benefit payments. The University also remits these retiree contributions to UCRHBT.

The University acts as a third-party administrator on behalf of UCRHBT and pays health care insurers and administrators amounts currently due under the University's retiree health benefit plans for retirees. UCRHBT reimburses the University for these amounts.

LBNL does not participate in UCRHBT; therefore, the DOE has no interest in the Trust's assets.

***Compensated absences***. The University accrues annual leave, including employer-related costs, for employees at rates based upon length of service and job classification and compensatory time based upon job classification and hours worked.

***Endowment spending***. Under provisions of California law, the Uniform Prudent Management of Institutional Funds Act allows for investment income, as well as a portion of realized and unrealized gains, to be expended for the operational requirements of University programs.

***Tax exemption.*** The University is recognized as a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code (IRC). Because the University is a state institution, related income received by the University is also exempt from federal tax under IRC Section 115(a). In addition, the University is exempt from state income taxes imposed under the California Revenue and Taxation Code. UCRS plans are qualified under IRC Section 401(a) and the related trusts are tax-exempt under Section 501(c)(3). The campus foundations are exempt under IRC Section 501(c)(3). CHRCO and its component unit, the Children's Hospital and Research Center Foundation, are exempt under IRC Section 501(c)(3). Income received by UCRHBT is tax-exempt under IRC Section 115(a).

***Use of estimates.*** The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenditures during the reporting period. Although management believes the estimates and assumptions are reasonable, they are based upon information available at the time the estimate or judgment is made and actual amounts could differ from those estimates.

***New accounting pronouncements.*** In March 2016, the GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*, effective for the University's fiscal year beginning July 1, 2017. This statement addresses when Irrevocable Split-Interest Agreements constitute an asset for accounting and financial reporting purposes when the resources are administered by a third party. The Statement also provides expanded guidance for circumstances in which the government holds the assets. The University is evaluating the effect that Statement No. 81 will have on its financial statements.

In December 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations*, effective for the University's fiscal year beginning July 1, 2018. This Statement establishes guidance for determining the timing and pattern of recognition for liabilities and corresponding deferred outflow of resources related to asset retirement obligations. The Statement requires the measurement of an asset retirement obligation to be based on the best estimate of the current value of outlays expected to be incurred. The deferred outflow of resources associated with an asset retirement obligation will be measured at the amount of the corresponding liability upon initial measurement and generally recognized as an expense during the reporting periods that the asset provides service. Disclosure requirements include a general description of the asset retirement obligation and associated tangible capital assets, the source of the obligation to retire the assets, the methods and assumptions used to measure the liability, and other relevant information. The University is evaluating the effect that Statement No. 83 will have on its financial statements.

In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*, effective for the University's fiscal year beginning July 1, 2019. This Statement establishes criteria for identifying fiduciary activities of all state and local governments. Governments with activities meeting the criteria should present a statement of fiduciary net position and a statement of changes in fiduciary net position. This Statement describes four fiduciary funds that should be reported, if applicable: (1) pension (and other employee benefit) trust funds, (2) investment trust funds, (3) private-purpose trust funds and (4) custodial funds. Custodial funds generally should report fiduciary activities that are not held in a trust or equivalent arrangement that meets specific criteria. The University is evaluating the effect that Statement No. 84 will have on its financial statements.

In March 2017, the GASB issued Statement No. 85, *Omnibus 2017*, effective for the University's fiscal year beginning July 1, 2017. The Statement addresses practice issues that have been identified during implementation and application of certain GASB Statements including issues related to blending component units, goodwill, fair value measurement and application and post-employment benefits. The University is evaluating the effect Statement No. 85 will have on its financial statements.

In May 2017, the GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*, effective for the University's fiscal year beginning July 1, 2017. This Statement establishes standards of accounting and financial reporting for in-substance defeasance transactions in which cash and other monetary assets acquired with resources other than the proceeds of the refunding debt are placed in an irrevocable trust for the sole purpose of extinguishing debt. In addition, this Statement revises existing standards for prepaid insurance associated with extinguished debt. The University is evaluating the effect Statement No. 86 will have on its financial statements.

In June 2017, the GASB issued Statement No. 87, *Leases*, effective for the University's fiscal year beginning July 1, 2020. This Statement establishes a single approach to accounting for and reporting leases based on the principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. Limited exceptions to the single-approach guidance are provided for short-term leases, defined as lasting a maximum of twelve months at inception, including any options to extend, financed purchases, leases of assets that are investments and certain regulated leases. The University is evaluating the effect Statement No. 87 will have on its financial statements.

## 1. CASH AND CASH EQUIVALENTS

The University maintains centralized management for substantially all of its cash and cash equivalents. Cash in demand deposit accounts is minimized by sweeping available cash balances into investment accounts on a daily basis.

Under University policy, deposits are only held at financial institutions that maintain an issuer rating on long-term debt of A3 or higher by Moody's, A- or higher by Standard & Poor's or an Asset Peer Group rating of 65 or higher as defined by Sheshunoff Bank Rating Reports. Ratings for one of the University's banks are below these thresholds. This institution has deposited funds in excess of the bank balances as of June 30, 2017 as collateral for the University's deposits in the state of California agency pool. At June 30, 2017 and 2016, the carrying amount of the University's demand deposits, generally held in five nationally recognized banking institutions, was $203.4 million and $266.6 million, respectively, compared to bank balances of $159.7 million and $230.5 million, respectively. Deposits in transit and cash awaiting investment are the primary differences. The University's deposits are uninsured and uncollateralized.

The University does not have significant exposure to foreign currency risk in demand deposit accounts. Accounts held in foreign countries maintain minimum operating balances with the intent to reduce potential foreign exchange risk while providing an adequate level of liquidity to meet the obligations of the academic programs established abroad. The equivalent U.S. dollar balances required to support research groups and education abroad programs in foreign countries was $6.7 million at June 30, 2017 and $5.1 million at June 30, 2016.

The carrying amount of the campus foundations' cash and cash equivalents at June 30, 2017 and 2016 was $254.1 million and $194.9 million, respectively, compared to bank balances of $94.3 million and $162.9 million, respectively. Deposits in transit and cash awaiting investment are the primary differences. Included in bank balances are deposits in the University's Short Term

Investment Pool of $157.6 million at June 30, 2017 and $29.9 million at June 30, 2016, with the remaining uncollateralized bank balances insured by the Federal Deposit Insurance Corporation (FDIC). Uncollateralized bank balances include $6.5 million and $6.7 million in excess of the FDIC limits at June 30, 2017 and 2016, respectively. The campus foundations do not have exposure to foreign currency risk in their cash and cash equivalents.

## 2. INVESTMENTS

The Regents, as the governing Board, is responsible for the oversight of the University's, UCRS' and UCRHBT's investments and establishes an investment policy, which is carried out by the Chief Investment Officer. These investments are associated with the Short Term Investment Pool (STIP), Total Return Investment Pool (TRIP), General Endowment Pool (GEP), UCRS, UCRHBT and other investment pools managed by the Chief Investment Officer, or are separately invested. Pursuant to The Regents' policies on campus foundations, the Board of Trustees for each campus foundation may determine that all or a portion of their investments will be managed by the Chief Investment Officer. Asset allocation guidelines are provided to the campus foundations by the Investments Subcommittee of The Regents.

STIP allows participants to maximize the returns on their short-term cash balances by taking advantage of the economies of scale of investing in a large pool with a broad range of maturities and is managed to maximize current earned income. Cash to provide for payroll, construction expenditures and other operating expenses for campuses and medical centers is invested in STIP. The available cash in UCRS or endowment investment pools awaiting investment, or cash for administrative expenses, is also invested in STIP.

Investments authorized by The Regents for STIP include fixed-income securities with a maximum maturity of five and one-half years. In addition, for STIP, The Regents has also authorized loans, primarily to faculty members residing in California, under the University's Mortgage Origination Program with terms of up to 40 years.

TRIP allows participants the opportunity to maximize the return on their long-term working capital by taking advantage of the economies of scale of investing in a large pool across a broad range of asset classes. TRIP is managed to a total return objective and is intended to supplement STIP. Investments authorized by The Regents for TRIP include a diversified portfolio of equity, fixed income and alternative investments.

GEP is an investment pool in which a large number of individual endowments participate in order to benefit from diversification and economies of scale. GEP is a balanced portfolio and the primary investment vehicle for endowed gift funds. Where donor agreements place constraints on allowable investments, assets associated with endowments are invested in accordance with the terms of the agreements.

Other investment pools primarily facilitate annuity and life income arrangements. Separate investments are those that cannot be pooled due to investment restrictions or income requirements.

Investments authorized by The Regents for GEP, UCRS, other investment pools and separate investments include equity securities, fixed-income securities and certain other asset classes. The equity portion of the investment portfolios include both domestic and foreign common and preferred stocks which may be included in actively or passively managed strategies, along with exposure to private equities. The University's investment portfolios may include foreign currency-denominated equity securities. The fixed-income portion of the investment portfolios may include both domestic and foreign securities, along with certain securitized investments, including mortgage-backed and asset-backed securities. Fixed-income investment guidelines permit the use of futures and options on fixed-income instruments in the ongoing management of the portfolios. Real estate investments are authorized for all pools except for STIP. Absolute return strategies, which may incorporate short sales, plus derivative positions to implement or hedge an investment position, are also authorized for all pools except for STIP.

Derivative instruments, including futures, forward contracts, options and swap contracts are authorized for portfolio rebalancing in accordance with The Regents' asset allocation policy and as substitutes for physical securities. Derivatives are not used for speculative purposes.

The Regents has also authorized certain employee account balances in defined contribution plans included as part of UCRS' investments to be invested in mutual funds. The participants' interests in mutual funds are not managed by the Chief Investment Officer and totaled $3.4 billion and $2.8 billion at June 30, 2017 and 2016, respectively.

Investments authorized by The Regents for the UCRHBT are restricted to a portfolio of high-quality money market instruments in a commingled fund that is managed externally. The average credit quality of the portfolio is A-1/P-1 with an average maturity of 26 days and 28 days at June 30, 2017 and 2016, respectively. The fair values of UCRHBT's investment in this portfolio were $97.8 million and $53.6 million at June 30, 2017 and 2016, respectively. These are measured at net asset value as of June 30, 2017 and 2016, respectively.

The composition of investments, by investment type at June 30 is as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** | **2017** | **2016** |
| *Equity securities:* | | | | | | |
| Domestic | $2,641,778 | $1,979,452 | $224,555 | $294,314 | $19,308,688 | $15,490,564 |
| Foreign | 2,322,774 | 1,306,340 | 26,056 | 24,487 | 10,124,433 | 7,855,227 |
| **Equity securities** | **4,964,552** | **3,285,792** | **250,611** | **318,801** | **29,433,121** | **23,345,791** |
| *Fixed- or variable-income securities:* | | | | | | |
| U.S. government-guaranteed: | | | | | | |
| U.S. Treasury bills, notes and bonds | 1,342,026 | 443,380 | 380,834 | 299,286 | 1,819,707 | 1,886,713 |
| U.S. Treasury strips | 370,436 | 292,098 | 215 | 235 | 900,066 | 568,605 |
| U.S. TIPS | 379,808 | 315,226 | | | 2,422,599 | 2,655,968 |
| U.S. government-backed securities | | | 24 | 42 | | |
| U.S. government-backed - asset-backed securities | 13,695 | 20,749 | 991 | 1,240 | 10,146 | 8,253 |
| **U.S. government-guaranteed** | **2,105,965** | **1,071,453** | **382,064** | **300,803** | **5,152,518** | **5,119,539** |
| Other U.S. dollar-denominated: | | | | | | |
| Corporate bonds | 7,945,898 | 4,659,480 | 28,301 | 27,170 | 4,750,525 | 4,155,499 |
| Commercial paper | 63,553 | 2,812,619 | | | 918,088 | 143,139 |
| U.S. agencies | 1,408,734 | 1,946,581 | | 300 | 4,155,225 | 4,256,013 |
| U.S. agencies - asset-backed securities | 671,434 | 532,609 | 48,264 | 55,592 | 3,323,667 | 2,814,309 |
| Corporate - asset-backed securities | 504,652 | 386,261 | 49,518 | 52,182 | 1,607,426 | 1,636,572 |
| Supranational/foreign | 1,026,235 | 1,301,968 | 5,492 | 7,755 | 2,544,718 | 1,961,695 |
| Other | 120,314 | 66,731 | 1,478 | 814 | 26,996 | 28,382 |
| **Other U.S. dollar-denominated** | **11,740,820** | **11,706,249** | **133,053** | **143,813** | **17,326,645** | **14,995,609** |
| Foreign currency-denominated: | | | | | | |
| Corporate | | | | | | 3,890 |
| **Foreign currency-denominated** | | | | | | **3,890** |
| *Commingled funds:* | | | | | | |
| Absolute return funds | 3,962,553 | 3,168,124 | 2,177,012 | 1,878,461 | 4,987,355 | 4,626,070 |
| Non-U.S. equity funds | 2,077,584 | 2,883,950 | 991,267 | 838,113 | 9,264,782 | 7,502,378 |
| Private equity | 1,388,163 | 1,180,827 | 708,680 | 621,712 | 2,939,524 | 2,822,693 |
| Money market funds | 814,888 | 505,489 | 935,429 | 754,942 | 5,020,007 | 4,589,358 |
| U.S. equity funds | 145,967 | 507,587 | 664,627 | 574,231 | 2,341,302 | 3,281,925 |
| Real estate investment trusts | 460,025 | 9,439 | 150,846 | 95,519 | 1,633,123 | 515,960 |
| Real assets | 206,076 | 182,861 | | | 866,245 | 960,923 |
| U.S. bond funds | 218,839 | 32,747 | 131,541 | 109,386 | 1,055,611 | 1,677,872 |
| Non-U.S. bond funds | 132,608 | 44,720 | 16,433 | 29,452 | 15 | |
| Balanced funds | 212,079 | 182,516 | 1,222,549 | 1,051,146 | | |
| **Commingled funds** | **9,618,782** | **8,698,260** | **6,998,384** | **5,952,962** | **28,107,964** | **25,977,179** |
| Investment derivatives | (241) | 8,227 | 1,995 | 2,776 | (3,002) | 25,921 |
| Publicly traded real estate investment trusts | 152,636 | 100,606 | | | 722,541 | 750,056 |
| Mortgage loans | 358,890 | 319,038 | | | | |
| Real estate | 354,597 | 937,421 | 119,516 | 116,536 | 1,834,232 | 2,978,950 |
| Other investments | 12,390 | 13,786 | 321,367 | 279,587 | | |
| Campus foundations' investments with the University | (2,151,497) | (1,604,216) | | | | |
| UCRS investment in the STIP | (2,678,532) | (2,327,849) | | | | |
| **Total investments** | **24,478,362** | **22,208,767** | **8,206,990** | **7,115,278** | **$82,574,019** | **$73,196,935** |
| Less: Current portion | (6,249,657) | (4,944,611) | (674,868) | (479,410) | | |
| **Noncurrent portion** | **$18,228,705** | **$17,264,156** | **$7,532,122** | **$6,635,868** | | |

## Investment Risk Factors

There are many factors that can affect the value of investments. Some, such as custodial credit risk, concentration of credit risk and foreign currency risk, may affect both equity and fixed-income securities. Equity securities respond to such factors as economic conditions, individual company earnings performance and market liquidity, while fixed-income securities are particularly sensitive to credit risks and changes in interest rates. Alternative investment strategies and their underlying assets and rights are subject to an array of economic and market vagaries that can limit or erode value.

### *Credit Risk*

Fixed-income securities are subject to credit risk, which is the chance that a bond issuer will fail to pay interest or principal in a timely manner, or the possibility that negative perceptions of the issuer's ability to make these payments will cause security prices to decline. These circumstances may arise due to a variety of factors such as financial weakness, bankruptcy, litigation and/or adverse political developments.

A bond's credit quality is an assessment of the issuer's ability to pay interest on the bond and, ultimately, to pay the principal. Credit quality is evaluated by one of the independent bond rating agencies, for example Moody's Investors Service (Moody's) or Standard and Poor's (S&P). The lower the rating, the greater the chance, in the rating agency's opinion, that the bond issuer will default, or fail to meet its payment obligations. Generally, the lower a bond's credit rating, the higher its yield should be to compensate for the additional risk.

Certain fixed-income securities, primarily obligations of the U.S. government or those explicitly guaranteed by the U.S. government, are considered to have minimal credit risk.

Asset-backed securities are debt obligations that represent claims to the cash flows from pools of commercial, mortgage, credit card or student loans. Mortgage-backed securities issued by Ginnie Mae are backed by the full faith and credit of the U.S. government.

The investment guidelines for STIP recognize that a limited amount of credit risk, properly managed and monitored, is prudent and provides incremental risk adjusted return over its benchmark (the benchmark for STIP is the two-year Treasury). No more than 5 percent of the total market value of the STIP portfolio may be invested in securities rated below investment grade (BB, Ba or lower). The average credit quality of STIP must be A or better and commercial paper must be rated at least A-1, P-1 or F-1.

The University recognizes that credit risk is appropriate in balanced investment pools such as TRIP, UCRS and GEP by virtue of the benchmarks chosen for the fixed-income portion of those pools.

The core fixed-income benchmark for UCRS, GEP and TRIP is the Barclays Capital US Aggregate Bond Index, comprised of 25.3 percent corporate bonds and 30.5 percent mortgage/asset-backed bonds, all of which carry some degree of credit risk. The remaining 44.2 percent is government issued bonds.

Credit risk in TRIP, UCRS and GEP is managed primarily by diversifying across issuers. In addition, portfolio guidelines for UCRS and GEP mandate that no more than 15 percent of the market value of fixed-income securities may be invested in issues with credit ratings below investment grade. Further, the weighted average credit rating must be A or higher.

In addition, the investment policy for both UCRP and GEP allows for dedicated allocations to non-investment grade and emerging market bonds, an investment which entails credit, default and/or sovereign risk.

The credit risk profile for fixed- or variable-income securities at June 30 is as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| *Fixed- or variable-income securities:* | | | | | | |
| U.S. government-guaranteed | $2,105,965 | $1,071,453 | $382,064 | $300,803 | $5,152,518 | $5,119,539 |
| *Other U.S. dollar-denominated:* | | | | | | |
| AAA | 394,656 | 293,301 | 12,538 | 14,341 | 1,465,322 | 1,176,010 |
| AA | 1,284,954 | 930,816 | 37,676 | 39,837 | 3,390,694 | 3,419,468 |
| A | 1,294,567 | 1,894,608 | 3,781 | 5,289 | 1,243,993 | 1,040,084 |
| BBB | 2,068,030 | 2,737,919 | 23,963 | 20,048 | 2,946,777 | 2,606,436 |
| BB | 450,708 | 562,163 | 2,095 | 3,259 | 1,242,851 | 1,192,376 |
| B | 296,788 | 254,948 | 3,088 | 4,945 | 1,057,297 | 872,055 |
| CCC or below | 42,151 | 55,117 | 19,898 | 24,023 | 192,950 | 358,512 |
| A-1 / P-1/ F-1 | | 12,536 | | | | 1,949 |
| Not rated | 5,908,966 | 4,964,841 | 30,014 | 32,071 | 5,786,761 | 4,328,719 |
| *Foreign currency-denominated:* | | | | | | |
| Not rated | | | | | | 3,890 |
| *Commingled funds:* | | | | | | |
| U.S. bond funds: Not rated | 218,839 | 32,747 | 131,541 | 109,386 | 1,055,611 | 1,677,872 |
| Non-U.S. bond funds: Not rated | 132,608 | 44,720 | 16,433 | 29,452 | 15 | |
| Money market funds: Not rated | 814,888 | 505,489 | 935,429 | 754,942 | 5,020,007 | 4,589,358 |
| *Mortgage loans: Not rated* | 358,890 | 319,038 | | | | |

## *Custodial Credit Risk*

Custodial credit risk is the risk that in the event of the failure of the custodian, the investments may not be returned.

Substantially, all of the University's, campus foundations' and UCRS' securities are registered in the University's name by the custodial bank as an agent for the University. Other types of investments represent ownership interests that do not exist in physical or book-entry form. As a result, custodial credit risk for such investments is remote.

## *Concentration of Credit Risk*

Concentration of credit risk is the risk associated with a lack of diversification, such as having substantial investments in a few individual issuers, thereby exposing the organization to greater risks resulting from adverse economic, political, regulatory, geographic or credit developments.

The U.S. and non-U.S. equity portions of the University and UCRS portfolios may be managed either passively or actively. For the portions managed passively, the concentration of individual securities is similar to their concentration in the benchmark. While some securities have a larger representation in the benchmark than others, the University considers that passive management results in an absence of concentration of credit risk. For the portions managed actively, asset class guidelines do not specifically address concentration risk, but do state that the U.S. equity asset class, in the aggregate, will be appropriately diversified to control overall risk and will exhibit portfolio characteristics similar to the asset class benchmark (including concentration of credit risk). Concentration risk for individual portfolios is monitored relative to their individual benchmarks and agreed-upon risk parameters in their guidelines.

Investment guidelines addressing concentration of credit risk related to the investment grade fixed-income portion of the University and UCRS portfolios include a limit of no more than 3 percent of each portfolio's market value to be invested in any single issuer (except for securities issued by the U.S. government or its agencies). These same guidelines apply to STIP. For high-yield and emerging market debt, the corresponding limit is 5 percent.

Each campus foundation may have its own individual investment policy designed to limit exposure to a concentration of credit risk. Securities issued or explicitly guaranteed by the U.S. government, mutual funds, external investment pools, other investment pools or investments that are invested by the University for the campus foundations are not subject to concentration of credit risk. Most of the campus foundations that hold other types of investments have policies to limit the exposure to an individual issuer.

Investments in issuers other than U.S. government-guaranteed securities that represent 5 percent or more of investments held by the respective foundation at June 30 are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | |
|---|---|---|
| | **2017** | **2016** |
| Bayside Partners, LP | $88,257 | $91,295 |

### *Interest Rate Risk*

Interest rate risk is the risk that the value of fixed-income securities will decline because of changing interest rates. The prices of fixed-income securities with a longer time to maturity, measured by effective duration, tend to be more sensitive to changes in interest rates and, therefore, more volatile than those with shorter durations. Effective duration is the approximate change in price of a security resulting from a 100-basis-point (1-percentage-point) change in the level of interest rates. It is not a measure of time.

Interest rate risk for STIP is managed by constraining the maturity of all individual securities to be less than five and one-half years. There is no restriction on weighted average maturity of the portfolio as it is managed relative to the liquidity demands of the investors. The nature and maturity of individual securities in STIP allow for the use of weighted average maturity as an effective risk management tool, rather than the more complex measure, effective duration.

Portfolio guidelines for the fixed-income portion of TRIP, UCRS and GEP limit weighted average effective duration to the effective duration of the benchmarks (Barclays Capital US Aggregate Index), plus or minus 20 percent. These portfolio guidelines constrain the potential price movement due to interest rate changes of the portfolio being similar to that of the benchmark. There are similar restrictions for the high-yield and emerging market debt portfolios relative to their benchmarks.

The effective durations for fixed- or variable-income securities at June 30 are as follows:

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** | **2017** | **2016** |
| *Fixed- or variable-income securities:* | | | | | | |
| U.S. government-guaranteed: | | | | | | |
| U.S. Treasury bills, notes and bonds | 3.1 | 1.2 | 2.8 | 3.0 | 2.9 | 1.7 |
| U.S. Treasury strips | 11.7 | 7.5 | 18.1 | 19.3 | 10.6 | 7.8 |
| U.S. TIPS | 2.9 | 4.7 | | | 3.8 | 4.7 |
| U.S. government-backed securities | | | 1.8 | 0.7 | | |
| U.S. government-backed - asset-backed securities | 2.3 | 1.5 | 10.1 | 4.2 | 3.1 | 1.9 |
| *Other U.S. dollar-denominated:* | | | | | | |
| Corporate bonds | 2.8 | 2.9 | 2.4 | 2.8 | 6.1 | 6.1 |
| U.S. agencies | 2.6 | 2.1 | | 7.3 | 2.1 | 1.7 |
| U.S. agencies - asset-backed securities | 3.9 | 2.9 | 4.2 | 3.8 | 3.7 | 2.5 |
| Corporate - asset-backed securities | 4.2 | 4.5 | 2.1 | 0.4 | 2.5 | 2.5 |
| Supranational/foreign | 3.2 | 2.9 | 3.8 | 2.7 | 5.8 | 5.8 |
| Other | 16.9 | 17.4 | 1.8 | 2.8 | 15.7 | 16.2 |
| *Foreign currency-denominated:* | | | | | | |
| Corporate | | 7.8 | | | | 4.3 |
| *Commingled funds:* | | | | | | |
| U.S. bond funds* | 2.5 | 4.1 | 4.8 | 4.8 | 1.9 | 3.7 |
| Non-U.S. bond funds | 3.2 | 7.2 | 6.9 | 6.0 | 7.0 | |
| Money market funds** | | | 1.5 | 1.3 | | |

**The University considers the modified durations for commingled funds.*
***Foundation and UCRS investment in STIP.*

The University considers the effective durations for commercial paper, mortgage loans, insurance contracts and money market funds to be zero. The terms of the mortgage loans include variable interest rates. Insurance contracts can be liquidated without loss of principal and money market funds consist of underlying securities that are of a short-term, liquid nature.

Investments also include various mortgage-backed securities, collateralized mortgage obligations, structured notes, variable-rate securities and callable bonds that may be considered to be highly sensitive to changes in interest rates due to the existence of prepayment or conversion features, although the effective durations of these securities may be low.

At June 30, the fair values of such investments are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| Mortgage-backed securities | $581,019 | $635,961 | $62,552 | $50,366 | $3,094,839 | $3,076,953 |
| Collateralized mortgage obligations | 142,379 | 173,385 | 17,079 | 32,583 | 308,119 | 507,526 |
| Other asset-backed securities | 147,305 | 92,843 | 14,889 | 21,758 | 928,928 | 718,940 |
| Variable-rate securities | 401,499 | 59,738 | | | 1,674,974 | 69,273 |
| Callable bonds | 2,773,741 | 1,892,892 | | | 8,281,157 | 5,882,116 |
| Convertible bonds | 317 | | | | 2,529 | |
| **Total** | **$4,046,260** | **$2,854,819** | **$94,520** | **$104,707** | **$14,290,546** | **$10,254,808** |

***Mortgage-Backed Securities.*** These securities are issued primarily by Fannie Mae, Ginnie Mae and Freddie Mac, and various commercial entities and include short embedded prepayment options. Unanticipated prepayments by the obligees of the underlying asset reduce the total expected rate of return.

***Collateralized Mortgage Obligations***. Collateralized mortgage obligations (CMOs) generate a return based upon either the payment of interest or principal on mortgages in an underlying pool. The relationship between interest rates and prepayments makes the fair value highly sensitive to changes in interest rates. In falling interest rate environments, the underlying mortgages are subject to a higher propensity of prepayments. In rising interest rate environments, the opposite is true.

***Other Asset-Backed Securities***. Other asset-backed securities also generate a return based upon either the payment of interest or principal on obligations in an underlying pool, generally associated with auto loans or credit cards. As with CMOs, the relationship between interest rates and prepayments makes the fair value highly sensitive to changes in interest rates.

***Variable-Rate Securities.*** These securities are investments with terms that provide for the adjustment of their interest rates on set dates and are expected to have fair values that will be relatively unaffected by interest rate changes. Variable-rate securities may have limits on how high or low the interest rate may change. These constraints may affect the market value of the security.

***Callable Bonds.*** Although bonds are issued with clearly defined maturities, an issuer may be able to redeem, or call, a bond earlier than its maturity date. The University must then replace the called bond with a bond that may have a lower yield than the original. The call feature causes the fair value to be highly sensitive to changes in interest rates.

At June 30, the effective durations for these securities are as follows:

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| Mortgage-backed securities | 4.0 | 4.0 | 4.5 | 3.8 | 3.8 | 2.8 |
| Collateralized mortgage obligations | 2.7 | 2.4 | 12.5 | 1.1 | 2.7 | 2.2 |
| Other asset-backed securities | 1.5 | 2.2 | 5.1 | (0.4) | 1.0 | 1.4 |
| Variable-rate securities | 1.9 | 1.8 | | | 1.1 | 3.0 |
| Callable bonds | 3.4 | 3.7 | | | 4.0 | 3.8 |
| Convertible bonds | 2.6 | | | | 2.5 | |

### Foreign Currency Risk

The University's strategic asset allocation policy for TRIP, UCRS and GEP includes allocations to non-U.S. equities and non-dollar-denominated bonds. The benchmarks for these investments are not hedged; therefore foreign currency risk is an essential part of the investment strategies. Portfolio guidelines for U.S. investment-grade fixed-income securities also allow exposure to non-U.S. dollar-denominated bonds up to 10 percent of the total portfolio market value. Exposure to foreign currency risk from these securities is permitted and it may be fully or partially hedged using forward foreign currency exchange contracts. Under the University's investment policies, such instruments are not permitted for speculative use or to create leverage. Similar limits on foreign exchange exposure apply to the high-yield debt and emerging market debt portfolios (10 percent and 20 percent, respectively).

At June 30, the foreign currency risk expressed in U.S. dollars, organized by currency denomination and investment type, are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** | **2017** | **2016** |
| *Equity securities:* | | | | | | |
| Euro | $759,929 | $361,718 | $769 | | $2,986,605 | $2,175,068 |
| British Pound | 262,100 | 244,974 | 1,474 | $1,388 | 1,499,151 | 1,473,068 |
| Japanese Yen | 369,665 | 215,890 | | | 1,550,471 | 1,298,182 |
| Canadian Dollar | 144,272 | 77,602 | 6,248 | 7,556 | 633,561 | 466,630 |
| Swiss Franc | 124,593 | 96,146 | 531 | | 663,977 | 578,144 |
| Australian Dollar | 103,068 | 57,003 | 569 | 46 | 430,715 | 342,768 |
| Hong Kong Dollar | 128,176 | 27,517 | | | 307,976 | 165,462 |
| Swedish Krona | 69,605 | 33,033 | | | 263,079 | 198,633 |
| Singapore Dollar | 19,405 | 10,836 | | | 81,366 | 65,158 |
| Danish Krone | 23,677 | 14,184 | | | 142,740 | 85,287 |
| Norwegian Krone | 11,842 | 8,340 | | | 57,344 | 50,152 |
| South Korean Won | 84,359 | 48,976 | 16,356 | 14,140 | 473,711 | 294,499 |
| Brazilian Real | 25,154 | | | | 29,725 | |
| Indian Rupee | | 25,057 | | | 256,239 | 150,671 |
| New Taiwan Dollar | 69,843 | 20,720 | | | 204,806 | 124,590 |
| South African Rand | 31,699 | | | | 147,473 | |
| Thailand Baht | 10,014 | | | | 115,393 | |
| Other | 85,373 | 64,344 | 109 | 1,357 | 280,101 | 386,915 |
| **Subtotal** | **2,322,774** | **1,306,340** | **26,056** | **24,487** | **10,124,433** | **7,855,227** |
| *Fixed-income securities:* | | | | | | |
| Euro | | | | | | 1,779 |
| Other | | | | | | 2,111 |
| **Subtotal** | | | | | | **3,890** |
| *Commingled funds (various currency denominations):* | | | | | | |
| Absolute return funds | | | 706,875 | | | |
| Non-U.S. equity funds | 2,077,584 | 2,883,950 | 919,576 | 547,487 | 9,264,782 | 7,502,378 |
| Private equity | 1,029 | | 64,435 | 53,542 | 114,400 | 115,477 |
| Real estate investment trusts | | | 80,769 | 17,103 | | |
| Real assets | 14,304 | 9,145 | 49,514 | | 81,055 | 51,820 |
| Non U.S. bond funds | 132,608 | 44,720 | 16,434 | 3,229 | 15 | |
| Balanced funds | | | 129,917 | 238,192 | | |
| **Subtotal** | **2,225,525** | **2,937,815** | **1,967,520** | **859,553** | **9,460,252** | **7,669,675** |
| *Investment derivatives:* | | | | | | |
| Australian Dollar | 5 | 1,439 | | | (10) | 64 |
| Canadian Dollar | (3) | 33 | | | (40) | 266 |
| British Pound | (10) | 2,263 | | | (244) | 17,058 |
| Japanese Yen | (52) | (893) | | | (584) | 64 |
| Hong Kong Dollar | | (2,142) | | | (7) | 203 |
| Other | 85 | 259 | | | (103) | 1,219 |
| **Subtotal** | **25** | **959** | | | **(988)** | **18,874** |
| *Publicly traded real estate investment trusts:* | | | | | | |
| Australian Dollar | 10,092 | 6,562 | | | 44,367 | 44,160 |
| Euro | 9,243 | 5,851 | | | 42,055 | 39,377 |
| British Pound | 7,163 | 4,106 | | | 30,546 | 27,632 |
| Japanese Yen | 9,295 | 4,388 | | | 29,856 | 29,527 |
| South African Rand | 2,578 | 1,097 | | | 10,100 | 7,381 |
| Singapore Dollar | 4,139 | 810 | | | 12,441 | 5,454 |
| Canadian Dollar | 1,724 | 881 | | | 6,342 | 5,927 |
| Mexican Peso | 952 | 446 | | | 3,047 | 3,004 |
| Other | 2,386 | 559 | | | 5,913 | 3,764 |
| **Subtotal** | **47,572** | **24,700** | | | **184,667** | **281,703** |
| **Total exposure to foreign currency risk** | **$4,595,896** | **$4,269,814** | **$1,993,576** | **$884,040** | **$19,768,364** | **$15,713,892** |

### *Liquidity Risks*

Alternative investments are subject to liquidity risk. Alternative investments include hedge funds, limited partnerships, private equity, venture capital funds, real estate and real assets funds. Additionally, certain asset-backed securities are thinly traded and subject to liquidity risk.

Alternative investments include ownership interests in a wide variety of vehicles including partnerships and corporations that may be domiciled in the United States or offshore. Generally, there is little or no regulation of these investment vehicles by the Securities and Exchange Commission or the applicable state agencies. Managers of these investments employ a wide variety of strategies and have areas of concentration including absolute return, venture capital or early stage investing, private equity or later stage investing and the underlying investments may be leveraged to enhance the total investment return. Each asset class has guidelines and policies regarding the use of leverage. Such underlying investments may include financial assets such as marketable securities, non-marketable securities, derivatives and other synthetic and structured investments as well as tangible and intangible assets.

Alternative investments do not have a ready market and ownership interests in these investment vehicles may not be traded without the approval of the general partner or fund management. These investments are subject to the risks generally associated with equities and fixed-income instruments with additional risks due to leverage and the lack of a ready market for acquisition or disposition of ownership interests.

The University's portfolio includes the following investments subject to liquidity risk as of June 30:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** | **2017** | **2016** |
| Absolute return funds | $3,962,553 | $3,168,124 | $2,177,012 | $1,878,461 | $4,987,355 | $4,626,070 |
| Private equity funds | 1,388,163 | 1,180,827 | 708,680 | 621,712 | 2,939,524 | 2,822,693 |
| Real estate funds | 354,597 | 937,421 | 119,516 | 116,536 | 1,834,232 | 2,978,950 |
| Real estate investment trusts | 460,025 | 9,439 | 150,846 | 95,519 | 1,633,123 | 515,960 |
| Real assets funds | 206,076 | 182,861 | | | 866,245 | 960,923 |
| **Total** | **$6,371,414** | **$5,478,672** | **$3,156,054** | **$2,712,228** | **$12,260,479** | **$11,904,596** |

## The University's Investment Pools

The composition of the University's investments at June 30, 2017, by investment pool, are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | | | |
|---|---|---|---|---|---|
| | **STIP** | **TRIP** | **GEP** | **OTHER** | **TOTAL** |
| *Equity securities:* | | | | | |
| Domestic | | $1,650,101 | $877,439 | $114,238 | $2,641,778 |
| Foreign | | 1,399,551 | 880,977 | 42,246 | 2,322,774 |
| *Fixed- or variable-income securities:* | | | | | |
| U.S. government-guaranteed | $969,940 | 637,044 | 491,287 | 7,694 | 2,105,965 |
| Other U.S. dollar-denominated | 7,667,967 | 3,390,550 | 660,701 | 21,602 | 11,740,820 |
| Commingled funds | 68,175 | 1,711,540 | 6,605,800 | 1,233,267 | 9,618,782 |
| Investment derivatives | | (162) | (73) | (6) | (241) |
| Publicly traded real estate investment trusts | | 103,542 | 44,677 | 4,417 | 152,636 |
| Mortgage loans | 358,890 | | | | 358,890 |
| Real estate | | 137,615 | 177,927 | 39,055 | 354,597 |
| Other investments | | | | 12,390 | 12,390 |
| **Subtotal** | **9,064,972** | **9,029,781** | **9,738,735** | **1,474,903** | **29,308,391** |
| Campus foundations' investments with the University | (1,048,911) | (26,701) | (918,008) | (157,877) | (2,151,497) |
| UCRS investment in the STIP | (2,678,532) | | | | (2,678,532) |
| **Total investments** | **$5,337,529** | **$9,003,080** | **$8,820,727** | **$1,317,026** | **$24,478,362** |

The composition of the University's investments at June 30, 2016, by investment pool, are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | | | |
|---|---|---|---|---|---|
| | STIP | TRIP | GEP | OTHER | TOTAL |
| *Equity securities:* | | | | | |
| Domestic | | $1,146,426 | $727,457 | $105,569 | $1,979,452 |
| Foreign | | 545,738 | 725,650 | 34,952 | 1,306,340 |
| *Fixed- or variable-income securities:* | | | | | |
| U.S. government-guaranteed | $186,557 | 478,848 | 397,424 | 8,624 | 1,071,453 |
| Other U.S. dollar-denominated | 7,701,979 | 3,472,313 | 508,083 | 23,874 | 11,706,249 |
| Commingled funds | 94,408 | 2,590,458 | 5,775,631 | 237,763 | 8,698,260 |
| Investment derivatives | | 28 | 8,176 | 23 | 8,227 |
| Publicly traded real estate investment trusts | | 50,082 | 45,861 | 4,663 | 100,606 |
| Mortgage loans | 319,038 | | | | 319,038 |
| Real estate | | 373,354 | 528,850 | 35,217 | 937,421 |
| Other investments | | | | 13,786 | 13,786 |
| **Subtotal** | **8,301,982** | **8,657,247** | **8,717,132** | **464,471** | **26,140,832** |
| Campus foundations' investments with the University | (693,159) | (19,398) | (785,515) | (106,144) | (1,604,216) |
| UCRS investment in the STIP | (2,327,849) | | | | (2,327,849) |
| **Total investments** | **$5,280,974** | **$8,637,849** | **$7,931,617** | **$358,327** | **$22,208,767** |

The total investment returns based upon unit values, representing the combined income plus net appreciation or depreciation in the fair value of investments, for the years ended June 30, 2017 and 2016, were 7.7 and 0.3 percent, respectively for TRIP, 15.1 and (3.5) percent, respectively for GEP and 14.5 and (2.0) percent, respectively for UCRS. The investment return for STIP distributed to participants, representing combined income and realized gains or losses, during the same periods, was 1.3 percent. Other investments consist of numerous, small portfolios of investment or individual securities, each with its own individual rate of return.

## Related Party Relationships with the University

UCRS and campus foundations may invest available cash in STIP. Shares are purchased or redeemed in STIP at a constant value of $1 per share. Actual income earned, including any realized gains or losses on the sale of STIP investments, is allocated to UCRS and campus foundations based upon the number of shares held. Unrealized gains and losses associated with the fluctuation in the fair value of investments included in STIP are recorded by the University as the manager of the pool. The net asset value for STIP is held at a constant value of $1 and is not adjusted for unrealized gains and losses associated with the fluctuation in the fair value of investments included in STIP.

The campus foundations may also purchase or redeem shares in GEP, TRIP or other investment pools at the unitized value of the portfolio at the time of purchase or redemption. Actual income earned is allocated to the campus foundations based upon the number of shares held.

## Campus Foundations

The campus foundations' cash and cash equivalents and investments that are invested with the University and managed by the Chief Investment Officer are excluded from the University's statement of net position and included in the campus foundations' statement of net position. Under the accounting policies elected by each campus foundation, certain component units classify all or a portion of their investment in STIP and TRIP as cash and cash equivalents, rather than investments. Substantially, all of the campus foundations' investments managed by the Chief Investment Officer are categorized as commingled funds or commingled money market funds by the campus foundations in the composition of investments.

The fair value of the campus foundations' cash and cash equivalents and investments that are invested with the University, by investment pool, at June 30 are as follows:

| *(in thousands of dollars)* | **2017** | **2016** |
|---|---|---|
| STIP | $1,048,910 | $693,159 |
| TRIP | 26,701 | 19,398 |
| GEP | 918,008 | 785,515 |
| Other investment pools | 157,878 | 106,144 |
| **Campus foundations' investments with the University** | **2,151,497** | **1,604,216** |
| Classified as cash and cash equivalents by campus foundations | (154,662) | (28,183) |
| **Classified as investments by campus foundations** | **$1,996,835** | **$1,576,033** |

Investment income in the University's statement of revenues, expenses and changes in net position is net of income earned by, and distributed to, the campus foundations totaling $21.9 million and $18.3 million for the years ended June 30, 2017 and 2016, respectively.

## UCRS

UCRS had $2.7 billion and $2.3 billion invested in STIP at June 30, 2017 and 2016, respectively. These investments are excluded from the University's statement of net position and are included in UCRS' statement of plans' fiduciary net position. They are categorized as commingled money market funds in the composition of investments for UCRS. STIP investment income in the University's statement of revenues, expenses and changes in net position is net of income earned by, and distributed to, UCRS totaling $31.2 million and $30.1 million for the years ended June 30, 2017 and 2016, respectively.

## Agency Relationships with the University

STIP and GEP are external investment pools and include investments on behalf of external organizations that are associated with the University, although not financially accountable to the University. These organizations are not required to invest in these pools. Participants purchase or redeem shares in STIP at a constant value of $1 per share and purchase or redeem shares in GEP at the unitized value of the portfolio at the time of purchase or redemption. Actual income earned is allocated to participants based upon the number of shares held.

The fair value of these investments in each investment pool and the related liability associated with these organizations that are included in the University's statement of net position at June 30 are as follows:

| *(in thousands of dollars)* | **2017** | **2016** |
|---|---|---|
| *Short-term investments:* | | |
| STIP | $103,291 | $86,176 |
| GEP | 259,330 | 224,821 |
| Other investment pools | | 16,432 |
| **Total agency assets** | **$362,621** | **$327,429** |
| **Funds held for others** | **$362,621** | **$327,429** |

The composition of the net position at June 30 for STIP and GEP are as follows:

| *(in thousands of dollars)* | **STIP** | | **GEP** | |
|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** |
| Investments | $9,064,972 | $8,301,982 | $9,738,735 | $8,717,132 |
| Investment of cash collateral | 44,176 | 38,760 | 342,833 | 356,794 |
| Securities lending collateral | (44,155) | (38,748) | (342,677) | (356,764) |
| Other assets, net | 2,437,063 | 2,428,681 | 850,451 | 211,974 |
| **Net position** | **$11,502,056** | **$10,730,675** | **$10,589,342** | **$8,929,136** |

Other assets include amounts receivable for pension benefits from the campuses and medical centers of $2.7 billion and $2.3 billion at June 30, 2017 and 2016, respectively.

The changes in net position for STIP and GEP for the year ending June 30 are as follows:

| *(in thousands of dollars)* | STIP | | GEP | |
|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** |
| Net position, beginning of year | $10,730,675 | $12,258,256 | $8,929,136 | $8,921,362 |
| Investment income | 159,038 | 141,298 | 92,781 | 77,911 |
| Net appreciation (depreciation) in fair value of investments | (28,695) | 3,724 | 1,309,458 | (382,996) |
| Transfer to TRIP | (60,000) | (1,768,504) | | |
| Participant contributions (withdrawals), net | 701,038 | 95,901 | 257,967 | 312,859 |
| **Net position, end of year** | **$11,502,056** | **$10,730,675** | **$10,589,342** | **$8,929,136** |

## 3. SECURITIES LENDING

The University and UCRS jointly participate in a securities lending program as a means to augment income. The campus foundations' investments that are invested with the University and managed by the Chief Investment Officer are included in the University's investment pools that participate in the securities lending program.

The campus foundations' allocated share of the program's cash collateral received, investment of cash collateral and collateral held for securities lending is determined based upon their equity in the investment pools. The Board of Trustees for each campus foundation may also authorize participation in a direct securities lending program.

Securities are lent to selected brokerage firms for which collateral received equals or exceeds the fair value of such investments lent during the period of the loan. Securities loans immediately terminate upon notice by either the University or the borrower. Collateral may be cash or securities issued by the U.S. government or its agencies, or the sovereign or provincial debt of foreign countries. Securities collateral cannot be pledged or sold by the University unless the borrower defaults.

Loans of domestic equities and all fixed-income securities are initially collateralized at 102 percent of the fair value of securities lent. Loans of foreign equities are initially collateralized at 105 percent. All borrowers are required to provide additional collateral by the next business day if the value of the collateral falls to less than 100 percent of the fair value of securities lent.

Cash collateral received from the borrower is invested by lending agents, as agents for the University, in investment pools in the name of the University, with guidelines approved by the University. These investments are shown as investment of cash collateral in the statement of net position. At June 30, 2017 and 2016, the securities in these pools had a weighted average maturity of 20 days and 34 days, respectively. The University records a liability for the return of the cash collateral shown as collateral held for securities lending in the statement of net position. Securities collateral received from the borrower is held in investment pools by the University's custodial bank.

At June 30, 2017 and 2016, the University had insignificant exposure to borrowers because the amounts the University owed the borrowers were substantially the same as the amounts the borrowers owed the University. The University is indemnified by its lending agents against any losses incurred as a result of borrower default.

The composition of the securities lending programs at June 30 are as follows:

| (in thousands of dollars) | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| **SECURITIES LENT** | | | | | | |
| *For cash collateral:* | | | | | | |
| Equity securities: | | | | | | |
| Domestic | $522,489 | $428,032 | | | $2,789,711 | $3,910,177 |
| Foreign | 40,881 | 35,420 | | | 129,824 | 124,796 |
| Fixed-income securities: | | | | | | |
| U.S. government-guaranteed | 73,204 | 120,898 | | | 803,431 | 990,162 |
| Other U.S. dollar-denominated | 449,910 | 270,848 | | | 2,856,772 | 1,639,228 |
| Foreign currency-denominated | 11,173 | | | | 109,797 | |
| Foundations' share | (42,581) | (41,973) | $42,581 | $41,973 | | |
| **Lent for cash collateral** | **1,055,076** | **813,225** | **42,581** | **41,973** | **6,689,535** | **6,664,363** |
| *For securities collateral:* | | | | | | |
| Equity securities: | | | | | | |
| Domestic | 444,681 | 215,992 | | | 3,025,219 | 1,823,980 |
| Foreign | 271,071 | 148,851 | | | 826,781 | 667,413 |
| Fixed-income securities: | | | | | | |
| U.S. government-guaranteed | 164,400 | 111,328 | | | 2,132,793 | 2,526,750 |
| Other U.S. dollar-denominated | 77,881 | 134,092 | | | 505,610 | 510,090 |
| Foreign currency-denominated | 1,959 | | | | 15,081 | |
| **Lent for securities collateral** | **959,992** | **610,263** | | | **6,505,484** | **5,528,233** |
| **Total securities lent** | **$2,015,068** | **$1,423,488** | **$42,581** | **$41,973** | **$13,195,019** | **$12,192,596** |
| **COLLATERAL RECEIVED** | | | | | | |
| Cash | $1,121,899 | $866,650 | | | $6,838,416 | $6,749,519 |
| Foundations' share | (42,581) | (41,973) | $42,581 | $41,973 | | |
| **Total cash collateral received** | **1,079,318** | **824,677** | **$42,581** | **41,973** | **6,838,416** | **6,749,519** |
| Securities | 1,032,497 | 655,859 | | | 6,992,564 | 5,941,271 |
| **Total collateral received** | **$2,111,815** | **$1,480,536** | **$42,581** | **$41,973** | **$13,830,980** | **$12,690,790** |
| **INVESTMENT OF CASH COLLATERAL** | | | | | | |
| *Fixed-income securities:* | | | | | | |
| Other U.S. dollar-denominated: | | | | | | |
| Corporate bonds | $105,460 | $105,385 | | | $642,818 | $820,737 |
| Commercial paper | 77,753 | | | | 473,932 | |
| Repurchase agreements | 309,356 | 194,582 | | | 1,885,644 | 1,515,418 |
| Corporate - asset-backed securities | 28,855 | 71,220 | | | 175,884 | 554,664 |
| Certificates of deposit/time deposits | 542,834 | 459,963 | | | 3,308,794 | 3,582,215 |
| Supranational/foreign | 58,751 | 35,716 | | | 358,112 | 278,161 |
| Other assets (liabilities), net* | (599) | 38 | | | (3,654) | 297 |
| Foundations' share | (42,581) | (41,973) | $42,581 | $41,973 | | |
| **Investment of cash collateral** | **1,079,829** | **824,931** | **$42,581** | **41,973** | **$6,841,530** | **$6,751,492** |
| Less: Current portion | (947,353) | (680,838) | (37,357) | (34,641) | | |
| **Noncurrent portion** | **$132,476** | **$144,093** | **$5,224** | **$7,332** | | |

** Other assets (liabilities), net is comprised of pending settlements of cash collateral investments.*

The University earns interest and dividends on the collateral held during the loan period, as well as a fee from the brokerage firm, and is obligated to pay a fee and rebate to the borrower. The University receives the net investment income. The securities lending income and fees and rebates for the year ended June 30 are as follows:

| *(in thousands of dollars)* | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| Securities lending income | $15,628 | $8,840 | $771 | $581 | $89,075 | $60,415 |
| Securities lending fees and rebates | (7,124) | (2,558) | (352) | (166) | (40,610) | (16,440) |
| **Securities lending investment income, net** | **$8,504** | **$6,282** | **$419** | **$415** | **$48,465** | **$43,975** |

## Investment Risk Factors

There are a variety of potential risk factors involved in a securities lending program. Risks associated with the investment of cash collateral may include the credit risk from fixed-income securities, concentration of credit risk, interest rate risk and foreign currency risk. In addition, there may be custodial credit risk associated with both cash and securities received as collateral for securities lent.

The University's and UCRS' investment policies and other information related to each of these risks are summarized below. Campus foundations that participate in a securities lending program may have their own individual investment policies designed to limit the same risks.

### *Credit Risk*

The University's and UCRS' investment policies for the investment of cash collateral maintained in separately managed collateral pools restrict the credit rating of issuers at the time of purchase to no less than A-1, P-1 or F-1 for short-term securities and no less than A2/A for long-term securities. Asset-backed securities must have a rating of AAA at the time of purchase.

The credit risk profile for fixed- or variable-income securities associated with the investment of cash collateral at June 30 are as follows:

| *(in thousands of dollars)* | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| *Fixed- or variable-income securities:* | | | | | | |
| Other U.S. dollar-denominated: | | | | | | |
| AAA | $84,224 | $89,504 | | | $513,378 | $697,065 |
| AA+ | | 19,936 | | | | 155,262 |
| AA- | 146,141 | 104,931 | | | 890,788 | 817,206 |
| A+ | 130,473 | 145,590 | | | 795,284 | 1,133,866 |
| A | 123,225 | 61,267 | | | 751,104 | 477,147 |
| A- | 50,772 | 37,911 | | | 309,473 | 295,251 |
| A-1 / A-2 / P-1/ F-1 | 278,819 | 213,144 | | | 1,699,513 | 1,659,981 |
| Not rated | | | | | | |
| Other assets (liabilities) net*: Not rated | (599) | 38 | | | (3,654) | 297 |
| Campus foundations' share | (42,581) | (41,973) | 42,581 | 41,973 | | |

** Other assets (liabilities), net is comprised of pending settlements of cash collateral investments.*

### *Custodial Credit Risk*

Cash collateral received for securities lent is invested in pools by the University's lending agents. The University's and UCRS' securities related to the investment of cash collateral are registered in the University's name by the lending agents. Securities collateral received for securities lent are held in investment pools by the University's lending agents. As a result, custodial credit risk is remote.

### *Concentration of Credit Risk*

The University's and UCRS' investment policy with respect to the concentration of credit risk associated with the investment of cash collateral in the separately managed collateral pools restricts investments in any single issuer of corporate debt securities, time deposits, certificates of deposit, bankers acceptances and money market funds to no more than 5 percent of the portfolio value at the time of purchase. Campus foundations that directly participate in a securities lending program do not have specific investment policies related to concentration of credit risk, although the lending agreements with the agents establish restrictions for the type of investments and minimum credit ratings.

Investments in issuers other than U.S. government-guaranteed securities that represent 5 percent or more of the total investment of cash collateral held by individual component units at June 30 are as follows:

| *(in thousands of dollars)* | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** |
| Goldman Sachs & Company | $63,421 | | $386,579 | |
| Svenska Handelsbanken AB | | $56,331 | | $438,705 |
| Morgan Stanley & Co LLC | 84,562 | | 515,438 | |

### *Interest Rate Risk*

The nature of individual securities in the collateral pools allows for the use of weighted average maturity as an effective risk management measure. The University's and UCRS' investment policy with respect to the interest rate risk associated with the investment of cash collateral in the separately managed collateral pools requires the weighted average maturity of the entire collateral pool to be less than 120 days. The maturity of securities issued by the U.S. government and asset-backed securities must be less than five years, corporate debt obligations must be less than two years and time deposits must be less than 190 days. Floating rate debt may be used, but it is limited to 65 percent of the market value of the portfolio.

The weighted average maturity expressed in days for fixed- or variable-income securities associated with the investment of cash collateral at June 30 are as follows:

| *(in days)* | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** |
| *Fixed- or variable-income securities:* | | | | |
| Other U.S. dollar-denominated: | | | | |
| Corporate bonds | 38 | 44 | 38 | 44 |
| Commercial paper | 19 | | 19 | |
| Repurchase agreements | 9 | 8 | 9 | 8 |
| Corporate-asset-backed securities | 97 | 18 | 97 | 18 |
| Certificates of deposit/time deposits | 19 | 46 | 19 | 46 |
| Supranational/foreign | 17 | 26 | 17 | 26 |

Investment of cash collateral may include various asset-backed securities, structured notes and variable-rate securities that may be considered to be highly sensitive to changes in interest rates due to the existence of prepayment or conversion features, although the weighted average maturity may be short.

At June 30 the fair value of investments that are considered to be highly sensitive to changes in interest rates are as follows:

| *(in thousands of dollars)* | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | |
|---|---|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** | **2017** | **2016** |
| Other asset-backed securities | $87,606 | $89,504 | | | $533,996 | $697,064 |
| Variable-rate investments | 802,491 | 536,906 | | | 4,891,500 | 4,181,454 |
| Campus foundations' share | (33,767) | (31,125) | $33,767 | $31,125 | | |
| **Total** | **$856,330** | **$595,285** | **$33,767** | **$31,125** | **$5,425,496** | **$4,878,518** |

At June 30, 2017 and 2016, the weighted average maturity expressed in days for asset-backed securities was 43 days and 18 days, respectively and for variable-rate investments was 19 days and 23 days, respectively.

### *Foreign Currency Risk*

The University's and UCRS' investment policy with respect to the foreign currency risk associated with the investment of cash collateral maintained in separate collateral pools restricts investments to U.S. dollar-denominated securities. Therefore, there is no foreign currency risk.

## 4. DERIVATIVE FINANCIAL INSTRUMENTS

The University may use derivatives including futures, forward contracts, options and interest rate swap contracts as a substitute for investment in equity and fixed-income securities, to reduce the effect of fluctuating foreign currencies on foreign currency-denominated investments, or to limit its exposure of variable-rate bonds to changes in market interest rates. The Board of Trustees for each campus foundation may also authorize derivatives in its investment policy.

The University enters into futures contracts for the purpose of acting as a substitute for investment in equity and fixed-income securities. A futures contract is an agreement between two parties to buy and sell a security or financial index, interest rate or foreign currency at a set price on a future date. They are standardized contracts that can be easily bought and sold and are exchange-traded. Upon entering into such a contract, the University is required to pledge to the broker an amount of cash or securities equal to the minimum initial margin requirements of the exchange on which the contract is traded. Pursuant to the contract, the University agrees to receive from, or pay to, the counterparty an amount of cash equal to the daily fluctuation in the value of the contract. These contracts are settled on a daily basis, with the resulting realized gain or loss included in the statement of revenues, expenses and changes in net position. The settlement amount at the end of each day for each of the contracts, or variation margin, is included in investments and represents the fair value of the contracts.

Forward contracts are similar to futures contracts, although they are not exchange-traded. Foreign currency exchange contracts are forward contracts used to hedge against foreign currency exchange rate risks on non-U.S. dollar-denominated investment securities and to increase or decrease exposure to various foreign currencies.

An option contract gives the University the right, but not the obligation, to buy or sell a specified security or index at a fixed price during a specified period for a nonrefundable fee (the "premium"). The maximum loss to the University is limited to the premium originally paid for covered options. The University initially records premiums paid for the purchase of these options in the statement of net position as an investment which is subsequently adjusted to reflect the fair value of the options, with unrealized gains and losses included in the statement of revenues, expenses and changes in net position.

Rights and warrants provide the holder with the right, but not the obligation, to buy a stock at a predetermined price for a finite period of time. Warrants usually have a longer time period to expiration. The holder of a right or warrant is permitted to buy at a price that may be below the actual market price for that stock. Warrants and rights cease to exist and become worthless if not used by their expiration date.

An interest rate swap is a contractual agreement entered into between the University and a counterparty under which each agrees to exchange periodic fixed or variable payments for an agreed period of time based upon a notional amount of principal or value of the underlying contract. The payments correspond to an equity index, an interest rate or to currency. A credit default swap is an agreement whereby the seller will compensate the buyer in the event of a loan default. A swaption is an option granting its owner the right but not the obligation to enter into an underlying swap. The University considers its futures, forward contracts, options, credit default swaps, swaptions, rights, warrants and certain interest rate swaps to be investment derivatives.

As a means to lower the University's borrowing costs, when compared against fixed-rate bonds at the time of issuance, the University entered into interest rate swap agreements in connection with certain of its variable-rate Medical Center Pooled Revenue Bonds and General Revenue Bonds. The University determined that certain of its interest rate swaps are derivative instruments that meet the criteria for an effective hedge. Certain of the interest rate swaps are considered hybrid instruments since, at the time of execution, the fixed rate on each of the swaps was off-market and the University received an up-front payment. As such, these swaps are comprised of a derivative instrument, an at-the-market swap that is an effective hedge, and a companion instrument, a borrowing represented by the up-front payment. The unamortized amount of the borrowing under the companion instruments was $79.0 million and $40.0 million at June 30, 2017 and 2016, respectively.

In August 2016, the University replaced the counterparty for certain of its interest rate swap agreements and discontinued hedge accounting on interest rate swaps with a notional value of $174.8 million. The University recognized a decrease in net position upon hedge termination of $41.2 million on the statement of revenues, expenses and changes in net position. The University determined that the interest rate swap agreements with the new counterparty are derivative instruments that meet the criteria for an effective hedge. These interest rate swaps are considered hybrid instruments since, at the time of execution, the University received an up-front payment of $82.5 million. As such, the swaps consist of an at-the-market swap derivative instrument and a borrowing, represented by the up-front payment.

The fair value balances and notional amounts of derivative instruments outstanding at June 30, categorized by type, and the changes in fair value of such derivatives are as follows:

## University of California

*(in thousands of dollars)*

| | NOTIONAL AMOUNT | | FAIR VALUE–POSITIVE (NEGATIVE) | | | CHANGES IN FAIR VALUE | | |
|---|---|---|---|---|---|---|---|---|
| CATEGORY | 2017 | 2016 | CLASSIFICATION | 2017 | 2016 | CLASSIFICATION | 2017 | 2016 |
| **INVESTMENT DERIVATIVES** | | | | | | | | |
| *Futures contracts:* | | | | | | | | |
| Domestic equity futures: | | | | | | | | |
| Long positions | $21 | $267 | Investments | $(360) | $7,256 | Net appreciation (depreciation) | $(361) | $24,093 |
| Short positions | | | Investments | | | Net appreciation (depreciation) | | (2) |
| Foreign futures: | | | | | | | | |
| Long positions | 78 | 82 | Investments | (47) | 714 | Net appreciation (depreciation) | 7,998 | (7,560) |
| Short positions | | (13,377) | Investments | | 7,982 | Net appreciation (depreciation) | (17,090) | 12,942 |
| **Futures contracts, net** | | | | **(407)** | **15,952** | | **(9,453)** | **29,473** |
| *Foreign currency exchange contracts, net*:* | | | | | | | | |
| Long positions | 217,069 | 242,859 | Investments | (46) | 742 | Net appreciation (depreciation) | 6,800 | 2,430 |
| Short positions | | (18,428,479) | Investments | | (8,576) | Net appreciation (depreciation) | 15,053 | (10,835) |
| **Futures currency exchange contracts, net** | | | | **(46)** | **(7,834)** | | **21,853** | **(8,405)** |
| *Swaps:* | | | | | | | | |
| Credit default swaps | | | Investments | | | Net appreciation (depreciation) | | (2) |
| Fixed interest rate swaps | | | Investments | | | Net appreciation (depreciation) | | 10 |
| **Swaps, net** | | | | | | | | **8** |
| *Other:* | | | | | | | | |
| Stock rights/warrants | 680 | 710 | Investments | 212 | 109 | Net appreciation (depreciation) | 22 | 248 |
| **Other, net** | | | | **212** | **109** | | **22** | **248** |
| **Total investment derivatives** | | | | **$(241)** | **$8,227** | | **$12,422** | **$21,324** |
| **CASH FLOW HEDGES** | | | | | | | | |
| *Effective interest rate swaps:* | | | | | | | | |
| Pay fixed, receive variable | $842,315 | $845,655 | Other assets (liabilities) | $(90,232) | $(152,123) | Deferred (inflows) outflows | $61,891 | $(61,030) |

**Notional amount reported in local currency.*

## University of California Campus Foundations

*(in thousands of dollars)*

| CATEGORY | NOTIONAL AMOUNT 2017 | NOTIONAL AMOUNT 2016 | FAIR VALUE–POSITIVE (NEGATIVE) CLASSIFICATION | FAIR VALUE 2017 | FAIR VALUE 2016 | CHANGES IN FAIR VALUE CLASSIFICATION | CHANGES 2017 | CHANGES 2016 |
|---|---|---|---|---|---|---|---|---|
| **INVESTMENT DERIVATIVES** | | | | | | | | |
| Options/swaptions | | $6,902 | Investments | $7 | $247 | Net appreciation (depreciation) | | $247 |
| Swaps | $226,752 | 179,812 | | 1,988 | 2,529 | | $32,340 | 2,529 |
| **Total investment derivatives** | | | | **$1,995** | **$2,776** | | **$32,340** | **$2,776** |

## University of California Retirement System

*(in thousands of dollars)*

| CATEGORY | NOTIONAL AMOUNT 2017 | NOTIONAL AMOUNT 2016 | FAIR VALUE–POSITIVE (NEGATIVE) CLASSIFICATION | FAIR VALUE 2017 | FAIR VALUE 2016 | CHANGES IN FAIR VALUE CLASSIFICATION | CHANGES 2017 | CHANGES 2016 |
|---|---|---|---|---|---|---|---|---|
| **INVESTMENT DERIVATIVES** | | | | | | | | |
| *Futures contracts:* | | | | | | | | |
| Domestic equity futures: | | | | | | | | |
| Long positions | $8,687 | $195 | Investments | $(2,323) | $6,886 | Net appreciation (depreciation) | $(2,323) | $50,218 |
| Short positions | (17,400) | (8,312) | Investments | (19) | 133 | Net appreciation (depreciation) | (19) | 229 |
| Foreign equity futures: | | | | | | | | |
| Long positions | 1,236 | 25,039 | Investments | (1,060) | (15,237) | Net appreciation (depreciation) | 126,127 | (43,302) |
| Short positions | | | Investments | | | Net appreciation (depreciation) | (10,495) | (328) |
| **Futures contracts, net** | | | | **(3,402)** | **(8,218)** | | **113,290** | **6,817** |
| *Foreign currency exchange contracts, net*:* | | | | | | | | |
| Long positions | 2,482,250 | 34,426,314 | Investments | (528) | 16,277 | Net appreciation (depreciation) | 26,347 | (19,710) |
| Short positions | (1,611) | (4,500,715) | Investments | (26) | 17,189 | Net appreciation (depreciation) | 55,504 | 127,570 |
| **Foreign currency exchange contracts, net** | | | | **(554)** | **33,466** | | **81,851** | **107,860** |
| *Swaps:* | | | | | | | | |
| Credit default swaps | | | Investments | | | Net appreciation (depreciation) | | (37) |
| **Swaps, net** | | | | | | | | **(37)** |
| *Other:* | | | | | | | | |
| Stock rights/warrants | 1,583 | 4,704 | Investments | 954 | 673 | Net appreciation (depreciation) | (33) | 284 |
| Options/swaptions | | | Investments | | | Net appreciation (depreciation) | | 1 |
| **Other, net** | | | | **954** | **673** | | **(33)** | **285** |
| **Total investment derivatives** | | | | **$(3,002)** | **$25,921** | | **$195,108** | **$114,925** |

**Notional amount reported in local currency.*

## Objectives and Terms of Hedging Derivative Instruments

The objectives and terms of the hedging derivative instruments outstanding at June 30, along with the credit rating of the associated counterparty, are as follows:

*(in thousands of dollars)*

| TYPE | OBJECTIVE | NOTIONAL AMOUNT 2017 | NOTIONAL AMOUNT 2016 | EFFECTIVE DATE | MATURITY DATE | CASH PAID OR RECEIVED | TERMS | COUNTERPARTY CREDIT RATING | FAIR VALUE 2017 | FAIR VALUE 2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| **UNIVERSITY OF CALIFORNIA** | | | | | | | | | | |
| Pay fixed, receive variable interest rate swap | Hedge of changes in cash flows on variable-rate Medical Center Pooled Revenue Bonds | $67,540 | $70,880 | 2007 | 2032 | None | Pay fixed 3.5897%; receive 58% of 1-Month LIBOR* plus 0.48% | A1/A+ | $(9,423) | $(14,188) |
| Pay fixed, receive variable interest rate swap | Hedge of changes in cash flows on variable-rate Medical Center Pooled Revenue Bonds | 124,775 | 124,775 | 2008 | 2030 through 2043 | None | Pay fixed 4.6359%; receive 67% of 3-Month LIBOR* plus 0.69%** | Aa2/AA- | (40,420) | (57,603) |
| Pay fixed, receive variable interest rate swap | Hedge of changes in cash flows on variable-rate General Revenue Bonds | 400,000 | 400,000 | 2013 | 2023 | None | Pay fixed 1.8982%; receive 70% of 1-Month LIBOR* | Aa2/AA- | (12,552) | (32,588) |
| Pay fixed, receive variable interest rate swap | Hedge of changes in cash flows on variable-rate General Revenue Bonds | 100,000 | 100,000 | 2013 | 2023 | None | Pay fixed 1.9057%; receive 70% of 1-Month LIBOR* | Aa2/AA- | (3,182) | (8,199) |
| Pay fixed, receive variable interest rate swap | Hedge of changes in cash flows on variable-rate General Revenue Bonds | 100,000 | 100,000 | 2013 | 2023 | None | Pay fixed 1.8980%; receive 70% of 1-Month LIBOR* | Aa2/AA- | (3,137) | (8,146) |
| Pay fixed, receive variable interest rate swap | Hedge of changes in cash flows on variable-rate Medical Center Pooled Revenue Bonds | 24,250 | 24,250 | 2013 | 2045 | None | Pay fixed 4.741%; receive 67% of 3-Month LIBOR +0.79% | Aa2/AA- | (10,252) | (14,901) |
| Pay fixed, receive variable interest rate swap | Hedge of changes in cash flows on variable-rate Medical Center Pooled Revenue Bonds | 25,750 | 25,750 | 2013 | 2047 | None | Pay fixed 4.741%; receive 67% of 3-Month LIBOR +0.79% | Aa2/AA- | (11,266) | (16,498) |
| **Interest rate swaps, net** | | **$842,315** | **$845,655** | | | | | | **$(90,232)** | **$(152,123)** |

** London Interbank Offered Rate (LIBOR).*
***Weighted average spread.*

## Hedging Derivative Instrument Risk Factors

### *Credit Risk*

The University could be exposed to credit risk if the interest rate swap counterparties to the contracts are unable to meet the terms of the contracts. Contracts with positive fair values are exposed to credit risk. The University faces a maximum possible loss equivalent to the amount of the derivative's fair value, less any collateral held by the University provided by the counterparty. Contracts with negative fair values are not exposed to credit risk.

Although the University has entered into the interest rate swaps with creditworthy financial institutions to hedge its variable-rate debt, there is credit risk for losses in the event of non-performance by counterparties or unfavorable interest rate movements.

There are no collateral requirements related to the interest rate swap with the $67.5 million notional amount. Depending on the fair value and the counterparty credit rating for the swaps related to the Medical Center Pooled Revenue Bonds with the counterparty that is currently rated Aa2/AA- with a combined notional amount of $174.8 million, the University may be entitled to receive collateral to the extent the positive fair value exceeds $30.0 million. At June 30, 2017 and 2016, there was no collateral required.

Depending on the fair value and the counterparty credit rating for the swaps related to the General Revenue Bonds with the two counterparties that are currently rated Aa2/AA- with a combined notional amount of $600.0 million, the University may be entitled to receive collateral to the extent the positive fair value with each counterparty exceeds $30.0 million. At June 30, 2017 and 2016, there was no collateral required.

### *Interest Rate Risk*

There is a risk that the value of the interest rate swaps will decline because of changing interest rates. The values of the interest rate swaps with longer maturities tend to be more sensitive to changing interest rates and, therefore, more volatile than those with shorter maturities.

### *Basis Risk*

There is a risk that the basis for the variable payment received on interest rate swaps will not match the variable payment on the bonds. This exposes the University to basis risk whenever the interest rates on the bonds are reset. The interest rate on the bonds is a tax-exempt interest rate, while the basis of the variable receipt on the interest rate swaps is taxable. Tax-exempt interest rates can change without a corresponding change in the LIBOR rate due to factors affecting the tax-exempt market which do not have a similar effect on the taxable market. However, there is no basis or tax risk related to the swap with the $149.0 million notional amount since the variable rate the University pays to the bondholders matches the variable-rate payments received from the swap counterparty and the interest rates are reset at the same intervals.

### *Termination Risk*

There is termination risk for interest rate swaps associated with variable-rate bonds in the event of non-performance by counterparties in an adverse market resulting in cancellation of the synthetic interest rate and returning the interest rate payments to the variable interest rates on the bonds. In addition, depending on the agreement, certain interest rate swaps may be terminated if a counterparty's credit quality rating, as issued by Moody's or Standard & Poor's, falls below certain thresholds. For the interest rate swap with the $67.5 million notional amount, the termination threshold is reached when the credit quality rating for either the underlying Medical Center Pooled Revenue Bonds or swap counterparty falls below Baa2 or BBB. For the swaps with the combined $174.8 million notional amount, the termination threshold is reached when the credit quality rating for the underlying Medical Center Pooled Revenue Bonds falls below Baa3/BBB-, or the interest rate swap counterparty's rating falls below Baa2 or BBB.

For the swaps with notional amounts of $400.0 million and $100.0 million with a counterparty that is currently rated Aa2/AA-, the termination threshold is reached when the credit quality rating for the underlying General Revenue Bonds falls below Baa2 or BBB, or the swap counterparty's rating falls below A3 or A-. For the swap with a notional amount of $100.0 million with a counterparty that is currently rated Aa2/AA-, the termination threshold is reached when the credit quality rating for the underlying General Revenue Bonds falls below Baa2 or BBB, or the swap counterparty's rating falls below A3 or A-. Upon termination, the University may also owe a termination payment if there is a realized loss based on the fair value of each interest rate swap.

### *Rollover Risk*

The University is exposed to rollover risk on hedging derivative instruments that are hedges of debt that mature or may be terminated prior to the maturity of the hedged debt. When these hedging derivative instruments terminate, the University will be re-exposed to the risks being hedged by the hedging derivative instruments. The University is exposed to rollover risk on the interest rate swaps that mature in October 2023 because the hedged debt is scheduled to mature in May 2048.

## 5. FAIR VALUE

Fair value is defined in the accounting standards as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Assets and liabilities reported at fair value are organized into a hierarchy based on the levels of inputs observable in the marketplace that are used to measure fair value. Inputs are used in applying the various valuation techniques and take into account the assumptions that market participants use to make valuation decisions. Inputs may include price information, credit data, liquidity statistics and other factors specific to the financial instrument. Observable inputs reflect market data obtained from independent sources. In contrast, unobservable inputs reflect the entity's assumptions about how market participants would value the financial instrument.

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The following describes the hierarchy of inputs used to measure fair value and the primary valuation methodologies used for financial instruments measured at fair value on a recurring basis:

***Level 1*** – Prices based on unadjusted quoted prices in active markets that are accessible for identical assets or liabilities are classified as Level 1. Level 1 investments include equity securities and other publicly traded securities.

***Level 2*** – Quoted prices in markets that are not considered to be active, dealer quotations or alternative pricing sources for similar assets or liabilities for which all significant inputs are observable, either directly or indirectly, are classified as Level 2. Level 2 investments include fixed- or variable-income securities, commingled funds, certain derivatives and other assets that are valued using market information.

***Level 3*** – Investments classified as Level 3 have significant unobservable inputs, as they trade infrequently or not at all. The inputs into the determination of fair value of these investments are based upon the best information in the circumstance and may require significant management judgment. Level 3 investments include private equity investments, real estate and split interest agreements.

***Net Asset Value (NAV)*** – Investments whose fair value is measured at NAV are excluded from the fair value hierarchy. Investments in non-governmental entities that do not have a readily determinable fair value may be valued at NAV. Investments measured at NAV include hedge funds, private equity investments and commingled funds.

***Not Leveled*** – Cash and cash equivalents are not measured at fair value and, thus, are not subject to the fair value disclosure requirements.

The following tables summarize the investments and other assets reported at fair value within the fair value hierarchy as of June 30, 2017:

| *(in thousands of dollars)* | **UNIVERSITY OF CALIFORNIA** | | | | | |
|---|---|---|---|---|---|---|
| | Total | Quoted Prices in Active Markets | Other Observable Inputs | Unobservable Inputs | Net Asset Value | Not Leveled |
| | | (Level 1) | (Level 2) | (Level 3) | (NAV) | |
| Equity securities | $4,964,552 | $4,875,376 | | $22,941 | $66,235 | |
| Fixed- or variable-income securities: | | | | | | |
| U.S. government-guaranteed | 2,105,965 | | $2,105,965 | | | |
| Other U.S. dollar-denominated | 11,740,820 | | 11,617,785 | 123,035 | | |
| Commingled funds | 9,618,782 | 981,669 | 106 | 393,441 | 8,242,947 | $619 |
| Investment derivatives | (241) | (195) | (46) | | | |
| Publicly traded real estate investment trusts | 152,636 | 152,636 | | | | |
| Mortgage loans | 358,890 | | | 358,890 | | |
| Real estate | 354,597 | | | 42,817 | 311,780 | |
| Other investments | 12,390 | | | 12,390 | | |
| Campus foundations' investments with the University | (2,151,497) | | | | | (2,151,497) |
| UCRS investment in STIP | (2,678,532) | | | | | (2,678,532) |
| **Total investments** | **$24,478,362** | **$6,009,486** | **$13,723,810** | **$953,514** | **$8,620,962** | **$(4,829,410)** |
| **Securities lending investments of cash collateral** | **$1,079,829** | | **$1,080,405** | | | **$(576)** |
| **Investments held by trustees** | **$99,025** | | | | **$60,194** | **$38,831** |

| *(in thousands of dollars)* | CAMPUS FOUNDATIONS | | | | | |
|---|---|---|---|---|---|---|
| | Total | Quoted Prices in Active Markets | Other Observable Inputs | Unobservable Inputs | Net Asset Value | Not Leveled |
| | | (Level 1) | (Level 2) | (Level 3) | (NAV) | |
| Equity securities | $250,611 | $235,916 | $4,103 | $10,575 | $17 | |
| Fixed- or variable-income securities: | | | | | | |
| U.S. government-guaranteed | 382,064 | | 382,064 | | | |
| Other U.S. dollar-denominated | 133,053 | 654 | 132,344 | 55 | | |
| Commingled funds | 6,998,384 | 650,644 | 389 | 1,330 | 6,322,655 | $23,366 |
| Investment derivatives | 1,995 | | 1,995 | | | |
| Real estate | 119,516 | | 3,819 | 49,569 | 66,128 | |
| Other investments | 321,367 | 7,151 | | 158,326 | 153,702 | 2,188 |
| **Total investments** | **$8,206,990** | **$894,365** | **$524,714** | **$219,855** | **$6,542,502** | **$25,554** |
| **Securities lending investments of cash collateral** | **$42,581** | | **$39,280** | **$3,324** | | **($23)** |

| *(in thousands of dollars)* | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | | | | | |
|---|---|---|---|---|---|---|
| | Total | Quoted Prices in Active Markets | Other Observable Inputs | Unobservable Inputs | Net Asset Value | Not Leveled |
| | | (Level 1) | (Level 2) | (Level 3) | (NAV) | |
| Equity securities | $29,433,121 | $28,589,132 | | $1,181 | $842,808 | |
| Fixed- or variable-income securities: | | | | | | |
| U.S. government-guaranteed | 5,152,518 | | $5,152,518 | | | |
| Other U.S. dollar-denominated | 17,326,645 | | 17,275,601 | 51,044 | | |
| Foreign currency-denominated | | | | | | |
| Commingled funds | 28,107,964 | 3,676,570 | 1,898 | 275,890 | 24,153,119 | $487 |
| Investment derivatives | (3,002) | (2,448) | (554) | | | |
| Publicly traded real estate investment trusts | 722,541 | 722,541 | | | | |
| Real estate | 1,834,232 | | | 10,096 | 1,824,136 | |
| **Total investments** | **$82,574,019** | **$32,985,795** | **$22,429,463** | **$338,211** | **$26,820,063** | **$487** |
| **Securities lending investments of cash collateral** | **$6,841,530** | | **$6,845,184** | | | **$(3,654)** |

The following tables summarize the investments and other assets reported at fair value within the fair value hierarchy as of June 30, 2016:

| *(in thousands of dollars)* | UNIVERSITY OF CALIFORNIA | | | | | |
|---|---|---|---|---|---|---|
| | Total | Quoted Prices in Active Markets | Other Observable Inputs | Unobservable Inputs | Net Asset Value | Not Leveled |
| | | (Level 1) | (Level 2) | (Level 3) | (NAV) | |
| Equity securities | $3,285,792 | $3,274,412 | | $11,380 | | |
| Fixed- or variable-income securities: | | | | | | |
| U.S. government-guaranteed | 1,071,453 | | $1,071,453 | | | |
| Other U.S. dollar-denominated | 11,706,249 | | 11,637,569 | 68,680 | | |
| Commingled funds | 8,698,260 | 562,933 | 21,572 | 93,043 | $8,020,610 | $102 |
| Investment derivatives | 8,227 | 16,060 | (7,833) | | | |
| Publicly traded real estate investment trusts | 100,606 | 100,606 | | | | |
| Mortgage loans | 319,038 | | | 319,038 | | |
| Real estate | 937,421 | | | 406,144 | 531,277 | |
| Other investments | 13,786 | | | 13,786 | | |
| Campus foundations' investments with the University | (1,604,216) | | | | | (1,604,216) |
| UCRS investment in STIP | (2,327,849) | | | | | (2,327,849) |
| **Total investments** | **$22,208,767** | **$3,954,011** | **$12,722,761** | **$912,071** | **$8,551,887** | **$(3,931,963)** |
| **Securities lending investments of cash collateral** | **$824,931** | | **$739,724** | **$85,171** | | **$36** |
| **Investments held by trustees** | **$850,884** | **$54,769** | | **$5,642** | **$752,618** | **$37,855** |

| (in thousands of dollars) | CAMPUS FOUNDATIONS | | | | | |
|---|---|---|---|---|---|---|
| | Total | Quoted Prices in Active Markets (Level 1) | Other Observable Inputs (Level 2) | Unobservable Inputs (Level 3) | Net Asset Value (NAV) | Not Leveled |
| Equity securities | $318,801 | $305,930 | $4,389 | $7,848 | $36 | $598 |
| Fixed- or variable-income securities: | | | | | | |
| U.S. government-guaranteed | 300,803 | 18 | 300,785 | | | |
| Other U.S. dollar-denominated | 143,813 | 571 | 143,218 | 24 | | |
| Commingled funds | 5,952,962 | 575,831 | 386 | 995 | 5,312,341 | 63,409 |
| Investment derivatives | 2,776 | | 2,776 | | | |
| Real estate | 116,536 | | 3,750 | 48,707 | 64,079 | |
| Other investments | 279,587 | 4,854 | | 162,396 | 110,109 | 2,228 |
| **Total investments** | **$7,115,278** | **$887,204** | **$455,304** | **$219,970** | **$5,486,565** | **$66,235** |
| **Securities lending investments of cash collateral** | **$41,973** | | **$37,638** | **$4,333** | | **$2** |

| (in thousands of dollars) | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | | | | | |
|---|---|---|---|---|---|---|
| | Total | Quoted Prices in Active Markets (Level 1) | Other Observable Inputs (Level 2) | Unobservable Inputs (Level 3) | Net Asset Value (NAV) | Not Leveled |
| Equity securities | $23,345,791 | $23,344,616 | | $1,175 | | |
| Fixed- or variable-income securities: | | | | | | |
| U.S. government-guaranteed | 5,119,539 | | $5,119,539 | | | |
| Other U.S. dollar-denominated | 14,995,609 | | 14,945,410 | 50,199 | | |
| Foreign currency-denominated | 3,890 | | 3,890 | | | |
| Commingled funds | 25,977,179 | 3,320,189 | 106,834 | 638,169 | $21,874,071 | $37,916 |
| Investment derivatives | 25,921 | (7,545) | 33,466 | | | |
| Publicly traded real estate investment trusts | 750,056 | 750,056 | | | | |
| Real estate | 2,978,950 | | | 1,600,803 | 1,378,147 | |
| **Total investments** | **$73,196,935** | **$27,407,316** | **$20,209,139** | **$2,290,346** | **$23,252,218** | **$37,916** |
| **Securities lending investments of cash collateral** | **$6,751,492** | | **$6,054,131** | **$697,064** | | **$297** |

The following table presents significant terms of certain investments at June 30, 2017:

| (in thousands of dollars) | UNIVERSITY OF CALIFORNIA | | | |
|---|---|---|---|---|
| Investment Type | Fair Value | Unfunded Commitments | Remaining Life (Years) | Redemption Terms and Restrictions |
| Absolute return | $3,962,553 | $254,289 | 0 to 5 | Generally, lock up provisions ranging from 0 to 3 years. After initial lock-up expires, redemptions are available on a rolling basis and require 5 to 95 days' prior notification. |
| Private equities | 1,388,163 | 519,934 | 0 to 15 | Not eligible for redemption. |
| Real assets | 206,073 | 181,955 | 0 to 15 | Not eligible for redemption. |
| Real estate and real estate investment trusts | 814,622 | 126,867 | 0 to 6 | Not eligible for redemption. |
| Fixed Income - Other | 120,314 | 6,867 | 1 to 7 | Not eligible for redemption. |

| (in thousands of dollars) | CAMPUS FOUNDATIONS | | | |
|---|---|---|---|---|
| Investment Type | Fair Value | Unfunded Commitments | Remaining Life (Years) | Redemption Terms and Restrictions |
| Absolute return | $1,618,201 | $47,804 | 0 to 5 | Generally, lock up provisions ranging from 0 to 5 years. After initial lock-up expires, redemptions are available on a rolling basis and require 30 to 180 days' prior notification. |
| Private equities | 704,267 | 451,642 | 0 to 15 | Generally, lock up provisions ranging from 0 to 14 years. After initial lock-up expires, redemptions are available on a rolling basis and require 30 to 180 days' prior notification. |
| Real assets | 152,973 | 35,386 | 9 | Not eligible for redemption. |
| Real estate and real estate investment trusts | 132,043 | 83,055 | 0 to 11 | Not eligible for redemption. |

| (in thousands of dollars) | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | | | |
|---|---|---|---|---|
| Investment Type | Fair Value | Unfunded Commitments | Remaining Life (Years) | Redemption Terms and Restrictions |
| Absolute return | $4,987,355 | $395,672 | 0 to 5 | Generally, lock up provisions ranging from 0 to 3 years. After initial lock-up expires, redemptions are available on a rolling basis and require 5 to 95 days' prior notification. |
| Private equities | 2,939,524 | 1,152,374 | 0 to 15 | Not eligible for redemption. |
| Real assets | 866,245 | 389,735 | 0 to 15 | Not eligible for redemption. |
| Real estate and real estate investment trusts | 3,467,355 | 355,043 | 1 to 7 | Not eligible for redemption. |

The following table presents significant terms of certain investments at June 30, 2016:

| (in thousands of dollars) | UNIVERSITY OF CALIFORNIA | | | |
|---|---|---|---|---|
| Investment Type | Fair Value | Unfunded Commitments | Remaining Life (Years) | Redemption Terms and Restrictions |
| Absolute return | $3,168,124 | $1,953 | 0 to 5 | Generally, lock up provisions ranging from 0 to 3 years. After initial lock-up expires, redemptions are available on a rolling basis and require 5 to 95 days' prior notification. |
| Private equities | 1,180,827 | 431,059 | 0 to 15 | Not eligible for redemption. |
| Real assets | 182,861 | 79,207 | 0 to 15 | Not eligible for redemption. |
| Real estate and real estate investment trusts | 937,421 | 124,673 | 0 to 6 | Not eligible for redemption. |
| Fixed Income - Other | 66,731 | 49,739 | 1 to 7 | Not eligible for redemption. |

| (in thousands of dollars) | CAMPUS FOUNDATIONS | | | |
|---|---|---|---|---|
| Investment Type | Fair Value | Unfunded Commitments | Remaining Life (Years) | Redemption Terms and Restrictions |
| Absolute return | $1,779,453 | | 0 to 5 | Generally, lock-up provisions range from 0 to 5 years. After initial lock-up expires, redemptions are available and require 30 to 180 days' prior notification. Certain securities can only be sold to a Goldman Sachs approved bidder. |
| Private equities | 621,280 | $337,583 | 0 to 15 | Generally, lock-up provisions range from 0 to 14 years. After initial lock-up expires, redemptions are available and require 30 days' prior notification. Certain securities can only be sold to a Goldman Sachs approved bidder. |
| Real assets | 109,389 | 12,900 | 9 | Not eligible for redemption. |
| Real estate and real estate investment trusts | 121,510 | 76,332 | 0 to 11 | Not eligible for redemption. |

| (in thousands of dollars) | UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM | | | |
|---|---|---|---|---|
| Investment Type | Fair Value | Unfunded Commitments | Remaining Life (Years) | Redemption Terms and Restrictions |
| Absolute return | $4,626,070 | $3,051 | 0 to 5 | Generally, lock up provisions ranging from 0 to 3 years. After initial lock-up expires, redemptions are available on a rolling basis and require 5 to 95 days' prior notification. |
| Private equities | 2,822,693 | 821,064 | 0 to 15 | Not eligible for redemption. |
| Real assets | 960,923 | 296,041 | 0 to 15 | Not eligible for redemption. |
| Real estate and real estate investment trusts | 2,978,950 | 189,259 | 0 to 6 | Not eligible for redemption. |

## 6. INVESTMENTS HELD BY TRUSTEES

The University has entered into agreements with trustees to maintain trusts for the University's self-insurance programs, long-term debt requirements, capital projects and certain other requirements. In addition, the state of California retained on deposit certain proceeds from the sale of lease-revenue bonds to be used for capital projects.

### Self-Insurance Programs

At June 30, 2017, investments of $23.0 million were held by trustees for self-insurance programs included bank accounts for the workers' compensation, general liability and professional medical and hospital liability programs. Cash was held by the trustee in the name of the University.

At June 30, 2016, investments of $758.3 million were held by trustees for self-insurance programs included separate trusts for the workers' compensation and professional medical and hospital liability programs. Securities were held by the trustees in the name of the University. In July 2016, the University liquidated investments held by trustees for self-insurance programs and transferred the funds to the captive insurance company.

### Long-Term Debt

Investments held by trustees for future payment of principal and interest in accordance with various indenture and other long-term debt requirements totaled $6.7 million and $22.8 million at June 30, 2017 and 2016, respectively. Securities held by trustees are held in the name of the University and these trust agreements permit trustees to invest in U.S. and state government or agency obligations, commercial paper or other corporate obligations meeting certain credit rating requirements.

### Capital Projects

Proceeds from the sale of the state of California's lease revenue bonds to be used for financing certain University capital projects were deposited in a commingled U.S. bond fund managed by the state of California Treasurer's Office, as trustee, and distributed to the University as the projects are constructed. The fair value of these deposits was $5.0 million and $8.5 million at June 30, 2017 and 2016, respectively.

In addition, proceeds from the sale of bonds and certain University funds are held by trustees to be used for financing and operating third-party capital projects. The fair value of these investments was $63.1 million and $58.1 million at June 30, 2017 and 2016, respectively. Substantially, all of these investments are of a highly liquid, short-term nature.

## 7. ACCOUNTS RECEIVABLE

Accounts receivable and the allowance for uncollectible accounts are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | | | | | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS |
|---|---|---|---|---|---|---|---|---|
| | STATE AND FEDERAL GOVERNMENT | MEDICAL CENTERS | INVESTMENT INCOME | PRIVATE GRANTS AND CONTRACTS | MEDICAL PROFESSIONAL FEES | OTHER | TOTAL | |
| *At June 30, 2017* | | | | | | | | |
| Accounts receivable | $693,453 | $1,931,470 | $47,138 | $318,964 | $345,098 | $990,061 | $4,326,184 | $40,012 |
| Allowance for uncollectible accounts | (2,658) | (223,461) | | (26,219) | (95,163) | (31,792) | (379,293) | |
| **Accounts receivable, net** | **$690,795** | **$1,708,009** | **$47,138** | **$292,745** | **$249,935** | **$958,269** | **$3,946,891** | **$40,012** |
| *At June 30, 2016* | | | | | | | | |
| Accounts receivable | $589,875 | $1,859,862 | $53,426 | $372,664 | $268,573 | $488,019 | $3,632,419 | $32,562 |
| Allowance for uncollectible accounts | (1,355) | (225,524) | | (15,648) | (44,347) | (26,027) | (312,901) | |
| **Accounts receivable, net** | **$588,520** | **$1,634,338** | **$53,426** | **$357,016** | **$224,226** | **$461,992** | **$3,319,518** | **$32,562** |

The University's other accounts receivable are primarily related to investment sales, tuition and fees, auxiliary enterprises, insurance rebates and legal settlements.

The campus foundations' accounts receivable are primarily related to investment income.

Uncollectible accounts have increased (decreased) the following revenues for the years ended June 30:

*(in thousands of dollars)*

| | 2017 | 2016 |
|---|---|---|
| Student tuition and fees | $(6,528) | $(1,748) |
| Grants and contracts: | | |
| Federal | (1,509) | 928 |
| State | 25 | 329 |
| Private | (11,515) | (11,519) |
| Local | 32 | 144 |
| Medical centers | (221,508) | (235,526) |
| Educational activities | (22,630) | (21,516) |
| Auxiliary enterprises | (1,441) | (796) |
| Other operating revenues | (1,357) | 1,031 |
| **Expense for uncollectible accounts** | **$(266,431)** | **$(268,673)** |

## Retirement System Contribution

The state of California agreed to make contributions related to certain prior years to the University for UCRP in annual installments over 30 years. During each of the years ended June 30, 2017 and 2016, under the terms of these agreements, the state of California contributed $5.3 million, including interest at 8.5 percent. At June 30, 2017 and 2016, the remaining amount owed to UCRP by the state was $13.6 million and $17.4 million, respectively. These amounts are recorded in the University's statement of net position as a receivable from the state of California and as a liability owed to UCRP.

## 8. PLEDGES RECEIVABLE

The composition of pledges receivable at June 30 is summarized as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | |
|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 |
| Total pledges receivable outstanding | $72,315 | $64,846 | $1,064,512 | $1,060,609 |
| Less: Unamortized discount to present value | (896) | (1,384) | (137,406) | (145,318) |
| Allowance for uncollectible pledges | (15,207) | (16,356) | (61,127) | (72,868) |
| **Total pledges receivable, net** | **56,212** | **47,106** | **865,979** | **842,423** |
| Less: Current portion of pledges receivable | (23,181) | (17,056) | (192,484) | (217,971) |
| **Noncurrent portion of pledges receivable** | **$33,031** | **$30,050** | **$673,495** | **$624,452** |

Future receipts under pledge agreements for each of the five fiscal years subsequent to June 30, 2017 and thereafter are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS |
|---|---|---|
| *Year Ending June 30* | | |
| 2018 | $36,938 | $207,584 |
| 2019 | 14,057 | 152,818 |
| 2020 | 8,991 | 96,704 |
| 2021 | 8,709 | 87,958 |
| 2022 | 1,670 | 54,919 |
| 2023-2027 | 1,450 | 231,132 |
| Beyond 2027 | 500 | 233,397 |
| **Total payments on pledges receivable** | **$72,315** | **$1,064,512** |

Adjustments to the allowance for uncollectible pledges for the University have increased (decreased) the following revenues for the years ended June 30, 2017 and 2016:

*(in thousands of dollars)*

| | 2017 | 2016 |
|---|---|---|
| Private gifts | (863) | $1,359 |
| Capital gifts and grants | (25) | |

## 9. NOTES AND MORTGAGES RECEIVABLE

Notes and mortgages receivable at June 30, 2017 and 2016 along with the allowance for uncollectible amounts, are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | |
|---|---|---|---|---|---|---|---|
| | | NONCURRENT | | | | | |
| | CURRENT | NOTES | MORTGAGES | TOTAL | CURRENT | NONCURRENT | TOTAL |
| *At June 30, 2017* | | | | | | | |
| Notes and mortgages receivable | $58,338 | $309,459 | $22,301 | $331,760 | $6 | $427 | $433 |
| Allowance for uncollectible amounts | (8,201) | (17,621) | (121) | (17,742) | | | |
| **Notes and mortgages receivable, net** | **$50,137** | **$291,838** | **$22,180** | **$314,018** | **$6** | **$427** | **$433** |
| *At June 30, 2016* | | | | | | | |
| Notes and mortgages receivable | $60,931 | $320,523 | $24,411 | $344,934 | $6 | $1,014 | $1,020 |
| Allowance for uncollectible amounts | (8,259) | (17,636) | (129) | (17,765) | | | |
| **Notes and mortgages receivable, net** | **$52,672** | **$302,887** | **$24,282** | **$327,169** | **$6** | **$1,014** | **$1,020** |

## 10. DOE NATIONAL LABORATORY CONTRACTS

### Los Alamos National Security, LLC (LANS)

LANS operates and manages the DOE's LANL. LANS' current earnings or losses are dependent on the percentage of base and incentive fees earned under the terms of the contract, offset by any unallowable or disallowed costs. While the University has a 50-percent membership interest in LANS, its equity in the current earnings or losses is subject to certain limitations and special allocations of both the fees and costs. As a result, the University's equity in the current earnings or losses may range from 17.0 to 50.0 percent. For the years ended June 30, 2017 and 2016, the University recorded $13.5 million and $11.8 million, respectively, as its equity in the current earnings of LANS and received $17.6 million and $10.5 million, respectively, in cash distributions.

### Lawrence Livermore National Security, LLC (LLNS)

LLNS manages and operates the DOE's LLNL. LLNS' current earnings or losses are dependent on the percentage of base and incentive fees earned under the terms of the contract, offset by any unallowable or disallowed costs. While the University has a 50-percent membership interest in LLNS, its equity in the current earnings or losses is 36.3 percent and 36.3 percent as of June 30, 2017 and 2016, respectively. For the years ended June 30, 2017 and 2016, the University recorded $11.5 million and $12.2 million, respectively, as its equity in the current earnings of LLNS and received $11.1 million and $11.6 million, respectively, in cash distributions.

## 11. CAPITAL ASSETS

The University's capital asset activity for the years ended June 30 is as follows:

*(in thousands of dollars)*

| | 2015 | ADDITIONS | DISPOSALS | 2016 | ADDITIONS | DISPOSALS | 2017 |
|---|---|---|---|---|---|---|---|
| **ORIGINAL COST** | | | | | | | |
| Land | $972,954 | $191,276 | $(1,135) | $1,163,095 | $9,551 | $(9,735) | $1,162,911 |
| Infrastructure | 647,114 | 16,759 | | 663,873 | 30,987 | | 694,860 |
| Buildings and improvements | 33,751,460 | 1,732,566 | (55,433) | 35,428,593 | 2,604,022 | (7,292) | 38,025,323 |
| Equipment, software and intangibles | 6,963,627 | 574,325 | (366,460) | 7,171,492 | 696,869 | (259,278) | 7,609,083 |
| Libraries and collections | 3,931,840 | 152,265 | (23,996) | 4,060,109 | 154,873 | (62,294) | 4,152,688 |
| Special collections | 384,221 | 50,687 | (170) | 434,738 | 25,254 | (36) | 459,956 |
| Construction in progress | 2,826,673 | 238,356 | | 3,065,029 | (544,879) | | 2,520,150 |
| **Capital assets, at original cost** | **$49,477,889** | **$2,956,234** | **$(447,194)** | **$51,986,929** | **$2,976,677** | **$(338,635)** | **$54,624,971** |

| | 2015 | DEPRECIATION AND AMORTIZATION | DISPOSALS | 2016 | DEPRECIATION AND AMORTIZATION | DISPOSALS | 2017 |
|---|---|---|---|---|---|---|---|
| **ACCUMULATED DEPRECIATION AND AMORTIZATION** | | | | | | | |
| Infrastructure | $326,367 | $22,238 | | $348,605 | $23,093 | | $371,698 |
| Buildings and improvements | 13,101,858 | 1,083,003 | $(27,410) | 14,157,451 | 1,167,408 | $(5,998) | 15,318,861 |
| Equipment, software and intangibles | 4,527,627 | 567,743 | (294,867) | 4,800,503 | 588,597 | (224,314) | 5,164,786 |
| Libraries and collections | 2,879,258 | 131,062 | (18,765) | 2,991,555 | 130,772 | (22,454) | 3,099,873 |
| **Accumulated depreciation and amortization** | **20,835,110** | **$1,804,046** | **$(341,042)** | **22,298,114** | **$1,909,870** | **$(252,766)** | **23,955,218** |
| **Capital assets, net** | **$28,642,779** | | | **$29,688,815** | | | **$30,669,753** |

Service concession arrangements, reported as buildings and improvements, are $118.2 million of original cost and $22.5 million of accumulated depreciation at June 30, 2017. Service concession arrangements, reported as buildings and improvements, are $91.1 million of original cost and $20.2 million of accumulated depreciation at June 30, 2016.

## 12. SELF-INSURANCE, OBLIGATIONS UNDER LIFE INCOME AGREEMENTS AND OTHER LIABILITIES

The University's self-insurance, obligations under life income agreements and other liabilities at June 30, 2017 and 2016 are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | | |
|---|---|---|---|---|---|---|---|---|
| | 2017 | | 2016 | | 2017 | | 2016 | |
| | CURRENT | NONCURRENT | CURRENT | NONCURRENT | CURRENT | NONCURRENT | CURRENT | NONCURRENT |
| Self-insurance programs | $276,480 | **$584,232** | $228,751 | **$558,158** | | | | |
| Obligations under life income agreements | 1,601 | **$34,479** | 1,346 | **$32,021** | $17,428 | **$137,713** | $16,718 | **$130,314** |
| Other liabilities: | | | | | | | | |
| Compensated absences | 578,012 | $340,353 | 567,736 | $294,842 | | | | |
| UCRP* | 4,157 | 9,400 | 3,833 | 13,558 | | | | |
| Accrued interest | 107,672 | | 95,860 | | | | | |
| Fair value of interest rate swaps | | 90,232 | | 152,123 | | | | |
| Other | 625,375 | 248,817 | 541,001 | 276,832 | 28,042 | $253,288 | 35,157 | $220,234 |
| **Total** | **$1,593,297** | **$688,802** | **$1,438,527** | **$737,355** | **$45,470** | **$253,288** | **$51,875** | **$220,234** |

** UCRP has an equivalent amount recorded as a contribution receivable from the University in its statement of fiduciary net position.*

## Self-Insurance Programs

Self-insured liabilities changed for self-insured as follows for the years ended June 30:

*(in thousands of dollars)*

| | MEDICAL MALPRACTICE | WORKERS' COMPENSATION | EMPLOYEE & STUDENT HEALTH CARE | GENERAL LIABILITY AND OTHER | TOTAL |
|---|---|---|---|---|---|
| *Year Ended June 30, 2017* | | | | | |
| Liabilities at June 30, 2016 | $198,440 | $391,440 | $88,510 | $108,519 | $786,909 |
| Claims incurred and changes in estimates | 51,074 | 104,089 | 811,137 | 99,538 | 1,065,838 |
| Claim payments | (56,359) | (86,522) | (809,469) | (39,685) | (992,035) |
| **Liabilities at June 30, 2017** | **$193,155** | **$409,007** | **$90,178** | **$168,372** | **$860,712** |
| **Discount rate** | **2.6% to 4.7%** | **2.6% to 4.7%** | **Undiscounted** | **2.6% to 4.7%** | |
| *Year Ended June 30, 2016* | | | | | |
| Liabilities at June 30, 2015 | $187,236 | $353,138 | $75,433 | $94,481 | $710,288 |
| Claims incurred and changes in estimates | 73,520 | 119,972 | 666,442 | 41,190 | 901,124 |
| Claim payments | (62,316) | (81,670) | (653,365) | (27,152) | (824,503) |
| **Liabilities at June 30, 2016** | **$198,440** | **$391,440** | **$88,510** | **$108,519** | **$786,909** |
| **Discount rate** | **5.0%** | **5.0%** | **Undiscounted** | **2.0%** | |
| *Year Ended June 30, 2015* | | | | | |
| Liabilities at June 30, 2014 | $181,324 | $321,055 | $70,513 | $87,777 | $660,669 |
| Claims incurred and changes in estimates | 48,075 | 111,485 | 542,995 | 49,146 | 751,701 |
| Claim payments | (42,163) | (79,402) | (538,075) | (42,442) | (702,082) |
| **Liabilities at June 30, 2015** | **$187,236** | **$353,138** | **$75,433** | **$94,481** | **$710,288** |
| **Discount rate** | **5.0%** | **5.0%** | **Undiscounted** | **2.0%** | |

## Obligations Under Life Income Agreements

Changes in current and noncurrent obligations under life income agreements for the years ended June 30 are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | |
|---|---|---|---|---|
| | ANNUITIES | LIFE BENEFICIARIES | ANNUITIES | LIFE BENEFICIARIES |
| *Year Ended June 30, 2017* | | | | |
| Balance at June 30, 2016 | $15,588 | $17,779 | $48,898 | $98,134 |
| New obligations to beneficiaries and changes in liability, net | 3,353 | 2,961 | 7,921 | 15,733 |
| Payments to beneficiaries | (2,206) | (1,395) | (5,976) | (9,569) |
| **Obligations under life income agreements at June 30, 2017** | **16,735** | **19,345** | **50,843** | **104,298** |
| Less: Current portion | (763) | (838) | (6,166) | (11,262) |
| **Noncurrent portion at June 30, 2017** | **$15,972** | **$18,507** | **$44,677** | **$93,036** |
| *Year Ended June 30, 2016* | | | | |
| Balance at June 30, 2015 | $14,878 | $17,699 | $49,779 | $103,268 |
| New obligations to beneficiaries and changes in liability, net | 1,926 | 1,128 | 5,241 | 5,082 |
| Payments to beneficiaries | (1,216) | (1,048) | (6,122) | (10,216) |
| **Obligations under life income agreements at June 30, 2016** | **15,588** | **17,779** | **48,898** | **98,134** |
| Less: Current portion | (763) | (583) | (5,902) | (10,816) |
| **Noncurrent portion at June 30, 2016** | **$14,825** | **$17,196** | **$42,996** | **$87,318** |

## 13. DEBT

The University directly finances the construction, renovation and acquisition of facilities and equipment, or for such other purposes as are authorized by The Regents through the issuance of debt obligations or indirectly through structures that involve legally separate entities reported as blended component units. Commercial paper and bank loans provide interim financing. Long-term financing includes revenue bonds, capital lease obligations and other borrowings.

The University's outstanding debt at June 30 is as follows:

*(in thousands of dollars)*

| | WEIGHTED AVERAGE INTEREST RATE | INTEREST RATE RANGE | MATURITY YEARS | 2017 | 2016 |
|---|---|---|---|---|---|
| **INTERIM FINANCING:** | | | | | |
| Commercial paper | | 0.9 - 1.3% | 2017 | $812,673 | $1,037,857 |
| **LONG-TERM FINANCING:** | | | | | |
| University of California General Revenue Bonds | | | | | |
| Fixed Rate | 4.7% | 1.0 - 7.6% | 2018-2115 | 9,959,700 | 9,033,015 |
| Variable Rate | 0.9% | 0.9 - 1.1% | 2037-2048 | 750,000 | 1,250,000 |
| University of California Limited Project Revenue Bonds | 4.8% | 1.0 - 6.3% | 2018-2051 | 3,702,630 | 3,783,230 |
| University of California Medical Center Pooled Revenue Bonds | | | | | |
| Fixed Rate | 5.5% | 0.9 - 6.6% | 2018-2049 | 2,763,295 | 2,445,435 |
| Variable Rate | 1.3% | 0.6 - 1.6% | 2018-2047 | 247,865 | 251,205 |
| University of California Medical Center Revenue Bonds | | | | | 42,560 |
| Unamortized bond premium | | | | 1,020,465 | 881,814 |
| **University of California revenue bonds** | **4.4%** | | | **18,443,955** | **17,687,259** |
| Capital lease obligations | | 0.5%-10.0% | 2017-2042 | 195,022 | 176,753 |
| Other University borrowings | | Various | 2018-2056 | 378,659 | 356,847 |
| Blended component unit revenue bonds, net | 5.6% | 4.0 - 6.5% | 2018-2049 | 672,567 | 692,571 |
| **Total outstanding debt** | | | | **20,502,876** | **19,951,287** |
| Less: Commercial paper | | | | (812,673) | (1,037,857) |
| Current portion of outstanding debt | | | | (1,519,005) | (1,413,265) |
| **Noncurrent portion of outstanding debt** | | | | **$18,171,198** | **$17,500,165** |

Interest expense associated with financing projects during construction, net of any investment income earned on tax-exempt bond proceeds during construction, is capitalized. Total interest expense during the years ended June 30, 2017 and 2016 was $782.0 million and $747.8 million, respectively. Interest expense, net of investment income, totaling $60.8 million and $54.8 million was capitalized during the years ended June 30, 2017 and 2016, respectively. The remaining $721.2 million and $693.0 million in 2017 and 2016 is reported as interest expense in the statement of revenues, expenses and changes in net position.

## Outstanding Debt Activity

The activity with respect to the University's current and noncurrent debt, including the revenue bonds associated with blended component units, for the years ended June 30 is as follows:

*(in thousands of dollars)*

| | UNIVERSITY REVENUE BONDS | FINANCING OBLIGATIONS | OTHER UNIVERSITY BORROWINGS | BLENDED COMPONENT UNIT REVENUE BONDS | TOTAL |
|---|---|---|---|---|---|
| *Year Ended June 30, 2017* | | | | | |
| Long-term debt and financing obligations at June 30, 2016 | $17,687,259 | $176,753 | $356,847 | $692,571 | $18,913,430 |
| New obligations | 2,181,755 | 55,360 | 126,105 | 54,280 | 2,417,500 |
| Bond premium | 213,621 | | | 9,107 | 222,728 |
| Refinancing or prepayment of outstanding debt | (1,224,530) | | (39,999) | (56,210) | (1,320,739) |
| Scheduled principal payments | (339,180) | (37,091) | (64,294) | (24,026) | (464,591) |
| Amortization of bond premium | (74,970) | | | (3,155) | (78,125) |
| **Long-term debt and financing obligations at June 30, 2017** | **18,443,955** | **195,022** | **378,659** | **672,567** | **19,690,203** |
| Less: Current portion | (1,263,157) | (34,351) | (206,567) | (14,930) | (1,519,005) |
| **Noncurrent portion at June 30, 2017** | **$17,180,798** | **$160,671** | **$172,092** | **$657,637** | **$18,171,198** |
| *Year Ended June 30, 2016* | | | | | |
| Long-term debt and financing obligations at June 30, 2015 | $16,777,164 | $131,278 | $337,169 | $690,222 | $17,935,833 |
| New obligations | 1,345,155 | 67,031 | 200,000 | 282,555 | 1,894,741 |
| Bond premium | 155,026 | | | 40,353 | 195,379 |
| Refinancing or prepayment of outstanding debt | (214,255) | | (52) | (313,575) | (527,882) |
| Scheduled principal payments | (314,305) | (21,556) | (180,270) | (3,663) | (519,794) |
| Amortization of bond premium | (61,526) | | | (3,321) | (64,847) |
| **Long-term debt and financing obligations at June 30, 2016** | **17,687,259** | **176,753** | **356,847** | **692,571** | **18,913,430** |
| Less: Current portion | (1,245,038) | (29,008) | (111,904) | (27,315) | (1,413,265) |
| **Noncurrent portion at June 30, 2016** | **$16,442,221** | **$147,745** | **$244,943** | **$665,256** | **$17,500,165** |

## Commercial Paper

The University has available a $2.0 billion commercial paper program, issued in two series, with tax-exempt and taxable components. Commercial paper may be issued for interim/permanent financing for capital projects, interim financing of equipment, financing of working capital for the medical centers, standby or interim financing for gift financed projects and working capital for the University.

The program's liquidity is primarily supported by available investments in STIP and TRIP. Commercial paper is collateralized by a pledge of the revenues derived from the ownership or operation of the projects financed and constitute limited obligations of the University. There is no encumbrance, mortgage or other pledge of property securing commercial paper and the paper does not constitute general obligations of the University.

Commercial paper outstanding, including interest rates, at June 30 is as follows:

*(in thousands of dollars)*

| | 2017 | | 2016 | |
|---|---|---|---|---|
| | INTEREST RATES | OUTSTANDING | INTEREST RATES | OUTSTANDING |
| Taxable | 0.93 - 1.26% | $812,673 | 0.39-0.60% | $1,037,857 |
| **Total outstanding** | | **$812,673** | | **$1,037,857** |

The expectation is that the University will continue to utilize available investments for liquidity support for the commercial paper program. Alternatively, the University may utilize lines of credit from external banks for the purpose of providing additional liquidity support for the commercial paper program. As of June 30, 2017, the University has two revolving credit agreements totaling $700.0 million. There were no borrowings against the revolving credit lines as of June 30, 2017.

## University of California Revenue Bonds

Revenue bonds have financed various auxiliary, administrative, academic, medical center and research facilities of the University. They generally have annual principal and semiannual or monthly interest payments, serial and term maturities, contain sinking fund requirements and may have optional redemption provisions. Revenue bonds are not collateralized by any encumbrance, mortgage or other pledge of property, except pledged revenues, and do not constitute general obligations of The Regents. Revenue Bond Indentures require the University to use the facilities in a way which will not cause the interest on the tax-exempt bonds to be included in the gross income of the bondholders for federal tax purposes.

General Revenue Bonds are collateralized solely by General Revenues as defined in the General Revenue Bond Indenture. General Revenues are certain operating and nonoperating revenues of the University consisting of gross student tuition and fees; facilities and administrative cost recovery from contracts and grants; revenues from educational, auxiliary and other activities; and other revenues, including unrestricted investment income. The General Revenue Bond Indenture requires the University to set rates, charges and fees each year sufficient for General Revenues to pay for the annual principal and interest on the bonds and certain other financial covenants. General Revenues, as defined in the Indenture, have been amended to include certain state appropriations as to secure payment of the General Revenue Bonds. General Revenues for the years ended June 30, 2017 and 2016 were $16.2 billion and $15.3 billion, respectively. The pledge of General Revenues for interest rate swap agreements is on a parity basis with the University's General Revenue Bonds.

Limited Project Revenue Bonds are issued to finance auxiliary enterprises and are collateralized by a pledge consisting of the sum of the gross revenues of the specific projects. The Limited Project Revenue Bond Indenture requires the University to achieve the sum of gross project revenues equal to 1.1 times debt service and maintain certain other financial covenants. Pledged revenues for the years ended June 30, 2017 and 2016 were $1.4 billion and $1.3 billion, respectively.

Medical Center Pooled Revenue Bonds are issued to finance the University's medical center facilities and are collateralized by a joint and several pledges of the gross revenues of all five of the University's medical centers. Medical center gross revenues are excluded from General Revenues. The Medical Center Pooled Revenue Bond Indenture requires the medical centers to set rates, charges and fees each year sufficient for the Medical Centers' total operating and nonoperating revenues to pay for the annual principal and interest on the bonds and certain other financial covenants. Pledged revenues of the medical centers for the years ended June 30, 2017 and 2016 were $11.4 billion and $10.4 billion, respectively.

Medical Center Revenue Bonds have also financed certain facilities of one medical center and are collateralized by a pledge of the specific gross revenues associated with the medical center. That Medical Center Revenue Bond Indenture required that medical center to achieve debt service coverage of 1.1 times, set limitations on encumbrances, indebtedness, disposition of assets and transfer services, as well as maintain certain other financial covenants.

The pledge of revenues for Limited Project Revenue Bonds is subordinate to the pledge of revenues for General Revenue Bonds, but senior to pledges for commercial paper notes.

Medical center gross revenues are pledged under the Indenture for the Medical Center Pooled Revenue Bonds and certain interest rate swap agreements.

The pledge of medical center revenues for interest rate swap agreements may be at parity with, or subordinate to, Medical Center Pooled Revenue Bonds.

All Indentures permit the University to issue additional bonds as long as certain conditions are met.

### *2017 Activity*

In August 2016, Medical Center Pooled Revenue Bonds totaling $1.0 billion, including $872.8 million of tax-exempt bonds and $173.4 million taxable bonds, were issued to finance and refinance certain facilities and projects of the Medical Centers. Proceeds, including a net bond premium of $155.8 million, were used to pay for project construction, issuance costs and refund $724.5 million of outstanding Medical Center Pooled Revenue Bonds and all of the outstanding Medical Center Revenue Bonds. The bonds mature at various dates through 2047. Simultaneously, a bank standby bond purchase agreement for certain of the University's variable-rate demand bonds was terminated. The University will provide its own liquidity in connection with mandatory and optional tenders and remarketing of these bonds and does not plan to provide any third-party liquidity facility to support this obligation. The interest rates on the variable-rate demand bonds reset daily and an interest rate swap is being used to limit exposure to changes in market interest rates. In the event of a failed remarketing, the variable-rate demand bonds can be put back to The Regents for tender. The tax-exempt and taxable bonds have a stated weighted average interest rate of 4.5 percent and 3.0 percent, respectively. The refunding of the outstanding Medical Center Pooled Revenue

Bonds and Medical Center Revenue Bonds resulted in a loss of $8.0 million, recorded as a deferred outflow of resources, that will be amortized as interest expense over the term of the refunded bonds. The deferred premium will be amortized as a reduction to interest expense over the term of the bonds. The refinancing and refunding of previously outstanding Medical Center Revenue Bonds resulted in cash flow savings of $193.5 million and an economic gain of $151.2 million.

Medical center gross revenues continue to be pledged under the Indenture for the Medical Center Pooled Revenue Bonds and certain interest rate swap agreements. The pledge of medical center revenues for interest rate swap agreements may be at parity with, or subordinate to, specific Medical Center Pooled Revenue Bonds.

In April 2017, General Revenue Bonds totaling $1.1 billion, including $449.7 million in tax-exempt bonds, $185.9 million in taxable bonds and $500.0 million of taxable fixed rate notes, were issued to finance or refinance certain projects and working capital purposes of the University. The bonds mature at various dates through 2049 and the taxable fixed rate notes mature in 2025. Proceeds, including a bond premium of $68.0 million, were used to pay for project construction and issuance costs and to refund $500.0 million of outstanding General Revenue Bonds. The tax-exempt bonds have a stated weighted average interest rate of 4.8 percent. The taxable bonds have a stated weighted average interest rate of 3.8 percent. The taxable fixed rate notes have a stated interest rate of 3.1 percent. The deferred premium will be amortized as a reduction to interest expense over the term of the bonds.

### *2016 Activity*

In April 2016, General Revenue Bonds totaling $813.1 million, including $410.3 million in tax-exempt bonds, $182.3 million in taxable bonds, $132.3 million in tax-exempt put bonds and $88.2 million of taxable fixed rate notes were issued to finance or refinance certain facilities and projects of the University. The bonds mature at various dates through 2046 and the taxable fixed rate notes mature in 2021. The put bonds will be subject to mandatory tender for purchase in 2021. Proceeds, including a bond premium of $90.0 million, were used to pay for project construction and issuance costs and to refund $73.4 million of outstanding General Revenue Bonds. The refunding of the outstanding General Revenue Bonds resulted in a loss of $7.1 million, recorded as a deferred outflow of resources, that will be amortized as interest expense over the remaining life of the refunded bonds. The refinancing and refunding of previously outstanding General Revenue Bonds resulted in cash flow savings of $17.7 million and an economic gain of $11.3 million. The taxable bonds have a stated weighted average interest rate of 3.0 percent. The tax-exempt bonds have a stated weighted average interest rate of 5.0 percent. The tax-exempt put bonds have an initial term rate of 1.4 percent. The taxable fixed rate notes have a stated interest rate of 1.9 percent. The deferred premium will be amortized as a reduction to interest expense over the term of the bonds.

In June 2016, Limited Project Revenue Bonds totaling $532.1 million, including $434.2 million tax-exempt bonds and $97.9 million taxable bonds, were issued to finance or refinance the acquisition, construction, improvement and renovation of certain athletic, parking, recreational and dining facilities, as well as, student and faculty housing of the University. The bonds mature at various dates through 2051. Proceeds, including a bond premium of $69.9 million, were used to pay for project construction and issuance costs and to refund $140.9 million of outstanding General Revenue Bonds. The refunding of the outstanding General Revenue Bonds resulted in a loss of $13.9 million, recorded as a deferred outflow of resources, that will be amortized as interest expense over the remaining life of the refunded bonds. The refinancing and refunding of previously outstanding General Revenue Bonds resulted in cash flow savings of $28.2 million and an economic gain of $20.2 million. The taxable bonds have a stated weighted average interest rate of 3.1 percent. The tax-exempt bonds have a stated weighted average interest rate of 4.3 percent. The deferred premium will be amortized as a reduction to interest expense over the term of the bonds.

### *Subsequent Events*

In September 2017, Limited Project Revenue Bonds totaling $860.4 million, including $733.5 million tax-exempt bonds and $126.9 million taxable bonds, were issued to finance or refinance the acquisition, construction, improvement and renovation of certain facilities of the University. The bonds mature at various dates through 2052. Proceeds, including a bond premium of $124.2 million, were used to pay for project construction and issuance costs. The taxable bonds have a stated weighted average rate of 2.9 percent. The tax-exempt bonds have a stated weighted average interest rate of 4.9 percent. The deferred premium will be amortized as a reduction to interest expense over the term of the bonds.

## Capital Leases

Capital leases entered into with other lessors, typically for equipment, totaled $55.4 million and $67.0 million for the years ended June 30, 2017 and 2016, respectively.

## Other University Borrowings

Other University borrowings consist of contractual obligations resulting from the acquisition of land or buildings and the construction and renovation of certain facilities, along with the borrowing component associated with a hybrid derivative instrument.

The University may use uncollateralized revolving lines of credit with commercial banks for general corporate purposes and to provide interim financing for buildings and equipment. Lines of credit commitments for general corporate purposes, with various expiration dates through February 14, 2020, totaled $415.0 million at June 30, 2017 and 2016. Outstanding borrowings under these bank lines totaled $250.0 million and $300.0 million at June 30, 2017 and 2016, respectively.

Certain of the interest rate swaps are considered hybrid instruments. As such, the interest rate swaps are comprised of a derivative instrument and a companion instrument recorded as a borrowing. The unamortized amount of the borrowing was $79.0 million and $40.0 million at June 30, 2017 and 2016, respectively.

In August 2016, the University entered into an agreement with a developer to design, construct, finance, operate and maintain certain auxiliary, administrative, academic and research facilities of one of its campuses, for which the University will finance $600.0 million of the total costs. Of this amount, $585.0 million will be paid to the developer over a 48-month period through a series of monthly progress payments. The remainder will cover invoiced costs for infrastructure improvements and equipment. Upon completion of the design-build phase of the project, the University will enter into an ongoing Operations and Maintenance Agreement with the developer through 2055. Payments under this agreement will have two components: the first component of the agreement is related to the operations and maintenance of the facilities, the second component is to service the private debt incurred by the developer during the construction phase. The operations and maintenance component of the payment will be expensed as incurred. The payments for the private debt are being treated as capital leases and are recorded as other borrowings by the University. In the event that the operations and maintenance agreement with the developer is terminated, the outstanding portion of the private debt incurred by the developer would become an obligation of the University.

As of June 30, 2017, CHRCO had no amounts outstanding under its revolving credit facility for $25.0 million. The interest rate on the credit facility is 2.3 percent as of June 30, 2017 and the facility expires on August 31, 2018.

## Blended Component Unit Revenue Bonds

### *Student Housing*

The University has entered into ground leases with a legally separate, nonprofit corporation that develops and owns student housing projects and related amenities and improvements on a University campus through the use of a single-project limited liability corporation (LLC). The LLC manages the premises. The University's reversionary interest in the land is not subordinated. All costs associated with the ownership, operation and management of the improvements are the obligation of the LLC. Student rental rates are established in order to provide for operating expenses and maintain the required debt service coverage ratios. The University is not responsible for any payments related to the ownership, operation or financing of the student housing. However, under accounting requirements, the financial position and operating results of this legally separate organization are blended into the University's financial reporting entity.

The LLC, through its conduit issuer, has outstanding Student Housing LLC Revenue Bonds to finance the construction of the student housing facilities. The bonds generally have annual principal and semiannual interest payments, serial and term maturities, certain sinking fund requirements and optional redemption provisions. They are not collateralized by any encumbrance, mortgage or other pledge of property, except pledged revenues of the student housing projects, and do not constitute general obligations of The Regents.

In March 2016, the LLC, through its conduit issuer, issued additional Student Housing LLC Revenue Bonds totaling $282.6 million. Proceeds, including a bond premium of $40.5 million, were used to pay for issuance costs and to refund $313.6 million of outstanding Student Housing LLC Revenue bonds. The refunding of the outstanding Student Housing LLC Revenue Bonds resulted in a loss of $26.4 million, recorded as a deferred outflow of resources, that will be amortized as interest expense over the life of the refunded bonds. The refinancing and refunding of previously outstanding Student Housing LLC Revenue Bonds resulted in cash flow savings of $71.5 million and an economic gain of $35.4 million. The deferred premium will be amortized as a reduction to interest expense over the term of the bonds. The Student Housing LLC Revenue Bonds have annual principal and semiannual interest payments, serial and term maturities, certain sinking fund requirements and optional redemption provisions. They are not collateralized by any encumbrance, mortgage or other pledge of property except pledged revenues of the student housing project, and do not constitute general obligations of The Regents.

At June 30, 2017 and 2016, the LLC, through its conduit issuer, has outstanding Student Housing LLC Revenue Bonds totaling $362.2 million and $370.9 million, respectively. The bonds mature at various dates through 2040 and have a weighted average interest rate of 5.1 percent.

### *Subsequent Events*

In August 2017, the LLC, through its conduit issuer, issued additional Student Housing LLC Revenue Bonds totaling $148.6 million. The bonds mature at various dates through 2050 and have a stated weighted average interest rate of 5.0 percent. Proceeds, including a bond premium of $24.2 million, were used to pay for project construction and issuance costs. The deferred premium will be amortized as a reduction to interest expense over the term of the bonds.

### *Research Facilities*

The University has a public/private partnership, for the purpose of developing, constructing and managing a neuroscience research laboratory building with a legally separate, nonprofit corporation. In connection with the research laboratory building, the University entered into a ground lease with the corporation. The corporation has entered into a sub-ground lease with a developer to construct, own and manage the building. The University agreed to lease all of the space in the building from the developer. The University's base rent payments are equal to the principal and interest payments on the bonds issued by the corporation to finance the construction of the building. As security on the bonds, the developer has assigned all payments received from the University for the space lease to the bond trustee.

All of the board members of the nonprofit corporation are appointed by the University and the University has the authority to determine the budget for the corporation. Under accounting requirements, the financial position and operating results of this legally separate organization are blended into the University's financial reporting entity.

The corporation, through a conduit issuer, has outstanding tax-exempt revenue bonds totaling $19.7 million and taxable revenue bonds totaling $188.0 million. The tax-exempt revenue bonds mature at various dates from 2021 through 2025 and have a weighted average interest rate of 5.0 percent. They generally have annual serial maturities, semi-annual interest payments and optional redemption provisions. The taxable bonds mature in 2049 and have an interest rate of 6.5 percent. The taxable bonds were issued as Build America Bonds, under which the U.S. Treasury is expected to send the nonprofit corporation 35.0 percent of the semi-annual interest cost on the taxable bonds, making the net interest rate 4.2 percent post-subsidy. The bonds have a term maturity with various certain annual sinking fund requirements, semi-annual interest payments and optional redemption provisions.

In addition, the University entered into a ground lease with another legally separate, nonprofit corporation (the Consortium). The Consortium entered into an agreement with a developer to develop and own a research laboratory facility designed to expand collaborative work in stem cell research and facilitate its translation into tools and techniques to diagnose and treat degenerative diseases and other ailments. The developer constructed the research laboratory facility. All costs associated with the ownership, operation and management of the laboratory research facility are the obligation of the Consortium. The University, along with the other collaborative research partners, will lease space in the building. Under accounting requirements, the financial position and operating results of this legally separate organization are blended into the University's financial reporting entity.

The Consortium, through its conduit issuer, has outstanding revenue bonds totaling $53.3 million. The bonds mature at various dates through 2040 and have a weighted average interest rate of 4.5 percent. The bonds generally have annual principal and semiannual interest payments, serial and term maturities, certain sinking fund requirements and optional redemption provisions. Lease payments from the occupants of the building are pledged as collateral on the bonds. To the extent the lease payments are not sufficient to pay the debt service, the University is obligated to pay the shortfall.

## Future Debt Service and Hedging Derivative Interest Rate Swaps

Future debt service payments for the University's fixed- and variable-rate debt and net receipts or payments on associated hedging derivative instruments for each of the five fiscal years subsequent to June 30, 2017, and thereafter are as presented below. Although not a prediction by the University of the future interest cost of the variable-rate bonds or the impact of the hedging derivative interest rate swaps, these amounts assume that current interest rates on variable-rate bonds and the current reference rates of the hedging derivative interest rate swaps will remain the same. As these rates vary, variable-rate bond interest payments and net hedging derivative interest rate swap payments will vary.

*(in thousands of dollars)*

| | COMMERCIAL PAPER | MEDICAL CENTER REVENUE BONDS | UNIVERSITY REVENUE BONDS | CAPITAL LEASES | OTHER UNIVERSITY BORROWINGS | BLENDED COMPONENT UNIT REVENUE BONDS | TOTAL PAYMENTS | PRINCIPAL | INTEREST |
|---|---|---|---|---|---|---|---|---|---|
| *Year Ending June 30* | | | | | | | | | |
| 2018 | $814,394 | $198,359 | $929,307 | $40,278 | $206,770 | $44,206 | $2,233,314 | $1,406,786 | $826,528 |
| 2019 | | 198,810 | 941,581 | 38,308 | 56,314 | 44,211 | 1,279,224 | 461,936 | 817,288 |
| 2020 | | 204,509 | 1,227,121 | 36,345 | 5,118 | 44,207 | 1,517,300 | 717,829 | 799,471 |
| 2021 | | 214,349 | 1,156,955 | 31,238 | 4,872 | 47,775 | 1,455,189 | 674,582 | 780,607 |
| 2022 | | 213,327 | 919,695 | 8,699 | 4,882 | 47,775 | 1,194,378 | 435,901 | 758,477 |
| 2023-2027 | | 1,083,942 | 4,990,072 | 23,341 | 23,634 | 239,067 | 6,360,056 | 2,974,050 | 3,386,006 |
| 2028-2032 | | 1,005,028 | 4,199,049 | 27,769 | 21,630 | 237,234 | 5,490,710 | 2,799,908 | 2,690,802 |
| 2033-2037 | | 980,534 | 3,823,590 | 33,787 | 19,159 | 234,021 | 5,091,091 | 3,115,398 | 1,975,693 |
| 2038-2042 | | 956,971 | 3,041,240 | 37,772 | 15,717 | 140,878 | 4,192,578 | 2,978,575 | 1,214,003 |
| 2043-2047 | | 868,729 | 1,800,270 | | 9,550 | 69,308 | 2,747,857 | 2,100,645 | 647,212 |
| 2048-2052 | | 127,598 | 597,588 | | 11,315 | 26,023 | 762,524 | 408,615 | 353,909 |
| 2053-2115 | | | 5,368,333 | | | | 5,368,333 | 1,360,000 | 4,008,333 |
| **Total future debt service** | **814,394** | **6,052,156** | **28,994,801** | **277,537** | **378,961** | **1,174,705** | **37,692,554** | **$19,434,225** | **$18,258,329** |
| Less: Interest component of future payments | (1,721) | (3,040,996) | (14,582,471) | (81,349) | (302) | (551,490) | (18,258,329) | | |
| **Principal portion of future payments** | **812,673** | **3,011,160** | **14,412,330** | **196,188** | **378,659** | **623,215** | **19,434,225** | | |
| Adjusted by: | | | | | | | | | |
| Unamortized bond premium | | 154,449 | 866,016 | | | 49,352 | 1,069,817 | | |
| Present value of net minimum leases included in long-term debt | | | | (1,166) | | | (1,166) | | |
| **Total debt** | **$812,673** | **$3,165,609** | **$15,278,346** | **$195,022** | **$378,659** | **$672,567** | **$20,502,876** | | |

Long-term debt does not include $2.0 billion of defeased liabilities at June 30, 2017. Investments that have maturities and interest rates sufficient to fund retirement of these liabilities are being held in irrevocable trusts for the debt service payments. Neither the assets of the trusts nor the outstanding obligations are included in the University's statement of net position.

General Revenue Bonds of $750.0 million are variable-rate demand bonds which reset weekly and, in the event of a failed remarketing, can be put back to The Regents for tender. The University has classified $750.0 million of these bonds as current liabilities as of June 30, 2017.

Medical Center Pooled Revenue Bonds of $98.8 million are variable-rate demand bonds which give the debt holders the ability to tender the bonds back to the University upon demand. The University has classified these bonds as current liabilities as of June 30, 2017.

As rates vary, variable-rate bond interest payments and net swap payments will vary. Although not a prediction by the University of the future interest cost of the variable-rate bonds or the impact of the interest rate swaps, using rates as of June 30, 2017, combined debt service requirements of the variable-rate debt and net swap payments are as follows:

*(in thousands of dollars)*

| | VARIABLE-RATE BONDS | | INTEREST RATE SWAP, NET | TOTAL PAYMENTS |
|---|---|---|---|---|
| | PRINCIPAL | INTEREST | | |
| *Year Ending June 30* | | | | |
| 2018 | $3,465 | $8,204 | $13,485 | $25,154 |
| 2019 | 3,590 | 8,183 | 13,396 | 25,169 |
| 2020 | 3,725 | 8,181 | 13,309 | 25,215 |
| 2021 | 3,860 | 8,137 | 13,210 | 25,207 |
| 2022 | 3,995 | 8,113 | 13,112 | 25,220 |
| 2023-2027 | 40,695 | 39,666 | 39,910 | 120,271 |
| 2028-2032 | 49,650 | 37,427 | 25,346 | 112,423 |
| 2033-2037 | 28,840 | 35,011 | 19,332 | 83,183 |
| 2038-2042 | 48,755 | 32,464 | 13,943 | 95,162 |
| 2043-2047 | 531,665 | 22,259 | 4,506 | 558,430 |
| 2048-2052 | 129,625 | 1,091 | | 130,716 |
| **Total** | **$847,865** | **$208,736** | **$169,549** | **$1,226,150** |

## 14. DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES

The composition of deferred outflows and inflows of resources at June 30 are summarized as follows:

*(in thousands of dollars)*

| | SERVICE CONCESSION ARRANGEMENTS | NET PENSION LIABILITY | NET RETIREE HEALTH BENEFITS LIABILITY | DEBT REFUNDING | INTEREST RATE SWAP AGREEMENTS | ROYALTY SALES | TOTAL |
|---|---|---|---|---|---|---|---|
| *At June 30, 2017* | | | | | | | |
| Deferred outflows of resources | | $1,001,165 | $4,106,941 | $351,306 | $90,232 | | $5,549,644 |
| Deferred inflows of resources | $95,725 | 785,238 | 4,934,470 | 1,436 | | $467,502 | 6,284,371 |
| *At June 30, 2016* | | | | | | | |
| Deferred outflows of resources | | $5,034,519 | $4,596,226 | $387,222 | $152,123 | | $10,170,090 |
| Deferred inflows of resources | $70,759 | 1,163,694 | 1,736,054 | | | $497,826 | 3,468,333 |

## 15. THE UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM (UCRS)

Most University employees participate in UCRS. UCRS consists of UCRP, a defined benefit plan funded with University and employee contributions; UCRSP, which includes defined contribution plans with options to participate in internally or externally managed investment portfolios generally funded with employee non-elective and elective contributions; UC-VERIP, a defined benefit plan for University employees who were members of PERS and who elected early retirement; and the CHRCO Pension Plan, a defined benefit plan fully funded with CHRCO contributions. The Regents has the authority to establish and amend the benefit plans except for the CHRCO Pension Plan. Administration authority with respect to UCRS plans is vested with the President of the University as plan administrator. CHRCO administers the CHRCO Pension Plan as the Sponsor and plan assets are held by US Bank (the Trustee).

Condensed financial information related to each plan in UCRS and the changes in pension liability for UCRP, UC-VERIP and the CHRCO Pension Plan for the year ended June 30, 2017 is as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | | | | |
|---|---|---|---|---|---|---|
| | UNIVERSITY OF CALIFORNIA RETIREMENT PLAN | UNIVERSITY OF CALIFORNIA UC-VERIP | SUBTOTAL | UNIVERSITY OF CALIFORNIA RETIREMENT SAVINGS PROGRAM | TOTAL | CHILDREN'S HOSPITAL & RESEARCH CENTER AT OAKLAND PENSION PLAN |
| **CONDENSED STATEMENT OF PLAN FIDUCIARY NET POSITION** | | | | | | |
| Investments at fair value | $63,004,945 | $65,809 | $63,070,754 | $19,503,265 | $82,574,019 | $409,008 |
| Participants' interests in mutual funds | | | | 3,351,454 | 3,351,454 | |
| Investment of cash collateral | 3,820,399 | 4,013 | 3,824,412 | 3,017,118 | 6,841,530 | |
| Other assets | 936,331 | 1,068 | 937,399 | 265,914 | 1,203,313 | |
| **Total assets** | **67,761,675** | **70,890** | **67,832,565** | **26,137,751** | **93,970,316** | **409,008** |
| Collateral held for securities lending | 3,818,660 | 4,012 | 3,822,672 | 3,015,744 | 6,838,416 | |
| Other liabilities | 1,828,757 | 1,900 | 1,830,657 | 639,375 | 2,470,032 | |
| **Total liabilities** | **5,647,417** | **5,912** | **5,653,329** | **3,655,119** | **9,308,448** | |
| **Net position held in trust** | **$62,114,258** | **$64,978** | **$62,179,236** | **$22,482,632** | **$84,661,868** | **$409,008** |
| **CONDENSED STATEMENT OF CHANGES IN PLANS' FIDUCIARY NET POSITION** | | | | | | |
| Contributions | $3,448,563 | | $3,448,563 | $1,330,901 | $4,779,464 | $28,800 |
| Net appreciation (depreciation) in fair value of investments | 6,906,968 | $7,474 | 6,914,442 | 1,701,958 | 8,616,400 | |
| Investment and other income, net | 959,313 | 1,192 | 960,505 | 476,266 | 1,436,771 | 41,256 |
| **Total additions** | **11,314,844** | **8,666** | **11,323,510** | **3,509,125** | **14,832,635** | **70,056** |
| Benefit payment and participant withdrawals | 3,320,990 | 4,738 | 3,325,728 | 1,374,324 | 4,700,052 | 11,767 |
| Other deductions | 44,128 | 6 | 44,134 | 8,816 | 52,950 | 2,727 |
| **Total deductions** | **3,365,118** | **4,744** | **3,369,862** | **1,383,140** | **4,753,002** | **14,494** |
| **Increase in net position held in trust** | **7,949,726** | **3,922** | **7,953,648** | **2,125,985** | **10,079,633** | **55,562** |
| **Net position held in trust** | | | | | | |
| Beginning of year | 54,164,532 | 61,056 | 54,225,588 | 20,356,647 | 74,582,235 | 353,446 |
| **End of year** | **$62,114,258** | **$64,978** | **$62,179,236** | **$22,482,632** | **$84,661,868** | **$409,008** |
| **CHANGES IN TOTAL PENSION LIABILITY** | | | | | | |
| Service cost | $1,807,143 | | $1,807,143 | | | $9,910 |
| Interest | 5,035,267 | $2,463 | 5,037,730 | | | 29,672 |
| Difference between expected and actual experience | 74,664 | (189) | 74,475 | | | 33 |
| Changes of benefit terms | | | | | | 2,442 |
| Changes of assumptions or other inputs | | | | | | |
| Benefits paid, including refunds of employee contributions | (3,320,990) | (4,738) | (3,325,728) | | | (11,767) |
| **Net change in total pension liability** | **3,596,084** | **(2,464)** | **3,593,620** | | | **30,290** |
| **Total pension liability** | | | | | | |
| Beginning of year | 69,230,762 | 35,008 | 69,265,770 | | | 419,862 |
| **End of year** | **$72,826,846** | **$32,544** | **$72,859,390** | | | **$450,152** |
| **Net pension liability (asset), end of year** | **$10,712,588** | **$(32,434)** | **$10,680,154** | | | **$41,144** |

Additional information on the retirement plans can be obtained from the 2016-2017 annual reports of the University of California Retirement System which can be obtained at http://reportingtransparency.universityofcalifornia.edu/.

## University of California Retirement Plan

UCRP provides lifetime retirement income, disability protection, death benefits, and post-retirement and pre-retirement survivor benefits to eligible employees of the University, and its affiliates. Membership is required in UCRP for all employees appointed to work at least 50 percent time for one year or more or for an indefinite period or for a definite period of a year or more. An employee may also become eligible by completing 1,000 hours within a 12-month period. Generally, five years of service are required for entitlement to plan benefits. The amount of pension benefit is determined under the basic formula of covered compensation times age factor times years of service credit. The maximum monthly benefit cannot exceed 100 percent of the employee's highest average plan compensation over a 36-month period, subject to certain limits imposed under the Internal Revenue Code or plan provisions. Annual cost-of-living adjustments are made to monthly benefits according to a specified formula based on the Consumer Price Index. Ad hoc COLAs may be granted subject to funding availability.

The University's membership in UCRP consisted of the following at June 30, 2017:

| | CAMPUSES AND MEDICAL CENTERS | DOE NATIONAL LABORATORIES | UNIVERSITY OF CALIFORNIA |
|---|---|---|---|
| Retirees and beneficiaries receiving benefits | 59,806 | 13,189 | 72,995 |
| Inactive members entitled to, but not receiving benefits | 76,735 | 10,317 | 87,052 |
| Active members: | | | |
| Vested | 74,397 | 1,667 | 76,064 |
| Nonvested | 52,472 | 846 | 53,318 |
| **Total active members** | **126,869** | **2,513** | **129,382** |
| **Total membership** | **263,410** | **26,019** | **289,429** |

### *Contributions*

Contributions to UCRP are based upon rates determined by The Regents. The Regents' funding policy provides for contributions at rates to maintain UCRP on an actuarially sound basis. While the University's independent actuary annually determines the total funding policy contributions, the University is not required to contribute an amount equal to the total funding contribution. The actual contributions and the contribution rates of the University and employees are based on numerous factors, including the availability of funds to the University, the impact of employee contributions on the competitiveness of the University's total remuneration package, and collective bargaining agreements.

The Regents determines the portion of the total contribution to be made by the employer and by the employees, and employee contribution rates for represented employees are subject to collective bargaining. Effective July 1, 2014, employee member contributions range from 7.0 percent to 9.0 percent. The University pays a uniform contribution rate of 14.0 percent of covered payroll on behalf of all UCRP members.

Employee contributions to UCRP are accounted for separately and currently accrue interest at 6.0 percent annually. Upon termination, members may elect a refund of their contributions plus accumulated interest; vested terminated members who are eligible to retire may also elect monthly retirement income or a lump sum equal to the present value of their accrued benefits. Both current employees and retirees at LBNL participate in UCRP. The University makes contributions to UCRP for LBNL employees based upon rates authorized by The Regents and is reimbursed by the DOE. The University also makes contributions to UCRP for LANL and LLNL retirees and terminated vested members whose benefits were retained in UCRP at the time the joint ventures were formed. The contributions for the LANL and LLNL are actuarially determined based upon a contractual arrangement with the DOE that incorporates a formula targeted to maintain the LANL and LLNL segments within UCRP at a 100-percent funded level. The University is reimbursed by the DOE for these contributions. To the extent the University has recorded a net pension liability (and related deferred inflows and outflows of resources) that will be reimbursed under DOE contracts, a receivable from the DOE is recorded. As of June 30, 2017 and 2016, the University reported $615.1 million and $974.7 million, respectively, as other noncurrent Department of Energy receivables for pension liabilities. Contributions of $367.7 million and $413.9 million were reported as DOE laboratory revenue and expense in the statement of revenues, expenses and changes in net position, and were deposited into UCRP on behalf of the DOE for the years ended June 30, 2017 and 2016, respectively.

### *Net Pension Liability*

All UCRP assets are available to pay any member's benefit. However, assets and liabilities for the campus and medical center segment of UCRP are internally tracked separately from the DOE national laboratory segments of UCRP. The net pension liability for UCRP was as follows:

| *(in thousands of dollars)* | CAMPUSES AND MEDICAL CENTERS | DOE NATIONAL LABORATORIES | UNIVERSITY OF CALIFORNIA |
|---|---|---|---|
| *At June 30, 2017* | | | |
| UCRP net position | $53,251,580 | $8,862,678 | $62,114,258 |
| Total pension liability | 63,355,934 | 9,470,912 | 72,826,846 |
| **Net pension liability** | **$10,104,354** | **$608,234** | **$10,712,588** |
| *At June 30, 2016* | | | |
| UCRP net position | $46,127,486 | $8,037,046 | $54,164,532 |
| Total pension liability | 59,779,748 | 9,451,014 | 69,230,762 |
| **Net pension liability** | **$13,652,262** | **$1,413,968** | **$15,066,230** |

The University's net pension liability was measured as of June 30 and was calculated using the plan net position valued as of the measurement date and total pension liability determined based upon rolling forward the total pension liability from the results of the actuarial valuations as of July 1 one year prior to the measurement date. Actuarial valuations represent a long-term perspective and involve estimates of the value of reported benefits and assumptions about the probability of occurrence of events far into the future. The University's net pension liability was calculated using the following methods and assumptions:

| | 2017 | 2016 |
|---|---|---|
| Inflation | 3.0% | 3.0% |
| Investment rate of return | 7.25 | 7.25 |
| Projected salary increases | 3.8 - 6.2 | 3.8 - 6.2 |
| Cost-of-living adjustments | 2.0 | 2.0 |

Actuarial assumptions are subject to periodic revisions as actual results are compared with past expectations and new estimates are made about the future. The actuarial assumptions used in 2017 were based upon the results of an experience study conducted for the period of July 1, 2010 through June 30, 2014. For active members, inactive members and healthy retirees, the RP-2014 White Collar Mortality Tables are used (separate tables for males and females), projected with the two-dimensional MP-2014 projection scale to 2029, and with ages then set forward one year. For disabled members, rates are based on the RP-2014 Disabled Retiree Mortality Table, projected with the two-dimensional MP-2014 projection scale to 2029, and with ages then set back one year for males and set forward five years for females.

The long-term expected investment rate of return assumption for UCRP was determined in 2015 based on a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

| | TARGET ALLOCATION | LONG-TERM EXPECTED REAL RATE OF RETURN |
|---|---|---|
| Asset class | | |
| U.S. Equity | 28.5% | 6.1% |
| Developed International Equity | 18.5 | 7.0 |
| Emerging Market Equity | 8.0 | 8.6 |
| Core Fixed Income | 12.5 | 0.8 |
| High Yield Bonds | 2.5 | 3.0 |
| Emerging Market Debt | 2.5 | 3.9 |
| TIPS | 4.5 | 0.4 |
| Real Estate | 5.5 | 4.8 |
| Private Equity | 8.0 | 11.2 |
| Absolute Return | 6.5 | 4.2 |
| Real Assets | 3.0 | 4.4 |
| **Total** | **100.0%** | **5.6%** |

### *Discount Rate*

The discount rate used to estimate the net pension liability as of June 30, 2017 and 2016 was 7.25 percent. To calculate the discount rate, cash flows into and out of UCRP were projected in order to determine whether UCRS has sufficient cash in future periods for projected benefit payments for current members. For this purpose, University, state and member contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected University and member contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions of future plan members, are not included. UCRP was projected to have assets sufficient to make projected benefit payments for current members for all future years as of June 30, 2017 and 2016.

### *Sensitivity of the Net Pension Liability to the Discount Rate Assumption*

The following presents the June 30, 2017 net pension liability of the University calculated using the June 30, 2017 discount rate assumption of 7.25 percent, as well as what the net pension liability would be if it were calculated using a discount rate different than the current assumption:

| *(in thousands of dollars)* | 1% DECREASE (6.25%) | CURRENT DISCOUNT (7.25%) | 1% INCREASE (8.25%) |
|---|---|---|---|
| UCRP | $19,885,642 | $10,712,588 | $3,125,799 |
| UC-VERIP | (30,667) | (32,434) | (33,952) |

## *Deferred Outflows of Resources and Deferred Inflows of Resources*

Deferred outflows of resources and deferred inflows of resources for pensions were related to the following sources:

| *(in thousands of dollars)* | CAMPUSES AND MEDICAL CENTERS | DOE NATIONAL LABORATORIES | TOTAL UCRP | UC-VERIP | TOTAL |
|---|---|---|---|---|---|
| *At June 30, 2017* | | | | | |
| **DEFERRED OUTFLOWS OF RESOURCES** | | | | | |
| Difference between expected and actual experience | $179,399 | | $179,399 | | $179,399 |
| Changes of assumptions or other inputs | 785,741 | | 785,741 | | 785,741 |
| Net difference between projected and actual earnings on pension plan investments | | $7,275 | 7,275 | | 7,275 |
| **Total** | **$965,140** | **$7,275** | **$972,415** | | **$972,415** |
| **DEFERRED INFLOWS OF RESOURCES** | | | | | |
| Difference between expected and actual experience | $151,067 | $7,410 | $158,477 | | $158,477 |
| Changes of assumptions or other inputs | 378,815 | | 378,815 | | 378,815 |
| Net difference between projected and actual earnings on pension plan investments | 244,430 | | 244,430 | | 244,430 |
| **Total** | **$774,312** | **$7,410** | **$781,722** | | **$781,722** |

| *(in thousands of dollars)* | CAMPUSES AND MEDICAL CENTERS | DOE NATIONAL LABORATORIES | TOTAL UCRP | UC-VERIP | TOTAL |
|---|---|---|---|---|---|
| *At June 30, 2016* | | | | | |
| **DEFERRED OUTFLOWS OF RESOURCES** | | | | | |
| Difference between expected and actual experience | $133,315 | | $133,315 | | $133,315 |
| Changes of assumptions or other inputs | 1,790,043 | | 1,790,043 | | 1,790,043 |
| Net difference between projected and actual earnings on pension plan investments | 2,610,352 | $450,700 | 3,061,052 | $3,299 | 3,064,351 |
| **Total** | **$4,533,710** | **$450,700** | **$4,984,410** | **$3,299** | **$4,987,709** |
| **DEFERRED INFLOWS OF RESOURCES** | | | | | |
| Difference between expected and actual experience | $270,482 | $11,422 | $281,904 | | $281,904 |
| Changes of assumptions or other inputs | 877,254 | | 877,254 | | 877,254 |
| **Total** | **$1,147,736** | **$11,422** | **$1,159,158** | | **$1,159,158** |

The net amount of deferred outflows of resources and deferred inflows of resources as of June 30, 2017 related to pensions that will be recognized in pension expense during the next five years are as follows:

| *(in thousands of dollars)* | CAMPUSES AND MEDICAL CENTERS | DOE NATIONAL LABORATORIES | TOTAL UCRP | UC-VERIP | TOTAL |
|---|---|---|---|---|---|
| 2018 | $(400,667) | $(45,287) | $(445,954) | $(403) | $(446,357) |
| 2019 | 849,391 | 107,064 | 956,455 | 877 | 957,332 |
| 2020 | 366,735 | 45,075 | 411,810 | 376 | 412,186 |
| 2021 | (633,819) | (106,987) | (740,806) | (850) | (741,656) |
| 2022 | 9,188 | | 9,188 | | 9,188 |
| **Total** | **$190,828** | **$(135)** | **$190,693** | | **$190,693** |

## Defined Contribution Plan

Effective July 1, 2016, newly hired (or becoming eligible) employees can elect a defined contribution option instead of participating in UCRP. For employees who elect this option, both the University and the participants make mandatory contributions, on a pretax basis, on eligible pay up to the IRS compensation limit. The participant contributes 7.0 percent and the University contributes 8.0 percent. University contributions are fully vested after one year of service. For certain newly hired (or becoming eligible) employees who elect to participate in UCRP, the University and the participants make mandatory contributions to the DC Plan on eligible pay up to the IRS limit. Participants contribute 7.0 percent on eligible pay and the University contributes 5.0 percent for designated faculty and 3.0 percent for staff. University contributions fully vest after five years service.

The University makes DC Plan retirement contributions on the summer or equivalent term salaries of eligible academic employees who teach, conduct research or provide administrative service during the summer session or an equivalent term. To be eligible, employees must hold academic year appointments and be active members of UCRP or another defined benefit plan to which the University contributes. The contribution rate is 7.0 percent of eligible salary, of which 3.5 percent is University-paid and 3.5 percent is employee-paid, both on a pretax basis. The University may also contribute on behalf of eligible senior managers. Employer contributions to the DC Plan were $13.2 million and $4.9 million for the years ended June 30, 2017 and 2016, respectively.

The DC Plan Pretax Account also includes mandatory contributions from part-time, seasonal and temporary employees at the University who are not currently participating in UCRP or another defined benefit plan to which the University contributes (Safe Harbor participants). Safe Harbor participation includes certain University student employees and resident aliens with F-1 and J-1 visa status. Safe Harbor participants contribute 7.5 percent of their gross salary (up to the Social Security wage base) to the Plan in lieu of deductions for Social Security taxes.

All University employees, except students who normally work fewer than 20 hours per week, are eligible to make voluntary contributions to the DC Plan After-Tax Account and defer taxation on the earnings until the accumulations are withdrawn. The maximum amount participants may contribute annually to the After-Tax Account is determined by the IRC §415(c) limit. The University may also make DC Plan contributions on behalf of eligible senior managers.

The Supplemental Defined Contribution Plan (SDC Plan) accepts employer contributions in behalf of certain designated employees. Employer contributions are fully vested and there is no provision for employee contributions. There were no assets or employer contributions to the SDC Plan for the years ended June 30, 2017 and 2016.

## Tax Deferred 403(b) Plan

The University's Tax-Deferred 403(b) Plan (403(b) Plan) accepts pretax employee contributions. The University may also make contributions in behalf of certain members of management. Employer contributions to the 403(b) Plan were $3.2 million and $1.5 million for the years ended June 30, 2017 and 2016.

## 457(b) Deferred Compensation Plan

The University's 457(b) Deferred Compensation Plan (457(b) Plan) accepts pretax employee contributions. The University may also make contributions in behalf of certain members of management. There were no employer contributions to the 457(b) Plan for the years ended June 30, 2017 and 2016.

Participants in the DC Plan, the SDC Plan, the 403(b) Plan and the 457(b) Plan may direct their elective and nonelective contributions to investment funds managed by the Chief Investment Officer. They may also invest account balances in certain mutual funds. The participants' interests in mutual funds is shown separately in the statement of plans' fiduciary net position.

## University of California Voluntary Early Retirement Incentive Program (UC-PERS)

UC-PERS is a defined benefit pension plan providing lifetime supplemental retirement income and survivor benefits to UC–PERS members who elected early retirement under provisions of the Plan. The University contributed to PERS on behalf of these UC–PERS members. As of July 1, 2017, there are 522 retirees or beneficiaries receiving benefits under this voluntary early retirement program.

The University and the DOE laboratories previously made contributions to the Plan sufficient to maintain the promised benefits. The actuarially determined contributions are zero for the years ended June 30, 2017 and 2016.

## Children's Hospital and Research Center at Oakland Pension Plan

CHRCO has a noncontributory defined benefit plan subject to the single employer defined benefit under ERISA rules that covers active and retired employees. The CHRCO Pension Plan was amended effective January 1, 2012 to exclude unrepresented employees hired or rehired on or after January 1, 2012. The CHRCO Pension Plan provides retirement, disability and death benefits to plan participants. Benefits are based on a participant's length of service, age at retirement and average compensation as defined by the CHRCO Pension Plan.

The net pension liability for the Plan was calculated based upon the following assumptions as of June 30, 2017 and 2016: 3.0 percent inflation, 7.0 percent investment rate of return, 5.0 percent projected salary increases through 2017, 4.0 percent afterward and no cost-of-living adjustments. CHRCO recognized pension expense of $20.0 million and $21.4 million for the years ended June 30, 2017 and 2016, respectively.

Mortality rates were based on the RP-2016 mortality with fully generational projected mortality improvements using modified scale MP-2016. The MP-2016 projection scale was modified for this valuation to utilize the Social Security administration intermediate cost projection scale and a 15-year convergence period.

Additional information on the CHRCO Pension Plan can be found in the annual reports, which can be obtained by contacting CHRCO.

Membership in the CHRCO Plan consisted of the following at June 30, 2017:

| | |
|---|---|
| Retirees and beneficiaries receiving benefits | 883 |
| Inactive members entitled to, but not yet receiving benefits | 1,095 |
| Active members | 1,926 |
| **Total membership** | **3,904** |

### *Contributions*

Employer contributions are determined under IRC Section 430. Employees are not required or permitted to contribute to the Plan.

### *Net Pension Liability*

The net pension liability for CHRCO was measured as of June 30, 2017 and 2016, and the total pension liability was determined by an actuarial valuation as of January 1, 2017 and 2016 rolled forward to June 30, 2017 and 2016, respectively. The actuarial assumptions used in the June 30, 2017 and 2016 valuation were based on the results of an experience review conducted during 2015. The target allocation and projected arithmetic real rates of return, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption for each major asset class are as follows:

| | PORTFOLIO PERCENTAGE | LONG-TERM EXPECTED REAL RATE OF RETURN |
|---|---|---|
| Asset class | | |
| U.S. Equity | 51.3% | 5.2% |
| Developed International Equity | 10.6 | 5.7 |
| Emerging Market Equity | 2.0 | 9.2 |
| Core Fixed Income | 36.1 | 0.8 |
| **Total** | **100.0%** | |

### *Discount Rate*

The discount rate used to measure the total pension liability was 7.0 percent for June 30, 2017 and 2016. The projection of cash flows used to determine the discount rate assumes that CHRCO will make contributions to the Plan under IRC Section 430's minimum requirements for a period of eight years, and that all future assumptions are met. Based on these assumptions, the pension Plan's fiduciary net position is projected to be available to make all projected future benefit payments for current active and inactive employees.

### *Sensitivity of the Net Pension Liability to the Discount Rate Assumption*

The following presents the June 30, 2017 net pension liability calculated using the June 30, 2017 discount rate assumption of 7.0 percent, as well as what the net pension liability would be if it were calculated using a discount rate different than the current assumption:

| *(in thousands of dollars)* | 1% DECREASE (6.0%) | CURRENT DISCOUNT (7.0%) | 1% INCREASE (8.0%) |
|---|---|---|---|
| Net pension liability | $105,079 | $41,144 | $(11,643) |

### *Deferred Outflows of Resources and Deferred Inflows of Resources*

As of June 30, deferred outflows of resources and deferred inflows of resources were as follows:

| *(in thousands of dollars)* | 2017 | 2016 |
|---|---|---|
| **Deferred Outflows of Resources** | | |
| Difference between expected and actual experience | $4,356 | $3,528 |
| Changes of benefit terms | 195 | 254 |
| Changes of assumptions | 21,768 | 27,877 |
| Net difference between projected and actual earnings on pension plan investments | 1,354 | 13,103 |
| **Total** | **$27,673** | **$44,762** |
| **Deferred Inflows of Resources** | | |
| Net difference between projected and actual earnings on pension plan investments | $2,370 | $3,030 |
| **Total** | **$2,370** | **$3,030** |

The net amount of deferred outflows of resources and deferred inflows of resources related to pensions that will be recognized in pension expense during the next five years is as follows:

| *(in thousands of dollars)* | |
|---|---|
| *Year Ending June 30* | |
| 2018 | $5,459 |
| 2019 | 10,772 |
| 2020 | 8,411 |
| 2021 | 328 |
| 2022 | 333 |
| **Total** | **$25,303** |

### Orange County Employees Retirement System

Orange County Employees Retirement System (OCERS) administers a cost-sharing, multi-employer defined benefit pension plan for the County of Orange, City of San Juan Capistrano and thirteen special districts. Certain employees of one of the University's medical centers were eligible to continue to participate in OCERS at the time the county hospital was acquired by the University.

OCERS provides retirement, disability and death benefits. Plan retirement benefits are tiered based upon date of OCERS membership. Participation in the Plan by the University's employees is closed to new members. The University's share of net pension liability, deferred inflows of resources, deferred outflows of resources and pension expense have been determined based upon its specific actuarial accrued liability and a share of assets allocated in accordance with a formula set forth in OCERS' policy. The fiduciary net position and changes in net position have been measured consistent with the accounting policies used by the OCERS Plan.

Membership in the OCERS Plan consisted of the following at December 31, 2016: 16,369 retired members and beneficiaries, 5,370 inactive members and 21,746 active members.

### *Contributions*

Contribution rates are set by the OCERS Board of Trustees.

### *Net Pension Liability*

The University's proportionate share of the net pension liability on June 30, 2017 and 2016 was $18.1 million, or 0.3 percent. The net pension liability for OCERS was measured as of June 30, 2017 and 2016, and the total pension liability was determined by an actuarial valuation as of December 31, 2016 and 2015 rolled forward to June 30, 2017 and 2016, respectively. The actuarial assumptions used in the 2017 and 2016 valuation were based on the results of an experience study for the period from January 1, 2011 through December 31, 2013.

The net pension liability for the Plan was calculated based upon the following assumptions as of June 30, 2017 and 2016: 3.0 percent inflation, 7.25 percent investment rate of return, 4.25-13.5 percent projected salary increases and 3.0 percent cost-of-living adjustments. Additional information on OCERS can be obtained from the 2016-2017 annual reports of the Orange County Employees Retirement System at http://www.ocers.org.

The target allocation and projected arithmetic real rates of return, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption for each major asset class for the OCERS Plan are as follows:

| | ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM | |
|---|---|---|
| | TARGET ALLOCATION | LONG-TERM EXPECTED REAL RATE OF RETURN |
| **Asset class** | | |
| Large Cap U.S. Equity | 14.9% | 5.9% |
| Small/Mid Cap U.S. Equity | 2.7 | 6.5 |
| Developed International Equity | 10.9 | 6.9 |
| Emerging International Equity | 6.5 | 8.3 |
| Core Bonds | 10.0 | 0.7 |
| Global Bonds | 2.0 | 0.3 |
| Emerging Market Debt | 3.0 | 4.0 |
| Real Estate | 10.0 | 5.0 |
| Diversified Credit (U.S. Credit) | 8.0 | 5.0 |
| Diversified Credit (Non-U.S. Credit) | 2.0 | 6.8 |
| Hedge Funds | 7.0 | 4.1 |
| GTAA | 7.0 | 4.2 |
| Real Return | 10.0 | 5.9 |
| Private Equity | 6.0 | 9.6 |
| **Total** | **100.00%** | |

### *Discount Rate*

The discount rate used to measure the total pension liability was 7.25 percent for June 30, 2017 and 2016. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rate. For this purpose, only employer contributions will be made at rates equal to the actuarially determined contribution rates.

### *Sensitivity of the Net Pension Liability to the Discount Rate Assumption*

The following presents the current-period net pension liability calculated using the June 30, 2017 discount rate assumption of 7.25 percent, as well as what the net pension liability would be if it were calculated using a discount rate different than the current assumption:

| *(in thousands of dollars)* | ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM | | |
|---|---|---|---|
| | 1% DECREASE (6.25%) | CURRENT DISCOUNT RATE (7.25%) | 1% INCREASE (8.25%) |
| Net pension liability | $26,065 | $18,057 | $11,466 |

### *Deferred Outflow of Resources and Deferred Inflows of Resources*

As of June 30, deferred outflow of resources and deferred inflows of resources were as follows:

| *(in thousands of dollars)* | 2017 | 2016 |
|---|---|---|
| **Deferred Outflows of Resources** | | |
| Difference between expected and actual experience | $491 | $499 |
| Net difference between projected and actual earnings on pension plan investments | 586 | 1,549 |
| **Total** | **$1,077** | **$2,048** |
| **Deferred Inflows of Resources** | | |
| Difference between expected and actual experience | $443 | $582 |
| Changes in assumptions | 703 | 925 |
| **Total** | **$1,146** | **$1,507** |

The net amount of deferred outflows of resources and deferred inflows of resources related to pensions that will be recognized in pension expense during the next five years and thereafter is as follows:

| *(in thousands of dollars)* | |
|---|---|
| *Year Ending June 30* | |
| 2018 | $(105) |
| 2019 | (106) |
| 2020 | 232 |
| 2021 | (113) |
| 2022 | 23 |
| **Total** | **$(69)** |

## 16. RETIREE HEALTH BENEFIT COSTS AND OBLIGATIONS

The University administers single-employer health and welfare plans to provide health and welfare benefits, primarily medical, dental and vision, to eligible retirees (and their eligible family members) of the University of California and its affiliates through the University of California Retiree Health Benefit Trust (UCRHBT). The Regents has the authority to establish and amend the plan.

Campus and medical center contributions toward retiree health benefits, at rates determined by the University, are made to UCRHBT. The University receives retiree health contributions from retirees that are deducted from their UCRP benefit payments. The University acts as a third-party administrator on behalf of UCRHBT and pays health care insurers and administrators amounts currently due under the University's retiree health benefit plans for retirees. UCRHBT reimburses the University for these amounts.

LBNL participates in the University's retiree health plans. LBNL does not participate in UCRHBT; therefore, the DOE has no interest in the Trust's assets. The University directly pays health care insurers and administrators amounts currently due under the University's retiree health benefit plans for retirees who previously worked at LBNL, and is reimbursed by the DOE.

Condensed financial information for the changes in retiree health benefits liability for the year ended June 30, 2017 is as follows:

| *(in thousands of dollars)* | CAMPUSES AND MEDICAL CENTERS | LBNL | UNIVERSITY OF CALIFORNIA |
|---|---|---|---|
| Contributions | $485,427 | $20,242 | $505,669 |
| Investment income, net | 606 | | 606 |
| **Total additions** | **486,033** | **20,242** | **506,275** |
| Insurance premiums, net | (447,604) | (20,242) | (467,846) |
| Other deductions | (4,256) | | (4,256) |
| **Total deductions** | **(451,860)** | **$(20,242)** | **(472,102)** |
| **Increase in net position held in UCRHBT** | 34,173 | | 34,173 |
| Net position held in UCRHBT, beginning of year | 72,541 | | 72,541 |
| **Net position held in UCRHBT, end of year** | **$106,714** | | **$106,714** |

| *(in thousands of dollars)* | CAMPUSES AND MEDICAL CENTERS | LBNL | UNIVERSITY OF CALIFORNIA |
|---|---|---|---|
| **CHANGES IN TOTAL RETIREE HEALTH BENEFITS LIABILITY** | | | |
| Service cost | $981,745 | $22,899 | $1,004,644 |
| Interest | 625,947 | 20,332 | 646,279 |
| Difference between expected and actual experience | 95,254 | 6,026 | 101,280 |
| Changes of assumptions and other inputs | (3,707,921) | (120,003) | (3,827,924) |
| Retiree contributions | 69,968 | 2,748 | 72,716 |
| Benefits paid | (447,604) | (20,242) | (467,846) |
| **Net change in total retiree health benefits liability** | **(2,382,611)** | **(88,240)** | **(2,470,851)** |
| **Total retiree health benefits liability** | | | |
| Beginning of year | 21,168,812 | 699,177 | 21,867,989 |
| **End of year** | **$18,786,201** | **$610,937** | **$19,397,138** |
| **Net retiree health benefit liability, end of year** | **$18,679,487** | **$610,937** | **$19,290,424** |

### *Benefits*

Retirees are eligible for medical and dental benefits. The costs of the medical and dental benefits are shared between the University and the retiree. The University does not contribute toward the cost of other benefits available to retirees. Retirees who are employed by the University after July 1, 2013, and retire at the age of 56 or older, become eligible for a percentage of the University's contribution based on age and years of service. Retirees are eligible for the maximum University contribution at age 65 with 20 or more years of service. Retirees employed by the University prior to 1990 and not rehired after that date are eligible for the University's maximum contribution if they retire before age 55 and have at least 10 years of service, or if they retire at age 55 or later and have at least 5 years of service. Retirees employed by the University after 1989 are subject to graduated eligibility provisions that generally require 10 years of service before becoming eligible for 50 percent of the maximum University contribution, increasing to 100 percent after 20 years of service. Retirees pay the excess, if any, of the premium over the applicable portion of the University's contribution.

Membership in UCRP is required to become eligible for retiree health benefits. Participation in the retiree health benefit plans consisted of the following at June 30, 2017:

| | CAMPUSES AND MEDICAL CENTERS | LBNL | UNIVERSITY OF CALIFORNIA |
|---|---|---|---|
| Retirees and beneficiaries receiving benefits | 41,157 | 1,817 | 42,974 |
| Active members entitled to, but not yet receiving benefits | 122,932 | 2,578 | 125,510 |
| **Total membership** | **164,089** | **4,395** | **168,484** |

### *Contributions*

The University does not pre-fund retiree health benefits and instead provides for benefits based upon projected pay-as-you-go financing. University and retiree contributions toward premiums made under purchased plan arrangements are determined by applying the health plan contract rates across the number of participants in the respective plans. Premium rates for the self-insured plan contributions are set by the University based upon a trend analysis of the historic cost, utilization, demographics and administrative expenses to provide for the claims incurred and the actuarially determined level of incurred but not reported liability. The assessment rates were $2.93 and $2.98 per $100 of UCRP covered payroll effective July 1, 2016 and 2015, respectively.

In addition to the explicit University contribution provided to retirees, there is an "implicit subsidy." The gross premiums for members that are not currently eligible for Medicare benefits are the same for active employees and retirees, based on a blend of their health costs. Retirees, on average, are expected to have higher health care costs than active employees. This is primarily due to the older average age of retirees. Since the same gross premiums apply to both groups, the premiums paid for active employees by the University are subsidizing the premiums for retirees. This effect is called the implicit subsidy. The implicit subsidy associated with retiree health costs paid during the past year is also considered to be a contribution from the University.

### *Net Retiree Health Benefits Liability*

The University's net retiree health benefits liability was measured as of June 30 based on rolling forward the results of the actuarial valuations as of July 1. Actuarial valuations represent a long-term perspective and involve estimates of the value of reported benefits and assumptions about the probability of occurrence of events far into the future. Significant actuarial methods and assumptions used to calculate the University's net retiree health benefits liability were:

| *(shown as percentage)* | **2017** | **2016** |
|---|---|---|
| Discount rate | 3.6% | 2.9% |
| Inflation | 3.0 | 3.0 |
| Investment rate of return | 3.0 | 3.0 |
| Health care cost trend rates | Initially ranges from 5.0 to 9.5 decreasing to an ultimate rate of 5.0 for 2032 and later years. | Initially ranges from 6.3 to 9.0 decreasing to an ultimate rate of 5.0 for 2031 and later years. |

The actuarial assumptions are based upon the results of an experience study conducted for the period of July 1, 2010 through June 30, 2014. For active members and healthy retirees, the RP-2014 White Collar Mortality Tables are used (separate tables for males and females), projected with the two-dimensional MP-2014 projection scale to 2029, and with ages then set forward one year. For disabled members, rates are based on the RP-2014 Disabled Retiree Mortality Table, projected with the two-dimensional MP-2014 projection scale to 2029 and with ages then set back one year for males and set forward five years for females.

### *Sensitivity of Net Retiree Health Benefits Liability to the Health Care Cost Trend Rate*

The following presents the June 30, 2017 net retiree health benefits liability of the University calculated using the June 30, 2017 health care cost trend rate assumption with initial trend ranging from 5.0 percent to 9.5 percent grading down to an ultimate trend of 5.0 percent over 15 years, as well as what the net retiree health benefits liability would be if it were calculated using a health care cost trend rate different than the current assumption:

| *(in thousands of dollars)* | **1% DECREASE** (4.0% TO 8.5% DECREASING TO 4.0%) | **CURRENT DISCOUNT** (5.0% TO 9.5% DECREASING TO 5.0%) | **1% INCREASE** (6.0% - 10.5% INCREASING TO 6.0%) |
|---|---|---|---|
| Net retiree health benefits liability | $16,401,133 | $19,290,424 | $23,275,729 |

### *Discount Rate*

The discount rate used to estimate the net retiree health benefits liability as of June 30, 2017 and 2016 was 3.58 percent and 2.85 percent, respectively. The discount rate was based on the Bond Buyer 20-year tax-exempt general obligations municipal bond index rate since UCHRBT plan assets are projected not sufficient to make benefit payments.

### *Sensitivity of Net Retiree Health Benefits Liability to the Discount Rate Assumption*

The following presents the June 30, 2017 net retiree health benefits liability of the University calculated using the June 30, 2017 discount rate assumption of 3.58 percent, as well as what the net retiree health benefits liability would be if it were calculated using a discount rate different than the current assumption:

| *(in thousands of dollars)* | 1% DECREASE (2.58%) | CURRENT TREND (3.58%) | 1% INCREASE (4.58%) |
|---|---|---|---|
| Net retiree health benefits liability | $23,100,556 | $19,290,424 | $16,466,009 |

### *Deferred Outflows of Resources and Deferred Inflows of Resources*

Deferred outflows of resources and deferred inflows of resources for retiree health benefits were related to the following sources:

*(in thousands of dollars)*

| **2017** | CAMPUSES AND MEDICAL CENTERS | LBNL | UNIVERSITY OF CALIFORNIA |
|---|---|---|---|
| **DEFERRED OUTFLOWS OF RESOURCES** | | | |
| Difference between expected and actual experience | $85,012 | $5,084 | $90,096 |
| Changes of assumptions or other inputs | 3,897,003 | 116,490 | 4,013,493 |
| Net difference between projected and actual earnings on plan investments | 3,352 | | 3,352 |
| **Total** | **$3,985,367** | **$121,574** | **$4,106,941** |
| **DEFERRED INFLOWS OF RESOURCES** | | | |
| Difference between expected and actual experience | $1,471,781 | $52,216 | $1,523,997 |
| Changes of assumptions or other inputs | 3,309,220 | 101,253 | 3,410,473 |
| **Total** | **$4,781,001** | **$153,469** | **$4,934,470** |

*(in thousands of dollars)*

| **2016** | CAMPUSES AND MEDICAL CENTERS | LBNL | UNIVERSITY OF CALIFORNIA |
|---|---|---|---|
| **DEFERRED OUTFLOWS OF RESOURCES** | | | |
| Changes of assumptions or other inputs | $4,453,093 | $140,760 | $4,593,853 |
| Net difference between projected and actual earnings on plan investments | 2,373 | | 2,373 |
| **Total** | **$4,455,466** | **$140,760** | **$4,596,226** |
| **DEFERRED INFLOWS OF RESOURCES** | | | |
| Difference between expected and actual experience | $1,673,395 | $62,659 | $1,736,054 |
| **Total** | **$1,673,395** | **$62,659** | **$1,736,054** |

The net amount of deferred outflows of resources and deferred inflows of resources as of June 30, 2017 related to retiree health benefits that will be recognized in retiree health benefit expense during the next five years and thereafter are as follows:

| *(in thousands of dollars)* | CAMPUSES AND MEDICAL CENTERS | LBNL | UNIVERSITY OF CALIFORNIA |
|---|---|---|---|
| 2018 | $(32,892) | $(3,981) | $(36,873) |
| 2019 | (32,892) | (3,981) | (36,873) |
| 2020 | (33,229) | (3,981) | (37,210) |
| 2021 | (33,567) | (3,981) | (37,548) |
| 2022 | (33,983) | (8,841) | (42,824) |
| Thereafter | (629,071) | (7,130) | (636,201) |
| **Total** | **$(795,634)** | **$(31,895)** | **$(827,529)** |

## 17. ENDOWMENTS AND GIFTS

Endowments and gifts are held and administered either by the University or by the campus foundations.

### University of California

The value of endowments and gifts held and administered by the University, exclusive of income distributed to be used for operating purposes, at June 30, 2017 and 2016 are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA | | | |
|---|---|---|---|---|
| | RESTRICTED NONEXPENDABLE | RESTRICTED EXPENDABLE | UNRESTRICTED | TOTAL |
| *At June 30, 2017* | | | | |
| Endowments | $1,121,743 | $2,921,277 | $5,414 | $4,048,434 |
| Funds functioning as endowments | | 2,526,811 | 3,742,764 | 6,269,575 |
| Annuity and life income | 21,324 | 9,534 | | 30,858 |
| Gifts | | 1,423,479 | | 1,423,479 |
| **University endowments and gifts** | **$1,143,067** | **$6,881,101** | **$3,748,178** | **$11,772,346** |
| *At June 30, 2016* | | | | |
| Endowments | $1,092,786 | $2,539,481 | $4,770 | $3,637,037 |
| Funds functioning as endowments | | 2,275,525 | 2,905,204 | 5,180,729 |
| Annuity and life income | 18,297 | 8,376 | | 26,673 |
| Gifts | | 1,261,615 | 16,954 | 1,278,569 |
| **University endowments and gifts** | **$1,111,083** | **$6,084,997** | **$2,926,928** | **$10,123,008** |

The University's endowment income distribution policies are designed to preserve the value of the endowment in real terms (after inflation) and to generate a predictable stream of spendable income. Endowment investments are managed to achieve the maximum long-term total return. As a result of this emphasis on total return, the proportion of the annual income distribution provided by dividend and interest income and by capital gains may vary significantly from year to year. The University's policy is to retain the realized and unrealized appreciation with the endowment after the annual income distribution has been made. The net appreciation available to meet future spending needs is subject to the approval of The Regents and amounted to $2.4 billion and $2.1 billion at June 30, 2017 and 2016, respectively.

The portion of investment returns earned on endowments held by the University and distributed at the end of each year to support current operations for the following year is based upon a rate that is approved by The Regents. The annual income distribution transferred to the campuses from endowments held by the University was $277.2 million and $260.5 million for the years ended June 30, 2017 and 2016, respectively. The portion of this annual income distribution from accumulated capital gains, in addition to the dividend and interest income earned during the year, was $253.8 million and $240.4 million for the years ended June 30, 2017 and 2016, respectively. Accumulated endowment income available for spending in the future, including the annual income distribution, was $629.8 million and $595.6 million at June 30, 2017 and 2016, respectively.

## Campus Foundations

The value of endowments and gifts held by the campus foundations and administered by each of their independent Board of Trustees at June 30 are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | | |
|---|---|---|---|---|
| | RESTRICTED NONEXPENDABLE | RESTRICTED EXPENDABLE | UNRESTRICTED | TOTAL |
| *At June 30, 2017* | | | | |
| Endowments | $3,967,220 | $1,246,890 | | $5,214,110 |
| Funds functioning as endowments | | 1,515,774 | | 1,515,774 |
| Annuity and life income | 78,705 | 57,678 | | 136,383 |
| Gifts | | 1,542,758 | $193,132 | 1,735,890 |
| **Campus foundations' endowments and gifts** | **$4,045,925** | **$4,363,100** | **$193,132** | **$8,602,157** |
| *At June 30, 2016* | | | | |
| Endowments | $3,631,455 | $884,701 | | $4,516,156 |
| Funds functioning as endowments | | 1,358,719 | | 1,358,719 |
| Annuity and life income | 68,594 | 52,715 | | 121,309 |
| Gifts | | 1,445,797 | $94,869 | 1,540,666 |
| **Campus foundations' endowments and gifts** | **$3,700,049** | **$3,741,932** | **$94,869** | **$7,536,850** |

## 18. SEGMENT INFORMATION

The University's medical centers' and CHRCO's revenues are pledged in support of the outstanding University of California Medical Center Pooled Revenue Bonds. The medical centers' operating revenues and expenses consist primarily of revenues associated with patient care and the related costs of providing that care.

Condensed financial statement information related to each of the University's medical centers for the year ended June 30, 2017 is as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA MEDICAL CENTERS | | | | |
|---|---|---|---|---|---|
| | DAVIS | IRVINE | LOS ANGELES | SAN DIEGO | SAN FRANCISCO |
| *Year Ended June 30, 2017* | | | | | |
| Revenue bonds outstanding | $337,570 | $317,870 | $729,825 | $711,085 | $914,810 |
| Related debt service payments | $32,491 | $18,190 | $46,008 | $42,662 | $57,013 |
| Bonds due serially through | 2047 | 2049 | 2049 | 2049 | 2049 |
| **CONDENSED STATEMENT OF NET POSITION** | | | | | |
| Current assets | $999,025 | $527,151 | $1,471,268 | $740,767 | $1,335,527 |
| Capital assets, net | 1,030,246 | 734,509 | 1,749,540 | 1,620,948 | 2,349,538 |
| Other assets | 104,942 | 69,703 | 322,112 | 31,380 | 272,525 |
| **Total assets** | **2,134,213** | **1,331,363** | **3,542,920** | **2,393,095** | **3,957,590** |
| **Total deferred outflows of resources** | **362,917** | **160,399** | **516,101** | **345,110** | **836,506** |
| Current liabilities | 328,609 | 270,520 | 404,441 | 231,802 | 592,470 |
| Long-term debt | 362,743 | 338,340 | 934,794 | 754,170 | 928,264 |
| Other noncurrent liabilities | 2,145,257 | 1,030,129 | 2,564,310 | 1,535,743 | 3,106,945 |
| **Total liabilities** | **2,836,609** | **1,638,989** | **3,903,545** | **2,521,715** | **4,627,679** |
| **Total deferred inflows of resources** | **369,066** | **205,017** | **421,778** | **251,166** | **533,051** |
| Net investment in capital assets | 640,415 | 393,404 | 790,467 | 857,221 | 1,396,747 |
| Restricted | 86,748 | 69,703 | 11,138 | | 90,811 |
| Unrestricted | (1,435,708) | (815,351) | (1,067,907) | (891,897) | (1,854,192) |
| **Total net position** | **$(708,545)** | **$(352,244)** | **$(266,302)** | **$(34,676)** | **$(366,634)** |

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA MEDICAL CENTERS | | | | |
|---|---|---|---|---|---|
| | DAVIS | IRVINE | LOS ANGELES | SAN DIEGO | SAN FRANCISCO |
| **CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION** | | | | | |
| Operating revenues | $2,147,374 | $1,116,327 | $2,502,552 | $1,688,162 | $3,951,754 |
| Operating expenses | (1,904,823) | (981,506) | (2,241,931) | (1,591,807) | (3,792,538) |
| Depreciation expense | (78,839) | (69,271) | (142,841) | (76,779) | (210,913) |
| **Operating income (loss)** | **163,712** | **65,550** | **117,780** | **19,576** | **(51,697)** |
| Nonoperating revenues (expenses), net | 9,467 | (17,961) | (36,579) | (10,470) | 24,067 |
| **Income (loss) before other changes in net position** | **173,179** | **47,589** | **81,201** | **9,106** | **(27,630)** |
| Health systems support | (28,088) | (59,727) | (175,341) | (109,586) | (84,898) |
| Transfers (to) from University, net | (4,349) | | | (404) | 89 |
| Changes in allocation for pension payable to University | 1,892 | 7,266 | 5,834 | (9,130) | 6,506 |
| Other, including donated assets | 983 | 1,756 | 3,500 | 30,218 | 30,715 |
| **Increase (decrease) in net position** | **143,617** | **(3,116)** | **(84,806)** | **(79,796)** | **(75,218)** |
| Net position - beginning of year | (852,162) | (349,128) | (181,496) | 45,120 | (291,416) |
| **Net position - June 30, 2017** | **$(708,545)** | **$(352,244)** | **$(266,302)** | **$(34,676)** | **$(366,634)** |
| **CONDENSED STATEMENT OF CASH FLOWS** | | | | | |
| Net cash provided (used) by: | | | | | |
| Operating activities | $289,030 | $257,072 | $304,081 | $166,061 | $390,971 |
| Noncapital financing activities | (29,396) | (59,134) | (173,112) | (112,361) | (62,856) |
| Capital and related financing activities | (25,665) | (30,292) | (43,206) | (135,525) | (136,759) |
| Investing activities | (70,468) | (78,116) | 16,381 | 11,058 | (15,333) |
| **Net increase (decrease) in cash and cash equivalents** | **163,501** | **89,530** | **104,144** | **(70,767)** | **176,023** |
| Cash and cash equivalents* – June 30, 2016 | 464,908 | 253,332 | 903,617 | 465,589 | 450,701 |
| **Cash and cash equivalents* – June 30, 2017** | **$628,409** | **$342,862** | **$1,007,761** | **$394,822** | **$626,724** |

**Cash and cash equivalents on the medical centers' financial statements are included in the University's Short Term Investment Pool.*

Condensed financial statement information related to each of the University's medical centers for the year ended June 30, 2016 is as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA MEDICAL CENTERS | | | | |
|---|---|---|---|---|---|
| | DAVIS | IRVINE | LOS ANGELES | SAN DIEGO | SAN FRANCISCO |
| *Year Ended June 30, 2016* | | | | | |
| Revenue bonds outstanding | $282,054 | $265,185 | $700,315 | $658,667 | $832,979 |
| Related debt service payments | $32,833 | $24,007 | $44,507 | $40,201 | $54,236 |
| Bonds due serially through | 2047 | 2049 | 2049 | 2048 | 2049 |
| **CONDENSED STATEMENT OF NET POSITION** | | | | | |
| Current assets | $825,786 | $477,962 | $1,319,490 | $757,892 | $1,120,331 |
| Capital assets, net | 1,004,073 | 718,179 | 1,813,446 | 1,471,118 | 2,381,726 |
| Other assets | 18,837 | | 299,918 | 37,073 | 224,590 |
| **Total assets** | **1,848,696** | **1,196,141** | **3,432,854** | **2,266,083** | **3,726,647** |
| **Total deferred outflows of resources** | **630,774** | **303,895** | **774,292** | **422,288** | **1,003,134** |
| Current liabilities | 374,616 | 240,452 | 421,741 | 234,871 | 510,171 |
| Long-term debt | 268,671 | 267,344 | 837,071 | 684,672 | 829,519 |
| Other noncurrent liabilities | 2,493,557 | 1,237,534 | 2,920,816 | 1,596,701 | 3,419,626 |
| **Total liabilities** | **3,136,844** | **1,745,330** | **4,179,628** | **2,516,244** | **4,759,316** |
| **Total deferred inflows of resources** | **194,788** | **103,834** | **209,014** | **127,007** | **261,881** |
| Net investment in capital assets | 701,366 | 446,355 | 959,252 | 749,527 | 1,475,111 |
| Restricted | | | 11,360 | | 63,785 |
| Unrestricted | (1,553,528) | (795,483) | (1,152,108) | (704,407) | (1,830,312) |
| **Total net position** | **$(852,162)** | **$(349,128)** | **$(181,496)** | **$45,120** | **$(291,416)** |

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA MEDICAL CENTERS | | | | |
|---|---|---|---|---|---|
| | DAVIS | IRVINE | LOS ANGELES | SAN DIEGO | SAN FRANCISCO |
| **CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION** | | | | | |
| Operating revenues | $1,935,274 | $1,009,651 | $2,364,038 | $1,544,658 | $3,567,317 |
| Operating expenses | (1,895,627) | (966,448) | (2,202,804) | (1,448,810) | (3,617,548) |
| Depreciation expense | (79,291) | (68,706) | (134,100) | (58,391) | (205,146) |
| **Operating income (loss)** | **(39,644)** | **(25,503)** | **27,134** | **37,457** | **(255,377)** |
| Nonoperating revenues (expenses), net | (461) | (20,450) | (24,398) | 16 | (15,663) |
| **Income (loss) before other changes in net position** | **(40,105)** | **(45,953)** | **2,736** | **37,473** | **(271,040)** |
| Health systems support | (41,387) | (65,081) | (176,852) | (96,570) | (64,055) |
| Transfers (to) from University, net | (8,563) | 3,086 | (8,950) | (2,735) | 8,240 |
| Changes in allocation for pension payable to University | (1,184) | 681 | (452) | (1,613) | (12,414) |
| Other, including donated assets | 2,074 | 822 | 16,212 | 52,255 | 47,290 |
| **Decrease in net position** | **(89,165)** | **(106,445)** | **(167,306)** | **(11,190)** | **(291,979)** |
| Net position - beginning of year | (762,997) | (242,683) | (14,190) | 56,310 | 563 |
| **Net position - June 30, 2016** | **$(852,162)** | **$(349,128)** | **$(181,496)** | **$45,120** | **$(291,416)** |
| **CONDENSED STATEMENT OF CASH FLOWS** | | | | | |
| Net cash provided (used) by: | | | | | |
| Operating activities | $207,723 | $128,263 | $430,799 | $303,984 | $214,823 |
| Noncapital financing activities | (46,176) | (64,180) | (175,258) | (101,887) | (47,456) |
| Capital and related financing activities | (118,061) | (84,466) | (102,284) | (188,317) | (175,565) |
| Investing activities | 12,168 | (9,042) | 15,583 | 49,764 | 6,557 |
| **Net increase (decrease) in cash and cash equivalents** | **55,654** | **(29,425)** | **168,840** | **63,544** | **(1,641)** |
| Cash and cash equivalents* – June 30, 2015 | 409,254 | 282,757 | 734,777 | 402,045 | 452,342 |
| **Cash and cash equivalents* – June 30, 2016** | **$464,908** | **$253,332** | **$903,617** | **$465,589** | **$450,701** |

**Cash and cash equivalents on the medical centers' financial statements are included in the University's Short Term Investment Pool, except for CHRCO as of June 30, 2015.*

Summarized financial information for each medical center is from the medical centers' audited financial statements. Certain revenue, such as financial support from the state for clinical teaching programs, is classified as state educational appropriations rather than medical center revenue in the University's statement of revenues, expenses and changes in net position. However, in the medical centers' audited financial statements and for segment reporting purposes, these revenues are classified as operating revenue. Additional information on the individual University of California medical centers can be obtained from their audited financial statements which are available at http://reportingtransparency.universityofcalifornia.edu.

Multiple purpose and housing system projects (including student and faculty housing, parking facilities, student centers, recreation and events facilities, student health service facilities and certain academic and administrative facilities) are also financed by revenue bonds; however, assets and liabilities are not required to be accounted for separately.

## 19. BLENDED COMPONENT UNIT INFORMATION

Condensed financial statement information related to the University's blended component units for the years ended June 30, are as follows:

*(in thousands of dollars)*

| | FIAT LUX | | CHRCO | |
|---|---|---|---|---|
| | **2017** | **2016** | **2017** | **2016** |
| **CONDENSED STATEMENTS OF NET POSITION** | | | | |
| Current assets | $543,817 | $69,341 | $249,445 | $195,918 |
| Capital assets, net | | | 295,766 | 275,951 |
| Other assets | 393,049 | 10,576 | 253,336 | 211,711 |
| **Total assets** | **936,866** | **79,917** | **798,547** | **683,580** |
| **Total deferred outflows of resources** | | | **27,673** | **44,761** |
| Current liabilities | 205,073 | 3,395 | 104,878 | 98,477 |
| Other noncurrent liabilities | 583,779 | 72,105 | 174,519 | 147,244 |
| **Total liabilities** | **788,852** | **75,500** | **279,397** | **245,721** |
| **Total deferred inflows of resources** | | | **2,370** | **3,030** |
| Net investment in capital assets | | | 191,683 | 222,236 |
| Restricted | | | 75,403 | 55,036 |
| Unrestricted | 148,014 | 4,417 | 277,367 | 202,318 |
| **Total net position** | **$148,014** | **$4,417** | **$544,453** | **$479,590** |
| **CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION** | | | | |
| Operating revenues | $216,407 | $17,182 | $597,564 | $483,065 |
| Operating expenses | (242,706) | (31,117) | (558,460) | (524,445) |
| Depreciation expense | | | (33,842) | (34,274) |
| **Operating income (loss)** | **(26,299)** | **(13,935)** | **5,262** | **(75,654)** |
| Nonoperating revenues (expenses), net | 12,767 | 591 | 42,151 | 2,899 |
| **Income (loss) before other changes in net position in net position** | **(13,532)** | **(13,344)** | **47,413** | **(72,755)** |
| Transfers from University | 157,129 | | | |
| Other, including donated assets | | | 17,450 | 20,808 |
| **Increase (decrease) in net position** | **143,597** | **(13,344)** | **64,863** | **(51,947)** |
| Net position – beginning of year | 4,417 | 17,761 | 479,590 | 531,537 |
| **Net position – end of year** | **$148,014** | **$4,417** | **$544,453** | **$479,590** |
| **CONDENSED STATEMENT OF CASH FLOWS** | | | | |
| *Net cash provided (used) by:* | | | | |
| Operating activities | $49,463 | $14,859 | $36,732 | $(13,671) |
| Noncapital financing activities | | | 19,523 | 10,918 |
| Capital and related financing activities | 786,167 | | 5,645 | (19,092) |
| Investing activities | (850,563) | (20,084) | (14,452) | (289) |
| **Net increase (decrease) in cash and cash equivalents** | **(14,933)** | **(5,225)** | **47,448** | **(22,134)** |
| Cash and cash equivalents – beginning of year | 15,635 | 20,860 | 71,414 | 93,548 |
| **Cash and cash equivalents – end of year** | **$702** | **$15,635** | **$118,862** | **$71,414** |

Additional information on the blended component units can be found in their separately issued audited financial statements, which can be obtained by contacting Fiat Lux and CHRCO.

## 20. CAMPUS FOUNDATIONS INFORMATION

Under University policies approved by The Regents, each individual campus may establish a separate foundation to provide valuable assistance in fundraising, public outreach and other support for the missions of the campus and the University. Although independent boards govern these foundations, their assets are dedicated for the benefit of the University of California.

Condensed financial statement information related to the University's campus foundations, including their allocated share of the assets and liabilities associated with securities lending transactions in the University's investment pools, for the year ended June 30, 2017 is as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | | | |
|---|---|---|---|---|---|
| | BERKELEY | SAN FRANCISCO | LOS ANGELES | ALL OTHER | TOTAL |
| **CONDENSED STATEMENT OF NET POSITION** | | | | | |
| Current assets | $76,070 | $286,739 | $490,034 | $350,732 | $1,203,575 |
| Noncurrent assets | 2,038,355 | 1,509,773 | 2,565,913 | 2,114,987 | 8,229,028 |
| **Total assets** | **2,114,425** | **1,796,512** | **3,055,947** | **2,465,719** | **9,432,603** |
| **Total deferred outflows of resources** | | | | | |
| Current liabilities | 16,379 | 39,032 | 263,424 | 118,887 | 437,722 |
| Noncurrent liabilities | 78,392 | 254,620 | 32,449 | 25,540 | 391,001 |
| **Total liabilities** | **94,771** | **293,652** | **295,873** | **144,427** | **828,723** |
| **Total deferred inflows of resources** | | | **1,723** | | **1,723** |
| Restricted | 2,015,269 | 1,502,447 | 2,600,898 | 2,290,411 | 8,409,025 |
| Unrestricted | 4,385 | 413 | 157,453 | 30,881 | 193,132 |
| **Total net position** | **$2,019,654** | **$1,502,860** | **$2,758,351** | **$2,321,292** | **$8,602,157** |
| **CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION** | | | | | |
| Operating revenues | $114,188 | $155,614 | $305,490 | $293,997 | $869,289 |
| Operating expenses | (208,956) | (231,647) | (292,211) | (236,701) | (969,515) |
| **Operating income (loss)** | **(94,768)** | **(76,033)** | **13,279** | **57,296** | **(100,226)** |
| Nonoperating revenues | 218,641 | 155,790 | 262,941 | 239,976 | 877,348 |
| **Income before other changes in net position** | **123,873** | **79,757** | **276,220** | **297,272** | **777,122** |
| Permanent endowments | 67,737 | 41,513 | 70,719 | 108,216 | 288,185 |
| **Increase in net position** | **191,610** | **121,270** | **346,939** | **405,488** | **1,065,307** |
| Net position – June 30, 2016 | 1,828,044 | 1,381,590 | 2,411,412 | 1,915,804 | 7,536,850 |
| **Net position – June 30, 2017** | **$2,019,654** | **$1,502,860** | **$2,758,351** | **$2,321,292** | **$8,602,157** |
| **CONDENSED STATEMENT OF CASH FLOWS** | | | | | |
| Net cash provided (used) by: | | | | | |
| Operating activities | $(97,936) | $(100,607) | $(44,964) | $18,771 | $(224,736) |
| Noncapital financing activities | 49,682 | 55,862 | 52,464 | 94,106 | 252,114 |
| Capital and related financing activities | | | | (192) | (192) |
| Investing activities | 49,184 | 103,578 | (7,797) | (112,963) | 32,002 |
| **Net increase (decrease) in cash and cash equivalents** | **930** | **58,833** | **(297)** | **(278)** | **59,188** |
| Cash and cash equivalents – June 30, 2016 | 3,657 | 152,027 | 5,576 | 33,652 | 194,912 |
| **Cash and cash equivalents – June 30, 2017** | **$4,587** | **$210,860** | **$5,279** | **$33,374** | **$254,100** |

Condensed financial statement information related to the University's campus foundations, including their allocated share of the assets and liabilities associated with securities lending transactions in the University's investment pools, for the year ended June 30, 2016 is as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA CAMPUS FOUNDATIONS | | | | |
|---|---|---|---|---|---|
| | BERKELEY | SAN FRANCISCO | LOS ANGELES | ALL OTHER | TOTAL |
| **CONDENSED STATEMENT OF NET POSITION** | | | | | |
| Current assets | $78,588 | $193,643 | $434,051 | $259,166 | $965,448 |
| Noncurrent assets | 1,838,382 | 1,456,193 | 2,254,770 | 1,738,791 | 7,288,136 |
| **Total assets** | **1,916,970** | **1,649,836** | **2,688,821** | **1,997,957** | **8,253,584** |
| Current liabilities | 15,950 | 46,269 | 246,519 | 55,988 | 364,726 |
| Noncurrent liabilities | 72,976 | 221,977 | 29,430 | 26,165 | 350,548 |
| **Total liabilities** | **88,926** | **268,246** | **275,949** | **82,153** | **715,274** |
| **Total deferred inflows of resources** | | | **1,460** | | **1,460** |
| Restricted | 1,825,680 | 1,381,166 | 2,344,581 | 1,890,554 | 7,441,981 |
| Unrestricted | 2,364 | 424 | 66,831 | 25,250 | 94,869 |
| **Total net position** | **$1,828,044** | **$1,381,590** | **$2,411,412** | **$1,915,804** | **$7,536,850** |
| **CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION** | | | | | |
| Operating revenues | $127,301 | $180,801 | $258,641 | $225,732 | $792,475 |
| Operating expenses | (188,917) | (232,835) | (263,898) | (229,518) | (915,168) |
| **Operating loss** | **(61,616)** | **(52,034)** | **(5,257)** | **(3,786)** | **(122,693)** |
| Nonoperating revenues | (34,417) | (32,548) | (62,363) | (39,535) | (168,863) |
| **Loss before other changes in net position** | **(96,033)** | **(84,582)** | **(67,620)** | **(43,321)** | **(291,556)** |
| Permanent endowments | 88,469 | 39,538 | 70,138 | 79,932 | 278,077 |
| **Increase (decrease) in net position** | **(7,564)** | **(45,044)** | **2,518** | **36,611** | **(13,479)** |
| Net position – June 30, 2015 | 1,835,608 | 1,426,634 | 2,408,894 | 1,879,193 | 7,550,329 |
| **Net position – June 30, 2016** | **$1,828,044** | **$1,381,590** | **$2,411,412** | **$1,915,804** | **$7,536,850** |
| **CONDENSED STATEMENT OF CASH FLOWS** | | | | | |
| Net cash provided (used) by: | | | | | |
| Operating activities | $(93,199) | $(10,622) | $(57,870) | $(59,289) | $(220,980) |
| Noncapital financing activities | 77,929 | 17,104 | 59,081 | 72,982 | 227,096 |
| Capital and related financing activities | | | | (970) | (970) |
| Investing activities | 16,259 | (13,527) | 267 | (11,509) | (8,510) |
| **Net increase (decrease) in cash and cash equivalents** | **989** | **(7,045)** | **1,478** | **1,214** | **(3,364)** |
| Cash and cash equivalents – June 30, 2015 | 2,668 | 159,072 | 4,098 | 32,438 | 198,276 |
| **Cash and cash equivalents – June 30, 2016** | **$3,657** | **$152,027** | **$5,576** | **$33,652** | **$194,912** |

Additional information on the foundations can be found in the foundations' separately issued annual reports, which can be obtained by contacting the individual foundation.

## 21. COMMITMENTS AND CONTINGENCIES

### Contractual Commitments

Amounts committed but unexpended for construction projects totaled $1.6 billion at June 30, 2017. Amounts committed to the developer for the design, construction and financing of the facilities at one of its campuses is $1.6 billion at June 30, 2017. The University has made a commitment to contribute $87.9 million for an investment in a joint venture to fund construction projects.

The University leases land, buildings and equipment under agreements recorded as operating leases. Operating lease expenses for the years ended June 30, 2017 and 2016 were $271.4 million and $236.0 million, respectively. The terms of operating leases extend through March 2042.

Future minimum payments on operating leases with an initial or remaining non-cancelable term in excess of one year are as follows:

*(in thousands of dollars)*

| | UNIVERSITY OF CALIFORNIA |
|---|---|
| *Year Ending June 30* | |
| 2018 | $248,401 |
| 2019 | 204,936 |
| 2020 | 168,626 |
| 2021 | 137,098 |
| 2022 | 98,912 |
| 2023-2027 | 216,638 |
| 2028-2032 | 68,538 |
| 2033-2037 | 45,504 |
| 2038-2042 | 19,898 |
| **Total** | **$1,208,551** |

### Contingencies

Substantial amounts are received and expended by the University, including its medical centers, under federal and state programs, and are subject to audit by cognizant governmental agencies. This funding relates to research, student aid, medical center operations and other programs. University management believes that any liabilities arising from such audits will not have a material effect on the University's financial position.

The University and the campus foundations are contingently liable in connection with certain other claims and contracts, including those currently in litigation, arising in the normal course of its activities. Although there are inherent uncertainties in any litigation, University management and general counsel are of the opinion that the outcome of such matters will not have a material effect on the University's financial position.

## REQUIRED SUPPLEMENTARY INFORMATION

### UCRP

The schedule of changes in net pension liability includes multi-year trend information about whether the pension assets are increasing or decreasing over time relative to the pension liabilities. The University's schedule of changes in the net pension liability for UCRP as of June 30 is:

| *(in thousands of dollars)* | 2017 | 2016 | 2015 |
|---|---|---|---|
| **TOTAL PENSION LIABILITY** | | | |
| Service cost | $1,807,143 | $1,710,241 | $1,589,267 |
| Interest on the total pension liability | 5,035,267 | 4,784,904 | 4,538,846 |
| Difference between expected and actual experience | 74,664 | 136,167 | (112,155) |
| Changes of assumptions or other inputs | | | 2,136,793 |
| Benefits paid, including refunds of employee contributions | (3,320,990) | (3,105,641) | (2,976,992) |
| **Net change in total pension liability** | **3,596,084** | **3,525,671** | **5,175,759** |
| Total pension liability - beginning of year | 69,230,762 | 65,705,091 | 60,529,332 |
| **Total pension liability - end of year** | **72,826,846** | **69,230,762** | **65,705,091** |
| **PLAN NET POSITION** | | | |
| Contributions - employer | 2,385,576 | 2,426,683 | 2,510,046 |
| Contributions - member | 891,987 | 845,036 | 793,012 |
| Contributions - state | 171,000 | 96,000 | |
| Net investment income | 7,866,281 | (1,104,655) | 1,993,801 |
| Benefits paid, including refunds of employee contributions | (3,320,990) | (3,105,641) | (2,976,993) |
| Administrative expense | (44,128) | (48,341) | (48,283) |
| **Net change in plan net position** | **7,949,726** | **(890,918)** | **2,271,583** |
| Plan net position - beginning of year | 54,164,532 | 55,055,450 | 52,783,867 |
| **Plan net position - end of year** | **62,114,258** | **54,164,532** | **55,055,450** |
| **Net pension liability - end of year** | **$10,712,588** | **$15,066,230** | **$10,649,641** |

| *(in thousands of dollars)* | 2014 | 2013 | 2012 |
|---|---|---|---|
| **TOTAL PENSION LIABILITY** | | | |
| Service cost | $1,519,183 | $1,456,761 | $1,531,094 |
| Interest on the total pension liability | 4,316,728 | 4,112,461 | 3,871,146 |
| Difference between expected and actual experience | (320,624) | (183,253) | (212,758) |
| Changes of assumptions or other inputs | | (3,312,815) | 4,923,778 |
| Benefits paid, including refunds of employee contributions | (2,687,540) | (2,487,369) | (2,273,071) |
| **Net change in total pension liability** | **2,827,747** | **(414,215)** | **7,840,189** |
| Total pension liability - beginning of year | 57,701,585 | 58,115,800 | 50,275,611 |
| **Total pension liability - end of year** | **60,529,332** | **57,701,585** | **58,115,800** |
| **PLAN NET POSITION** | | | |
| Contributions - employer | 1,580,876 | 810,056 | 1,851,460 |
| Contributions - member | 577,466 | 415,641 | 272,420 |
| Contributions - state | | | |
| Net investment income | 8,009,980 | 4,833,339 | 115,863 |
| Benefits paid, including refunds of employee contributions | (2,687,540) | (2,487,369) | (2,273,071) |
| Administrative expense | (37,641) | (37,426) | (32,839) |
| **Net change in plan net position** | **7,443,141** | **3,534,241** | **(66,167)** |
| Plan net position - beginning of year | 45,340,726 | 41,806,485 | 41,872,652 |
| **Plan net position - end of year** | **52,783,867** | **45,340,726** | **41,806,485** |
| **Net pension liability - end of year** | **$7,745,465** | **$12,360,859** | **$16,309,315** |

The University's schedule of net pension liability for UCRP as of June 30 is:

| *(in thousands of dollars)* | **2017** | **2016** | **2015** |
|---|---|---|---|
| Total pension liability | $72,826,846 | $69,230,762 | $65,705,091 |
| Plan net position | 62,114,258 | 54,164,532 | 55,055,450 |
| **Net pension liability** | **$10,712,588** | **$15,066,230** | **$10,649,641** |
| Ratio of plan net position to total pension liability | 85.3% | 78.2% | 83.8% |
| Covered payroll | $11,301,506 | $10,689,424 | $10,047,570 |
| Net pension liability as a percentage of covered payroll | 94.8% | 140.9% | 106.0% |

| *(in thousands of dollars)* | **2014** | **2013** | **2012** |
|---|---|---|---|
| Total pension liability | $60,529,332 | $57,701,585 | $58,115,800 |
| Plan net position | 52,783,867 | 45,340,726 | 41,806,485 |
| **Net pension liability** | **$7,745,465** | **$12,360,859** | **$16,309,315** |
| Ratio of plan net position to total pension liability | 87.2% | 78.6% | 71.9% |
| Covered payroll | $9,372,583 | $8,921,077 | $8,594,147 |
| Net pension liability as a percentage of covered payroll | 82.6% | 138.6% | 189.8% |

The University's schedule of employer contributions for UCRP as of June 30 is:

*(in thousands of dollars)*

| Year Ended June 30 | Actuarially Determined Contributions | Contributions in Relation to Actuarial Contributions | Contribution Deficiency (Excess) | Covered Payroll | Contributions as a Percentage of Covered Payroll |
|---|---|---|---|---|---|
| 2017 | $2,654,710 | $2,556,576 | $98,134 | $11,301,506 | 23% |
| 2016 | 2,610,953 | 2,522,683 | 88,270 | 10,689,424 | 24 |
| 2015 | 2,664,384 | 2,510,046 | 154,338 | 10,047,570 | 25 |
| 2014 | 2,472,697 | 1,580,876 | 891,821 | 9,372,583 | 17 |
| 2013 | 2,062,022 | 810,056 | 1,251,966 | 8,921,077 | 9 |
| 2012 | 1,806,205 | 1,851,459 | (45,254) | 8,594,147 | 22 |
| 2011 | 1,695,137 | 1,677,921 | 17,216 | 8,140,629 | 21 |
| 2010 | 454 | 148,445 | (147,991) | 7,973,921 | 2 |
| 2009 | 2,657 | 454 | 2,203 | 7,468,809 | |
| 2008 | 23,934 | 2,657 | 21,277 | 7,612,726 | |

**Notes to Schedule**

Methods and assumptions used to establish "actuarially determined contribution" rates for the campus and medical center segment of UCRP:

| | | |
|---|---|---|
| Valuation date | Actuarially determined contribution rates are calculated as of July 1, two years prior to the end of the fiscal year in which contributions are reported. | |
| Actuarial cost method | Entry Age Actuarial Cost Method. | |
| Amortization method | Level dollar, closed periods. | |
| Remaining amortization period | 20.86 years as of July 1, 2016.<br>The July 1, 2010 amortization bases were combined into a single amortization base and amortized over 30 years. Any changes in unfunded actuarial accrued liability ("UAAL") due to actuarial experience gains or losses after July 1, 2010 are separately amortized over a fixed (closed) 30-year period effective with that valuation. Any changes in UAAL due to a change in actuarial assumptions or plan provisions are separately amortized over a fixed (closed) 15-year period. Any changes in UAAL due to actuarial experience gains or losses or a change in actuarial assumptions after July 1, 2014 are separately amortized over a fixed (closed) 20-year period. | |
| Asset valuation method | The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected returns on a market value basis and is recognized over a five-year period. | |
| | **July 1, 2017 valuation date** | **July 1, 2016 valuation date** |
| Investment rate of return | 7.25%, net of pension plan investment expense, including inflation. | 7.25%, net of pension plan investment expense, including inflation. |
| Inflation | 3.00%. | 3.00%. |
| Projected salary increases | 3.75% - 6.15%, includes inflation. | 3.75% - 6.15%, includes inflation. |
| Cost-of-living adjustments | 2.00%. | 2.00%. |
| Mortality | Post-retirement Healthy: RP-2014 White Collar Healthy Annuitant Mortality Table projected with the two-dimensional MP-2014 projection scale to 2029, set forward one year. | Post-retirement Healthy: RP-2014 White Collar Healthy Annuitant Mortality Table projected with the two-dimensional MP-2014 projection scale to 2029, set forward one year. |
| Other assumptions | Same as those used in the July 1, 2017 funding actuarial valuation. | Same as those used in the July 1, 2016 funding actuarial valuation. |

## UC-VERIP

The University's schedule of changes in net pension liability for UC-VERIP as of June 30 is:

| *(in thousands of dollars)* | **2017** | **2016** | **2015** |
|---|---|---|---|
| **TOTAL PENSION LIABILITY** | | | |
| Interest on the total pension liability | $2,463 | $2,533 | $2,704 |
| Changes of benefit terms | | | |
| Difference between expected and actual experience | (189) | (650) | 242 |
| Changes of assumptions or other inputs | | | 1,837 |
| Benefits paid, including refunds of employee contributions | (4,738) | (4,937) | (5,081) |
| **Net change in total pension liability** | **(2,464)** | **(3,054)** | **(298)** |
| Total pension liability - beginning of year | 35,008 | 38,062 | 38,360 |
| **Total pension liability - end of year** | **32,544** | **35,008** | **38,062** |
| **PLAN NET POSITION** | | | |
| Net investment income | 8,666 | (1,425) | 2,550 |
| Benefits paid, including refunds of employee contributions | (4,738) | (4,937) | (5,081) |
| Administrative expense | (6) | (7) | (6) |
| **Net change in plan net position** | **3,922** | **(6,369)** | **(2,537)** |
| Plan net position - beginning of year | 61,056 | 67,425 | 69,962 |
| **Plan net position - end of year** | **64,978** | **61,056** | **67,425** |
| **Net pension liability (asset) - end of year** | **$(32,434)** | **$(26,048)** | **$(29,363)** |

| *(in thousands of dollars)* | **2014** | **2013** | **2012** |
|---|---|---|---|
| **TOTAL PENSION LIABILITY** | | | |
| Interest on the total pension liability | $2,857 | $3,052 | $3,227 |
| Changes of benefit terms | | | 11,186 |
| Difference between expected and actual experience | (436) | (241) | 172 |
| Changes of assumptions or other inputs | | | 1,267 |
| Benefits paid, including refunds of employee contributions | (5,169) | (5,278) | (5,368) |
| **Net change in total pension liability** | **(2,748)** | **(2,467)** | **10,484** |
| Total pension liability - beginning of year | 41,108 | 43,575 | 33,091 |
| **Total pension liability - end of year** | **38,360** | **41,108** | **43,575** |
| **PLAN NET POSITION** | | | |
| Net investment income | 11,035 | 7,144 | 90 |
| Benefits paid, including refunds of employee contributions | (5,169) | (5,278) | (5,368) |
| Administrative expense | (6) | (7) | (7) |
| **Net change in plan net position** | **5,860** | **1,859** | **(5,285)** |
| Plan net position - beginning of year | 64,102 | 62,243 | 67,528 |
| **Plan net position - end of year** | **69,962** | **64,102** | **62,243** |
| **Net pension liability (asset) - end of year** | **$(31,602)** | **$(22,994)** | **$(18,668)** |

The University's schedule of net pension asset for UC-VERIP as of June 30 is:

| *(in thousands of dollars)* | 2017 | 2016 | 2015 |
|---|---|---|---|
| Total pension liability | $32,544 | $35,008 | $38,062 |
| Plan net position | 64,978 | 61,056 | 67,425 |
| **Net pension asset** | **$(32,434)** | **$(26,048)** | **$(29,363)** |
| Ratio of plan net position to total pension liability (asset) | 199.7% | 174.4% | 177.1% |

| *(in thousands of dollars)* | 2014 | 2013 | 2012 |
|---|---|---|---|
| Total pension liability | $38,360 | $41,108 | $43,575 |
| Plan net position | 69,962 | 64,102 | 62,243 |
| **Net pension asset** | **$(31,602)** | **$(22,994)** | **$(18,668)** |
| Ratio of plan net position to total pension liability (asset) | 182.4% | 155.9% | 142.8% |

The University is not required to make contributions to the UC-VERIP due to its fully funded status.

## CHRCO PENSION PLAN

The schedule of changes in the net pension liability for the CHRCO Pension Plan as of June 30:

| *(in thousands of dollars)* | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| **TOTAL PENSION LIABILITY** | | | | |
| Service cost | $9,910 | $10,410 | $9,448 | $9,274 |
| Interest on the total pension liability | 29,672 | 27,782 | 24,683 | 22,453 |
| Changes of benefit terms | 33 | 24 | 40 | 142 |
| Difference between expected and actual experience | 2,442 | (3,690) | 762 | 2,487 |
| Changes of assumptions or other inputs | | 3,613 | 33,105 | |
| Benefits paid, including refunds of employee contributions | (11,767) | (9,509) | (8,082) | (6,994) |
| **Net change in total pension liability** | **30,290** | **28,630** | **59,956** | **27,362** |
| Total pension liability - beginning of year | 419,862 | 391,232 | 331,276 | 303,914 |
| **Total pension liability - end of year** | **450,152** | **419,862** | **391,232** | **331,276** |
| **PLAN NET POSITION** | | | | |
| Contributions - employer | 28,800 | 24,000 | 18,000 | 14,500 |
| Net investment income | 41,256 | 214 | 11,797 | 48,704 |
| Benefits paid, including refunds of employee contributions | (11,767) | (9,509) | (8,082) | (6,994) |
| Administrative expense | (2,727) | (1,816) | (1,222) | (718) |
| **Net change in plan net position** | **55,562** | **12,889** | **20,493** | **55,492** |
| Total plan net position - beginning of year | 353,446 | 340,557 | 320,064 | 264,572 |
| **Total plan net position - end of year** | **409,008** | **353,446** | **340,557** | **320,064** |
| **Net pension liability - end of year** | **$41,144** | **$66,416** | **$50,675** | **$11,212** |

The schedule of net pension liability for the CHRCO Pension Plan as of June 30 is:

| *(in thousands of dollars)* | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| Total pension liability | $450,152 | $419,862 | $391,232 | $331,276 |
| Plan net position | 409,008 | 353,446 | 340,557 | 320,064 |
| **Net pension liability** | **$41,144** | **$66,416** | **$50,675** | **$11,212** |
| Ratio of plan net position to total pension liability | 90.9% | 84.2% | 87.0% | 96.6% |
| Covered payroll | $184,083 | $165,672 | $177,986 | $175,189 |
| Net pension liability as a percentage of covered payroll | 22.4% | 40.1% | 28.5% | 6.4% |

The schedule of employer contributions for the CHRCO Pension Plan as of June 30 is:

| *(in thousands of dollars)* | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|
| Actuarially calculated employer contributions | $5,642 | $7,823 | $12,200 | $21,300 |
| Contributions in relation to the actuarially calculated employer contribution | 28,800 | 24,000 | 18,000 | 14,500 |
| **Annual contribution deficiency (excess)** | **$(23,158)** | **$(16,177)** | **$(5,800)** | **$6,800** |
| Covered payroll | $184,083 | $165,672 | $177,986 | $175,189 |
| Actual contributions as a percentage of covered payroll | 15.6% | 14.5% | 10.1% | 8.3% |

**Notes to schedule**

Methods and assumptions used to determine contribution rates:

Valuation date:
Actuarially calculated contributions are calculated as of January 1 of the end of the fiscal year in which contributions are reported.

| | |
|---|---|
| Actuarially determined contribution | The Plan is subject to funding requirements under ERISA. The contribution shown is the IRC Section 430 minimum contribution prior to offset by credit balances prorated for the number of months in the fiscal year. For the period January 1, 2014 to June 30, 2014, the amount shown does not reflect changes in the Highway and Transportation Funding Act of 2014 (HATFA). The contribution for July 1, 2014 to June 30, 2017 includes HATFA. |
| Contributions in relation to the actuarially determined contribution | The amount shown is equal to the overall dollar amount contributed to the Plan during the fiscal year shown. |
| Actuarial cost method | Unit Credit Actuarial Cost Method. |
| Amortization method | Level dollar, closed amortization. |
| Remaining amortization period | 7 years for changes in unfunded liabilities that occur each valuation date. |
| Asset valuation method | The actuarial value of assets is equal to the two-year average of Plan asset values as of the valuation date. The two-year average is the average of the two prior year's adjusted market value of assets and the current year's market value of assets. For this purpose, the prior years' market value of assets is adjusted to reflect benefit payments, administrative expenses, contributions and expected returns for the prior years. The resulting actuarial value of assets is adjusted to be within 10% of the market value of assets at the valuation date, as required by IRC Section 430. |
| Inflation | 3.00%. |
| Investment rate of return | 7.0%, net of pension plan investment expenses, including inflation. |
| Projected salary increases | 5.00%, including inflation through 2017, 4.00% afterward. |
| Cost-of-living adjustments | N/A. |
| Mortality | RP-2016 Healthy Annuitant Mortality Table for males or females, as appropriate, with generational adjustments for mortality improvements based on Scale AA. |

## OCERS

The schedule of the University's proportionate share of OCERS' net pension liability is presented below:

*(in thousands of dollars)*

| AS OF JUNE 30 | PROPORTION OF THE NET PENSION LIABILITY | PROPORTIONATE SHARE OF NET PENSION LIABILITY | COVERED PAYROLL | PROPORTIONATE SHARE OF THE NET PENSION LIABILITY AS A PERCENTAGE OF ITS COVERED PAYROLL | PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY |
|---|---|---|---|---|---|
| 2017 | 0.3% | $18,057 | $44 | 41,038.6% | 34.5% |
| 2016 | 0.3% | 18,092 | 285 | 6,347.5% | 34.8% |

## University Retiree Health Benefits Plan

The schedule of changes in the net retiree health benefits liability includes multi-year trend information about whether the net retiree health benefits liability is increasing or decreasing over time. The University's net retiree health benefits liability includes liabilities for campuses, medical centers and LBNL. The University's schedule of changes in the net retiree health benefits liability as of, and for, the year ending June 30 is:

| *(in thousands of dollars)* | 2017 | 2016 | 2015 |
|---|---|---|---|
| **TOTAL RETIREE HEALTH BENEFIT LIABILITY** | | | |
| Service cost | $1,004,644 | $830,041 | $702,935 |
| Interest on the total retiree health benefits liability | 646,279 | 735,294 | 719,853 |
| Difference between expected and actual experience | 101,280 | (1,948,111) | |
| Changes of assumptions or other inputs | (3,827,924) | 3,925,503 | 1,402,476 |
| Retiree contributions | 72,716 | 65,705 | 56,340 |
| Benefits paid | (467,846) | (451,166) | (435,189) |
| **Net change in total retiree health benefits liability** | **(2,470,851)** | **3,157,266** | **2,446,415** |
| Total retiree health benefits liability - beginning of year | 21,867,989 | 18,710,723 | 16,264,308 |
| **Total retiree health benefits liability - end of year** | **19,397,138** | **21,867,989** | **18,710,723** |
| **PLAN NET POSITION** | | | |
| University contributions | 432,953 | 410,945 | 367,416 |
| Retiree contributions | 72,716 | 65,705 | 56,340 |
| Net investment income | 606 | 155 | 41 |
| Insurance premiums | (467,846) | (451,166) | (435,189) |
| Other deductions | (4,256) | (3,743) | (3,147) |
| **Net change in UCRHBT net position** | **34,173** | **21,896** | **(14,539)** |
| UCRHBT net position - beginning of year | 72,541 | 50,645 | 65,184 |
| **UCRHBT net position - end of year** | **106,714** | **72,541** | **50,645** |
| **Net retiree health benefits liability - end of year** | **$19,290,424** | **$21,795,448** | **$18,660,078** |

The University's schedule of net retiree health benefits liability as of June 30 is:

| *(in thousands of dollars)* | 2017 | 2016 | 2015 |
|---|---|---|---|
| Total retiree health benefits liability | $19,397,138 | $21,867,989 | $18,710,723 |
| UCRHBT net position | 106,714 | 72,541 | 50,645 |
| **Net retiree health benefits liability** | **$19,290,424** | **$21,795,448** | **$18,660,078** |
| Ratio of UCRHBT net position to total retiree health benefits liability | 0.6% | 0.3% | 0.3% |
| Covered payroll | $11,495,997 | $10,689,424 | $10,047,570 |
| Net retiree health benefits liability as a percentage of covered payroll | 167.8% | 203.9% | 185.7% |

## University of California Retiree Health Benefit Trust

The schedule of changes in the net retiree health benefits liability includes multi-year trend information about whether the trust assets are increasing or decreasing over time relative to the total retiree health benefits liability for the campuses and medical centers. UCRHBT's schedule of changes in net retiree health benefit liability as of, and for, the year ending June 30 is:

| *(in thousands of dollars)* | **2017** | **2016** | **2015** |
|---|---|---|---|
| **TOTAL RETIREE HEALTH BENEFIT LIABILITY** | | | |
| Service cost | $981,745 | $806,817 | $683,220 |
| Interest on the total retiree health benefits liability | 625,947 | 711,365 | 695,999 |
| Difference between expected and actual experience | 95,254 | (1,875,009) | |
| Changes of assumptions or other inputs | (3,707,921) | 3,798,113 | 1,358,761 |
| Retiree contributions | 69,968 | 65,705 | 56,340 |
| Benefits paid | (447,604) | (433,849) | (418,244) |
| **Net change in total retiree health benefits liability** | **(2,382,611)** | **3,073,142** | **2,376,076** |
| Total retiree health benefits liability - beginning of year | 21,168,712 | 18,095,570 | 15,719,494 |
| **Total retiree health benefits liability - end of year** | **18,786,101** | **21,168,712** | **18,095,570** |
| **PLAN NET POSITION** | | | |
| University contributions | 415,459 | 393,628 | 350,471 |
| Retiree contributions | 69,968 | 65,705 | 56,340 |
| Net investment income | 606 | 155 | 41 |
| Insurance premiums | (447,604) | (433,849) | (418,244) |
| Other deductions | (4,256) | (3,743) | (3,147) |
| **Net change in UCRHBT net position** | **34,173** | **21,896** | **(14,539)** |
| UCRHBT net position - beginning of year | 72,541 | 50,645 | 65,184 |
| **UCRHBT net position - end of year** | **106,714** | **72,541** | **50,645** |
| **Net retiree health benefits liability - end of year** | **$18,679,387** | **$21,096,171** | **$18,044,925** |

UCRHBT's schedule of net retiree health benefits liability as of June 30 is:

| *(in thousands of dollars)* | **2017** | **2016** | **2015** |
|---|---|---|---|
| Total retiree health benefits liability | $18,786,101 | $21,168,712 | $18,095,570 |
| UCRHBT net position | 106,714 | 72,541 | 50,645 |
| **Net retiree health benefits liability** | **$18,679,387** | **$21,096,171** | **$18,044,925** |
| Ratio of UCRHBT net position to total retiree health benefits liability | 0.6% | 0.3% | 0.3% |
| Covered payroll | $11,196,485 | $10,396,827 | $9,758,795 |
| Net retiree health benefits liability as a percentage of covered payroll | 166.8% | 202.9% | 184.9% |


PATENT
PENDING
Neck
Injection
Access

UNIVERSITY OF CALIFORNIA

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UNIVERSITY
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University of California
Office of the President
1111 Franklin Street
Oakland, CA 94607

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