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Office of the President

TO THE MEMBERS OF THE COMMITTEE ON FINANCE:

DISCUSSION ITEM

For the Meeting of November 20, 2015

ANNUAL ACTUARIAL VALUATIONS FOR THE UNIVERSITY OF CALIFORNIA RETIREMENT PLAN AND ITS SEGMENTS AND FOR THE 1991 UNIVERSITY OF CALIFORNIA-PUBLIC EMPLOYEES' RETIREMENT SYSTEM VOLUNTARY EARLY RETIREMENT INCENTIVE PROGRAM

EXECUTIVE SUMMARY

Each year, the Regents' Consulting Actuary performs an actuarial valuation of the University of California Retirement Plan (UCRP or Plan). Consistent with the funding policy approved by the Regents for the non-Laboratory segment of UCRP, and separate agreements with the Department of Energy (DOE) for the funding of each Laboratory segment of UCRP, the annual valuation includes highlights of results for each of these segments as noted below. All UCRP assets are maintained in one trust and are available to pay benefits of all members, regardless of the segment to which their benefits are allocated. Highlights of the separate annual valuation of the 1991 University of California-Public Employees' Retirement System Voluntary Early Retirement Incentive Program (UC-PERS Plus 5 Plan) are also provided.

Overall UCRP Valuation Results

- The June 30, 2015 overall market value of assets of UCRP (i.e., all segments and tiers combined) was $55.1 billion, up from $52.8 billion as of the previous June 30. The assets reflect a net investment return of approximately four percent after adjusting for contributions, benefit disbursements, and plan expenses. The June 30, 2015 overall actuarial value of assets was $53.8 billion.

- The July 1, 2015 overall Actuarial Accrued Liability for UCRP grew to $65.8 billion from $60.4 billion as of the previous July 1.

- UCRP's overall funded ratio on an actuarial value of assets basis increased from 80 percent as of July 1, 2014 to 82 percent as of July 1, 2015. On a market value of assets basis, the funded ratio decreased from 87 as of July 1, 2014 percent to 84 percent as of July 1, 2015.

- The overall UCRP Normal Cost calculated as of the beginning of Plan Year 2015-16 is $1.8 billion or 17.73 percent of the $9.9 billion covered payroll at July 1, 2015. After adjusting for contributions made throughout the year, the UCRP Normal Cost is 18.36 percent of covered payroll.

- Based on the funding policy approved by the Regents, the total funding policy contribution rate for the non-Laboratory segment is 28.44 percent of projected covered payroll, which results in an estimated annual dollar amount of $2.8 billion for Plan Year 2016-17.

BACKGROUND

Each year, the Regents' Consulting Actuary, Segal Consulting (Segal), performs an actuarial valuation of the University of California Retirement Plan (UCRP or Plan) and of the 1991 University of California-Public Employees' Retirement System Voluntary Early Retirement Incentive Program (UC-PERS Plus 5 Plan).

The purpose of the annual actuarial valuation for UCRP is to disclose the Plan's funded position as of the beginning of the current Plan Year, analyze the preceding years' experience, and determine total funding policy contribution rates for the coming Plan Year. The results of the actuarial valuation as of July 1, 2015 are summarized and presented in the executive summary section of the UCRP actuarial valuation report, which is provided as Attachment 1.

The purpose of the annual actuarial valuation for the UC-PERS Plus 5 Plan is to review the fiscal position of its trust account and funding status to assure that the UC-PERS Plus 5 Plan remains adequately funded. The results of the actuarial valuation as of July 1, 2015 are summarized and presented in the executive summary section of the UC-PERS Plus 5 Plan actuarial valuation report, which is provided as Attachment 2.

Recent Regental Action

On September 17, 2015, the Regents approved the following two items which were made effective with the July 1, 2015 valuations for UCRP and the UC-PERS Plus 5 as applicable:

<u>UCRP Funding Policy</u>

The following Unfunded Actuarial Accrued Liability (UAAL) amortization periods were changed for any UAAL identified beginning with the July 1, 2015 actuarial valuation:

- A decrease in the amortization period used for any actuarial experience gains or losses from 30 to 20 years,
- An increase in the amortization period for changes in actuarial assumptions, cost method, or asset smoothing method from 15 to 20 years, and
- A decrease in the amortization period for plan amendments affecting non-active members from 15 to 10 years.

<u>UCRP Experience Study</u>

As a result of the recommendations from the July 1, 2010 through June 30, 2014 Actuarial Experience Study, several actuarial assumptions were changed. The most significant assumption changes were:

- A decrease in the investment return assumption from 7.5 percent per year to 7.25 percent per year, and
- A change in the mortality assumption in order to anticipate longer life expectancies.

During that same meeting, the Regents also authorized a modification to the University contract with the DOE for funding of the Lawrence Berkeley National Laboratory (LBNL) Segment of UCRP. Effective October 1, 2015 and for each of the next four Plan Years in which the LBNL Segment has a higher funded percentage than the non-Laboratory segment[1], the University contribution rate for the LBNL Segment will be determined by multiplying the University contribution rate for the non-Laboratory segment by the ratio of the funded percentage of the non-Laboratory segment over the funded percentage of the LBNL Segment.

Appendix I of this item contains a summary of the annual actuarial valuation results by UCRP segment and for the UC-PERS Plus 5 Plan. A glossary of actuarial terms is provided in Appendix II of this item.

UCRP Valuation Results

There were a total of 266,254 members included in the July 1, 2015 valuation: 67,321 retired members and beneficiaries, 34,166 vested terminated members, 40,999 terminated non-vested members and 123,768 active members; compared to a total of 262,988 members included in the July 1, 2014 valuation.

As of June 30, 2015, the UCRP market value of assets, after subtracting benefit claims currently payable and other current payables of UCRP, was $55.1 billion as compared to $52.8 billion as of the prior June 30. During Plan Year 2014-15 the Plan experienced an investment return on the market value of its assets of approximately four percent.

When determining the Plan's funded ratio, the Plan's Actuarial Accrued Liability (AAL) is compared to the Actuarial (smoothed) Value of Assets (AVA). The "smoothing" method reduces the short-term impact of market volatility by recognizing in each year only 20 percent of the investment gains and losses in each of the preceding five years. As of June 30, 2015, this five-year period includes investment returns which in total were more favorable than the Plan's assumed (7.25 percent effective July 1, 2015 and 7.5 percent prior to July 1, 2015) earnings rate. The net result is a 10.6 percent investment return for Plan Year 2014-15 on an AVA basis.

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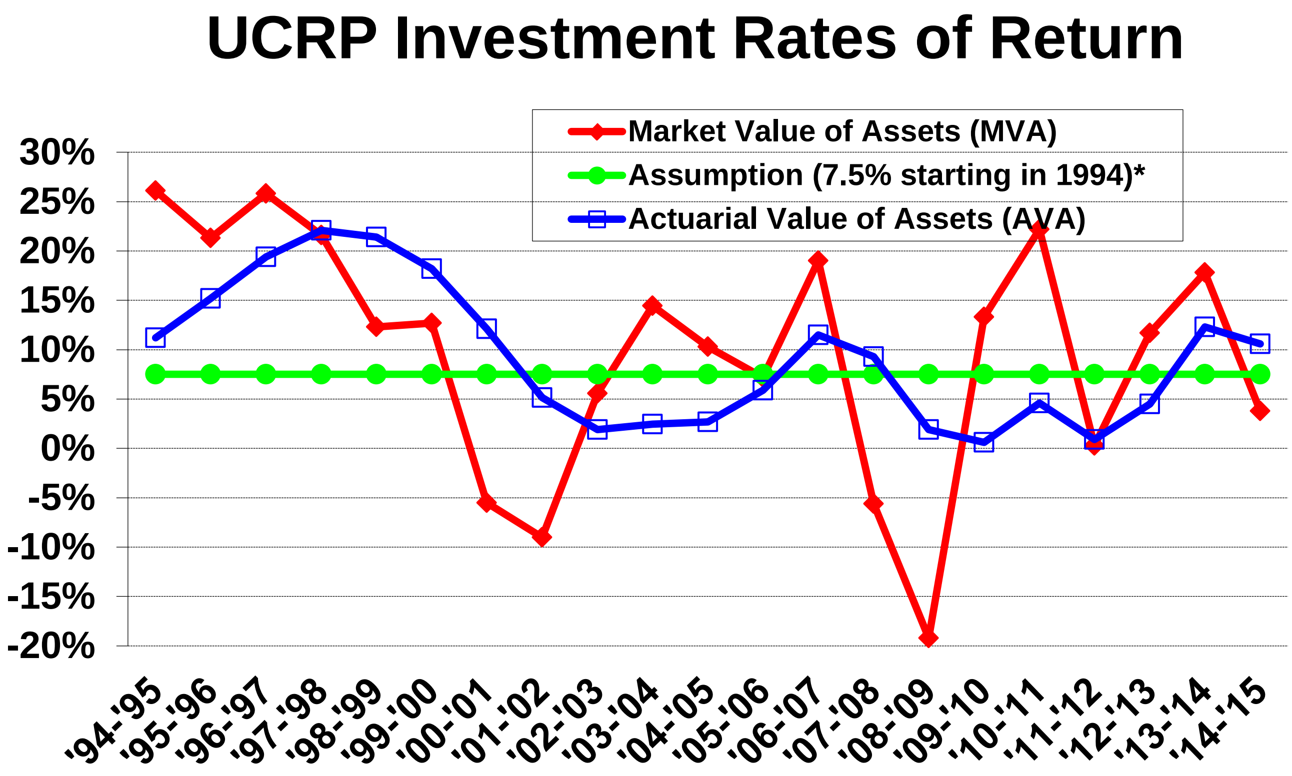
[1] Comparison based on AVA funded ratio as of the prior valuation date. For years where the LBNL funded ratio is not greater than that of the non-laboratory segment, the University contribution rate for the LBNL Segment will be the same as the University contribution rate for the non-laboratory segment.

The chart below shows the investment rates of return on the market value of assets (MVA) (red line) and on the smoothed value of assets (AVA) (blue line) as compared to the Plan's assumed earnings rate (green line) for the most recent 20-year period. The assumed earnings rate was 7.5 percent from Plan Years 1994-95 through 2014-15 and was changed to 7.25 percent effective with Plan Year 2015-16.



***Investment rate of return assumed changed to 7.25% per annum starting July 1, 2015**

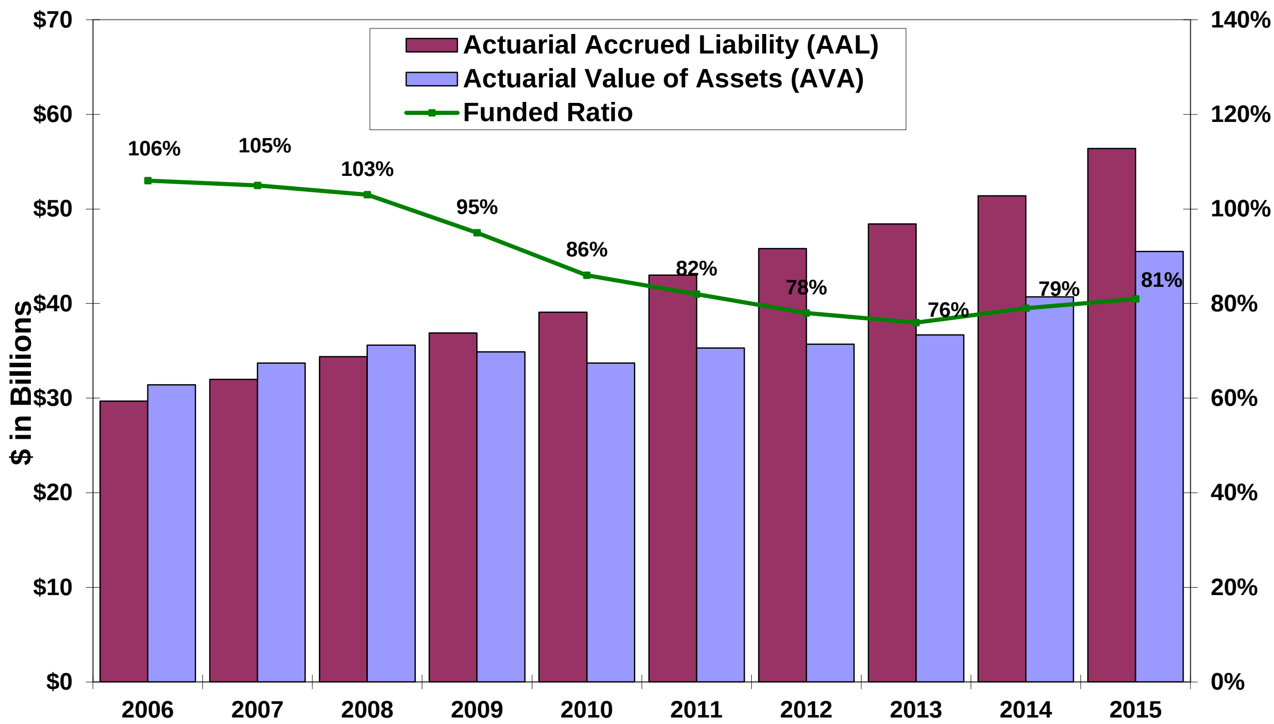
Comparing the market value of assets of $55.1 billion to the actuarial (smoothed) value of assets of $53.8 billion shows that the total unrecognized investment gain as of July 1, 2015 is $1.29 billion. This investment gain will be recognized in the determination of the actuarial value of assets for valuation purposes over the next few years. Thus, if the Plan earns the current assumed rate of investment return of 7.25 percent per year (net of investment expenses) on a market value basis, there will be investment gains on the actuarial value of assets in the next few years. More information concerning the impact of these unrecognized investment gains is presented later in this discussion.

The Plan's overall AAL increased from $60.4 billion as of July 1, 2014 to $65.8 billion as of July 1, 2015. This includes an increase of $2.2 billion due to changes in actuarial assumptions. The Plan's funded ratio increased from 80 percent as of July 1, 2014 to 82 percent as of July 1, 2015 mainly due to the investment gain on the actuarial value of assets and other gains offset to some extent by the changes in the actuarial assumptions. Note that on a market value of assets basis the funded ratio decreased from 87 percent to 84 percent due to the investment loss on the market value of assets.

The overall Normal Cost of UCRP is the annual amount, expressed as a percent of payroll (the Normal Cost rate) that must be accrued over the total career of each active member to fully provide for future UCRP benefits, measured as of the valuation date. Under the entry age actuarial cost method, the UCRP Normal Cost calculated as of the beginning of the 2015-16 Plan Year is 17.73 percent of covered payroll.

Overview of Funded Status of the Non-Laboratory (Campus and Medical Center) Segment of UCRP

The chart below shows the recent history of AAL growth along with decreases in the funded ratio on an actuarial value of assets (AVA) basis for the non-Laboratory segment of UCRP. For the two most recent years there have actually been increases in the funded ratio.



Total Funding Policy Contribution Rates for Plan Year 2016-17

After applying the UCRP funding policy to the July 1, 2015 valuation results of the non-Laboratory segment of UCRP, the total funding policy contribution rate for Plan Year 2016-17 is 28.44 percent of projected covered payroll. The components of the total funding policy contribution rate are shown below:

Normal Cost	17.73%
Amortization of Unfunded Actuarial Accrued Liability (or Surplus)	9.73%
	======
Total funding policy contribution rate, before timing adjustment	27.46%
Total funding policy contribution rate, after timing adjustment	28.44%

The total funding policy contribution rate includes a timing adjustment to account for contributions being made throughout the year. No additional adjustment is included to account for contributions at this rate not starting until the Plan Year beginning July 1, 2016.

The total funding policy contribution as an estimated dollar amount for the non-Laboratory segment of UCRP is $2.84 billion based on projected covered payroll of $10 billion for Plan Year 2016-17.

Actual Contribution Rates

In February 2009, the Regents approved restarting contributions for the UCRP segments with active members. In July 2013, the Regents approved increases in the contribution rates for the Plan Year beginning July 1, 2014. The University rate is currently 14 percent of covered payroll for the non-Laboratory segment of UCRP. The employer contribution rate is uniform, applying to all members regardless of hire date. The pretax contribution rate for 1976 Tier members is eight percent of covered pay (less $19 per month) and seven percent of covered pay (with no $19 per month offset) for 2013 Tier members, other than those members subject to the Modified 2013 Tier contribution rate described below. The contribution rate for Safety members is nine percent of covered pay (less $19 per month).

Member rates are subject to collective bargaining for represented employees. During bargaining, certain unions agreed to modifications to the standard employee contribution rates established for 1976 Tier and 2013 Tier members, pursuant to which all their members began contributing nine percent of covered pay (less $19 per month for 1976 Tier members) effective on or about July 1, 2014. Those unions are the California Nurses Association (CNA), University Professional and Technical Employees (UPTE), and the American Federation of State, County and Municipal Employees (AFSCME).

For years in which the actual contributions, including amounts borrowed, are less than the total funding policy contributions, future actuarial losses are generated that will lead to increases in future total funding policy contributions.

The University contributions and the member contributions for the LBNL Segment of UCRP are made subject to the terms of the University's contract with the DOE, with member contribution rates subject to collective bargaining for represented members at LBNL.

Funding of Annual Required Contribution (ARC)

In March 2011, the Regents delegated to the President of the University the authority and discretion to make additional contributions to UCRP using one or more of the following options: borrowing from the Short Term Investment Pool (STIP), restructuring of University debt, or funding from other internal or external sources. These additional contributions are intended to fund the Modified Annual Required Contribution (or Modified ARC), which consists of the Normal Cost plus interest on the Unfunded Actuarial Accrued Liability (UAAL). In July 2014, the Regents approved a transfer of $700 million from STIP to UCRP. The $700 million represents an amount that along with actual contributions results in nearly full funding of the

ARC for 2014-15. The transfer was made on July 31, 2014 and is reflected in the results shown in the valuation report.

The locations are assessed a separate supplementary amount to pay for the debt service on the supplemental contributions to UCRP. The additional assessment for fiscal year 2011-12 was 0.63 percent (10.63 percent total), 0.65 percent for fiscal year 2012-13 (12.65 percent total), 0.72 percent for fiscal year 2013-14 (14.72 percent total), and 0.60 percent for fiscal year 2014-15 (14.6 percent total).[2]

Impact of Unrecognized Investment Gains for UCRP

The unrecognized investment gains represent about two percent of UCRP's market value of assets. Unless offset by future investment losses or other unfavorable experience, the future recognition of the $1.29 billion in market gains is expected to have an impact on the Plan's future funded ratio and future total funding policy contributions. This potential impact may be illustrated as follows:

- If the deferred gains were recognized immediately in the actuarial value of assets, the funded percentage would increase from 81.7 percent to 83.6 percent.
- If the deferred gains were recognized immediately in the actuarial value of assets, the total funding policy contribution rate would decrease from 28.44 percent of covered payroll to 27.2 percent of covered payroll.

2016 Retirement Options Task Force

The 2015-16 California State budget recently approved by the Legislature and signed by the Governor includes the principal elements of a funding framework that the University negotiated with the Governor and which was incorporated into the Governor's May 2015 Revision. Under the agreement with the Governor, the University will receive $436 million in one-time funds over the next three years in Proposition 2 debt repayment funds for UCRP, including $96 million in 2015-16, and $170 million in each of 2016-17 and 2017-18. As specified in the State Constitution, Proposition 2 funds must be supplemental, above Regentally-approved contribution rates, and must be used to help pay down the unfunded liability associated with UCRP. This funding is contingent upon implementation of the State Public Employees' Pension Reform Act's (PEPRA) pensionable salary cap, effective for new hires on or after July 1, 2016. The President of the University has convened the 2016 Retirement Options Task Force (Task Force) that will make recommendations to her on potential designs of new retirement options that implement the pensionable salary cap.

The Task Force has worked with Segal and other outside consultants to model potential designs, effects, and costs of a supplemental benefit for those future employees subject to the cap on pensionable pay.

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[2] The additional assessment is repaid to the University accounts that provided the borrowed funds; it is not contributed into UCRP. The assessment amount will be reset each year and is projected to range from 0.8 percent to 1.1 percent of covered payroll over the next four-year period.

The Task Force has been informed by additional retirement-related presentations and has begun exploring the potential designs, effects, and costs of a defined contribution plan alternative to UCRP for new hires.

The President of the University will bring her recommendations to the Regents early next year for review and approval. The UCRP pensionable pay cap now in place is that defined in Internal Revenue Code section 401(a)(17), currently $265,000 per year for most members. For employees who become UCRP members on or after July 1, 2016, UCRP pensionable salaries would be capped at the PEPRA limit in effect for 2016-17 (currently $117,020 for 2015-16 for members with Social Security, indexed annually with inflation). These changes will only affect new employees who become members on or after July 1, 2016 after the new options are implemented. For represented groups, retirement options will be subject to collective bargaining.

UNIVERSITY OF CALIFORNIA RETIREMENT PLAN
Overall Actuarial Valuation Highlights
(Dollars in 000,000's)

Valuation Date	7/1/2006	7/1/2007[1]	7/1/2008	7/1/2009	7/1/2010	7/1/2011[2]	7/1/2012	7/1/2013	7/1/2014	7/1/2015[3]
Asset Information										
(1) Plan Assets at Fair Market Value (MV)	$43,362	$48,105	$42,023	$32,259	$34,574	$41,873	$41,806	$45,341	$52,784	$55,055
(2) Actuarial Value of Assets (AVA)[4]	41,972	43,434	43,840	42,799	41,195	42,757	42,965	43,572	48,328	53,762
Actuarial Valuation Results – Contribution Basis										
(3) Normal Cost (Beginning of Plan Year)	$1,305	$1,276	$1,262	$1,339	$1,354	$1,404	$1,500	$1,563	$1,636	$1,760
(4) % Payroll (Beginning of Plan Year)	15.81%	16.76%	16.90%	17.00%	16.94%	17.20%	17.44%	17.70%	17.59%	17.73%
(5) Actuarial Accrued Liability (AAL: Entry Age)[5]	40,302	41,437	42,577	45,161	47,504	51,831	54,620	57,381	60,417	65,841
(6) Actuarial Value of Assets in Excess of AAL	1,671	1,997	1,263	-2,362	-6,309	-9,074	-11,655	-13,809	-12,089	-12,079

[1] Liabilities and costs reflect the economic and demographic assumptions adopted 7/1/2007.

[2] Liabilities and costs reflect the economic and demographic assumptions adopted 7/1/2011.

[3] Liabilities and costs reflect the economic and demographic assumptions adopted 7/1/2015.

[4] Actuarial Value of Assets: The expected market value plus investment gains/losses recognized over a five-year period.

[5] AAL: The actuarial accrued liability based on the funding method used to value UCRP. The actuarial present value of plan benefits and expenses allocated to years prior to the valuation date.

UC-PERS Plus 5 Plan Valuation Results

On October 18, 1990, the Regents approved an early retirement incentive program for University employees who were covered under the California Public Employees' Retirement System (CalPERS) pension plan. The most tax-effective method to provide this group with a benefit generally comparable to the incentive offered to UCRP members was to establish a "frozen" defined benefit plan described in Section 401(a) of the Internal Revenue Code.

The UC-PERS Plus 5 Plan required campus and Laboratory locations to fund their individual liabilities over a period no longer than five years. The UC-PERS Plus 5 Plan is a standard terminal funding arrangement under a wasting trust which, in this instance, is obligated to make fixed lifetime payments under either a single life or joint and survivor annuity option. The assets must remain in the trust until all benefit obligations have been satisfied. Market value of assets, rather than a smoothed value, is used for actuarial valuation purposes. The Regents' consulting actuary, Segal Consulting, reviews the trust's fiscal position and funding status annually to assure that the UC-PERS Plus 5 Plan is adequately funded.

In December 2010, the Regents approved a one-time ad hoc cost-of-living adjustment (COLA) of 15.19 percent for all PERS Plus 5 Plan annuitants as of April 1, 2011 and an annual COLA provision, effective July 1, 2011, using the equivalent UCRP COLA formula.

As of July 1, 2015, the net assets of the wasting trust were $67.4 million and the Actuarial Accrued Liability was $37.4 million. The decrease in the surplus was mainly the result of changes in the actuarial assumptions and the lower-than-expected market value return of approximately four percent during the 2014-15 Plan Year (the assumed rate of investment return for 2014-15 was 7.5 percent), all mostly offset by interest on the Plan's surplus during the year.

As of July 1, 2015, there were 584 retired members and beneficiaries in the UC-PERS Plus 5 Plan, down from 614 as of July 1, 2014.

Key to Acronyms

AAL	Actuarial Accrued Liability
AFSCME	American Federation of State, County and Municipal Employees
ARC	Annual Required Contribution
AVA	Actuarial Value of Assets
CNA	California Nurses Association
COLA	Cost-of-Living Adjustment
DOE	Department of Energy
MVA	Market Value of Assets
LANL	Los Alamos National Laboratory
LBNL	Lawrence Berkeley National Laboratory
LLNL	Lawrence Livermore National Laboratory
PEPRA	Public Employees' Pension Reform Act of 2013
PERS or CalPERS	California Public Employees Retirement System
STIP	Short Term Investment Pool

UAAL	Unfunded Actuarial Accrued Liability
UCRP	University of California Retirement Plan
UPTE	University Professional and Technical Employees

APPENDIX I – Summary of Annual Actuarial Valuation Results by UCRP Segment and for the UC-PERS Plus 5 Plan

APPENDIX II - Glossary of Actuarial Terms

Attachment 1 - UCRP Actuarial Valuation Report as of July 1, 2015
Attachment 2 - UC-PERS Plus 5 Plan Actuarial Valuation Report as of July 1, 2015

APPENDIX I
SUMMARY OF ANNUAL ACTUARIAL VALUATION RESULTS BY UCRP SEGMENT AND FOR THE UC-PERS PLUS 5 PLAN

UCRP Non-Laboratory (Campus and Medical Centers) Segment Valuation Results

- The June 30, 2015 non-Laboratory segment (segment) market value of assets was $46.6 billion and the segment actuarial value of assets was $45.5 billion.
- The July 1, 2015 segment Actuarial Accrued Liability was $56.4 billion.
- The segment funded ratio on an actuarial value of assets basis was 80.7 percent as of July 1, 2015.
- The segment Normal Cost calculated as of the beginning of Plan Year 2015-16 is $1.71 billion or 17.73 percent of the $9.66 billion covered payroll at July 1, 2015. After adjusting for contributions made throughout the year, the segment Normal Cost is 18.36 percent of covered payroll.
- Based on the funding policy approved by the Regents, the total funding policy contribution rate is 28.44 percent of projected covered payroll, which results in an estimated annual dollar amount of $2.84 billion for Plan Year 2016-17.

UCRP Lawrence Berkeley National Laboratory (LBNL) Segment Valuation Results

- The June 30, 2015 LBNL Segment market value of assets was $2.13 billion and the actuarial value of assets was $2.08 billion.
- The July 1, 2015 LBNL Segment Actuarial Accrued Liability is $2.16 billion.
- The LBNL Segment funded ratio on an actuarial value of assets basis was 96 percent as of July 1, 2015.
- Based on the modified employer contribution rate for LBNL approved by the Regents on September 17, 2015, the LBNL employer contribution rate is 11.5 percent of payroll from October 1, 2015 through June 30, 2016. Based on the results of this valuation, the LBNL employer contribution rate will then change to 11.8 percent of payroll effective July 1, 2016. The member contributions for the LBNL Segment will be made on the same basis as determined for the non-Laboratory segment of UCRP, subject to the terms of the University's contract with the DOE and subject to collective bargaining for represented members at LBNL.

UCRP Lawrence Livermore National Laboratory (LLNL) Retained Segment Valuation Results

- The June 30, 2015 LLNL Retained Segment market value of assets was $3.43 billion and the actuarial value of assets was $3.35 billion.
- The July 1, 2015 LLNL Retained Segment Actuarial Accrued Liability was $3.98 billion.
- The LLNL Retained Segment funded ratio on an actuarial value of assets basis was 84.3 percent as of July 1, 2015.
- Based on a contractual obligation, the required contribution from the DOE, subject to available funding, for Plan Year 2015-16 (due by February 28, 2017) is $182 million.

UCRP Los Alamos National Laboratory (LANL) Retained Segment Valuation Results

- The June 30, 2015 LANL Retained Segment market value of assets was $2.87 billion and the actuarial value of assets was $2.8 billion.
- The July 1, 2015 LANL Retained Segment Actuarial Accrued Liability was $3.27 billion.
- The LANL Retained Segment funded ratio on an actuarial value of assets basis was 85.6 percent as of July 1, 2015.
- Based on a contractual obligation, the required contribution from the DOE, subject to available funding, for Plan Year 2015-16 (due by February 28, 2017) is $149.7 million.

UC-PERS Plus 5 Plan Valuation Results

- The June 30, 2015 market value of assets of the UC-PERS Plus 5 Plan was $67.4 million, down from $70 million for the prior year, reflecting an approximately four percent net investment return.
- The July 1, 2015 Actuarial Accrued Liability for the UC-PERS Plus 5 Plan decreased to $37.4 million from $38.6 million for the prior year.
- The UC-PERS Plus 5 Plan funded ratio decreased from 181.2 percent as of July 1, 2014 to 180.2 percent as of July 1, 2015.

APPENDIX II: GLOSSARY OF ACTUARIAL TERMS

- **Present Value of Benefits (PVB)**: the “value” at a particular point in time of all projected future benefit payments for current plan members. The “future benefit payments” and the “value” of those payments are determined using actuarial assumptions as to future events. Examples of these assumptions are estimates of retirement patterns, salary increases, investment returns, etc. Another way to think of the PVB is that if the plan has assets equal to the PVB and all actuarial assumptions are met, then no future contributions would be needed to provide all future service benefits for all current members, including future service and salary increases for active members.

- **Actuarial Cost Method**: allocates a portion of the total cost (PVB) to each year of service, both past service and future service.

- **Normal Cost (NC)**: the cost allocated under the Actuarial Cost Method to each year of active member service.

- **Actuarial Accrued Liability (AAL)**: the value at a particular point in time of all past Normal Costs. Plan assets would match this amount if the current plan provisions, actuarial assumptions and participant data had always been in effect, contributions equal to the Normal Cost had been made and all actuarial assumptions came true.

- **Actuarial Value of Assets (AVA) or smoothed value**: a market-related value of the plan assets for determining contribution requirements. The AVA tracks the market value of assets over time, smoothes out short-term fluctuations in market values and produces a smoother pattern of contributions than would result from using market value.

- **Market Value of Assets (MVA)**: the fair value of assets of the plan as reported by the plan’s trustee, typically shown in the plan’s audited financial statements.

- **Unfunded Actuarial Accrued Liability (UAAL)**: the positive difference, if any, between the AAL and the AVA.

- **Surplus**: the positive difference, if any, between the AVA and the AAL.

- **Actuarial Value Funded Ratio**: the ratio of the AVA to the AAL.

- **Market Value Funded Ratio**: the ratio of the MVA to the AAL.

- **Actuarial Gains and Losses**: changes in UAAL or surplus due to actual experience different from what is assumed in the actuarial valuation. For example, if during a given year the assets earn more than the current assumption of 7.25 percent, the amount of earnings above 7.25 percent will cause an unexpected reduction in UAAL, or “actuarial gain” as of the next valuation. These include contribution gains and losses that result from actual contributions made being greater or less than the level determined under the funding policy.

Attachment 1

University of California Retirement Plan

ACTUARIAL VALUATION REPORT AS OF JULY 1, 2015

Segal Consulting

Segal Consulting

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October 15, 2015

Mr. Dwaine B. Duckett
Vice President, Human Resources
University of California
1111 Franklin Street, 5th Floor
Oakland, California 94607

Dear Vice President Duckett:

We are pleased to submit this funding Actuarial Valuation Report as of July 1, 2015 for the University of California Retirement Plan ("UCRP" or "Plan"). It summarizes the actuarial data used in the valuation, determines total funding policy contribution rates for the 2016-2017 Plan Year and analyzes the preceding year's experience.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. The census and financial information on which our calculations were based was provided by the UC HR Staff. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for those measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion the assumptions as approved by the Regents are reasonably related to the experience of and future expectations for the Plan.

We look forward to reviewing this report at the November 2015 Regents meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:

Paul Angelo, FSA, MAAA, EA, FCA	*John Monroe, ASA, MAAA, EA*
Senior Vice President & Actuary	*Vice President & Actuary*

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SECTION 1

EXECUTIVE SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

SECTION 1: Executive Summary for the University of California Retirement Plan

Purpose

This report has been prepared by Segal Consulting to present a valuation of the University of California Retirement Plan ("UCRP" or "Plan") as of July 1, 2015. The valuation was performed to determine if the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan,
- The characteristics of covered active members, terminated vested members, retired members, disabled members and beneficiaries as of July 1, 2015,
- The assets of the Plan as of June 30, 2015,
- The funding policy adopted by the Regents,
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding member terminations, retirement, death, etc.

Significant Issues in Valuation Year

CONTRIBUTIONS

Reference: Pg. 10

- The total funding policy contribution rate decreased slightly from 28.79% of covered payroll to 28.44% of covered payroll. The decrease in the total funding policy contribution rate was mainly due to the investment gain on the actuarial value of assets and other gains, offset to some extent by the changes in actuarial assumptions. This total funding policy contribution rate is for the 2016-2017 Plan Year and applies to the non-laboratory segment of UCRP (i.e., campuses, medical centers and Hastings College of Law). Contributions for the laboratories are subject to the terms of the University's contracts with the Department of Energy. More information on the various UCRP segments can be found in Section 1, page vii. Unless otherwise noted, results shown in this report are for all of UCRP.

Significant Issues in Valuation Year (continued)

Reference: Pg. 59

- The Regents approved changes in the Unfunded Actuarial Accrued Liability (UAAL) amortization periods as follows:
  - A decrease in the amortization period used for any actuarial experience gains or losses from 30 years to 20 years,
  - An increase in the amortization period for changes in actuarial assumptions from 15 to 20 years, and
  - A decrease in the amortization period for plan amendments affecting non-active members from 15 years to 10 years.

  These changes are effective with this valuation and do not affect amortization bases that have previously been established in prior valuations.

Reference: Pg. 57

- For the Plan Year beginning July 1, 2015, the University contribution rate is 14% of covered compensation for the non-laboratory segment of UCRP while the rate for most members is 8% of covered compensation (less $19 per month). Member rates are subject to collective bargaining for represented employees. For years in which the actual contributions are less than the total funding policy contributions, future actuarial losses are generated that will lead to increases in future total funding policy contributions.
- In December 2010, The Regents delegated to the President authority and discretion to fully fund the modified Annual Required Contribution (ARC) for the Plan during fiscal years 2010-2011 through 2018-2019 and the full ARC after that. The modified ARC consists of the normal cost plus interest on the Unfunded Actuarial Accrued Liability (UAAL). In July 2014, The Regents approved a transfer of $700 million from the UC Short-Term Investment Pool (STIP) to UCRP. The $700 million represents an amount that along with actual contributions results in nearly full funding of the ARC for 2014-2015. The transfer was made on July 31, 2014 and is reflected in the results shown in this valuation report.

ASSETS

Reference: Pg. 7

- During the 2014-2015 Plan Year, the rate of return on the market value of assets was approximately 4%. Based on a partial recognition of this return as well as prior investment experience, the rate of return on the actuarial value of assets was 10.6%, which is greater than the expected return of 7.50% for 2014-2015 (based on the July 1, 2014 valuation).

Reference: Pg. 4

- The total unrecognized investment gain as of July 1, 2015 is about $1.29 billion as compared to a $4.46 billion unrecognized gain in the previous valuation. This investment gain will be recognized in the determination of the actuarial value of assets for valuation purposes over the next few years. This means that, if the Plan earns the current assumed rate of investment return of 7.25% per year (net of investment expenses) on a **market value** basis, then the deferred gains will be recognized over the next few years as shown in the footnote on Chart 6.

Significant Issues in Valuation Year (continued)

- This actuarial valuation report as of July 1, 2015 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the Plan, while increases will decrease the actuarial cost of the Plan.

FUNDED RATIO

Reference: Pgs. 12-13, 25

- The Plan's funded ratio on an actuarial value basis increased from 80.0% as of July 1, 2014 to 81.7% as of July 1, 2015. This increase in funded ratio is mainly a result of the investment gain on the actuarial value of assets and other gains offset to some extent by the changes in actuarial assumptions. On a market value basis, the Plan's funded ratio decreased from 87.4% as of July 1, 2014 to 83.6% as of July 1, 2015 due to the investment loss on the market value of assets. The Plan is in an underfunded position as the actuarial accrued liability exceeds the actuarial value of assets by $12.1 billion. Information on the funded ratio and unfunded actuarial accrued liability for each UCRP segment can be found on page vii.

FUTURE EXPECTATIONS

- The unrecognized investment gains of $1.29 billion represent about 2% of the market value of assets. Unless offset by future investment losses or other unfavorable experience, the future recognition of the $1.29 billion in market gains is expected to have an impact on the Plan's future funded ratio and future total funding policy contributions. This potential impact may be illustrated as follows:
  - If the deferred gains were recognized immediately in the actuarial value of assets, the funded percentage would increase from 81.7% to 83.6%.
  - If the deferred gains were recognized immediately in the actuarial value of assets, the total funding policy contribution would decrease from 28.44% of covered payroll to 27.20% of covered payroll.

RESULTS OF EXPERIENCE STUDY

Reference: Pgs. 33, 44

- As a result of recommendations from the July 1, 2010 through June 30, 2014 Actuarial Experience Study that were approved by The Regents in September 2015, several actuarial assumptions were changed in this valuation. These assumptions were modified to more closely reflect anticipated future experience. These changes increased the Plan's Actuarial Accrued Liability by $2.2 billion and the total funding policy contribution rate by 1.78% of covered payroll. The changes to the investment return assumption (reduced from 7.50% to 7.25%) and the mortality assumption were the most significant of the changes in assumptions.

Significant Issues in Valuation Year (continued)

DEMOGRAPHIC EXPERIENCE

Reference: Pgs. 15-16

- Overall, the number of active members increased by 2.7% from 120,568 as of July 1, 2014 to 123,768 as of July 1, 2015. The Plan has 67,321 members currently receiving benefits, an increase of 4.9% from 2014. Total monthly benefits in pay status increased by 7.7%, to a level of $221 million. There are also 75,165 terminated members in the Plan who are entitled to future benefits. Within this group of terminated members there are 34,166 terminated vested members who are entitled to a deferred or immediate vested benefit and 34,843 terminated nonvested members who are entitled to a refund of member contributions or payment of their Capital Accumulation Provision (CAP) balance. There are also 6,156 members that transferred to the LANS or LLNS defined benefit plans who will be entitled to a CAP balance payment from UCRP after they separate from employment with LANS or LLNS.
- The actual average increase in salary for UCRP members that were active in this valuation and the previous valuation was 5.9%. When compared to the average assumed increase of approximately 5.1% (based on the 2014 valuation), this produced an actuarial loss due to salary increases more than expected.

Summary of Key Valuation Results

	2015 ($ in 000s)	2014 ($ in 000s)
Total funding policy contributions:		
Percentage of payroll[(1)]	28.44%	28.79%
Estimated annual dollar amount[(2)]	$2,843,357	$2,705,150
Funding elements for Plan Year beginning July 1:		
Normal cost (beginning of year)	$1,759,880	$1,635,766
Percentage of payroll (beginning of year)	17.73%	17.59%
Percentage of payroll (middle of year)	18.36%	18.24%
Market value of assets (MVA)	$55,055,447	$52,783,867
Actuarial value of assets (AVA)	53,762,286	48,327,981
Actuarial accrued liability (AAL)	65,841,255	60,417,177
Unfunded/(Overfunded) actuarial accrued liability on AVA basis	12,078,969	12,089,196
Unfunded/(Overfunded) actuarial accrued liability on MVA basis	10,785,808	7,633,310
Funded ratio on actuarial value basis (AVA / AAL)	81.7%	80.0%
Funded ratio on market value basis (MVA / AAL)	83.6%	87.4%
Demographic data for Plan Year beginning July 1:		
Number of retired members and beneficiaries[(3)]	67,321	64,191
Number of vested terminated members[(4)]	75,165	78,229
Number of active members	123,768	120,568
Average covered compensation (actual dollars)	$89,578	$86,224

(1) *Total funding policy contributions are for the Plan Year starting one year after the date of the actuarial valuation. The total funding policy contributions shown are for the non-laboratory segment of UCRP and exclude contributions for the Lawrence Berkeley National Laboratory Segment, the Lawrence Livermore National Laboratory Retained Segment and the Los Alamos National Laboratory Retained Segment of UCRP. Page vii shows those contributions by each segment. The Normal Cost plus interest on the July 1, 2015 UAAL represents 26.26% of covered payroll.*

(2) *Based on estimated covered payroll of $9,997,740 (also in thousands) for the 2016-2017 Plan Year and $9,396,146 for the 2015-2016 Plan Year. Actual contributions are set by the Regents and will be made based on actual payroll.*

(3) *Excludes deferred beneficiaries who are entitled to future benefits.*

(4) *Includes terminated nonvested members due a refund of member contributions or CAP balance payment and members that transferred to the LANS or LLNS defined benefit plans who will be entitled to a CAP balance payment from UCRP after they separate from employment with LANS or LLNS.*

FIVE-YEAR HISTORY OF TOTAL FUNDING POLICY CONTRIBUTIONS AND FUNDED STATUS

Effective with the July 1, 2008 valuation, a funding policy was adopted that determines total funding policy contributions based on the Plan's normal cost adjusted by an amortization of any surplus or underfunding.

The total funding policy contribution rate is effective for the Plan Year starting one year after the date of the actuarial valuation and applies to the non-laboratory segment of UCRP. The total funding policy contribution rate for the 2016-2017 Plan Year is based on this valuation and is 28.44% of payroll.

For the Plan Year beginning July 1, 2015, the University contribution rate is 14% of covered compensation for the non-laboratory segment of UCRP while the rate for most members is 8% of covered compensation (less $19 per month).

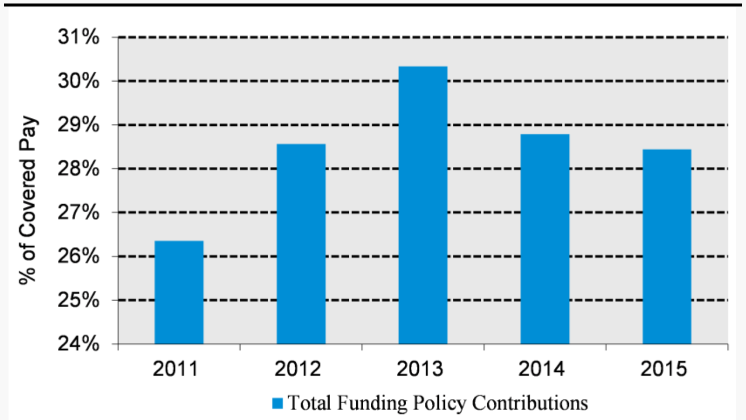
The Plan's funded percentage (actuarial value of assets divided by actuarial accrued liability) over the past five years is shown below:

Plan Year Beg. 7/1	AAL $ in Billions	AVA $ in Billions	Funded Percentage
2011	$51.8	$42.8	82%
2012	54.6	43.0	79
2013	57.4	43.6	76
2014	60.4	48.3	80
2015	65.8	53.8	82

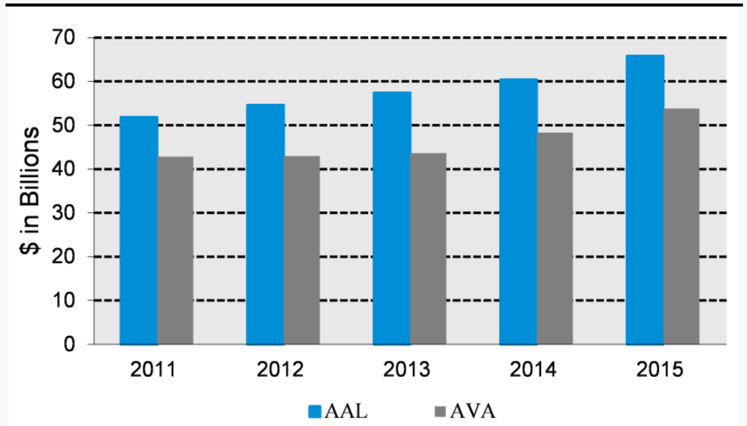
The actuarial accrued liability has shown a steady increase over the five-year period. Prior to 2014, the actuarial value of assets remained relatively level as prior investment losses were recognized and contributions had recently restarted. In 2014 and 2015, the actuarial value of assets mainly increased due to the recognition of prior investment gains.

The first graph shows a five-year history of the total funding policy contributions (non-laboratory segment of UCRP). The second graph shows the five-year history of the funded status – actuarial accrued liability versus the actuarial value of assets.

Five-Year History of Total Funding Policy Contributions Based on July 1 Actuarial Valuation Date



Five-Year History of Actuarial Accrued Liability and Actuarial Value of Assets for Plan Years Beginning July 1



Summary of UCRP July 1, 2015 Valuation Results by Segment ($ in 000s)

	Total UCRP	Campus and Medical Centers[1]	Lawrence Berkeley National Laboratory (LBNL)	Lawrence Livermore National Laboratory (LLNL)	Los Alamos National Laboratory (LANL)
Normal Cost (beginning of year)	$1,759,880	$1,712,887	$46,993	$0	$0
Market value of assets (MVA)	55,055,447	46,628,550	2,126,842	3,432,753	2,867,303
Actuarial value of assets (AVA)	53,762,286	45,533,323	2,076,891	3,352,132	2,799,940
Actuarial accrued liability (AAL)	65,841,255	56,433,239	2,162,722	3,975,823	3,269,471
Unfunded/(Overfunded) actuarial accrued liability on AVA basis	12,078,969	10,899,916	85,831	623,691	469,531
Unfunded/(Overfunded) actuarial accrued liability on MVA basis	10,785,808	9,804,689	35,880	543,070	402,168
Funded Ratio on AVA basis (AVA/AAL)	81.7%	80.7%	96.0%	84.3%	85.6%
Funded Ratio on MVA basis (MVA/AAL)	83.6%	82.6%	98.3%	86.3%	87.7%
Estimated Covered Payroll for 2015-2016 Plan Year	$9,927,833	$9,659,652	$268,182	$0	$0
Estimated Covered Payroll for 2016-2017 Plan Year	10,275,308	9,997,740	277,568	0	0
Total funding policy contributions[2]					
Percent of payroll[3]		28.44%	N/A	N/A	N/A
Estimated dollar amount in 000s		$2,843,357	N/A	N/A	N/A
Required Contractual Contributions[4]					
Percent of pay or dollar amount in 000s		N/A	11.8%	$181,968	$149,743

(1) *Includes Hasting College of Law*

(2) *All total funding policy contributions are based on valuation results as of July 1, 2015. Please see Section 2, page 10 for more detailed information on this calculation.*

(3) *The total funding policy contributions shown for the campus and medical centers and LBNL segments are for the Plan Year beginning July 1, 2016. Actual contributions for these two segments will be set by the Regents.*

(4) *The contributions shown for the LLNL and LANL Retained Segments are required (subject to available funding by the National Nuclear Security Agency (NNSA)) for the Plan Year beginning July 1, 2015 under the terms of the University's contracts with the Department of Energy, and are due by February 28, 2017. They are not included in the asset values shown above. The Contractual Contributions shown for the LBNL segment are based on the actual employer contribution rate of 14% of payroll adjusted by the funded ratios of the campus and medical centers segment and the LBNL segment. It is effective for the Plan Year beginning July 1, 2016 and the estimated annual dollar amount of the contribution is $32,753 (also in thousands).*

Note: Results may not add due to rounding.

Important Information about Actuarial Valuations

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the University of California (UC). Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by UC.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of UC. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

- If UC is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Plan should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

SECTION 2: Valuation Results for the University of California Retirement Plan

A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographics of covered members, including active members, vested terminated members, retired members, disabled members and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B and C.

A historical perspective of how the participant population has changed over the past ten valuations can be seen in this chart.

CHART 1

Member Population: 2006 – 2015

Year Beginning July 1	Active Members	Terminated Vested Members*	Retired Members, Disabled Members and Beneficiaries**	Ratio of Retirees to Actives
2006	122,317	52,548	45,442	0.37
2007	118,885	59,056	47,682	0.40
2008	114,242	64,566	50,171	0.44
2009	115,745	54,883	51,653	0.45
2010	114,928	55,037	53,902	0.47
2011	115,568	60,903	56,296	0.49
2012	116,888	67,318	58,934	0.50
2013	118,321	73,589	61,715	0.52
2014	120,568	78,229	64,191	0.53
2015	123,768	75,165	67,321	0.54

* *Includes terminated nonvested members due a refund of member contributions or CAP balance payment and members that transferred to the LANS or LLNS defined benefit plans who will be entitled to a CAP balance payment from UCRP after they separate from employment with LANS or LLNS.*

** *Excludes deferred beneficiaries who are entitled to future benefits.*

Active Members

Plan costs and liabilities are affected by the age, service credit and covered compensation of active members. In this year's valuation, there are 123,768 active members with an average age of 44.8 years, average service credit of 9.4 years and average covered compensation of $89,578.

Inactive Members

In this year's valuation, there were 75,165 terminated members. Within this group of terminated members there are 34,166 members with a vested right to a deferred or immediate vested benefit and 34,843 terminated nonvested members who are entitled to a return of their member contributions or a distribution of their CAP balance. There are also 6,156 members that transferred to the LANS or LLNS defined benefit plans who will be entitled to a CAP balance payment from UCRP after they separate from employment with LANS or LLNS.

These graphs show a distribution of active members by age and by service credit. In Chart 3 there are 319 members who have 40 or more years of service credit.

CHART 2

Distribution of Active Members by Age as of July 1, 2015

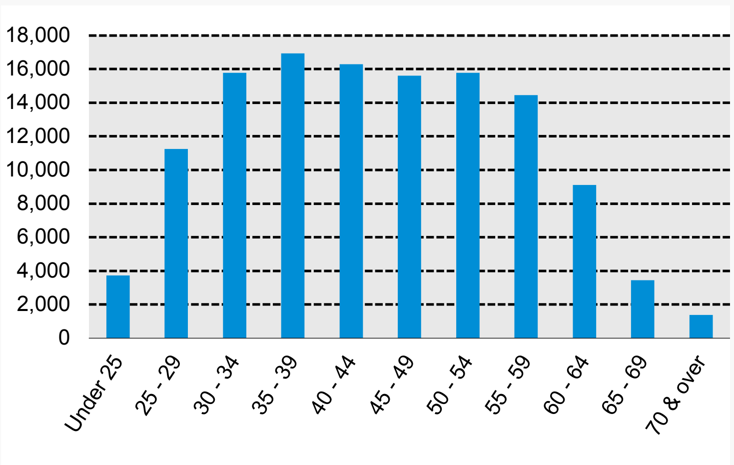
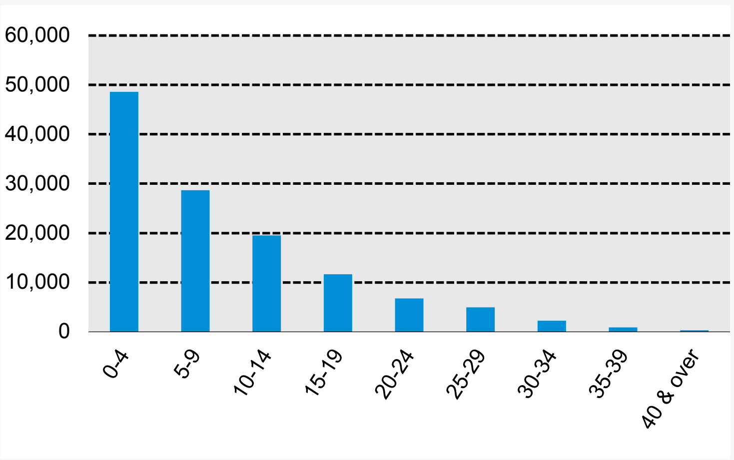


CHART 3

Distribution of Active Members by Service Credit as of July 1, 2015



Retired Members, Disabled Members and Beneficiaries
As of July 1, 2015, 57,581 retired members, 1,620 disabled members and 8,120 beneficiaries (excludes 114 deferred beneficiaries) were receiving total monthly benefits of $220,871,249.

These graphs show a distribution of the current retired members, disabled members and beneficiaries based on their monthly benefit and age.

CHART 4

Distribution of Retired Members, Disabled Members and Beneficiaries by Monthly Benefit as of July 1, 2015

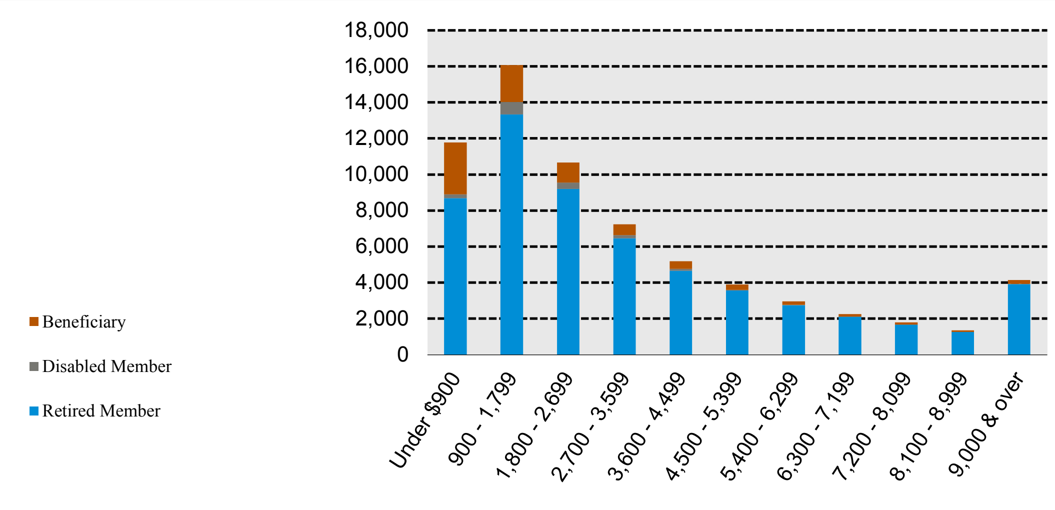
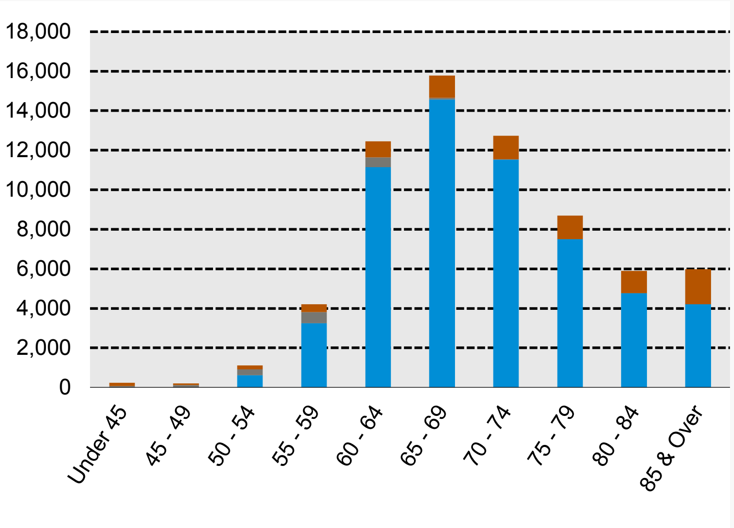


CHART 5

Distribution of Retired Members, Disabled Members and Beneficiaries by Age as of July 1, 2015



B. FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both contributions (net of administration expenses) and investment earnings (net of investment fees) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information for UCRP, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D and E.

It is desirable to have level and predictable plan costs from one year to the next. For this reason, The Regents have approved an asset valuation method for UCRP that smoothes market value investment gains and losses over a five-year period. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset values and the plan costs are more stable.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 6

Determination of Actuarial Value of Assets for Year Ended June 30, 2015 ($ in 000s)

	From	To	Total Actual Market Return (net)	Expected Market Return (net)	Investment Gain/(Loss)*	Deferred Factor	Unrecognized Return**
	7/2010	6/2011	$7,629,729	$3,077,216	$4,552,513	0.0	$0
	7/2011	6/2012	115,864	3,133,623	(3,017,759)	0.2	(603,552)
	7/2012	6/2013	4,833,339	3,086,770	1,746,569	0.4	698,628
	7/2013	6/2014	8,009,979	3,379,298	4,630,681	0.6	2,778,409
	7/2014	6/2015	1,993,802	3,969,206	(1,975,404)	0.8	(1,580,324)
1.	Total Unrecognized Return***						$1,293,161
2.	Market Value of Assets						55,055,447
3.	Actuarial Value of Assets (Item 2 – Item 1)						$53,762,286
4.	Actuarial Value of Assets as a Percentage of Market Value (Item 1 ÷ Item 3)						97.7%

* *Total return minus expected return, both on a market value basis.*

** *Recognition at 20% per year over 5 years.*

*** *Deferred return as of June 30, 2015 recognized in each of the next four years:*

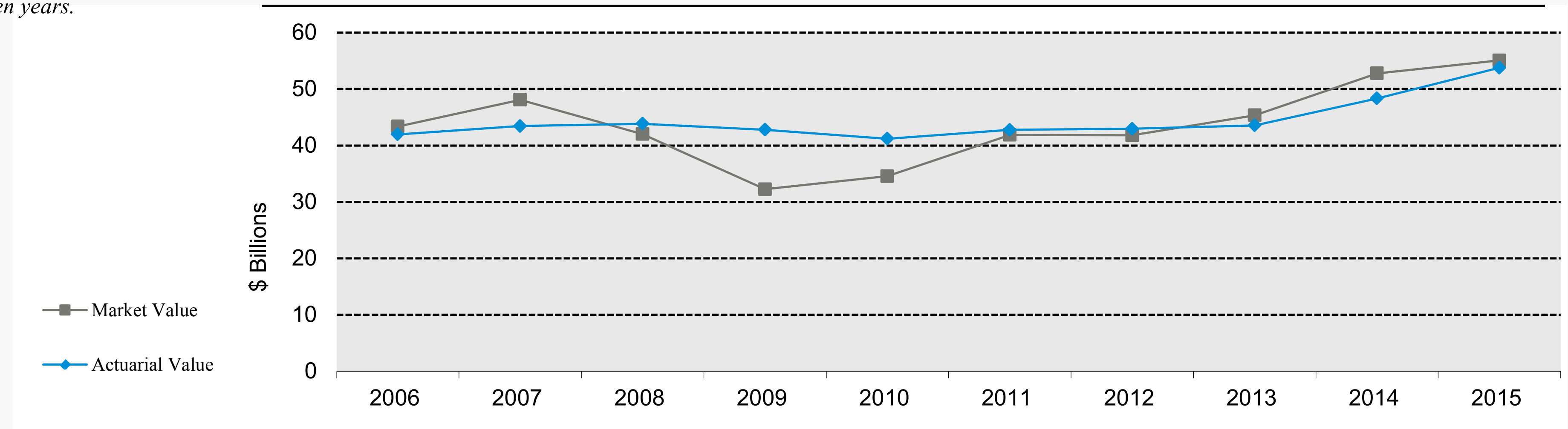
(a) Amount Recognized during 2015/2016	$276,818
(b) Amount Recognized during 2016/2017	880,369
(c) Amount Recognized during 2017/2018	531,055
(d) Amount Recognized during 2018/2019	(395,081)
	$1,293,161

Both the actuarial value and market value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial value of assets is significant because UCRP's liabilities are compared to the actuarial value of assets to determine what portion, if any, remains unfunded or overfunded. Amortization of any unfunded or overfunded liability is an important element in determining future contribution rates.

This chart shows the change in the actuarial value of assets versus the market value over the past ten years.

CHART 7

Market Value of Assets vs. Actuarial Value of Assets for Years Ended June 30, 2006 – 2015



C. ACTUARIAL EXPERIENCE

To calculate contribution rates, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution rate will decrease from the previous year. On the other hand, the contribution rate will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution rates to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution rate is adjusted to take into account a change in experience anticipated for all future years.

The components of the total gain of $1.6 billion are shown below. The net experience loss from sources other than investments and contributions was 0.1% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

CHART 8

Actuarial Experience for Year Ended June 30, 2015

	($ in 000s)
1. Net gain from contributions more than expected under funding policy	$145,291
2. Net gain from investments*	1,521,511
3. Net (loss) from salary increases greater than assumed	(104,822)
4. Net gain from other experience**	47,252
5. Net experience gain: (1) + (2) + (3) + (4)***	$1,609,232

* *Details in Chart 9.*

** *See Section 3, Exhibit F. Does not include the effect of Plan or assumption changes, if any.*

*** *Non-laboratory segment amount is an actuarial experience gain of $1,440,456.*

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on UCRP's investment policy. For valuation purposes, the assumed rate of return was 7.50% for the 2014-2015 Plan Year (based on the July 1, 2014 valuation). As shown below, the actual rate of return on the actuarial value of assets for the 2014-2015 Plan Year was 10.64%.

Since the actual return for the year was more than the assumed return, the Plan experienced an actuarial gain during the year ended June 30, 2015 with regard to its investments, when measured based on the actuarial value of assets. The amount of this gain is derived below.

This chart shows the gain/(loss) due to investment experience.

CHART 9

Market and Actuarial Value Investment Experience for Year Ended June 30, 2015

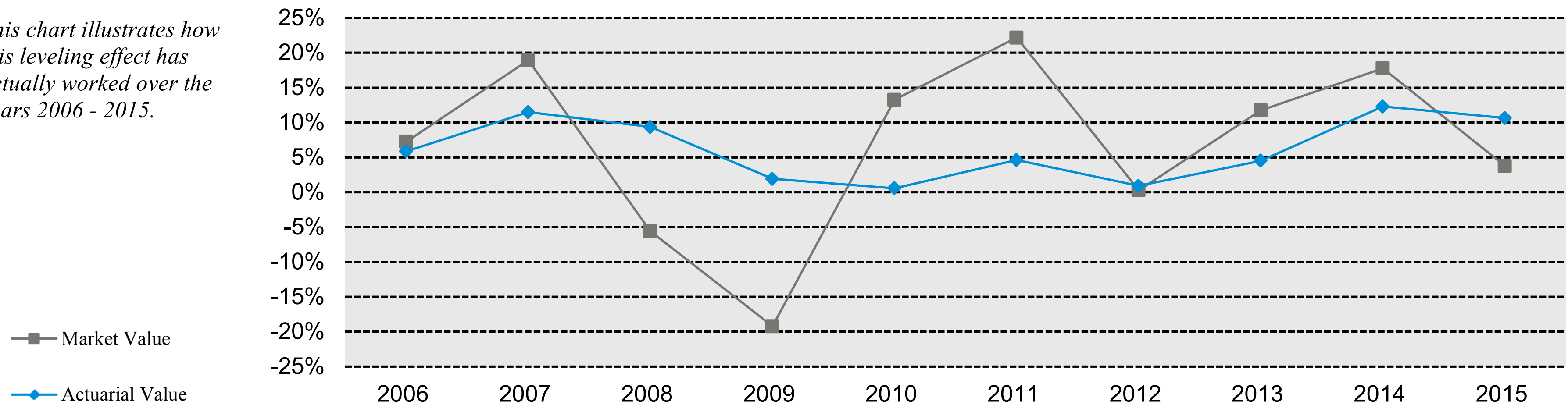
	Market Value ($ in 000s)	Actuarial Value ($ in 000s)
1. Actual return	$1,993,802	$5,156,527
2. Average value of assets	52,922,756	48,466,870
3. Actual rate of return: (1) ÷ (2)	3.77%	10.64%
4. Assumed rate of return	7.50%	7.50%
5. Expected return: (2) x (4)	3,969,206	$3,635,016
6. Actuarial gain/(loss): (1) – (5)	($1,975,404)	$1,521,511

In the preceding subsection B we described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this method is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs. This effect is clear in the chart below, where the year-to-year returns on actuarial value are less volatile than the returns on market value.

CHART 10

Market and Actuarial Rates of Return for Years Ended June 30, 2006 - 2015

This chart illustrates how this leveling effect has actually worked over the years 2006 - 2015.



Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the members,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net loss from this other experience for the year ended June 30, 2015 amounted to $58 million which is 0.1% of the actuarial accrued liability. Of this amount, $105 million was due to salary increases greater than assumed.

D. TOTAL FUNDING POLICY CONTRIBUTION

Effective with the July 1, 2008 valuation, a funding policy was adopted that determines total funding policy contributions based on the Plan's normal cost adjusted by an amortization of any surplus (overfunding) or underfunding, with contributions starting for the Plan Year beginning July 1, 2009.

The total funding policy contribution is based on various amortization periods for different components of the UAAL as of July 1, 2015 as shown in Section 3, Exhibit H. It reflects the changes to amortization periods adopted by the Regents effective with this valuation. The amortization periods for amortization bases established in prior valuations are not affected.

The calculation of the total funding policy contribution rates for the current and prior valuation are shown below.

This total funding policy contribution rate applies to the non-laboratory segment of UCRP (i.e., campuses, medical centers and Hastings College of Law). Contributions for the laboratories are subject to the terms of the University's contracts with the Department of Energy. For more information on the various UCRP segments please see Section 1, page vii. For more details on the UCRP funding policy please see Section 4, Exhibit IV.

The chart shows the calculation of the total funding policy contribution for the non-laboratory segment of UCRP.

CHART 11
Total Funding Policy Contribution (Non-Laboratory Segment of UCRP)

	Actuarial Valuation Date			
	July 1, 2015 ($ in 000s)		July 1, 2014 ($ in 000s)	
	Amount	% of Payroll	Amount	% of Payroll
1. Normal cost (beginning of year)	$1,712,887	17.73%	$1,589,434	17.59%
2. Actuarial value of assets	45,533,323		40,729,228	
3. Actuarial accrued liability	56,433,239		51,406,828	
4. Unfunded/(Overfunded) actuarial accrued liability	10,899,916		10,677,600	
5. Amortization of Unfunded/(Overfunded) actuarial accrued liability*	939,758	9.73%	919,778	10.18%
6. Total funding policy contribution rate, before timing adjustment: (1) + (5)		27.46%		27.77%
7. Total funding policy contribution rate, adjusted for timing**		28.44%		28.79%
8. Estimated total funding policy contribution amount***	$2,843,357		$2,705,150	

* *Layered amortization of unfunded actuarial accrued liability (UAAL). See Section 3, Exhibit H for more details.*

** *Total funding policy contribution includes an adjustment to account for contributions made throughout the year. No additional adjustment is included to account for contributions not starting until the beginning of the next Plan Year.*

*** *The total funding policy contributions shown are for the non-laboratory segment of UCRP and are based on estimated covered payroll of $9,997,740 (also in thousands) for the 2016-2017 Plan Year and $9,396,146 for the 2015-2016 Plan Year. Actual contributions are set by the Regents and will be made based on actual payroll.*

The total funding policy contribution rates as of July 1, 2015 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4 and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Total Funding Policy Contribution Rate

The chart below details the changes in the total funding policy contribution rate for the non-laboratory segment of UCRP from the prior valuation to the current year's valuation.

The chart reconciles the total funding policy contribution rate from the prior valuation to the rate determined in this valuation.

CHART 12

Reconciliation of Total Funding Policy Contribution Rate from July 1, 2014 to July 1, 2015

Total Funding Policy Contribution Rate as of July 1, 2014	28.79%
Effect of contributions more than those determined under funding policy as of July 1, 2014	-0.12%
Effect of investment gain	-1.23%
Effect of losses on individual salary increases greater than assumed	0.10%
Effect of increase in total payroll on UAAL amortization rate	-0.68%
Effect of lower normal cost of 2013 Tier and Modified 2013 Tier	-0.19%
Effect of changes in assumptions	1.78%
Effect of other experience*	-0.01%
Total change	-0.35%
Total Funding Policy Contribution Rate as of July 1, 2015	28.44%

* *Includes effect of differences in actual versus expected experience including mortality, disability, withdrawal and retirement experience.*

E. FUNDED RATIO

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the actuarial value of assets and market value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. The chart below depicts a history of the funded ratio for the Plan. Chart 14 on the next page shows the Plan's schedule of funding progress for the last ten years.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the actuarial or market value of assets is used. The chart below depicts a history of the funded ratios for the Plan.

CHART 13

Funded Ratio (Plan Year Beginning July 1)

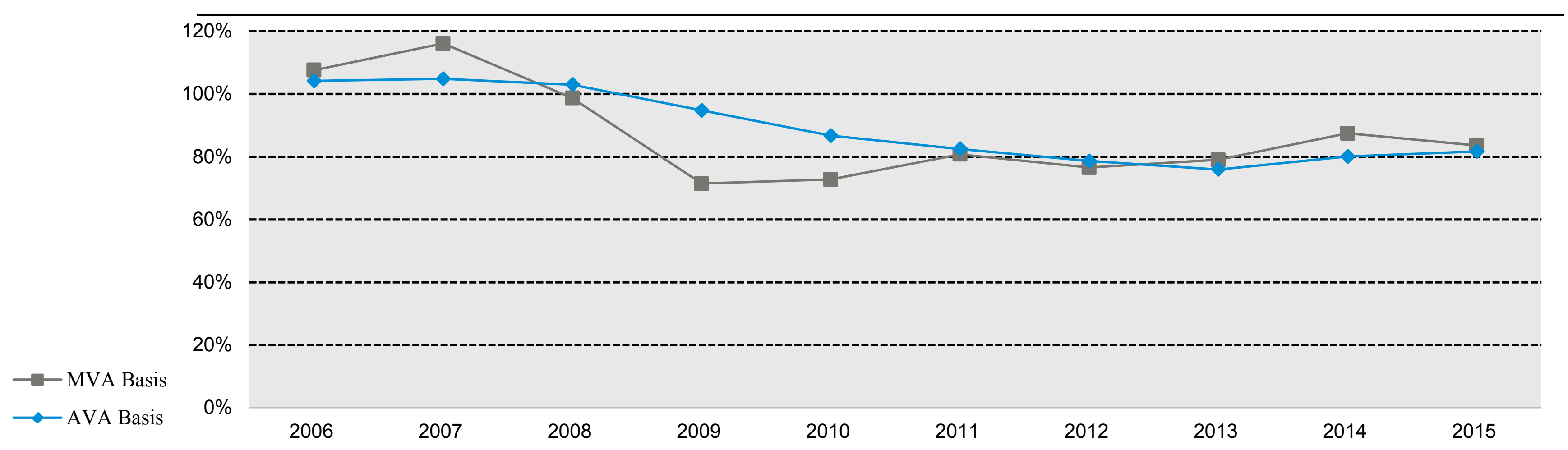


CHART 14

Schedule of Funding Progress ($ in 000s)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Projected Covered Payroll (c)	UAAL as a Percentage of Projected Covered Payroll [(b) - (a)] / (c)
07/01/2006*	$41,972,476	$40,301,708	($1,670,768)	104.1%	$8,258,985	(20.2%)
07/01/2007**	43,433,936	41,436,576	(1,997,360)	104.8%	7,612,726	(26.2%)
07/01/2008	43,840,272	42,576,822	(1,263,450)	103.0%	7,468,809	(16.9%)
07/01/2009	42,798,773	45,160,525	2,361,752	94.8%	7,873,694	30.0%
07/01/2010	41,195,318	47,504,309	6,308,991	86.7%	7,995,421	78.9%
07/01/2011	42,757,271	51,831,306	9,074,035	82.5%	8,163,021	111.2%
07/01/2012	42,965,028	54,619,620	11,654,592	78.7%	8,598,114	135.5%
07/01/2013	43,572,353	57,380,961	13,808,608	75.9%	8,836,498	156.3%
07/01/2014	48,327,981	60,417,177	12,089,196	80.0%	9,299,817	130.0%
07/01/2015	53,762,286	65,841,255	12,078,969	81.7%	9,927,833	121.7%

* *Does not reflect the transfer of assets and liabilities to the LANS defined benefit plan.*

** *Beginning in 2007, covered payroll is reduced to anticipate members who leave active status during the year.*

F. VOLATILITY RATIOS

Retirement plans are subject to volatility in the level of total funding policy contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total payroll, provides an indication of the potential funding policy contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of funding policy contribution volatility. This is a current measure since it is based on the current level of assets.

For UCRP, the current AVR is about 5.5. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 5.5% of one-year's payroll. Since UCRP amortizes actuarial gains and losses over a period of 20 years, there would be a 0.5% of payroll decrease/(increase) in the total funding policy contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in assumptions.

For UCRP, the current LVR is about 6.6. This is about 20% higher than the AVR. Therefore, we would expect that funding policy contribution volatility will increase over the long-term.

This chart shows how the asset and liability volatility ratios have varied over time.

CHART 15

Volatility Ratios for Years Ended June 30, 2009 – 2015

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2009	4.1	5.7
2010	4.3	5.9
2011	5.1	6.3
2012	4.9	6.4
2013	5.1	6.5
2014	5.7	6.5
2015	5.5	6.6

SECTION 3: Supplemental Information from the Valuation of the University of California Retirement Plan

EXHIBIT A

Table of Plan Coverage

i. Active Members

Category	Year Beginning July 1 2015	Year Beginning July 1 2014	Change From Prior Year
1976 Tier members:[1]			
Number	96,278	106,172	-9.3%
Average age	47.3	46.2	N/A
Average service credit	11.7	10.7	9.3%
Total covered compensation	$9,100,880,932	$9,434,631,397	-3.5%
Average covered compensation	$94,527	$88,862	6.4%
2013 Tier members:[2][3]			
Number	17,710	9,510	86.2%
Average age	36.9	36.2	N/A
Average service credit	1.4	1.0	40.0%
Total covered compensation	$1,279,376,802	$634,808,776	101.5%
Average covered compensation	$72,240	$66,752	8.2%
Modified 2013 Tier members:[2][4]			
Number	9,385	4,482	109.4%
Average age	34.3	33.7	N/A
Average service credit	1.2	0.9	33.3%
Total covered compensation	$667,092,289	$286,450,976	132.9%
Average covered compensation	$71,081	$63,911	11.2%
Safety members:			
Number	395	404	-2.2%
Average age	42.1	42.5	N/A
Average service credit	9.7	9.9	-2.0%
Total covered compensation	$39,526,007	$40,010,440	-1.2%
Average covered compensation	$100,066	$99,036	1.0%
All active members:			
Number	123,768	120,568	2.7%
Average age	44.8	44.9	N/A
Average service credit	9.4	9.6	-2.1%
Total covered compensation	$11,086,876,030	$10,395,901,589	6.6%
Average covered compensation	$89,578	$86,224	3.9%

(1) *Includes 6 members with Tier Two Benefits and 535 members whose 1976 Tier service is not coordinated with Social Security.*

(2) *Includes multi-tier members earning future Service Credit under this tier.*

(3) *Includes 7 members whose 1976 Tier service is not coordinated with Social Security.*

(4) *Includes 2 members whose 1976 Tier service is not coordinated with Social Security.*

EXHIBIT A

Table of Plan Coverage
ii. Nonactive Members

Category	Year Beginning July 1[1] 2015	Year Beginning July 1[1] 2014	Change From Prior Year
Terminated vested members:			
Number	34,166	34,162	0.0%
Average age	49.3	49.4	N/A
Total monthly benefit[2]	$52,751,825	$48,511,536	8.7%
Average monthly benefit	$1,544	$1,420	8.7%
Terminated nonvested members:[3]			
Number	40,999	44,067	-7.0%
Average member refund and CAP balance	$5,635	$5,584	0.9%
Retired members:			
Number in pay status	57,581	54,714	5.2%
Average age	71.0	70.8	N/A
Total monthly benefit	$199,887,086	$185,374,208	7.8%
Average monthly benefit	$3,471	$3,388	2.4%
Disabled members:			
Number in pay status	1,620	1,763	-8.1%
Average age	57.7	57.5	N/A
Total monthly benefit	$3,138,977	$3,250,831	-3.4%
Average monthly benefit	$1,938	$1,844	5.1%
Beneficiaries (includes Eligible Survivors, Contingent Annuitants, and Spouses/Domestic Partners):			
Number in pay status[4]	8,120	7,714	5.3%
Average age	74.3	74.34	N/A
Total monthly benefit	$17,845,186	$16,372,283	9.0%
Average monthly benefit	$2,198	$2,122	3.6%

Note: Monthly benefits shown include temporary Social Security Supplement

(1) *CAP balances total $1.208 billion as of July 1, 2015 and $1.283 billion as of July 1, 2014 for all members.*

(2) *Benefit is calculated based on assumed retirement age (age 60 as of July 1, 2015 and age 59 as of July 1, 2014 for all Tiers) or current age if later.*

(3) *For July 1, 2015, includes 6,156 members that transferred to the LANS or LLNS defined benefit plans who will be entitled to a CAP balance payment from UCRP after they separate employment with LANS or LLNS. For July 1, 2014, 6,405 members were included.*

(4) *Excludes 114 deferred beneficiaries as of July 1, 2015 who are entitled to future benefits. For July 1, 2014, 106 deferred beneficiaries were excluded.*

EXHIBIT B

Members in Active Service and Average Covered Compensation as of July 1, 2015
By Age and Service Credit

i. All Active Members

		Service Credit								
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	3,726	3,710	16	- -	- -	- -	- -	- -	- -	- -
	$46,293	$46,308	$42,899	- -	- -	- -	- -	- -	- -	- -
25 - 29	11,251	10,097	1,136	18	- -	- -	- -	- -	- -	- -
	60,541	60,667	59,640	$46,481	- -	- -	- -	- -	- -	- -
30 - 34	15,770	10,191	4,806	753	20	- -	- -	- -	- -	- -
	75,267	75,495	76,127	67,171	$57,202	- -	- -	- -	- -	- -
35 - 39	16,931	8,432	5,359	2,611	523	6	- -	- -	- -	- -
	85,163	83,933	90,531	80,105	75,328	$77,949	- -	- -	- -	- -
40 - 44	16,286	5,356	5,294	3,710	1,602	313	11	- -	- -	- -
	91,457	86,356	96,269	95,265	85,565	82,819	$78,205	- -	- -	- -
45 - 49	15,616	3,796	4,028	3,934	2,446	1,052	349	11	- -	- -
	94,169	86,849	92,557	99,905	101,042	93,215	83,142	$71,252	- -	- -
50 - 54	15,783	2,981	3,216	3,453	2,718	1,880	1,223	297	15	- -
	96,140	89,391	88,058	95,359	106,005	111,025	92,620	91,044	$84,431	- -
55 - 59	14,459	2,176	2,445	2,558	2,339	1,940	1,824	905	269	3
	101,677	92,244	89,869	94,509	104,737	119,181	116,096	104,198	94,529	$86,698
60 - 64	9,115	1,292	1,594	1,729	1,402	1,100	1,096	629	245	28
	109,269	97,416	93,963	97,069	105,321	123,262	131,878	148,532	115,391	108,176
65 - 69	3,449	410	620	616	481	382	351	295	224	70
	126,394	108,555	100,127	111,281	112,555	135,167	147,005	167,347	186,061	176,875
70 & over	1,382	169	169	172	141	121	133	116	143	218
	162,775	123,411	120,519	133,740	152,829	158,421	182,235	200,595	202,163	199,972
Total	123,768	48,610	28,683	19,554	11,672	6,794	4,987	2,253	896	319
	$89,578	$76,364	$88,452	$93,968	$101,201	$113,450	$115,357	$127,912	$140,126	$185,781

Average Age: 44.8

Average Service Credit: 9.4

EXHIBIT B

Members in Active Service and Average Covered Compensation as of July 1, 2015
By Age and Service Credit

ii. 1976 Tier Members (including Members with Tier Two Benefits)

		Service Credit								
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	466	450	16	- -	- -	- -	- -	- -	- -	- -
	$48,912	$49,125	$42,899	- -	- -	- -	- -	- -	- -	- -
25 - 29	5,222	4,091	1,113	18	- -	- -	- -	- -	- -	- -
	62,098	62,836	59,637	$46,481	- -	- -	- -	- -	- -	- -
30 - 34	10,004	4,579	4,661	744	20	- -	- -	- -	- -	- -
	76,044	77,686	75,964	66,937	$57,202	- -	- -	- -	- -	- -
35 - 39	12,494	4,218	5,198	2,558	514	6	- -	- -	- -	- -
	87,126	88,621	90,614	80,010	75,111	$77,949	- -	- -	- -	- -
40 - 44	13,609	2,898	5,157	3,656	1,582	305	11	- -	- -	- -
	93,061	89,793	96,293	95,348	85,513	81,725	$78,205	- -	- -	- -
45 - 49	13,645	2,059	3,911	3,872	2,416	1,031	345	11	- -	- -
	95,361	88,555	92,609	99,988	101,093	93,091	82,653	$71,252	- -	- -
50 - 54	14,249	1,645	3,133	3,383	2,698	1,870	1,212	293	15	- -
	97,076	91,738	88,111	95,216	106,204	111,107	92,436	90,617	$84,431	- -
55 - 59	13,379	1,246	2,369	2,518	2,321	1,930	1,820	903	269	3
	102,467	93,151	89,757	94,553	104,728	119,106	116,131	104,233	94,529	$86,698
60 - 64	8,582	815	1,571	1,710	1,396	1,096	1,095	626	245	28
	110,118	99,546	93,632	96,989	105,313	123,261	131,919	148,713	115,391	108,176
65 - 69	3,291	268	610	613	480	380	351	295	224	70
	127,389	109,046	100,493	111,602	112,632	134,768	147,005	167,347	186,061	176,875
70 & over	1,337	132	164	172	141	121	133	115	141	218
	163,387	120,037	120,246	133,740	152,829	158,421	182,235	198,905	201,823	199,972
Total	96,278	22,401	27,903	19,244	11,568	6,739	4,967	2,243	894	319
	$94,527	$82,337	$88,439	$93,978	$101,272	$113,443	$115,372	$127,861	$139,933	$185,781

Average Age: 47.3

Average Service Credit: 11.7

EXHIBIT B

Members in Active Service and Average Covered Compensation as of July 1, 2015
By Age and Service Credit

iii. 2013 Tier Members (including multi-tier members earning future Service Credit under the 2013 Tier)

		Service Credit								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	1,851	1,851	- -	- -	- -	- -	- -	- -	- -	- -
	$42,532	$42,532	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	3,391	3,374	17	- -	- -	- -	- -	- -	- -	- -
	52,379	52,354	$57,406	- -	- -	- -	- -	- -	- -	- -
30 - 34	3,786	3,715	70	1	- -	- -	- -	- -	- -	- -
	70,839	70,806	72,270	$93,348	- -	- -	- -	- -	- -	- -
35 - 39	3,194	3,081	94	16	3	- -	- -	- -	- -	- -
	79,357	79,229	85,426	68,653	$78,078	- -	- -	- -	- -	- -
40 - 44	1,823	1,714	69	31	9	- -	- -	- -	- -	- -
	84,048	84,021	86,113	83,826	74,176	- -	- -	- -	- -	- -
45 - 49	1,303	1,167	81	33	14	8	- -	- -	- -	- -
	89,539	89,853	86,370	92,118	84,746	$73,613	- -	- -	- -	- -
50 - 54	1,019	897	62	42	8	6	3	1	- -	- -
	92,455	93,211	78,952	102,732	67,735	82,776	$101,477	49,257	- -	- -
55 - 59	776	673	54	25	15	8	- -	1	- -	- -
	97,868	97,636	92,244	98,762	101,006	148,146	- -	$85,810	- -	- -
60 - 64	391	357	15	11	4	3	1	- -	- -	- -
	102,576	101,018	124,372	102,082	134,754	143,334	86,444	- -	- -	- -
65 - 69	132	122	6	1	1	2	- -	- -	- -	- -
	112,008	112,056	93,938	52,878	75,764	210,960	- -	- -	- -	- -
70 & over	44	36	5	- -	- -	- -	- -	1	2	- -
	146,112	137,066	129,456	- -	- -	- -	- -	395,000	$226,135	- -
Total	17,710	16,987	473	160	54	27	4	3	2	- -
	$72,240	$71,547	$84,472	$92,437	$88,148	$115,654	$97,719	$176,689	$226,135	- -

Average Age: 36.9

Average Service Credit: 1.4

EXHIBIT B

Members in Active Service and Average Covered Compensation as of July 1, 2015
By Age and Service Credit

iv. Modified 2013 Tier Members (including multi-tier members earning future Service Credit under the Modified 2013 Tier)

		Service Credit								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	1,396	1,396	- -	- -	- -	- -	- -	- -	- -	- -
	$50,214	$50,214	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	2,599	2,596	3	- -	- -	- -	- -	- -	- -	- -
	67,799	67,817	$52,260	- -	- -	- -	- -	- -	- -	- -
30 - 34	1,922	1,873	47	2	- -	- -	- -	- -	- -	- -
	79,497	79,303	88,451	$50,520	- -	- -	- -	- -	- -	- -
35 - 39	1,179	1,121	45	11	2	- -	- -	- -	- -	- -
	79,476	79,178	90,257	70,171	$54,823	- -	- -	- -	- -	- -
40 - 44	790	734	49	6	1	- -	- -	- -	- -	- -
	79,783	78,100	104,567	88,566	47,911	- -	- -	- -	- -	- -
45 - 49	607	566	25	13	2	1	- -	- -	- -	- -
	75,527	74,302	101,027	81,634	78,481	$46,194	- -	- -	- -	- -
50 - 54	462	416	18	21	6	- -	1	- -	- -	- -
	73,868	71,256	109,444	99,470	62,286	- -	$51,879	- -	- -	- -
55 - 59	271	242	13	13	2	1	- -	- -	- -	- -
	73,093	72,019	81,061	78,872	121,937	56,619	- -	- -	- -	- -
60 - 64	132	118	4	6	2	1	- -	1	- -	- -
	71,915	71,459	74,476	86,997	52,056	63,971	- -	$72,671	- -	- -
65 - 69	26	20	4	2	- -	- -	- -	- -	- -	- -
	73,506	80,608	53,670	42,151	- -	- -	- -	- -	- -	- -
70 & over	1	1	- -	- -	- -	- -	- -	- -	- -	- -
	77,214	77,214	- -	- -	- -	- -	- -	- -	- -	- -
Total	9,385	9,083	208	74	15	3	1	1	- -	- -
	$71,081	$70,463	$94,045	$83,595	$69,081	$55,595	$51,879	$72,671	- -	- -

Average Age: 34.3

Average Service Credit: 1.2

EXHIBIT B

Members in Active Service and Average Covered Compensation as of July 1, 2015
By Age and Service Credit

v. Safety Members

		Service Credit								
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	13	13	- -	- -	- -	- -	- -	- -	- -	- -
	$67,063	$67,063	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	39	36	3	- -	- -	- -	- -	- -	- -	- -
	78,005	77,762	$80,921	- -	- -	- -	- -	- -	- -	- -
30 - 34	58	24	28	6	- -	- -	- -	- -	- -	- -
	90,165	86,024	92,163	$97,404	- -	- -	- -	- -	- -	- -
35 - 39	64	12	22	26	4	- -	- -	- -	- -	- -
	96,399	87,746	93,307	100,693	$111,450	- -	- -	- -	- -	- -
40 - 44	64	10	19	17	10	8	- -	- -	- -	- -
	105,497	96,543	105,312	100,715	107,693	$124,549	- -	- -	- -	- -
45 - 49	61	4	11	16	14	12	4	- -	- -	- -
	111,901	108,013	100,558	110,770	111,670	120,912	$125,291	- -	- -	- -
50 - 54	53	23	3	7	6	4	7	3	- -	- -
	109,367	100,523	92,806	107,456	111,177	114,964	126,672	$146,735	- -	- -
55 - 59	33	15	9	2	1	1	4	1	- -	- -
	105,694	101,271	117,756	87,985	146,137	94,294	100,439	90,870	- -	- -
60 - 64	10	2	4	2	- -	- -	- -	2	- -	- -
	135,074	118,113	129,493	168,261	- -	- -	- -	130,008	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	395	139	99	76	35	25	15	6	- -	- -
	$100,066	$88,155	$99,387	$104,626	$111,409	$120,059	$119,308	$131,848	- -	- -

Average Age: 42.1

Average Service Credit: 9.7

EXHIBIT C

Reconciliation of Member Data

	Active Members	Terminated Vested Members*	Retired Members	Disabled Members	Beneficiaries**	Total
Number as of July 1, 2014	120,568	78,229	54,714	1,763	7,714	262,988
New members	16,500	0	0	0	751	17,251
Terminations – with vested rights	(9,775)	9,775	0	0	0	0
Terminations – without vested rights***	(1,354)	(9,481)	0	0	0	(10,835)
Retirements	(2,829)	(1,017)	4,053	(207)	0	0
Disabilities	(76)	(27)	(28)	131	0	0
Lump Sum Cashouts	(400)	(874)	(3)	(25)	(16)	(1,318)
Return to work	1,229	(1,195)	(32)	(2)	0	0
Died with or without beneficiary	(95)	(249)	(1,129)	(37)	(334)	(1,844)
Data adjustments	0	4	6	(3)	5	12
Number as of July 1, 2015	123,768	75,165	57,581	1,620	8,120	266,254

* *Includes terminated nonvested members due a refund of member contributions or CAP balance payment and members that transferred to the LANS or LLNS defined benefit plans who will be entitled to a CAP balance payment from UCRP after they separate employment with LANS or LLNS.*

** *Excludes deferred beneficiaries who are entitled to future benefits.*

*** *Includes those members who terminated and received a refund of member contributions or a distribution of their CAP balance.*

EXHIBIT D

Summary Statement of Income and Expenses (Actuarial Value Basis)

	Year Ended June 30, 2015 ($ in 000s)		Year Ended June 30, 2014 ($ in 000s)	
Contribution income:				
Employer contributions	$2,510,046		$1,580,876	
Members contributions	793,012		577,466	
Less administration expense	(48,286)		(37,642)	
Net contribution income		$3,254,772		$2,120,700
Investment income:				
Interest and dividends	$790,374		$809,821	
Recognition of capital appreciation	4,340,349		4,485,516	
Securities lending income	29,002		32,160	
Securities lending fees and rebates	(5,246)		(5,029)	
Net investment income		5,154,479		5,322,468
Other income		2,047		0
Total income available for future benefits		$8,411,298		$7,443,168
Less benefit payments		($2,976,993)		($2,687,540)
Change in assets available for future benefits		$5,434,305		$4,755,628

EXHIBIT E
Summary Statement of Assets

	Year Ended June 30, 2015 ($ in 000s)		Year Ended June 30, 2014 ($ in 000s)	
Cash equivalents		$2,680,390		$773,481
Accounts receivable:				
Contributions	$157,531		$135,269	
Interest and dividends	67,335		61,441	
Investment of cash collateral	3,083,733		4,162,452	
Securities sales and other	86,240		64,742	
Total accounts receivable		$3,394,839		$4,423,904
Investments:				
Equity securities	$18,117,042		$17,791,588	
Fixed income securities	11,293,626		10,989,671	
Real estate	3,194,878		2,943,746	
Commingled funds	20,684,668		20,976,570	
Derivative investments	28,687		40,714	
Total investments at market value		53,318,901		52,742,289
Total assets		$59,394,130		$57,939,674
Less accounts payable:				
Payable for securities purchased	($970,309)		($725,929)	
Member withdrawals, refunds and other payables	(284,601)		(268,478)	
Collateral held for securities lending	(3,083,773)		(4,161,400)	
Total accounts payable		($4,338,683)		($5,155,807)
Net assets at market value		$55,055,447		$52,783,867
Net assets at actuarial value (for comparison purposes)		$53,762,286		$48,327,981

EXHIBIT F

Development of Unfunded/(Overfunded) Actuarial Accrued Liability ($ in 000s)

		Year Ended June 30, 2015
1. Unfunded/(Overfunded) actuarial accrued liability at beginning of year		$12,089,196
2. Normal cost at beginning of year		1,635,766
3. Expected total funding policy and required contractual contributions		(3,163,018)
4. Interest		
(a) For whole year on (1) + (2)	$1,029,372	
(b) For partial year on (3)	(118,613)	
(c) Total interest		910,759
5. Expected Unfunded/(Overfunded) actuarial accrued liability		11,472,703
6. Changes due to:		
(a) Gain from contributions more than expected under funding policy	($145,291)	
(b) Gain from investments	(1,521,511)	
(c) Loss from individual salary increases greater than assumed	104,822	
(d) Gain from other experience	(47,252)	
(e) Changes in assumptions	2,215,498	
(f) Total changes*		606,266
7. Unfunded/(Overfunded) actuarial accrued liability at end of year		$12,078,969

* *Non-laboratory segment amount is an actuarial experience gain of $1,440,456 and loss due to changes in actuarial assumptions of $1,850,713.*

EXHIBIT G

Actuarial Liabilities

	July 1, 2015 ($ in 000s)	July 1, 2014 ($ in 000s)
Actuarial Accrued Liability		
Members in pay status		
Retirees*	$28,801,741	$25,761,610
Beneficiaries**	2,065,958	1,836,912
Disableds	676,679	678,940
Total in pay status	$31,544,378	$28,277,462
Active members		
1976 Tier members	$28,409,310	$26,797,068
2013 Tier members	353,667	133,425
Modified 2013 Tier members	146,222	44,350
Safety	148,647	148,274
Total actives	$29,057,846	$27,123,117
Terminated members		
Vested	$5,008,018	$4,770,523
Nonvested	231,013	246,075
Total terminated	$5,239,031	$5,016,598
Total actuarial accrued liability	$65,841,255	$60,417,177
Actuarial Present Value of Projected Benefits		
Members in pay status*	$31,544,378	$28,277,462
Active members	44,185,454	41,069,502
Terminated members	5,239,031	5,016,598
Total present value of projected benefits	$80,968,863	$74,363,562

* *For July 1, 2015, includes a liability of $65.6 million for Lump Sum Cashouts, CAP balance payments and refunds of member contributions that were paid on or after July 1, 2015. For July 1, 2014, includes a liability of $59.6 million for Lump Sum Cashouts, CAP balance payments and refunds of member contributions that were paid on or after July 1, 2014.*

** *Includes liability for deferred beneficiaries.*

EXHIBIT H

Table of Amortization Bases as of July 1, 2015 (Non-Laboratory Segment of UCRP - $ in 000s)

Type	Date Established	Initial Years	Initial Amount	Annual Payment*	Years Remaining	Outstanding Balance
Actuarial Loss**	07/01/2010	30	$5,389,886	$416,227	25	$5,087,113
Actuarial Loss	07/01/2011	30	905,208	69,867	26	866,050
Change in Assumptions	07/01/2011	15	1,513,127	157,872	11	1,253,995
Plan Amendment	07/01/2011	15	(59,179)	(6,174)	11	(49,044)
Actuarial Loss	07/01/2012	30	2,457,582	189,587	27	2,380,797
Actuarial Loss	07/01/2013	30	1,866,282	143,901	28	1,828,830
Actuarial Gain	07/01/2014	30	(886,657)	(68,334)	29	(878,082)
Actuarial Gain	07/01/2015	20	(1,440,456)	(129,251)	20	(1,440,456)
Change in Assumptions	07/01/2015	20	1,850,713	166,063	20	1,850,713
Total				$939,758		$10,899,916

* *Level dollar amount. Payment shown is as of beginning of year. The amounts shown are based on results for the non-laboratory segment of UCRP (i.e., campuses, medical centers and Hastings College of Law). They are used in the determination of the total funding policy contribution shown in Section 2, Chart 11, page 10. For more details on the UCRP funding policy please see Section 4, Exhibit IV.*

** *The July 1, 2010 amortization bases were combined into a single amortization base and amortized over 30 years as a level dollar amount.*

Note: Effective with the July 1, 2015 valuation the Regents approved a change to the amortization periods used for actuarial experience gains and changes in actuarial assumptions to be 20 years. The amortization periods for amortization bases established in prior valuations are not affected.

The average effective remaining amortization period as of July 1, 2015 was 21.90 years.

EXHIBIT I

Section 415 Limitations

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit indexed for inflation. That limit is $210,000 for 2014 and 2015. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, form of benefits chosen and after tax contributions.

The University pays benefits in excess of the limits through a 415(m) Restoration Plan. These costs are excluded in this valuation.

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

EXHIBIT J

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age; and

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost: The amount required to fund the level cost allocated to the current year of service.

Actuarial Accrued Liability for Actives: The accumulated value of normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability for Pensioners: The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

Unfunded (Overfunded) Actuarial Accrued Liability: The extent that the actuarial accrued liability of the Plan exceeds (or is exceeded by) the actuarial value of assets of the Plan.

Actuarial Value of Assets: The dollar amount of assets for purposes of calculating the total funding policy contribution determined under the actuarial asset valuation method adopted by the Regents.

Amortization of the Unfunded (Overfunded) Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Plan's unfunded or overfunded actuarial accrued liability.
Investment Return:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return reflects a smoothing of market gains and losses to avoid significant swings in the value of assets from one year to the next.
Beneficiary:	Used for statistical purposes only; includes Eligible Survivors, Contingent Annuitants and Spouses/Domestic Partners

SECTION 4: Reporting Information from the Valuation of the University of California Retirement Plan

EXHIBIT I

Summary of Actuarial Valuation Results as of July 1, 2015 ($ in 000s)

The valuation was made with respect to the following data supplied to us:			
1.	Retired members as of the valuation date (including 8,120 beneficiaries in pay status)*		67,321
2.	Members inactive during year ended June 30, 2015 with vested rights**		75,165
3.	Members active during the year ended June 30, 2015		123,768
The actuarial factors as of the valuation date are as follows:			
1.	Normal cost (beginning of year)		$1,759,880
2.	Present value of future benefits		80,968,863
3.	Present value of future normal costs		15,127,608
4.	Actuarial accrued liability		65,841,255
	Retired members and beneficiaries***	$31,544,378	
	Inactive members with vested rights**	5,239,031	
	Active members	29,057,846	
5.	Actuarial value of assets ($55,055,447 at market value as reported by the UCOP)		53,762,286
6.	Unfunded actuarial accrued liability		$12,078,969

* *Excludes deferred beneficiaries who are entitled to future benefits.*

** *Includes terminated nonvested members due a refund of member contributions or CAP balance payment and members that transferred to the LANS or LLNS defined benefit plans who will be entitled to a CAP balance payment from UCRP after they separate from employment with LANS or LLNS.*

*** *Includes liability for deferred beneficiaries.*

EXHIBIT I (continued)

Summary of Actuarial Valuation Results as of July 1, 2015 ($ in 000s)

The determination of the normal cost is as follows:	Dollar Amount*	% of Payroll**
1. Total normal cost (middle of year)	$1,822,559	18.36%
2. Expected employee contributions (middle of year)	-789,827	7.96%
3. Employer normal cost: (1) + (2)	$1,032,732	10.40%

* *Based on estimated covered payroll of $9,927,833 (also in thousands) for the 2015-2016 Plan Year.*

** *For 1976 Tier members, the total normal cost as a percentage of payroll (middle of year) is 18.72%.*
For 2013 Tier members, the total normal cost as a percentage of payroll (middle of year) is 15.96%.
For Modified 2013 Tier members, the total normal cost as a percentage of payroll (middle of year) is 17.04%.
For Safety members, the total normal cost as a percentage of payroll (middle of year) is 25.22%.
For Tier Two members, the total normal cost as a percentage of payroll (middle of year) is 9.36%.

EXHIBIT II

Actuarial Assumptions and Methods

Rationale for Assumptions:	The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2010 through June 30, 2014 Actuarial Experience Study dated August 17, 2015.
<u>Demographic Assumptions</u>	
Pre – Retirement Mortality Rates:	RP-2014 White Collar Employee Mortality Table projected with the two-dimensional MP2014 projection scale to 2029.
Post – Retirement Mortality Rates:	
Healthy:	RP-2014 White Collar Healthy Annuitant Mortality Table projected with the two-dimensional MP2014 projection scale to 2029. Ages are then set forward one year for males (from the male table) and females (from the female table).
Disabled:	RP-2014 Disabled Retiree Mortality Table projected with the two-dimensional MP2014 projection scale to 2029. Ages are then set back one year for males (from the male table) and set forward 5 years for females (from the female table).

The RP-2014 mortality tables projected with the two-dimensional MP2014 projection scale to 2019 and adjusted as noted above reasonably reflects the projected mortality experience as of the measurement date. The additional projection to 2029 is a provision for future mortality improvement.

Sample Termination Rates Before Retirement:

	Rate (%)					
	Healthy Mortality*		Disabled Mortality**		Disability Incidence***	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
20	0.02	0.01	0.50	0.20	0.01	0.01
25	0.03	0.01	0.73	0.26	0.02	0.02
30	0.03	0.02	0.64	0.34	0.03	0.03
35	0.03	0.02	0.74	0.46	0.04	0.04
40	0.04	0.03	0.86	0.75	0.07	0.08
45	0.06	0.05	1.24	1.00	0.10	0.16
50	0.10	0.08	1.59	1.25	0.17	0.26
55	0.16	0.12	1.88	1.45	0.25	0.33
60	0.28	0.18	2.21	1.73	0.28	0.38
65	0.49	0.26	2.59	2.29	0.20	0.28

* *All pre-retirement deaths are assumed to be non-duty related.*

** *Assumed to apply only while receiving UCRP Disability Income.*

*** *All disabilities are assumed to be non-duty related.*

Sample Termination Rates Before Retirement (continued):

	Rate (%) Withdrawal*	
Years of Service	**Faculty**	**Staff and Safety**
Less than 1	20.00	21.00
1	13.00	17.00
2	8.50	14.00
3	7.00	11.00
4	5.75	9.00
5	5.75	8.25
6	5.50	7.25
7	5.25	6.75
8	5.00	6.25
9	4.75	5.75
10	4.25	5.25
11	4.00	5.00
12	3.75	4.75
13	3.50	4.50
14	3.25	4.25
15	3.00	4.00
16	2.75	3.75
17	2.50	3.50
18	2.25	3.25
19	2.00	3.00
20 & over	1.75	2.75

* *The greater of a refund of member contributions and a deferred annuity or lump sum is valued when a member withdraws. No withdrawal is assumed after a member is first assumed to retire.*

Retirement Rates:

Retirement Probability – Unisex

Age	1976 Tier Faculty	2013 Tier Faculty	1976 Tier Staff*	Modified 2013 Tier Staff*	2013 Tier Staff*	Safety
50	2.00%	0.00%	3.50%	2.00%	0.00%	20.00%
51	1.00	0.00	2.50	1.50	0.00	15.00
52	1.00	0.00	2.75	1.50	0.00	10.00
53	1.00	0.00	2.75	1.50	0.00	15.00
54	1.00	0.00	3.50	2.00	0.00	15.00
55	2.00	2.00	4.00	2.00	5.00	25.00
56	2.00	1.00	5.00	2.50	1.50	25.00
57	2.00	1.00	5.00	3.00	2.00	25.00
58	2.00	1.00	7.00	3.50	2.50	25.00
59	3.00	1.00	9.00	5.00	3.00	25.00
60	5.00	2.00	12.00	12.00	3.50	25.00
61	5.00	2.00	14.00	10.00	6.00	30.00
62	5.00	2.00	16.00	10.00	9.00	40.00
63	5.00	2.00	16.00	10.00	10.00	50.00
64	7.00	3.00	20.00	12.00	12.00	60.00
65	9.00	20.00	25.00	40.00	40.00	100.00
66	10.00	13.00	22.00	30.00	30.00	100.00
67	11.00	15.00	22.00	30.00	45.00	100.00
68	12.00	15.00	22.00	30.00	30.00	100.00
69	15.00	15.00	22.00	22.00	30.00	100.00
70	15.00	15.00	20.00	20.00	20.00	100.00
71	12.00	12.00	20.00	20.00	20.00	100.00
72	12.00	12.00	20.00	20.00	20.00	100.00
73	12.00	12.00	20.00	20.00	20.00	100.00
74	12.00	12.00	20.00	20.00	20.00	100.00
75	100.00	100.00	100.00	100.00	100.00	100.00

* *These rates apply for those with ten to twenty years of service. For ages under 65, 70% of these rates will be used for those with less than ten years of service and 160% of these rates will be used for those with twenty or more years of service, with the exception that the age 64 rate is set equal to the age 63 rate for those with twenty or more years of service.*

Members with Tier Two Benefits:	Assumptions specific to the 1976 Tier are also applied to Members with Tier Two Benefits.
Retirement Age for Deferred Vested Members:	Deferred vested members are assumed to retire at age 60.
Benefit for Terminated Nonvested Members:	Immediate refund of member contribution and CAP balance.
Disability Income Cross Over Age:	Members receiving Disability Income are assumed to “cross over” at age 65.
Form of Payment:	1976 Tier members not electing a Lump Sum Cashout: • Life annuity for members without an Eligible Survivor; • 25% contingent annuity for 1976 Tier members with Social Security who have an Eligible Survivor; • 50% contingent annuity for 1976 Tier members without Social Security who have an Eligible Survivor; • 50% contingent annuity for Members with Safety Benefits who have an Eligible Survivor. 2013 Tier members are assumed to elect a life annuity. Modified 2013 Tier members not electing a Lump Sum Cashout are assumed to elect a life annuity. It is also assumed that some 1976 and Modified 2013 Tier members elect a Lump Sum Cashout (see Lump Sum Assumptions).
Future Benefit Accruals:	1.0 year of service per year for the full-time employees. Part-time employees are assumed to earn full-time service for all future years.

Definition of Active Members: All members of UCRP who are not separated from active membership as of the valuation date or have not started receiving a monthly pension on or before the valuation date.

Percent with Eligible Survivors: 80% of male members and 60% of female members are assumed to have Eligible Survivors at time of decrement.

Eligible Survivor Ages: Members assumed to have an opposite sex Eligible Spouse or Eligible Domestic Partner, with females three years younger than males.

Number of Survivors (Samples):

	Number of Survivors per Active Member with Survivors	
Age	Male	Female
20	1.0	1.0
25	1.8	2.1
30	2.2	2.7
35	2.7	2.8
40	3.0	2.4
45	2.8	2.1
50	2.5	1.7
55	2.0	1.4
60	1.5	1.2
65	1.3	1.1

Economic Assumptions

Net Investment Return: 7.25% (including 3.00% for inflation)

Consumer Price Index: Increase of 3.00% per year; COLA increases are assumed to be 2.00% per year.

Administrative Expenses: 0.50% of payroll added to normal cost.

Salary Increases:

Annual Rate of Compensation Increase

Inflation: 3.00% per year, plus "across the board" salary increases of 0.50% per year, plus the following merit and promotional increases:

Years of Service	Faculty	Staff and Safety
Less than 1	2.65%	2.60%
1	2.65	2.40
2	2.65	2.20
3	2.65	2.00
4	2.65	1.85
5	2.65	1.65
6	2.60	1.45
7	2.55	1.35
8	2.50	1.25
9	2.40	1.15
10	2.35	1.05
11	2.30	0.95
12	2.20	0.85
13	2.10	0.75
14	2.00	0.65
15	1.90	0.55
16	1.80	0.45
17	1.70	0.40
18	1.60	0.35
19	1.45	0.30
20 & over	1.25	0.25

Actuarial Methods

Actuarial Value of Assets:	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.
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is calculated as the valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salaries as if the current benefit accrual rate has always been in effect (i.e., replacement life).
Covered Payroll:	Covered compensation for a Plan Year is determined by annualizing actual payroll for the prior Plan Year increased by the assumed rate of salary growth. Covered payroll is covered compensation reduced to anticipate members who leave active status during the year.

Other Actuarial Assumptions

Increase in 401(a)(17) Compensation Limit:	Increase of 3.0% per year from the valuation date.
Increase in 415 Dollar Limit:	Increase of 3.0% per year from the valuation date.

Lump Sum Assumptions:

Conversion Basis:

Discount Rate: 7.25%

COLA: 2.00%

Mortality: RP-2014 White Collar Healthy Annuitant Mortality Table projected with the two-dimensional MP2014 projection scale to 2029, and with ages then set forward one year; weighted 40% male and 60% female.

Take-rate for Members Eligible to Elect a Lump Sum Cashout:

	Percent of Members Eligible to Elect a Lump Sum Cashout Assumed to Elect a Lump Sum Cashout		
Years of Service	Actives	Inactives	Disability Crossovers
Less than 5	45.0%	45.0%	17.0%
6	42.0%	45.0%	17.0%
7	40.0%	45.0%	17.0%
8	35.0%	45.0%	17.0%
9	25.0%	42.0%	17.0%
10	20.0%	42.0%	13.0%
11	18.0%	40.0%	13.0%
12	16.0%	40.0%	13.0%
13	14.0%	40.0%	13.0%
14	12.0%	40.0%	13.0%
15 – 19	11.0%	40.0%	10.0%
20 – 24	7.0%	30.0%	7.0%
25 – 29	5.0%	20.0%	5.0%
30 & over	4.0%	15.0%	4.0%

Approximations:

Sick Leave Only for purposes of determining projected benefits, service has been increased by 0.15% for Faculty, 1.50% for Staff, and 1.90% for Safety members to account for unused sick leave. This assumption applies only for members retiring from active membership and not electing a Lump Sum Cashout. For all other benefits there is assumed to be no conversion of unused sick leave to service credit.

Changes in Actuarial Assumptions: Based on an experience study for the period July 1, 2010 through June 30, 2014, the following assumptions were changed as of July 1. Previously these assumptions were as follows:

Post – Retirement Mortality Rates:

Healthy: RP-2000 Combined Healthy Mortality Table projected with scale AA to 2025. Ages are set back two years for males (from the male table) and females (from the female table).

Disabled: RP-2000 Disabled Retiree Mortality Table projected with scale AA to 2025. Ages are set back two years for males (from the male table).

Sample Termination Rates Before Retirement:

	Rate (%)					
	Healthy Mortality*		Disabled Mortality**		Disability Incidence***	
Age	Male	Female	Male	Female	Male	Female
20	0.02	0.01	N/A	N/A	0.02	0.02
25	0.03	0.01	1.55	0.52	0.03	0.03
30	0.03	0.02	1.99	0.58	0.06	0.06
35	0.06	0.03	1.99	0.57	0.09	0.09
40	0.08	0.04	1.94	0.51	0.13	0.16
45	0.10	0.06	1.71	0.50	0.18	0.26
50	0.12	0.09	1.76	0.75	0.29	0.36
55	0.18	0.16	1.98	1.35	0.35	0.46
60	0.35	0.35	2.63	1.93	0.35	0.50
65	0.70	0.67	3.27	2.47	0.23	0.32

* *All pre-retirement deaths are assumed to be non-duty related.*
** *Assumed to apply only while receiving UCRP Disability Income.*
*** *All disabilities are assumed to be non-duty related.*

Changes in Actuarial Assumptions (continued):

Sample Termination Rates Before Retirement (continued):

	Rate (%) Withdrawal*	
Years of Service	**Faculty**	**Staff and Safety**
Less than 1	19.00	21.00
1	12.00	17.00
2	8.00	14.00
3	7.00	11.00
4	6.00	9.00
5	5.75	8.00
6	5.50	7.50
7	5.25	7.00
8	5.00	6.50
9	4.75	6.00
10	4.50	5.50
11	4.25	5.25
12	4.00	5.00
13	3.75	4.75
14	3.50	4.50
15	3.25	4.25
16	3.00	4.00
17	2.75	3.75
18	2.50	3.50
19	2.25	3.25
20 & over	2.00	3.00

* *The greater of a refund of member contributions and a deferred annuity or lump sum is valued when a member withdraws. No withdrawal is assumed after a member is first assumed to retire.*

Changes in Actuarial Assumptions (continued):

Retirement Rates:

Retirement Probability – Unisex

Age	1976 Tier Faculty	2013 Tier Faculty	1976 Tier Staff*	Modified 2013 Tier Staff*	2013 Tier Staff*	Safety
50	2.00%	0.00%	4.00%	2.00%	0.00%	20.00%
51	1.00	0.00	3.00	1.50	0.00	10.00
52	1.00	0.00	3.00	1.50	0.00	10.00
53	1.00	0.00	3.00	1.50	0.00	10.00
54	1.00	0.00	4.00	2.00	0.00	10.00
55	2.00	2.00	4.00	2.00	5.00	20.00
56	2.00	1.00	5.00	2.50	1.50	20.00
57	2.00	1.00	6.00	3.00	2.00	25.00
58	2.00	1.00	7.00	3.50	2.50	25.00
59	3.00	1.00	10.00	5.00	3.00	25.00
60	5.00	2.00	14.00	12.00	3.50	25.00
61	5.00	2.00	16.00	10.00	6.00	30.00
62	5.00	2.00	18.00	10.00	9.00	40.00
63	5.00	2.00	18.00	10.00	10.00	50.00
64	7.00	3.00	20.00	12.00	12.00	60.00
65	9.00	20.00	25.00	40.00	40.00	100.00
66	10.00	13.00	22.00	30.00	30.00	100.00
67	11.00	15.00	22.00	30.00	45.00	100.00
68	12.00	15.00	22.00	30.00	30.00	100.00
69	15.00	15.00	22.00	22.00	30.00	100.00
70	15.00	15.00	20.00	20.00	20.00	100.00
71	12.00	12.00	20.00	20.00	20.00	100.00
72	12.00	12.00	20.00	20.00	20.00	100.00
73	12.00	12.00	20.00	20.00	20.00	100.00
74	12.00	12.00	20.00	20.00	20.00	100.00
75	100.00	100.00	100.00	100.00	100.00	100.00

* *These rates apply for those with ten to twenty years of service. For ages under 65, 60% of these rates will be used for those with less than ten years of service and 150% of these rates will be used for those with twenty or more years of service.*

Changes in Actuarial Assumptions (continued):

Retirement Age for Deferred Vested Members:	Deferred vested members are assumed to retire at age 59.
Disability Income Cross Over Age:	Members receiving Disability Income are assumed to "cross over" at age 65 for those 1976 Tier members coordinated with Social Security, 2013 Tier members, and Modified 2013 Tier members or age 67 for those 1976 Tier members not coordinated with Social Security and Safety members.
Percent with Eligible Survivors:	85% of male members and 65% of female members are assumed to have Eligible Survivors at time of decrement.
Net Investment Return:	7.50% (including 3.50% for inflation)
Consumer Price Index:	Increase of 3.50% per year; COLA increases are assumed to be 2.00% per year.

Changes in Actuarial Assumptions (continued):

Salary Increases:

Annual Rate of Compensation Increase

Inflation: 3.50% per year, plus "across the board" salary increases of 0.50% per year, plus the following merit and promotional increases:

Years of Service	Faculty	Staff and Safety
Less than 1	2.75%	2.75%
1	2.75	2.50
2	2.75	2.30
3	2.75	2.10
4	2.75	1.90
5	2.70	1.70
6	2.65	1.50
7	2.60	1.40
8	2.50	1.30
9	2.40	1.20
10	2.30	1.10
11	2.20	1.00
12	2.10	0.90
13	2.00	0.80
14	1.90	0.70
15	1.80	0.60
16	1.70	0.50
17	1.60	0.45
18	1.50	0.40
19	1.30	0.35
20 & over	1.10	0.30

Changes in Actuarial Assumptions (continued):

Increase in 401(a)(17) Compensation Limit: Increase of 3.5% per year from the valuation date.

Increase in 415 Dollar Limit: Increase of 3.5% per year from the valuation date.

Lump Sum Assumptions:

Conversion Basis:

Discount Rate: 7.50%

COLA: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table projected with scale AA to 2025 set back two years; weighted 40% male and 60% female.

Take-rate for Members Eligible to Elect a Lump Sum Cashout:

Members Eligible to Elect a Lump Sum Cashout Terminating From Active Membership and Eligible to Retire

Years of Service	Percentage Electing Lump Sum Cashout
Less than 10	30.0%
10 – 14	15.0%
15 – 19	12.5%
20 – 24	7.5%
25 & over	5.0%

For those members eligible to elect a lump sum cashout who were receiving a disability income and now “crossing over”, we are assuming that 13% elect a Lump Sum Cashout. For those members eligible to elect a lump sum cashout who are leaving inactive (deferred vested) status, we are assuming that 45% elect a Lump Sum Cashout.

Changes in Actuarial Assumptions (continued):

Approximations:

Sick Leave	Only for purposes of determining projected benefits, service has been increased by 0.13% for Faculty, 1.45% for Staff, and 2.00% for Safety members to account for unused sick leave. This assumption applies only for members retiring from active membership and not electing a Lump Sum Cashout. For all other benefits there is assumed to be no conversion of unused sick leave to service credit.

EXHIBIT III

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all Plan provisions.

Effective Date:	April 24, 1954. Includes amendments through July 1, 2015.
Covered Employees:	Generally all employees who are not members of another retirement system to which the Regents contribute, and who: a. Are appointed to work 50% time or more for one year or longer or b. Have generally accumulated at least 1,000 hours in a 12-month period.
Membership Classification:	Members are divided into four classes: (1) Members with Coordinated Benefits (covered under Social Security); (2) Members with Noncoordinated Benefits (not covered under Social Security); (3) Members with Tier Two Benefits; and (4) Members with Safety Benefits. The classes of Members with Coordinated Benefits and Members with Noncoordinated Benefits have three member tiers: the 1976 Tier, the 2013 Tier, and the Modified 2013 Tier. Generally, members hired before July 1, 2013 accrue service under the 1976 Tier. Members who are represented by the CNA, UPTE, and AFSCME bargaining units, who were hired (or rehired after a break in service) on or after July 1, 2013 accrue service under the Modified 2013 Tier, while all others hired on or after July 1, 2013 accrue service under the 2013 Tier. A member who has service credit in two or more tiers is referred to as a multi-tier member. Unless otherwise noted, the Plan provisions for Members with Tier Two Benefits are the same as those shown for 1976 Tier Members.
Highest Average Plan Compensation (HAPC):	Highest average monthly full-time-equivalent base compensation rate received during any period of 36 consecutive months.

Compensation Limit:	Annual compensation is limited based on Internal Revenue Code Section 401(a)(17). The limit for the Plan Year beginning July 1, 2015 is $265,000 for employees who became members on or after July 1, 1994. The limit is $395,000 for those active members who became employees before July 1, 1994. The compensation limit is indexed for inflation on an annual basis.
Age Factor:	Percentage of HAPC per year of service credit (interpolated for fractional ages).

1976 Tier Service and Modified 2013 Tier Service

Age	Factor	Age	Factor
50	1.10%	56	1.94%
51	1.24	57	2.08
52	1.38	58	2.22
53	1.52	59	2.36
54	1.66	60+	2.50
55	1.80		

2013 Tier Service

Age	Factor	Age	Factor
55	1.10%	61	1.94%
56	1.24	62	2.08
57	1.38	63	2.22
58	1.52	64	2.36
59	1.66	65+	2.50
60	1.80		

Safety Service	3.0% at all ages 50 and above.
Tier Two Service	Equal to one-half of the Age Factor for 1976 Tier Service.
Benefit Percentage:	Age Factor multiplied by years of service credit.

Basic Retirement Income (BRI):	
1976 Tier Members with Social Security	Benefit Percentage x HAPC in excess of $133 per month.
All other Members, except Multi-Tier Members	Benefit Percentage x HAPC.
Multi-Tier Members	The applicable benefit percentages from the 1976 Tier, the 2013 Tier and the Modified 2013 Tier are multiplied by HAPC or HAPC - $133, if applicable. These benefits are subject to a limit of 100% of HAPC or HAPC - $133, if applicable.
Service Retirement:	
Eligibility	Age 50 (age 55 for 2013 Tier) with 5 years of service credit, or Age 62 regardless of service credit if membership began on or before July 1, 1989, or Retirement on Normal Retirement Date.
Benefit	BRI.
Form of Payment	Single Life Annuity.
Payment Options	Full continuance to contingent annuitant; two-thirds continuance to contingent annuitant; one-half continuance to contingent annuitant; one-half continuance (including postretirement survivor continuance) to surviving spouse or domestic partner (for 1976 Tier Members with Social Security only).
Lump Sum Cashout	May be elected in lieu of non-2013 Tier monthly retirement income.
Temporary Social Security Supplement:	
Eligibility	For 1976 Tier Members with Social Security only and retirement must occur before age 65.
Benefit	Annuity in the amount of $133 per month multiplied by 1976 Tier Benefit Percentage.
Form of Payment	Temporary Single Life Annuity payable to age 65.
Payment Options	None.

Disability Income:

Eligibility	Disablement after five years of service credit; Safety members are eligible for duty disability without regard to years of service credit. Service credit continues to accrue during disabled period.
Benefit	
1976 Tier Members without Social Security	25% of final salary, plus 5% of final salary per year of service credit greater than two, total not to exceed 40% of final salary, plus 5% of final salary for each eligible child, total not to exceed 20% of final salary.
1976 Tier Members with Social Security	15% of final salary, plus 2.5% of final salary per year of service credit greater than two, total not to exceed 40% of final salary, less $106.40 per month.
2013 Tier Members and Modified 2013 Tier Members	13.1% of final salary, plus 1.7% of final salary per year of service credit greater than five, total not to exceed 25% of final salary.
Multi-Tier Members	Benefit calculated for each tier is multiplied by the ratio of service credit accrued under that tier to total service. Not less than the result under the 1976 Tier benefit formula using 1976 Tier service only.
Members with Safety Benefits (Non-duty)	Same as for 1976 Tier Members without Social Security; includes eligible child's benefit.
Members with Safety Benefits (Duty)	50% of HAPC, or non-duty disability benefit if greater.
Form of Payment	Single life annuity payable until end of disability income period or retirement date if earlier.

Disability Income Period	
Members disabled before November 5, 1990	The earliest of: Date member is eligible to retire and retirement income equals or exceeds disability income; Age 62 (age 67 for members without Social Security); or Date member retires.
Members disabled on or after November 5, 1990	If under age 65 at disablement: 1976 Tier members with Social Security, 2013 Tier members and Modified 2013 Tier members: to age 65 or five years if longer. 1976 Tier members without Social Security and Safety members: to age 67 or five years if longer. If age 65 or older at disablement: to age 70 or 12 months if longer. Disability income ends if member is no longer disabled.

Vested Termination:

Eligibility	Five years of service credit, or age 62 regardless of service credit if membership began on or before July 1, 1989.
Benefit	BRI beginning at age 50 or later, calculated using HAPC at termination date, adjusting for CPI changes (see Cost-of-Living Adjustment), and benefit formula in effect when benefits commence. 2013 Tier benefit cannot commence earlier than age 55. HAPC for 2013 Tier and Modified 2013 Tier benefit is not adjusted for CPI changes.
Form of Payment	Same as for service retirement.
Payment Options	Same as for service retirement.
Refund Option	Member may elect a refund of contributions with interest, thereby forfeiting all other benefits.
Lump Sum Cashout	May be elected in lieu of non-2013 Tier retirement income, available only if at least age 50 with five years service credit at date of termination.

Preretirement Survivor Income:

Eligibility	Eligible survivor of deceased active or disabled member with two or more years of service credit; no service requirement for duty-related death of Safety member.
Benefit	
1976 Tier Members without Social Security	Percent of final salary as follows:

Eligible Survivors	Percent	Minimum Benefit
1	25%	$200
2	35	$300
3	40	$300 plus 5% of final salary
4	45	$300 plus 10% of final salary
5+	50	$300 plus 15% of final salary

1976 Tier Members with Social Security	25% of final salary less $106.40 per month.
2013 Tier Members and Modified 2013 Tier Members	15% of final salary
Multi-Tier Members	Benefit calculated for each tier is multiplied by the ratio of service credit accrued under that tier to total service.
Members with Safety Benefits, non-duty death	As for 1976 Tier Members without Social Security.
Members with Safety Benefits, duty death	Percentage of HAPC as follows, but not less than benefit for non-duty death.

Eligible Survivors	Percent of HAPC
1	50.0%
2	62.5
3	70.0
4+	75.0

Death while eligible to retire	
Eligibility	Surviving spouse or surviving domestic partner of active, disabled or inactive member who dies while eligible to retire.
Benefit	Greater of benefit described above or monthly benefit to eligible spouse or eligible domestic partner assuming member had retired on date of death and elected full continuance option with spouse or domestic partner as contingent annuitant.

Postretirement Survivor Continuance:

Eligibility	Eligible surviving spouse, eligible surviving domestic partner, eligible children or eligible dependent parent of deceased retired member. Not applicable for 2013 Tier and Modified 2013 Tier benefit for multi-tier members, 2013 Tier Members or Modified 2013 Tier Members.
Benefit	
1976 Tier Members without Social Security	50% of BRI including COLA.
1976 Tier Members with Social Security	25% of BRI including COLA, plus 25% of Temporary Social Security Supplement (ends when member would have reached age 65).
Members with Safety Benefits	50% of BRI including COLA.

Lump Sum Death Benefit:

Eligibility	Beneficiary of active, inactive, disabled, or retired member.
Basic Benefit	
Active member who became a member before October 1, 1990	Greater of : $1,500 plus one month's final salary, or $7,500.
All others	$7,500
Residual Benefit	Refund of member contributions plus interest, reduced by a portion of benefits received (100% of retirement income, 50% of preretirement survivor income or disability income) payable to beneficiary if no survivor, surviving spouse, domestic partner, or contingent annuitant.

Normal Retirement Age:	
Members with Safety Benefits	Attainment of age 50 with five years of service credit.
All Other Members	Attainment of age 60 (age 65 for 2013 Tier) with five years of service credit.
Eligible Survivor:	
Eligible Spouse or Domestic Partner	Spouse or domestic partner of deceased active or disabled member in relationship for at least one year before date of death and who is: Responsible for care of eligible child, disabled, or age 60 (age 50 if spouse of member without Social Security and in Plan prior to October 19, 1973).
Eligible Child	Child that is either under age 18, under age 22 and a full-time student, or disabled, if disability occurred prior to age 18 or age 22 if a full-time student.
Eligible Dependent Parent	Parent of deceased active, disabled or retired member, supported by 50% or more by member for one year prior to earliest of death, disablement or retirement.
Inactive Member:	Former UCRP member who retains right to vested benefits.
Cost-of-Living Adjustment:	
Basic	100% of annual Consumer Price Index (CPI) increase up to 2% per year.
Supplemental	Generally 75% of annual CPI increase above 4%. The sum of the Basic and Supplemental COLA's cannot exceed 6% in a year.
COLA applies to:	
Retired members, survivors, disabled members, and contingent annuitants receiving retirement income	Benefits in pay status one or more years on July 1. For multi-tier members, separate dates apply to 1976 and 2013 Tier benefits based on the dates those benefits start.
Non-2013 Tier and Modified 2013 Inactive members	HAPC (used to calculate retirement income) adjusted for COLA up to 2% per year from separation date to retirement date; retirement income adjusted using COLA formula.
Disabled members receiving disability income since before November 5, 1990	HAPC (used to calculate retirement income) adjusted for COLA up to COLA formula above for years from disablement to retirement date.

Capital Accumulation Provision (CAP):	
Eligibility	Various UCRP nonretired members have CAP balances from allocations made periodically in the past. These balances are all vested.
Interest Credit	Regents' approved interest rate; currently 8.50% per year for pre-2002 CAPs and the assumed rate of investment return used in the actuarial valuation (currently 7.50%, 7.25% effective January 1, 2016) for 2002 and later CAPs (CAP II).
Payment	Lump sum payment upon termination, retirement or death.
University Contributions:	Each year the Regents will determine the actual total contributions and the split between Member Contributions and University Contributions based on the total funding policy contribution and various other factors, including the availability of funds, the impact of employee contributions on the competitiveness of UC's total remuneration package, and collective bargaining. In no event would the University Contributions be lower than the Member Contributions. The total funding policy contribution is based on the Regents' funding policy as described in Exhibit IV. The Regents approved an employer contribution rate of 14% of covered compensation for the non-laboratory segment of UCRP starting July 1, 2014. Contributions for the LBNL, LLNL and LLNL segments are based on the University's contracts with the Department of Energy.

Member Contributions:	
1976 Tier Members	9% of covered compensation starting on or about July 1, 2014 for members represented by CNA, UPTE, or AFSCME bargaining units;
	8% of covered compensation starting July 1, 2014 for all other 1976 Tier Members.
Members with 2013 Tier Benefits	7% of covered compensation.
Members with Modified 2013 Tier Benefits	9% of covered compensation.
Members with Safety Benefits	9% of covered compensation starting July 1, 2014.
Members with Tier Two Benefits	None.
Offset	All contributions for non-2013 Tier and Modified 2013 Tier Members are reduced by $19 per month.
Interest Credit	Regents' approved interest rate; currently 6.00% per year.
Changes in Plan Provisions:	As a result of the change in the investment return assumption, the interest rate credited on CAP II balances (2002 and later CAP allocations) will be reduced from 7.50% to 7.25% per year effective January 1, 2016.

EXHIBIT IV

UCRP Funding Policy

UCRP Funding Policy:

Effective with the July 1, 2008 valuation, a funding policy was adopted that determines total funding policy contributions based on the Plan's Normal Cost adjusted by an amortization of any surplus or underfunding. The funding policy was last amended in September 2015, effective with the July 1, 2015 actuarial valuation.

The UCRP funding policy has the following structure and parameters:

(1) The funding policy is effective with the July 1, 2008 actuarial valuation and determines total funding policy contributions starting with the Plan Year beginning July 1, 2009.

(2) Each year the funding policy contributions would be effective for the Plan Year starting one year after the date of the actuarial valuation.

(3) Each year the Regents will determine the actual total contributions and the split between Member Contributions and University Contributions based on the total funding policy contributions and various other factors, including the availability of funds, the impact of employee contributions on the competitiveness of UC's total remuneration package, and collective bargaining. In no event shall the University Contributions be lower than the Member Contributions.

(4) The funding policy determines total funding policy contribution rates based on an actuarial valuation of the non-laboratory segment of UCRP (i.e., campuses, medical centers and Hastings College of the Law). The Lawrence Berkeley National Laboratory contributes accordingly to the funding policy outlined in the terms of the University's contract with the Department of Energy. The Lawrence Livermore National Laboratory and Los Alamos National Laboratory Retained Segments in UCRP are subject to the funding policies outlined in the University's contracts with the Department of Energy. Throughout this funding policy, the term "UCRP" refers to the non-laboratory segment of UCRP.

(5) The total funding policy contributions to UCRP consists of the Normal Cost plus an amortization charge for any Unfunded Actuarial Accrued Liability (UAAL) or minus an amortization credit for any surplus.

(6) The Regents' Consulting Actuary conducts an annual actuarial valuation of UCRP. The Normal Cost and the Actuarial Accrued Liability (AAL) in each actuarial valuation is determined under the Entry Age Actuarial Cost Method, using actuarial assumptions adopted by the Regents.

(7) The asset smoothing method used to determine the Actuarial Value of Assets is based on the Market Value of Assets adjusted for "unrecognized returns" in each of the last five years. Unrecognized return is the difference between actual and expected returns on a market value basis and is recognized over a five-year period.

(8) As of the effective date of this policy, any initial surplus as of that date is amortized as a level dollar amount over a period of three years.

a. Any changes in surplus after the effective date due to actuarial gains and losses (including contribution gains and losses) is amortized as a level dollar amount over 15 years.

b. Any change in surplus due to a change in actuarial assumptions, cost method or asset smoothing method is amortized as a level dollar amount over 15 years.

c. Any change in surplus due to a Plan amendment is amortized as a level dollar amount over 15 years.

d. In the first year after the effective date when UCRP has a UAAL all amortization bases are considered fully amortized and contributions would be determined under the remaining provisions of this policy.

(9) For any year when UCRP has a UAAL, the calculation of the UAAL would be maintained by source (as listed below) and each new portion of or change in UAAL is amortized as a level dollar amount over a fixed amortization period. For any UAAL identified prior to the July 1, 2015 actuarial valuation, the following applies:

a. Any initial UAAL (after a period of surplus) or change in UAAL due to actuarial gains and losses (including contribution gains and losses) is amortized over 30 years.

b. Any change in UAAL due to a change in actuarial assumptions, cost method or asset smoothing method is amortized over 15 years.

c. Any change in UAAL due to a Plan amendment is amortized over 15 years, unless a shorter period is adopted by the Regents reflecting the nature of the Plan amendment.

(10) For any UAAL identified beginning with the July 1, 2015 actuarial valuation (including the 2014-15 actuarial gain or loss), the following applies:

a. Any initial UAAL (after a period of surplus) or change in UAAL due to actuarial gains and losses (including contribution gains and losses) is amortized over 20 years.

b. Any change in UAAL due to a change in actuarial assumptions, cost method or asset smoothing method is amortized over 20 years.

c. Any change in UAAL due to a Plan amendment affecting active members is amortized over 15 years.

d. Any change in UAAL due to a Plan amendment affecting non-active members is amortized over 10 years.

(11) For any year in which UCRP has a surplus, such surplus would be amortized as a level dollar amount over 30 years, and all prior UAAL amortization bases would be considered fully amortized.

(12) Effective July 1, 2010, all UAAL amortization bases as of July 1, 2010 were combined and the combined base is amortized as a level dollar amount over 30 years.

(13) This funding policy supersedes any previous funding policies.

5390111v7/05693.002

University of California PERS Plus 5 Plan

ACTUARIAL VALUATION REPORT
AS OF JULY 1, 2015

Segal Consulting

Segal Consulting

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October 8, 2015

Mr. Dwaine B. Duckett
Vice President, Human Resources
University of California
1111 Franklin Street, 5th Floor
Oakland, California 94607

Dear Vice President Duckett:

We are pleased to submit this Actuarial Valuation Report as of July 1, 2015 for the University of California PERS Plus 5 Plan ("Plan"). It summarizes the actuarial data used in the valuation, recommends the funding requirements for the 2015-2016 Plan Year, analyzes the preceding year's experience, and determines the funded ratio for purposes of the July 1, 2016 annual COLA.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. The census and financial information on which our calculations were based was provided by the UC HR Staff. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for those measurements; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion the assumptions as approved by the Regents are reasonably related to the experience of and future expectations for the Plan.

We look forward to reviewing this report at the November 2015 Regents meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

Paul Angelo, FSA, EA, FCA, MAAA
Senior Vice President and Actuary

John Monroe, ASA, EA, MAAA
Vice President and Actuary

JZR/hy

SECTION 1

EXECUTIVE SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

SECTION 1: Executive Summary of the Valuation for the University of California PERS Plus 5 Plan

Purpose

This report has been prepared by Segal Consulting to present a valuation as of July 1, 2015 of the University of California PERS Plus 5 Plan - University of California Voluntary Early Retirement Incentive Program ("Plan" or "PERS Plus 5 Plan") for eligible employees with PERS membership related to employment at the University. The UC PERS Plus 5 Plan, established in 1991, is a frozen plan covering a closed group of members, all of whom are in retirement status. Since no additional benefits will accrue for these members in the future, the Plan has no normal cost. The valuation was performed to determine if the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the PERS Plus 5 Plan,
- The characteristics of retired members and beneficiaries as of July 1, 2015,
- The assets of the Plan as of June 30, 2015,
- Economic assumptions regarding future investment earnings, and
- Other actuarial assumptions, i.e., administration expenses and mortality.

Significant Issues in Valuation Year

ASSETS AND FUNDED RATIOS

- The Plan's funded ratio for valuation purposes (i.e., assets divided by Actuarial Accrued Liability (AAL); herein referred to as the "funded ratio") has been determined as of the current valuation date and includes all future assumed 2% annual cost-of-living adjustments (COLAs) in the calculation of the AAL. For purposes of granting an annual COLA as of July 1, 2016, an additional funded ratio has been developed that does not include any future annual COLAs in the calculation of the AAL. This additional funded ratio is herein referred to as the "funded ratio for COLA purposes."
- The Plan's funded ratio decreased from 181.2% as of July 1, 2014 to 180.2% as of July 1, 2015. This decrease in funded ratio is mainly a result of changes in actuarial assumptions and the lower than expected market value return of approximately 4% during the 2014/2015 Plan Year (since the assumed rate of return for 2014/2015 was 7.5%, this resulted in an actuarial loss from investments), all mostly offset by interest on the Plan's surplus during the year.

- Chart 6 (page 5) shows a graphical representation of the Plan's funded ratio over the past ten years. Similar information in numerical format can be found in Chart 7 (page 6).
- The actuarial valuation report as of July 1, 2015 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will decrease the Plan's funded ratios, while increases will increase the Plan's funded ratios.

COLA TEST FOR 2016

- The Plan's funded ratio for COLA purposes as of July 1, 2015 is 199.6%. Since this ratio is greater than 100%, it is our understanding that a July 1, 2016 COLA can be granted in a percentage equal to that determined under the University of California Retirement Plan (UCRP) formula for UCRP annuitants whose retirement income commenced July 2, 1991 through July 1, 1992.

FUTURE EXPECTATIONS

- Plan assets exceed liabilities by $30.0 million. Since the Plan covers only retired members and beneficiaries, the Plan's current assets along with future assumed investment returns are expected to be sufficient to fund all expected future Plan benefit payments based on current Plan provisions (including all future assumed 2% annual COLAs that have been reflected in this valuation as noted earlier). Therefore, no future contributions are expected to be necessary.

DEMOGRAPHIC EXPERIENCE

- The Plan has 584 retired members and beneficiaries currently receiving benefits, a decrease of 30 from 2014. Total annual benefits in pay status are $5.1 million.

RESULTS OF EXPERIENCE STUDY

- Based on the same actuarial assumptions used to perform last year's valuation, the Plan's surplus of assets over the AAL would have been $31.6 million as of July 1, 2015, and the funded ratio would have increased from 181.2% as of July 1, 2014 to 188.4% as of July 1, 2015 (or by about 7%). However, the post-retirement mortality assumption, the net investment return assumption, and the inflation assumption were changed in this valuation as a result of the UCRP Actuarial Experience Study During the Period July 1, 2010 through June 30, 2014. These assumption changes decreased the Plan's surplus by approximately $1.6 million and reduced the funded ratio by about 8%. The net effect of all experience during 2014/2015, including from the change in the actuarial assumptions, was a decrease in the Plan's surplus by approximately $1.3 million and a decrease in the funded ratio by 1%.

Summary of Key Valuation Results

	2015	2014
Funding elements for Plan Year beginning July 1:		
Normal cost (beginning of year)	$ 0	$ 0
Market value of assets	67,424,239	69,962,230
Actuarial value of assets (AVA)	67,424,239	69,962,230
Actuarial accrued liability (AAL)*	37,411,714	38,601,892
Unfunded/(Overfunded) actuarial accrued liability	(30,012,525)	(31,360,338)
Funded ratio (AVA / AAL)	180.2%	181.2%
Demographic data for Plan Year beginning July 1:		
Number of retired members and beneficiaries	584	614

* *Reflects all future assumed 2% annual COLAs.*

Important Information about Actuarial Valuations

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the University of California (UC). Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by UC.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of UC. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

- If UC is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Plan should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

SECTION 2: Valuation Results for the University of California PERS Plus 5 Plan

A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographics of covered retired members and beneficiaries.

This section presents a summary of significant statistical data on these participant groups. More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibit A.

Retired Members and Beneficiaries

As of July 1, 2015, 453 retired members and 131 beneficiaries were receiving total monthly benefits of $419,198.

These graphs show a distribution of the current retired members and beneficiaries based on their monthly benefit and age.

CHART 1

Distribution of Retired Members and Beneficiaries by Monthly Benefit as of July 1, 2015

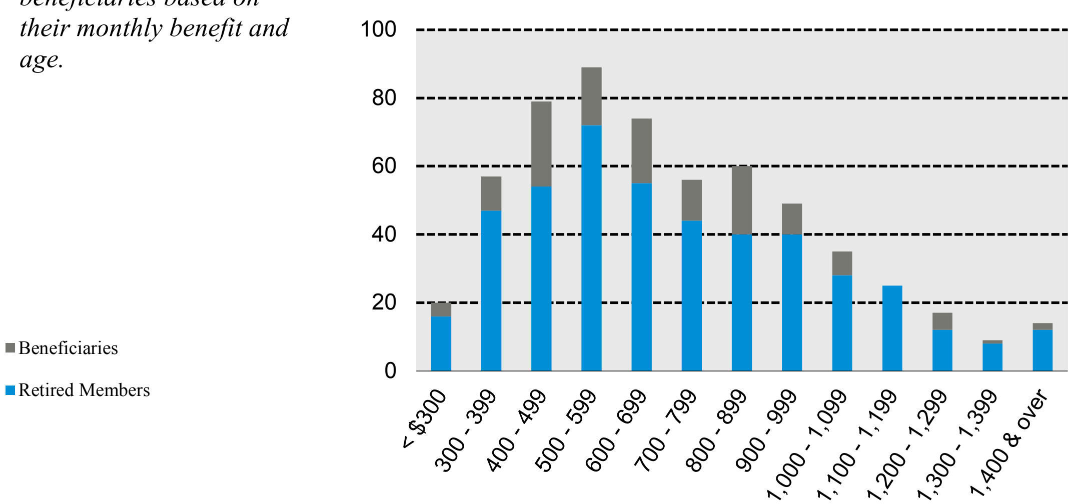
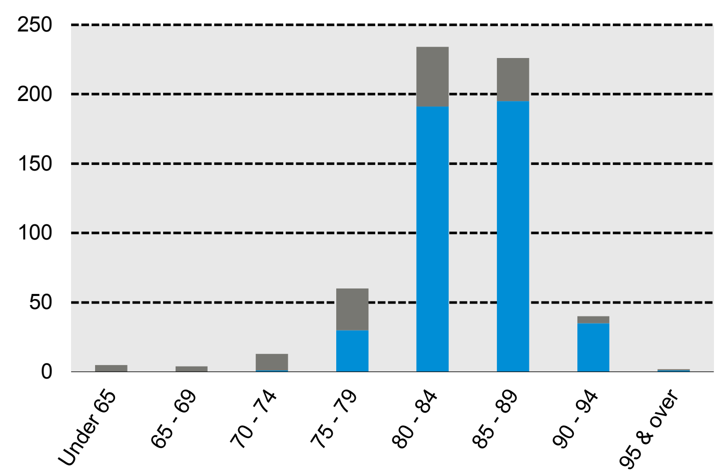


CHART 2

Distribution of Retired Members and Beneficiaries by Age as of July 1, 2015



B. FINANCIAL INFORMATION

Retirement plan assets change as a result of the net impact of income and expense components such as net investment earnings (less investment fees), administration expenses and benefit payments.

The chart below shows the net assets and changes to those asset values for the past two years.

The Regents have approved an asset valuation method that uses the market value of assets as the actuarial value of assets. The entire market value investment return is treated as income, which may be positive or negative.

The chart shows the market value of assets as of the last two valuation dates.

CHART 3

Asset Values for Years Ended June 30, 2014 – 2015

Assets as of June 30,	2015	2014
Total investments	$68,927,740	$71,287,077
Receivables*	123,237	88,225
Payables	(1,626,738)	(1,413,072)
Net assets	$67,424,239	$69,962,230
Change in Asset Values		
Value as of the beginning of the year	$69,962,230	$64,102,549
University contributions	0	0
Administration expenses	(6,000)	(6,245)
Benefit payments	(5,081,188)	(5,168,567)
Net investment return	2,549,197	11,034,493
Value as of the end of the year	$67,424,239	$69,962,230

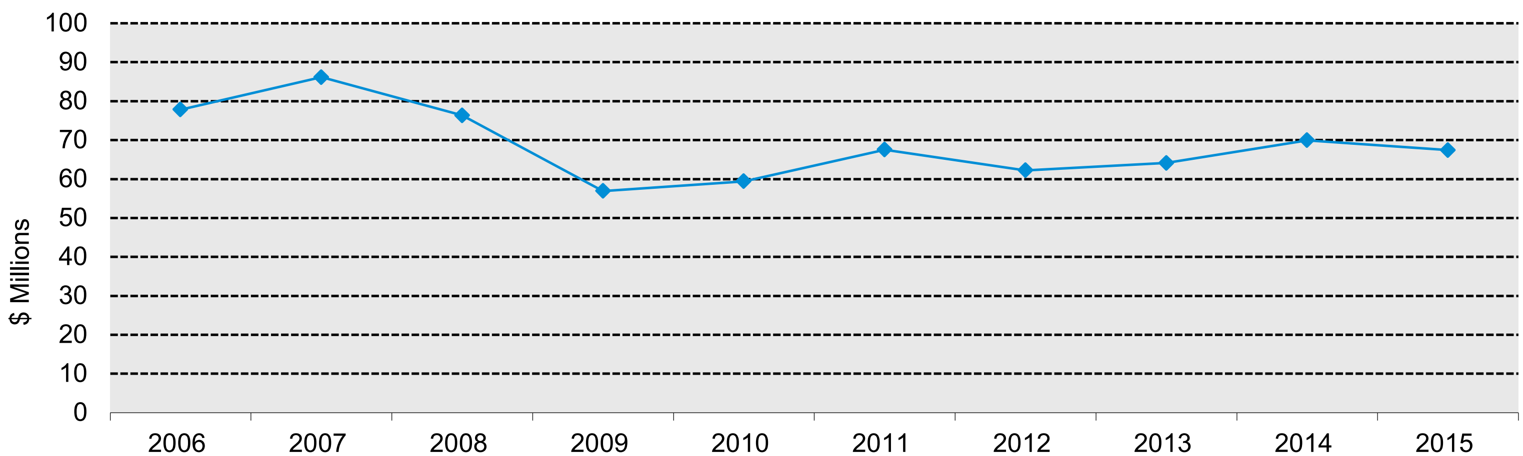
* *Represents securities traded and allotted to UC PERS Plus 5 Plan as of valuation date, not tied to contributions.*

The market value of assets is a representation of the Plan's financial status. The market value is significant because the Plan's liabilities are compared to its assets to determine what portion, if any, remains unfunded.

This chart shows the change in the market value of assets over the past ten years.

CHART 4

Market Value of Assets for Years Ended June 30, 2006 – 2015



C. ACTUARIAL EXPERIENCE

To calculate the surplus of assets over liabilities of the Plan, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain) then the surplus of assets over liabilities will be greater when compared to the surplus that was expected had all assumptions been met. On the other hand, the surplus of assets over liabilities will be less than expected if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The components of the total loss of $2.1 million are shown below. The net experience gain from sources other than investments was 1.21% of the actuarial accrued liability.

This chart provides a summary of the actuarial experience during the past year.

CHART 5

Actuarial Experience for Year Ended June 30, 2015

1.	Net gain/(loss) from investments	$(2,507,202)
2.	Net gain/(loss) from other experience	433,398
3.	Net experience gain/(loss): (1) + (2)	$(2,073,804)

D. FUNDED RATIO

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. The chart below depicts a history of the funded ratios for this plan. Chart 7 on the next page shows the Plan's schedule of funding progress for the last ten years.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations.

CHART 6

Funded Ratio for Plan Years beginning on July 1, 2006 - 2015

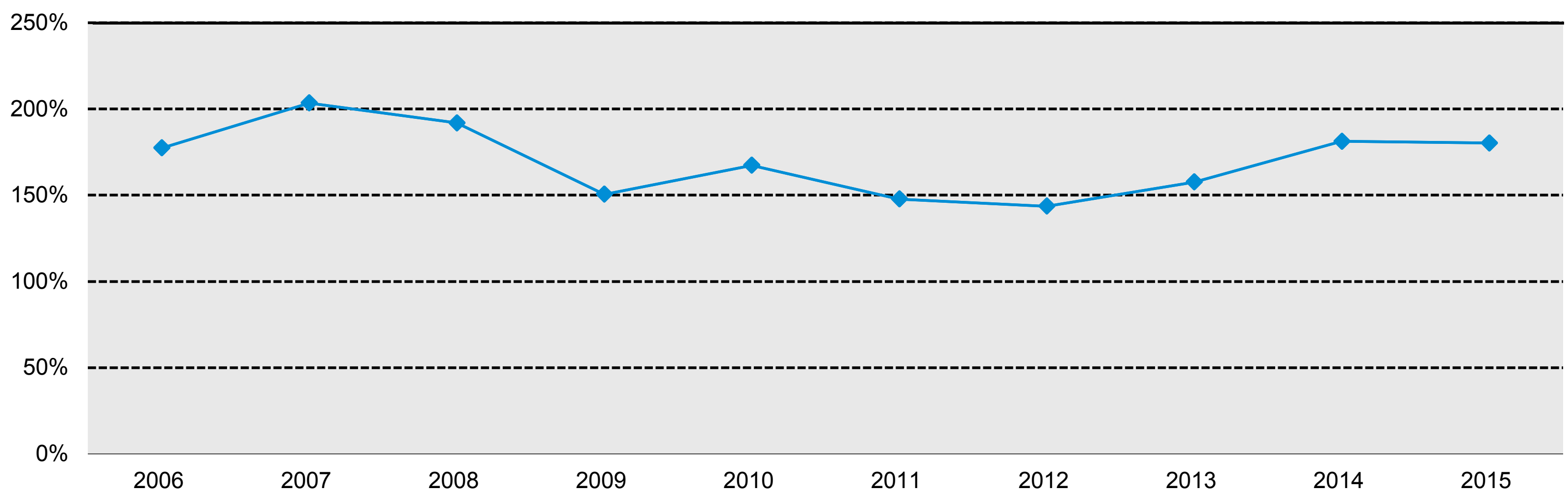


CHART 7

Schedule of Funding Progress ($ in 000s)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)*	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)
07/01/2006	$77,830	$43,877	$(33,953)	177.4%
07/01/2007	86,150	42,346	(43,804)	203.4%
07/01/2008	76,336	39,777	(36,559)	191.9%
07/01/2009	56,941	37,833	(19,108)	150.5%
07/01/2010	59,424	35,514	(23,910)	167.3%
07/01/2011	67,529	45,716	(21,813)	147.7%
07/01/2012	62,243	43,334	(18,909)	143.6%
07/01/2013	64,103	40,672	(23,431)	157.6%
07/01/2014	69,962	38,602	(31,360)	181.2%
07/01/2015	67,424	37,412	(30,012)	180.2%

* *Includes present value of administrative expenses equal to one percent of actuarial accrued liability. Starting in 2011, reflects all future assumed 2% annual COLAs.*

SECTION 3: Supplemental Information for the Valuation of the University of California PERS Plus 5 Plan

EXHIBIT A
Table of Plan Coverage

Category	Year Beginning July 1 2015	Year Beginning July 1 2014	Change From Prior Year
Retired members:			
Number in pay status	453	489	-7.4%
Average age	84.6	83.8	N/A
Total monthly benefit	$329,096	$351,287	-6.3%
Average monthly benefit	$726	$718	1.1%
Beneficiaries:			
Number in pay status	131	125	4.8%
Average age	80.3	79.4	N/A
Total monthly benefit	$90,102	$83,572	7.8%
Average monthly benefit	$688	$669	2.8%
Total members:			
Number in pay status	584	614	-4.9%
Average age	83.6	82.9	N/A
Total monthly benefit	$419,198	$434,859	-3.6%
Average monthly benefit	$718	$708	1.4%

EXHIBIT B
Actuarial Liabilities

	July 1, 2015	July 1, 2014
Plan assets		
Market value of assets	$67,424,239	$69,962,230
Present value of future contributions	0	0
Total Plan assets	$67,424,239	$69,962,230
Actuarial accrued liability*		
Retirees	$28,637,607	$30,333,864
Beneficiaries	8,403,694	7,885,831
Present value of future expenses	370,413	382,197
Total actuarial accrued liability	$37,411,714	$38,601,892
Excess of assets over liabilities	$30,012,525	$31,360,338
Funded percentage	180.2%	181.2%

* *Reflects all future assumed 2% annual COLAs.*

EXHIBIT C
Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including: (a) Investment return — the rate of investment yield which the Plan will earn over the long-term future; and (b) Mortality rates — the death rates of pensioners; life expectancy is based on these rates.
Actuarial Accrued Liability for Pensioners:	The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and of the interest which the sum is expected to earn before it is entirely paid out in benefits.
Unfunded (Overfunded) Actuarial Accrued Liability:	The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. There is a wide range of approaches to paying off the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
Investment Return:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gains and losses, computed as a percentage of the average value of the fund.

SECTION 4: Reporting Information for the Valuation of the University of California PERS Plus 5 Plan

EXHIBIT I

Statement of Actuarial Assumptions/Methods

Rationale for Assumptions:	The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2010 through June 30, 2014 Actuarial Experience Study dated August 17, 2015.
Demographic Assumption	
Post – Retirement Mortality Rates:	RP-2014 White Collar Healthy Annuitant Mortality table projected with the two-dimensional MP2014 projection scale to 2029. Ages are then set forward one year for males (from the male table) and females (from the female table). The RP-2014 mortality tables projected with the two-dimensional MP2014 projection scale to 2019 and adjusted as noted above reasonably reflects the projected mortality experience as of the measurement date. The additional projection to 2029 is a provision for future mortality improvement.
Economic Assumptions	
Net Investment Return:	7.25% (including 3.00% for inflation)
Consumer Price Index:	Increase of 3.00% per year; COLA increases are assumed to be 2.00% per year. For valuation purposes, all future assumed 2.00% annual COLAs have been reflected.
Administrative Expenses:	1.0% load added to the actuarial accrued liability
Actuarial Methods	
Actuarial Value of Assets:	At Market Value
Actuarial Cost Method:	Unit Credit Actuarial Cost Method

Changes in Assumptions:	Based on an experience study for the period July 1, 2010 through June 30, 2014, the following assumptions were changed as of July 1. Previously these assumptions were as follows:
Post – Retirement Mortality Rates:	RP-2000 Combined Healthy Mortality table projected with scale AA to 2025. Ages are set back two years for males (from the male table) and females (from the female table).
Net Investment Return:	7.50% (including 3.50% for inflation)
Consumer Price Index:	Increase of 3.50% per year; COLA increases are assumed to be 2.00% per year. For valuation purposes, all future assumed 2.00% annual COLAs have been reflected.

EXHIBIT II
Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all Plan provisions.

Effective Date:	October 1, 1991. Includes amendments through July 1, 2015.
Covered Members:	Active employees on October 1, 1991 who were active members of, and who were eligible to retire from the California Public Employee's Retirement System (PERS), whose age plus service equaled 75 or more (80 or more for faculty members), and who elected to retire under the UC PERS Plus 5 Plan effective October 1, 1991.
UC PERS Plus 5 Average Pay:	Average monthly full-time-equivalent base compensation rate received during the 36 consecutive month period prior to June 30, 1990, multiplied by 1.07.
Retirement Date:	October 1, 1991.
Service Credit:	Each eligible member was granted five years of Service Credit.

Age Factor: Percentage of UC PERS Plus 5 Average Pay per year of Service Credit (interpolated for fractional ages).

Age	Factor	Age	Factor
55	1.50%	60	2.00%
56	1.60	61	2.13
57	1.70	62	2.27
58	1.80	63+	2.41
59	1.90		

Benefit Percentage: Age Factor multiplied by years of Service Credit.

Basic Retirement Income (BRI): Benefit Percentage x UC PERS Plus 5 Average Pay.

Service Retirement:

Benefit BRI.

Form of Payment Single life annuity.

Payment Option Full continuance to contingent annuitant.

Post-retirement Automatic Survivor Benefit:	None.	
Cost-of-Living Adjustment:	*Annual*	The lesser of: ➤ The same percentage increase for UCRP annuitants whose retirement income commenced July 2, 1991 up through and including July 1, 1992, and ➤ The percentage that the Plan's funded ratio for COLA purposes (determined as of the previous July 1) exceeds 100%.
	Ad hoc	A one-time ad hoc COLA of 25% was provided to all annuitants as of July 1, 2002. A one-time ad hoc COLA of 15.19% was provided to all annuitants as of April 1, 2011.
University Contributions:	The actuarial cost of the University of California PERS Plus 5 Plan was determined for each University location. Each location could elect to contribute their cost in a lump sum, over two, three or five years. The last contributions were made in 1995.	
Changes in Plan Provisions:	There have been no changes in Plan provisions since the last valuation.	

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