LACERA Los Angeles County Employees Retirement Association
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June 17, 2014

ADOPTED
BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES
62 June 17, 2014
SACHI A. HAMAI
EXECUTIVE OFFICER

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisors:

ADOPTION OF NEW RETIREMENT CONTRIBUTION RATES (ALL DISTRICTS) (3 VOTES)

SUBJECT

Recommendation to adopt revised employer and employee contribution rates as approved by the Board of Investments of the Los Angeles County Employees Retirement Association (LACERA) to be effective no later than October 1, 2014.

IT IS RECOMMENDED THAT YOUR BOARD:

1. Adopt the revised employer and employee retirement contribution rates approved by LACERA's Board of Investments effective no later than October 1, 2014.

2. Instruct the Auditor-Controller to make the system changes necessary to implement this recommendation.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of these recommendations is to set employer and employee contribution rates at a level sufficient to fund plan liabilities identified in the June 30, 2013 Actuarial Valuation Report. The LACERA Board of Investments approved these revised employer and employee rates as recommended in the 2013 Actuarial Valuation of Retirement Benefits on March 12, 2014.

The County Employees Retirement Law requires LACERA's Board of Investments to obtain an actuarial valuation of the retirement system at intervals not to exceed three (3) years and on the basis of such valuation to recommend to the Board of Supervisors at least forty-five (45) days prior to the beginning of the succeeding fiscal year, such changes in employer and/or employee contribution rates as may be necessary to properly fund the system. The Board of Supervisors is required to adopt the contribution rates approved by the Board of Investments no later than ninety (90) days following the beginning of the immediately succeeding fiscal year.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The adoption of the revised employer and employee contribution rates provided for in the recommendation are directly responsive to the Strategic Plan Goal of fiscal responsibility.

FISCAL IMPACT/FINANCING

Adoption of these actuarial valuation recommendations will result in an aggregate employer contribution rate of 21.34% and will thereby increase annual employer retirement contributions by $96 million for Fiscal Year 2014/2015. This will result in an annual County retirement cost estimate of $1.5 billion.

Employee contribution rates for General Plans A, B, C and D and Safety Plans A and B, which are specific to the plan and the employee's entry age, will decrease less than 1% for employees with younger plan entry ages and increase less than 1% for employees with older plan entry ages, as compared to the current employee contribution rates adopted in 2013. Employee contribution rates for General Plan G and Safety Plan C, which are not age specific, will decrease by .12% and increase by .14%, respectively, as compared to the current employee contribution rates adopted in 2013.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

1. LEGAL REQUIREMENT FOR PERIODIC ACTUARIAL VALUATIONS AND ADJUSTMENTS IN CONTRIBUTION RATES

   Provisions contained in Article XVI, Section 17, of the California Constitution and in the County Employees Retirement Law of 1937 (California Government Code, Sections 31450-31899.10) govern the actuarial process at LACERA.

   The California Constitution assigns "the sole and exclusive power to provide for actuarial services" to the governing body of the public retirement system. Such power is granted by the Constitution "in order to assure the competency of the assets of the public pension or retirement system."

   Section 31453 of the County Employees Retirement Law requires LACERA to obtain an actuarial valuation at least once every three (3) years and, on the basis of such valuation to recommend to the Board of Supervisors, at least forty-five (45) days prior to the beginning of the succeeding fiscal year, such changes in employer and/or member contribution rates as may be necessary to properly fund the retirement system.

   Section 31454 requires the Board of Supervisors to adjust contribution rates in accordance with LACERA's recommendations no later than ninety (90) days following the beginning of the immediately succeeding fiscal year.

Section 31454.1 exempts the independent assumptions and calculations of LACERA's actuary from "meet and confer" requirements while recognizing the "meet and confer" responsibility of the Board of Supervisors in implementing the recommendations contained in the actuarial valuation.

2. THE ACTUARIAL VALUATION PROCESS

Actuarial valuations are performed in order to determine the cost of a retirement program. The cost of a defined benefit retirement program, such as the one administered by LACERA, consists of two (2) components - normal cost and unfunded liability. Normal cost is the amount needed to fund the service currently being earned by retirement system members through their current employment with the County. The unfunded liability represents liabilities created by past service, which have not been funded by previously collected contributions.

The cost of a retirement program is determined by a number of economic and non-economic factors such as the rate of return on assets, the rate of future salary increases, inflation, mortality, disability, and membership terminations. The actuary must make assumptions concerning the long-range impact of these cost factors in determining the amount of assets required to fund the cost of the retirement program.

There are three (3) sources of revenue for underwriting the cost of a retirement plan: employee contributions, employer contributions, and investment earnings. As part of the valuation process, the actuary estimates the amount of future benefit payments that will be funded through investment earnings. After projecting the extent to which benefit payments will be funded through investment earnings, the actuary then calculates the amount of employer and employee contributions needed to complete the full funding of the retirement program.

3. ACTUARIAL AUDIT

In order to validate the accuracy of the valuations used to calculate contribution rates, the Board of Investments authorized an independent actuarial audit of the services performed by LACERA's consulting actuary, Milliman. The audit of the June 30, 2013, valuation report confirmed that the actuarial calculations are reasonable and based on generally accepted actuarial principles and practices. The auditing actuary found no financially significant actuarial issues to report. Actuarial audits are to be performed in the same cycle as the triennial investigation and experience study, and as such, the next actuarial audit will be performed on the June 30, 2016 triennial valuation and investigation.

4. RESULTS OF THE 2013 VALUATION

According to Milliman's 2013 valuation, the actuarial value of valuation assets amounted to $39.9 billion and the actuarial accrued liability amounted to $53.3 billion. As a result, LACERA's June 30, 2013 funding status was 75%.

The key factors in arriving at this result can be summarized as follows:

- $1,430 million increase in liabilities due to normal benefit accruals,
- $893 million net actuarial loss due to the assets of the plan performing below the expected actuarial rate of return,
- $729 million net actuarial gain from non-economic plan experience differing from plan assumptions, and
- $511 million increase in liabilities due to new assumptions.

During 2009, LACERA suffered significant portfolio losses due to the financial market credit crisis and resulting economic downturn. The LACERA plan actuary reported to the Board of Investments at their March 12, 2014 meeting that the actuarial asset smoothing method is dampening the contribution rate volatility by smoothing the investment gains from fiscal years 2010, 2011, and 2013 with the investment loss from fiscal year 2009 and less than expected investment returns from fiscal year 2012. The actuarial value of assets is smoothed over a five (5) year period and the fiscal year 2009 investment losses are now fully recognized in the actuarial asset value. The plan actuary reports that had the actual market value of assets been used rather than the smoothed actuarial value of assets, the funded status would have been 77.6% with a required employer contribution rate of 20.09%. Relatedly, the Board of Investments lowered the investment portfolio's expected rate of return assumption from 7.75% to 7.5% over a three (3) year valuation period. The expected rate of return assumption for the 2011, 2012, and 2013 valuations are 7.7%, 7.6%, and 7.5%, respectively.

At their February 13, 2013 meeting, the Board of Investments amended the Retirement Benefit Funding Policy to include the STAR Program Reserve as a valuation asset in the June 30, 2012 and future valuations. Had the $614 million STAR Reserve been excluded from the actuarial value of assets as of June 30, 2013, the funding ratio would have decreased 1.2% and the County contribution rate would have increased from the 21.34% recommended rate to 21.89%.

Plan demographics reported in the valuation indicate a .4% decrease in the size of the active member population with an overall average age of 46.9 years. The retired population increased by 2.3% and now totals over 58,000. The average

benefit payment increased by 3% to $3,750 per month. The average age of the retired population increased by approximately six months to 72.1 years.

5. IMPACT ON EMPLOYER AND EMPLOYEE CONTRIBUTION RATES

As previously stated, LACERA is funded by both employer and employee contributions. Employees participating in the closed plan tiers (General Plans A, B, C, and D and Safety Plans A and B) contribute using age-based rates to fund a defined annuity at a specified age and to fund one-half the cost-of-living benefit. Employee age-based annuity contribution rates are affected by changes made in the salary, investment, and mortality assumptions and will vary according to the employee's age at first membership. As this valuation includes revised salary and investment actuarial assumptions, the actuary is recommending new employee contribution rates. A comparison of sample employee contribution rates compared to the previous employee contribution rates are presented in the valuation report on page 38. The sample rates show the employee rates for the age-based contribution plans increasing\decreasing less than 1% of payroll. Employees participating in the open plan tiers (General Plan G and Safety Plan C) contribute using single rates set at one-half the plan's normal cost. Employee contribution rates for all plans at every entry age can be found in the valuation report's Appendix D on page D-3.

Liabilities not funded through the member contribution rates are the responsibility of the employer. Changes in any of the economic and non-economic assumptions impact employer contribution rates. The employer is responsible for contributing the cost of benefits expected to be accrued in the future and half of the cost-of-living benefit. These contributions are known as the normal cost contributions. The employer is also responsible for contributing to cover any shortfall in funding for liabilities accrued in the past. This portion of the employer's contribution rate is known as the unfunded liability contribution.

In accordance with the Board of Investments' Retirement Benefit Funding Policy, contributions to retire the unfunded liability are required using a thirty (30) year layered amortization period should LACERA's funding ratio drop below 100%. Because the 2013 valuation determined the funding ratio to be 75%, the County is required to make unfunded liability contributions in Fiscal Year 2014/2015 in the amount of 11.9% of active payroll.

Additionally, the actuary has recommended new employer contribution rates for the normal cost. The overall normal cost contribution rate has decreased from 9.73% to 9.44%. Applying the new 9.44% normal cost contribution rate and the 11.9% unfunded liability contribution rate to an actuarially estimated payroll, the actuary estimates the annual contributions owed by the County will increase by approximately $96 million per year.

It should be noted that the County Contribution Credit Reserve Account, which amounted to $470 million as of June 30, 2012, was subsequently used by the County to fund required pension contributions and the reserve balance as of June 30, 2013 was $22 million.

IMPACT ON CURRENT SERVICES

None.

CONCLUSION

The County has a statutory obligation to prefund the retirement benefits promised to its employees. LACERA has a statutory obligation to calculate employer and employee contribution rates and communicate the rates to the County by May 15 in order to provide the County sufficient time to implement the contribution rates no later than October 1. The employer cost for retirement plan benefits will increase in Fiscal Year 2014/2015, by approximately $96 million due to significant investment portfolio losses sustained in the 2009 credit crisis. Assuming the retirement plan's actual experience equals its actuarial assumptions, including the 7.5% investment return assumption, it is foreseeable the employer's contribution rate will remain at the recommend level for the next 30 years as the County contributes additional funds to offset the retirement plan's past investment losses.

Respectfully submitted,

GREGG RADEMACHER
Chief Executive Officer

GR:nm
Actval13bofsfinal.doc

Attachment: 2013 Actuarial Valuation Report

c: Chief Executive Officer, Los Angeles County
Executive Officer, Board of Supervisors
Board of Investments (without attachment)
Board of Retirement (without attachment)

Los Angeles County Employees Retirement Association

ACTUARIAL VALUATION OF RETIREMENT BENEFITS
June 30, 2013

By

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February 28, 2014

Board of Investments
LACERA
300 North Lake Avenue, Suite 820
Pasadena, CA 91101-4199

Dear Members of the Board:

As requested, we have performed an actuarial valuation of retirement benefits for the Los Angeles County Employees Retirement Association (LACERA) as of June 30, 2013 to be used in determining the contribution rates effective July 1, 2014. The major findings of the valuation are contained in this report. This report reflects the benefit provisions and contribution rates in effect as of June 30, 2013, and LACERA's funding policy that was adopted in December of 2009 and amended as of February 2013. It should be noted that under this amended policy, the reserve value for STAR benefits is included in the Valuation Assets for 2013 and future valuations; however, the liability for any potential STAR benefits that may be granted in the future is not included in this valuation.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by LACERA's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for LACERA have been determined on the basis of actuarial assumptions and methods that are individually reasonable (taking into account the experience of LACERA and reasonable expectations); and that, in combination, offer a reasonable estimate of anticipated experience affecting LACERA. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations, which, in combination, represent a reasonable estimate of anticipated experience under LACERA.

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 these measurements (such as the end of an amortization period or

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additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Investments has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A of this report.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts of LACERA. Actuarial computations under GASB Statements No. 25 and 27 are for purposes of fulfilling financial accounting requirements. The computations prepared for this purpose may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of LACERA's funding requirements as stated under their Funding Policy and the requirements of GASB Statements No. 25 and 27. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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(b) LACERA may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

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We would like to express our appreciation to Mr. Gregg Rademacher, Chief Executive Officer of LACERA, and to members of his staff, who gave substantial assistance in supplying the data on which this report is based.

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,

Mark C. Olleman, FSA, EA, MAAA
Consulting Actuary

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Jennifer D. Senta, ASA, MAAA
Consulting Actuary

MCO/NJC/JDS/nlo

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Los Angeles County Employees Retirement Association

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Los Angeles County Employees Retirement Association

Section 1: Summary of the Findings

2013 Valuation Results

	June 30, 2013	June 30, 2012
Required Employer Contribution Rate	21.34%	19.82%
Funded Ratio	75.0%	76.8%

Overview

This report presents the results of the June 30, 2013 actuarial valuation. This valuation determines the required contribution rates payable starting July, 2014. Several key points are summarized as follows:

- **Investment Returns:** For the fiscal year ending in 2013, the fund returned 12.1% on a market basis (gross of investment expenses), a rate of return greater than the assumed rate. The recognition of net asset losses from prior years resulted in a loss on the actuarial value of assets for the current year. In total, there was a $0.9 billion loss on actuarial assets as compared to the assumed rate of return for the prior year of 7.60%. Note that the final one-fifth of the very large asset loss that occurred in the fiscal year ending June 30, 2009 has now been recognized in the actuarial value of assets.
- **Employer Contribution Rates:** The total required Employer contribution rate increased from the prior valuation by 1.52% (from 19.82% to 21.34% of payroll). The most significant factor causing this increase was the recognition of asset losses from prior years, which resulted in a 1.01% increase. Additionally, the changes in assumptions adopted with the 2013 Investigation of Experience Study caused a 0.82% increase. See the “Analysis of Change” section below for a listing of the sources of change.
- **Member Contribution Rates:** New member contribution rates are being recommended based on the new assumptions adopted with the 2013 Investigation of Experience. As shown in Section 5, we are recommending changes to the member rates effective July 1, 2014. Based on these recommended rates, the average contribution rate for members of contributory plans (i.e., excluding Plan E) is projected to decrease from 8.05% to 7.87%.

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Overview (continued)

- **Funding:** The Funded Ratio decreased from 76.8% to 75.0%. The recognition of deferred asset losses from prior years caused a 2.3% decrease in the Funded Ratio, and the new assumptions adopted with the 2013 Investigation of Experience caused a 0.8% decrease. This was somewhat offset by salary increases that were less than assumed, which caused a 0.8% increase. Additionally, the asset gain for the current year caused a 0.6% increase. See the "Analysis of Change" below for a listing of the sources of change.
- **2013 Assumption Changes:** At the December 2013 Board of Investments meeting, the Board adopted new assumptions with the 2013 Investigation of Experience report. The adopted assumptions included a decrease in the investment return assumption to 7.50%, a decrease in the wage growth assumption to 3.50%, and an increase in life expectancies. All assumption changes have been reflected in the June 30, 2013 actuarial valuation.
- **PEPRA:** The Public Employees' Pension Reform Act of 2013 (PEPRA) changed the benefits for most members of LACERA who enter on or after January 1, 2013. These members will join either General Plan G or Safety Plan C. The provisions of PEPRA apply for the current valuation. Due to the limited membership in these plans as of the June 30, 2013 valuation, a hypothetical five-year population has been used to determine the normal cost rate for this group. This methodology was adopted by the Board at their February 2014 meeting, and will apply through the June 30, 2017 valuation, when the actual plan populations are expected to reflect five years of membership. See Section 6 of this report for more details.

Required Contribution Rate

In accordance with LACERA's Funding Policy, the required Employer contribution rate is 21.34% of payroll. This is equal to the payment of the Employer Normal Cost rate plus a layered 30-year amortization of the UAAL. It should be noted that 21.34% is a weighted average for all LACERA plans. The actual percent of payroll to be contributed by the Employer varies by plan as shown in Exhibit 11.

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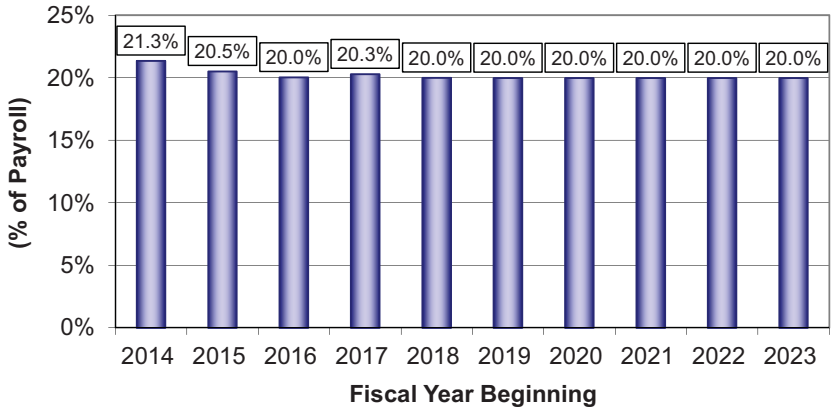
Required Contribution Rate (continued)

The new required rate is effective for the fiscal year beginning July 1, 2014. Based on asset gains and losses that are currently being deferred, it is expected that the Employer contribution rate will fluctuate over the next few years if all actuarial assumptions are met. To illustrate this impact, we have performed a 10-year projection of the Employer contribution rate that assumes all actuarial assumptions are met and reflects the projected recognition of deferred asset gains and losses existing as of June 30, 2013. This projection is shown in the chart below.

Projected Employer Contribution Rate*



**Projections assume that actuarial assumptions are met after June 30, 2013, and reflect the scheduled recognition of asset gains and losses currently being deferred.*

Analysis of Change

The following chart shows that the recognition of prior asset losses was the most significant factor affecting the Employer contribution rate and the funded status.

Sources of Change	Employer Contribution Rate	Funded Ratio
June 30, 2012 Actuarial Valuation	**19.82%**	**76.8%**
Expected Year-to-Year Change	0.00%	-0.4%
Recognized Asset Gain/Loss		
From Current Year	-0.27%	0.6%
From Prior Years	1.01%	-2.3%
Combined Asset Gain/Loss	0.74%	-1.7%
Payroll Increase < Assumed	0.49%	0.0%
Liability Gain/Loss		
Salary Increase < Assumed	-0.50%	0.8%
Retiree COLAs < Assumed	-0.17%	0.3%
Assumption Changes	0.82%	-0.8%
Other	0.14%	0.0%
Combined Liability Gain/Loss	0.29%	0.3%
Total Change	**1.52%**	**-1.8%**
June 30, 2013 Actuarial Valuation	**21.34%**	**75.0%**

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Funding Progress

Based on the 2012 valuation, the expected Unfunded Actuarial Accrued Liability (UAAL) amount (after reflecting the change in assumptions) as of June 30, 2013 was $13.15 billion. The actual UAAL for the fiscal year ending June 30, 2013 is $13.32 billion. The increase was primarily due to a net loss on Valuation Assets of $893 million.

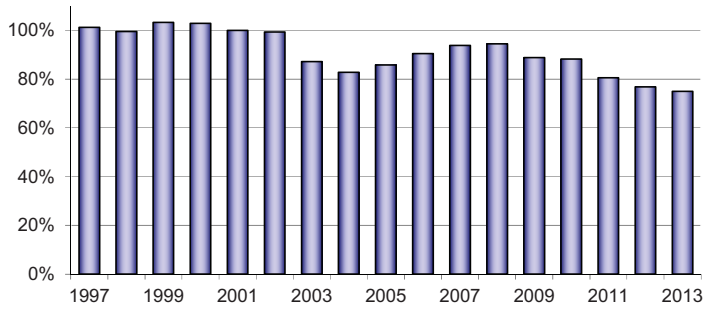
One measure of the funding adequacy of the Plan is the Funded Ratio, which compares the value of the Actuarial Value of Assets (net of certain non-valuation reserves) to the Actuarial Accrued Liability (AAL), for all LACERA plans combined. LACERA's Funded Ratio was 94.5% as of June 30, 2008. As shown in the graph below, the Funded Ratio has decreased over the last five years to 75.0% due to the recognition of significant deferred asset losses.

On June 30, 2013, the total Market Value of the fund was $41.3 billion. The Actuarial Value was $40.3 billion and was split between $0.4 billion of Non-Valuation Assets and $39.9 billion of Valuation Assets. The Valuation Assets are equal to 75.0% of the $53.2 billion AAL. The Actuarial Value of Assets is 97% of the Market Value of Assets.

All dollar amounts in billions

	Market Value of Total Assets	Actuarial Value		Actuarial Accrued Liability	Funded Ratio
		Non-Valuation Reserves	Valuation Assets		
2004	$ 29.5	$ 1.4	$ 27.1	$ 32.7	82.8%
2005	32.0	1.1	29.5	34.4	85.8
2006	35.2	0.9	32.8	36.3	90.5
2007	40.9	0.8	37.0	39.5	93.8
2008	38.7	0.9	39.7	42.0	94.5
2009	30.5	0.8	39.5	44.5	88.9
2010	33.4	0.8	38.8	46.6	83.3
2011	39.5	0.9	39.2	48.6	80.6
2012	38.3	0.9	39.0	50.8	76.8
2013	41.8	0.4	39.9	53.2	75.0

Historical Funded Ratios



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Association Assets

- **Market Value:** The market value of assets has increased over the past 10 years. The average return for the fund over that period is estimated to be 7.8%; however, due to benefit payments being greater than contributions, the total annual increase in the market value has averaged less. This is typical of a mature retirement system. The values shown in the market value column are total assets net of liabilities, and include all reserves.
- **Actuarial Assets:** The market value of total assets is used in calculating the actuarial value of assets. Under the actuarial asset method, the market value returns are smoothed over a five-year period.
- **Valuation Reserves:** The reserves represent the ownership of LACERA's assets. The reserves are established in compliance with the County Employees Retirement Law of 1937 as administered by the Board of Investments. These assets also reflect five-year smoothing. On a smoothed basis, the fund returned 5.4% for the prior year.
- **Non-Valuation Reserves:** The non-valuation reserves are set aside for obligations or contingencies. They are not used to fund the retirement benefits unless explicitly stated. These assets may also reflect smoothing.
- **Valuation Assets:** This is the combination of the valuation reserves and the portion of the non-valuation reserves that are recognized for funding purposes only as specified in LACERA's Funding Policy. It should be noted that under this policy the reserve value for STAR benefits is included in the Valuation Assets; however, the liability for any STAR benefits that may be granted in the future is not included in the valuation.

Future Impact of Recognition of Deferred Losses

The smoothing method is currently deferring $1.40 billion in net asset gains. As the currently deferred gains and losses are recognized over upcoming valuations, it is expected there will be fluctuations in the required Employer contribution rate.

The potential future impact of the recognition of these deferred gains and losses is illustrated in the chart on page 3.

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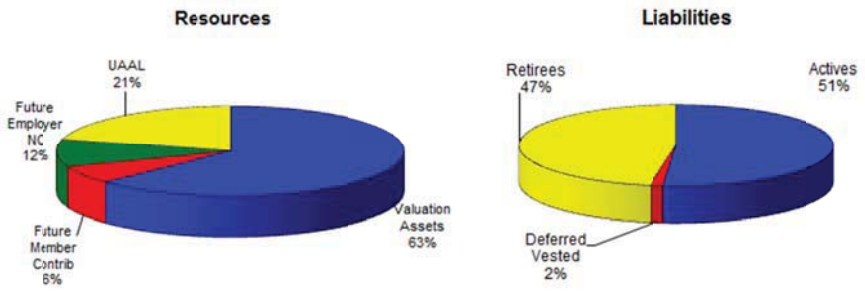
Actuarial Balance Sheet

The first step in the valuation process is to compare the total actuarial assets of LACERA with its total liabilities for all plans. In this analysis, assets equal those currently on hand, at the actuarial value, and also expected future contributions by both the Employer and members. Liabilities reflect benefits already earned in the past and those expected to be earned in the future by current members. This relationship is shown in the following chart. The AAL is the total of these liabilities less expected future Normal Cost contributions.

Comparing the current and future assets to the current and future liabilities, we then determine the annual contribution amount for the coming fiscal year.

The 2013 actuarial valuation indicates that LACERA's Valuation Assets are less than its AAL. The difference between these two values is the UAAL. It is discussed, along with the effect of the experience gains and losses, in detail in Section 4, Actuarial Liabilities.



Funding Policy

In 2009, the Board of Investments adopted a new Funding Policy. Significant provisions of this policy, first reflected in the June 30, 2009 actuarial valuation, are as follows:

- **Asset Smoothing Period:** Asset gains and losses are smoothed over a five-year period.

Funding Policy (continued)

- **Amortization Period:** The funding policy utilizes a "layered" amortization method. Under the policy, the UAAL amount as of the valuation for which the policy was first effective (June 30, 2009) is amortized over a closed 30-year period. Subsequent gains and losses on the UAAL are amortized over new closed 30-year periods. The Employer contribution rate is not allowed to be less than the rate if LACERA amortized the total UAAL over a 30-year period. Exhibit 12 of this report illustrates in detail the calculation of the total UAAL rate for the fiscal year beginning in 2013.

  If LACERA moves to a negative UAAL position, the "surplus" amount will be amortized over an open 30-year period.

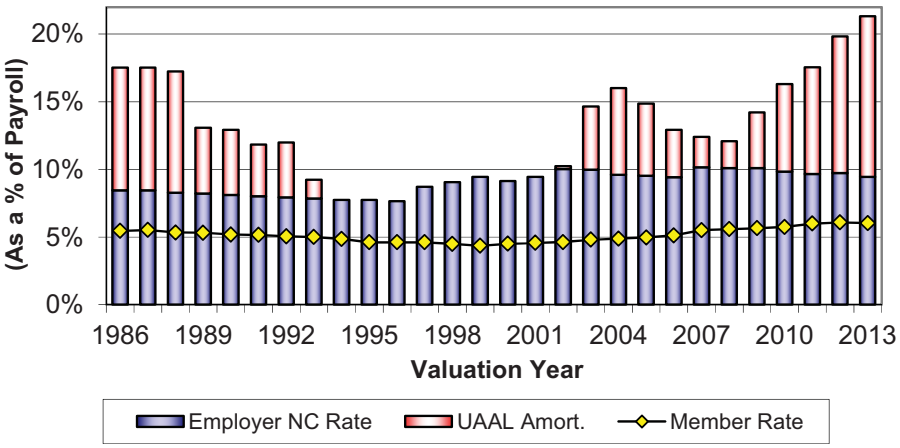
- **STAR Reserve:** The STAR reserve is included in the Valuation Assets. There is no corresponding liability for future STAR benefits included in the valuation. The inclusion of the STAR reserve in the Valuation Assets was formalized for the current and future actuarial valuations in the February 2013 amendment to LACERA's Funding Policy.

  Note that if the STAR reserve of $614 million was excluded from the Valuation Assets, the UAAL would increase by this amount. Under this hypothetical scenario, the required 2014 Employer contribution rate would increase by 0.55% to 21.89% and the Funded Ratio would decrease by 1.2% to 73.8%.

Employer Contribution Rates

Based on the results of the valuation, the required Employer contribution rate will increase for the fiscal year beginning in 2014 to a rate of 21.34% of pay. A historical perspective of the Employer contribution rates is shown in the following graph.

Required Employer Contribution Rate



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Member Rates

As this is a triennial valuation, we have recommended changes to the member contribution rates. These new member rates reflect the new assumptions adopted by the Board and would be effective July 2014. Additionally, new member rates for members of General Plan G and Safety Plan C are being recommended that are equal to one-half of the plan's normal cost rate calculated as of the June 30, 2013 valuation (per the provisions of PEPRA). As specified in AB 1380 (which amended PEPRA) and adopted by the Board of Investments, these rates are no longer rounded to the nearest quarter percent. Member rates for all plans are discussed in Section 5 and they are shown in detail in Appendix D.

A comparison of these rates at sample ages is shown below:

Entry Age	Member Contribution Rates		
	Current	New	Increase / (Decrease)
General A			
25	5.33%	5.30%	-0.03%
35	6.58%	6.63%	0.05%
45	7.97%	8.14%	0.17%
General B			
25	7.23%	7.08%	-0.15%
35	8.89%	8.84%	-0.05%
45	10.78%	10.88%	0.10%
General C			
25	6.20%	6.03%	-0.17%
35	7.62%	7.52%	-0.10%
45	9.38%	9.39%	0.01%
General D			
25	6.09%	5.90%	-0.19%
35	7.48%	7.36%	-0.12%
45	9.21%	9.19%	-0.02%
General G			
All Ages	7.75%	7.63%	-0.12%
Safety A			
25	8.18%	8.00%	-0.18%
35	9.89%	9.86%	-0.03%
45	11.55%	11.76%	0.21%
Safety B			
25	10.87%	10.71%	-0.16%
35	13.18%	13.19%	0.01%
45	15.38%	15.74%	0.36%
Safety C			
All Ages	13.25%	13.39%	0.14%

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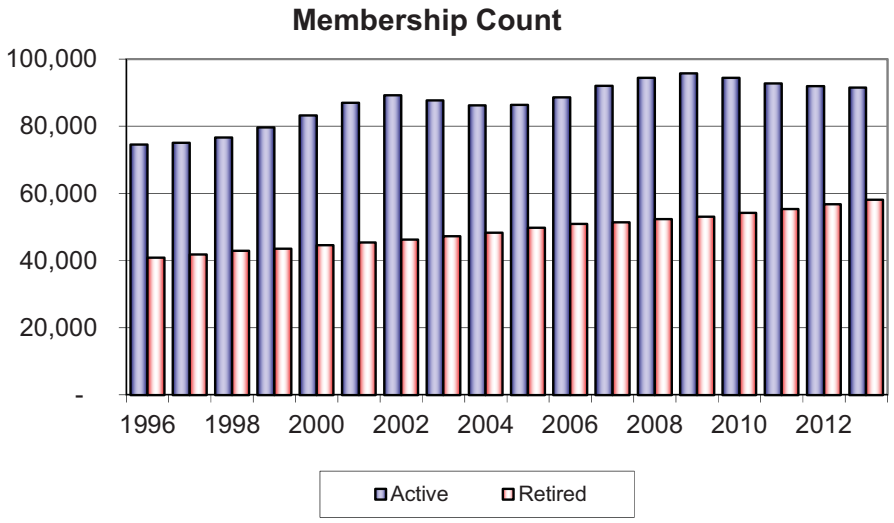
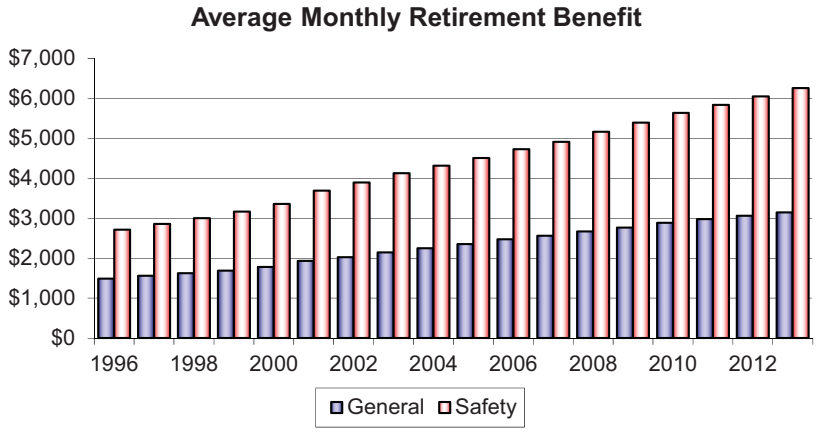
Member Information

Payroll has decreased slightly since 2012, and active membership has declined. As of June 30, 2013, the annualized payroll is $6.66 billion for 91,545 active members. This decrease is a result of a 0.2% increase in average pay and a 0.4% decrease in active members.



Retired member counts and average retirement benefit amounts continue to increase steadily. For 2013, there were 58,086 retired members and beneficiaries with an average benefit of $3,746 per month. This represents a 2.3% increase in count and a 3.1% increase in the average monthly benefit.



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Analysis of Change in Member Population

The following table summarizes the year-to-year change in member population. In addition to the movement shown below, 590 members transferred from Plan E to Plan D during the past year, and 124 members transferred from Plan D to Plan E.

	Active Contributing Members	Deferred Members*	Retirees, Disabilities, & Beneficiaries
June 30, 2012 Valuation	**91,952**	**12,089**	**56,770**
Termination without Refund	(1,011)	1,011	-
Termination with Refund	(521)	(257)	-
Active/Deferred Death with Annuity	(66)	(60)	126
Service Retirement	(2,178)	(374)	2,552
Disability Retirement	(120)	(6)	126
Retiree Death without Beneficiary	-	-	(1,480)
New Entrants	3,397	-	-
Rehires	92	(84)	(8)
Total Change	**(407)**	**230**	**1,316**
June 30, 2013 Valuation	**91,545**	**12,319**	**58,086**

** Includes non-vested terminated members who have not taken a refund.*

Sensitivity to Investment Return

The valuation results are projections based on the actuarial assumptions. Actual experience will differ from these assumptions, either increasing or decreasing the ultimate cost. Of the assumptions, the investment return generally has the biggest impact. The following chart provides a simple analysis on how the costs are affected by the investment return assumption.

	Investment Return Assumption		
	Current 7.50%	**+0.5% 8.00%**	**-0.5% 7.00%**
Employer Contribution Rate	21.34%	17.95%	24.80%
Change		-3.39%	3.46%
Funded Ratio	75.0%	79.6%	70.6%
Change		4.6%	-4.4%

Summary Valuation Results

The following Exhibit 1 presents a summary of key data elements on June 30, 2013 and June 30, 2012, and how they changed over the past year. More detail on each of these elements can be found in the following Sections and Exhibits of this report.

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Los Angeles County Employees Retirement Association

Exhibit 1: Summary of Significant Valuation Results

		June 30, 2013	June 30, 2012	Percentage Change
I.	Total Membership			
	A. Active Members	91,545	91,952	(0.4)%
	B. Retired Members & Beneficiaries	58,086	56,770	2.3%
	C. Deferred Members	12,319	12,089	1.9%
	D. Total	161,950	160,811	0.7%
II.	Pay Rate as of June 30, 2013			
	A. Annual Total ($millions)	$ 6,656	$ 6,675	(0.3)%
	B. Monthly Average per Active Member	$ 6,059	$ 6,049	0.2%
III.	Average Monthly Benefit Paid to Current Retirees and Beneficiaries			
	A. Service Retirement	$ 3,801	$ 3,693	2.9%
	B. Disability Retirement	$ 4,668	$ 4,476	4.3%
	C. Surviving Spouse and Dependents	$ 2,486	$ 2,410	3.1%
	D. Total	$ 3,746	$ 3,633	3.1%
IV.	Actuarial Accrued Liability			
	A. Active Members	$ 22,267	$ 21,691	2.7%
	B. Retired Members	$ 30,120	$ 28,322	6.3%
	C. Vested Terminated Members	$ 860	$ 796	8.0%
	D. Total	$ 53,247	$ 50,809	4.8%
V.	Assets			
	A. Market Value of Fund ($millions)	$ 41,774	$ 38,307	9.1%
	B. Actuarial Value ($millions)			
	1. Valuation Reserves	$ 39,932	$ 39,039	2.3%
	2. Non-valuation Reserves	$ 440	$ 854	(48.5)%
	C. Annual Investment Return			
	1. Market Basis (Gross Return)	12.1%	0.3%	na
	2. Valuation (Actuarial) Basis	5.4%	1.8%	na
VI.	Unfunded Actuarial Accrued Liability or (Surplus Funding) in $millions	$ 13,315	$ 11,770	13.1%
VII.	Required Employer contribution rate for all plans combined as a percent of total payroll			
	A. Gross Normal Cost	15.47%	15.81%	(2.2)%
	B. Member Contributions	(6.03)% *	(6.08)%	(0.8)%
	C. Employer Normal Cost	9.44%	9.73%	(3.0)%
	D. UAAL Amortization	11.90%	10.09%	17.9%
	E. Total Required Contribution Rate	21.34%	19.82%	7.7%
VIII.	Funded Ratio	75.0%	76.8%	(2.4)%
IX.	Results Based on Market Value (Informational Purposes Only)			
	Total Required Contribution Rate	20.09%	21.19%	(5.2)%
	Funded Ratio	77.6%	73.7%	5.3%

**Includes non-contributory members. The average rate for contributory plans decreased from 8.05% to 7.87%.*

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Section 2: Scope of the Report

This report presents the actuarial valuation of the Los Angeles County Employees Retirement Association as of June 30, 2013. This valuation was requested by the Board of Investments. Section 31453 of the County Employees Retirement Law of 1937 (the '37 Act) requires an actuarial valuation to be performed at least every three years for the purpose of setting contribution rates. The 2013 valuation meets this requirement. Under LACERA's Funding Policy, annual valuations determine the Employer contribution rates each year. Member contribution rates are set each triennial valuation, or in years in which relevant actuarial assumptions are altered, such as 2013.

In reading our cover letter, please pay particular attention to the guidelines employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings depend. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings resulting from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of the system. The assets and investment income are presented in Exhibits 2-4. Exhibit 5 develops the Actuarial Value of Assets as of June 30, 2013. Exhibit 6 develops the Valuation Assets used for funding benefits.

Section 4 describes the benefit obligations of LACERA. Exhibit 7 is the Actuarial Balance Sheet and Exhibit 8a analyzes the change in UAAL (Surplus Funding). Exhibit 8b shows a history of these changes.

Section 5 discusses the member contribution rates.

Section 6 discusses the Employer contributions needed to fund the benefits under the actuarial cost method in use.

Section 7 discloses the information required under Statement No. 25 of the Governmental Accounting Standards Board (GASB).

Section 8 shows the estimated cash flow of the system, including a projection of both contributions and benefit payments.

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Scope of the Report (continued)

This report includes several appendices:

Appendix A	A summary of the actuarial procedures and assumptions used to estimate liabilities and contributions.
Appendix B	A summary of the current benefit structure, as determined by the provisions of governing law on June 30, 2013.
Appendix C	Schedules of valuation data classified by various categories of plan members.
Appendix D	Member contribution rates by plan.
Appendix E	Historical information.
Appendix F	A glossary of actuarial terms used in this report.

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Section 3: Assets

In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is June 30, 2013. On that date, the assets available for the payment of retirement benefits are appraised. These assets are compared with the actuarial liabilities (both accrued and future) for current members, which are generally in excess of the actuarial assets. The purpose of the valuation is to determine what future contributions by the members and employers are needed to pay all expected future benefits.

This section of the report looks at the determination of assets used for funding purposes. In the next section, the actuarial liabilities will be discussed. Sections 5 and 6 review the process for determining required contributions based on the relationship between the actuarial assets and the actuarial liabilities.

A historical summary of the system's assets is presented below:

All dollar amounts in billions

	Market Value of Total Assets	Actuarial Value: Non-Valuation Reserves	Actuarial Value: Valuation Assets	Total Fund Return*
2004	$ 29.5	$ 1.4	$ 27.1	16.5%
2005	32.0	1.1	29.5	11.0
2006	35.2	0.9	32.8	13.0
2007	40.9	0.8	37.0	19.1
2008	38.7	0.9	39.7	-1.5
2009	30.5	0.8	39.5	-18.3
2010	33.4	0.8	38.8	11.8
2011	39.5	0.9	39.2	20.4
2012	38.3	0.9	39.0	0.3
2013	41.8	0.4	39.9	12.1

**As reported in the Investment Section of the CAFR, gross of investment expenses.*

On June 30, 2013, the total market value of the fund, less current liabilities, was $41.8 billion. The actuarial value of the fund was determined to be $40.4 billion, including the non-valuation reserves. The average total fund return for the last 10 years is 7.8%.

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Financial Exhibits

Exhibit 2 presents a Statement of Plan Net Assets and Exhibit 3 presents a Statement of Changes in Plan Net Assets. Exhibit 4 describes the allocation of LACERA's assets by the various reserve values determined for accounting purposes as disclosed in the Comprehensive Annual Financial Report (CAFR).

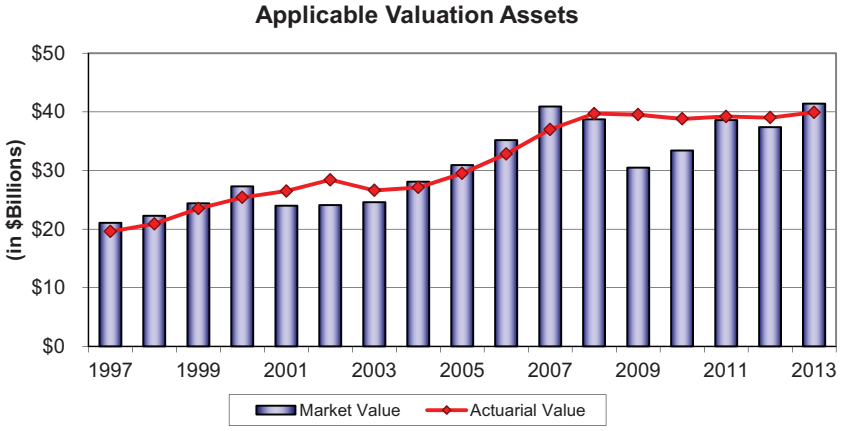
Exhibits 2-4 are taken directly from data furnished to us by LACERA in their annual financial report. We have accepted these tables for use in this report without audit, but we have reviewed them both for the prior year and the current year for reasonableness and consistency with previous reports.

Actuarial Asset Method

The actuarial asset method computes the expected market value of assets based on the prior year's market value of assets, the actual cash flow of contributions and benefit payments, and the assumed investment rate of return. For the previous year, the assumed rate of return was 7.60%, net of all expenses. The difference between the actual market value and the computed expected market value is smoothed, or recognized over a five-year period. Note that for the upcoming year, 7.50% will be the assumed net rate of return.

Actuarial Value of Assets

The development of the June 30, 2013 actuarial value of assets is shown in Exhibit 5. Note the smoothing process is deferring past investment gains and losses, and is currently in a net actuarial gain position. The result is an actuarial value of assets that is smaller than the June 30, 2013 market value by $1.4 billion. The following graph shows a historical comparison of the actuarial and market assets used for valuation purposes.



Funding Policy

Under the Board of Investments' long-term Funding Policy, the following is the allocation of actuarial assets. A Funded Ratio equal to 100% is the Funding Goal.

For funding purposes and for setting contributions rates, recognized earnings for a plan year is the recognized investment income as determined by the Actuarial Asset Method and includes both unrealized income and net realized income, together with the prior balance in the Contingency Reserve. The allocation of recognized earnings is performed once a year as of the Valuation Date in the following order of priority:

Priority 1: Allocate to the Member Reserve so the Actuarial Asset allocation to that Reserve equals the accounting value for that Reserve on the Valuation Date.

Priority 2: Allocate to the Advanced Employer Contributions Reserve so the Actuarial Asset allocation to that Reserve equals the accounting value for that Reserve on the Valuation Date.

Priority 3: Allocate to the Employer Reserve so the Actuarial Asset allocation to that reserve equals the accounting value for that Reserve on the Valuation Date.

Priority 4: Allocate to the County Contribution Credit Reserve so the Actuarial Asset allocation to that reserve equals the accounting value for that Reserve on the Valuation Date. Note: This Reserve is not a Valuation Reserve.

Priority 5: Allocate to the Employer Reserve so the total amounts allocated equal one year's interest at the assumed interest rate used in the actuarial valuation as of the preceding Valuation Date to the extent there are positive recognized earnings to allocate.

Priority 6: Allocate to the Contingency Reserve an amount equal to 1% of the Market Value of Assets as of the Valuation Date to the extent there are positive recognized earnings to allocate.

Priority 7: Allocate to the Employer Reserve an amount, if necessary, when combined with other Valuation Reserves, to provide 100% funding of the AAL as of the Valuation Date to reach the Funding Goal. In the event there are negative recognized earnings, allocate the entire amount.

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Funding Policy (continued)

Priority 8: The Board may consider additional actions as permitted under the County Employee Retirement Law (CERL) using funds in excess of the amount needed to meet the Funding Goal for funding discretionary benefits. "Excess Earnings" as defined in the County Employees Retirement Law (CERL) may be appropriated upon reaching the Funding Goal; however, the Board may consider adjustment to the employer's contributions only upon satisfying California Government Code Section 7522.52(b).

For the 2013 valuation, there were sufficient recognized earnings to allocate assets under Priorities 1-6, but they were not sufficient to reach the Funding Goal of 100% under Priority 7.

Valuation Assets

Valuation Assets are the actuarial value of the fund, less the value of any reserves which have been set aside for current liabilities and special benefits that are to be funded outside of the actuarially determined contribution rates. The '37 Act requires the Contingency Reserve be set at a minimum of 1.0% of assets.

The Funding Policy allows the STAR Reserve to be allocated to the Valuation Assets (subject to periodic review), if needed. The June 30, 2013 STAR Reserve accounting value of $614 million was included in Valuation Assets and used to determine the contribution rates for the fiscal year commencing July 1, 2014. Although the reserve value for STAR benefits is included in the 2013 Valuation Assets, there is no liability for STAR benefits that may be granted in the future included in this valuation.

The non-valuation reserve allocations for funding purposes shown in Exhibit 6 are not the same as those shown in the annual report and in Exhibit 4.

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Los Angeles County Employees Retirement Association

Exhibit 2: Statement of Plan Net Assets For Years Ended June 30, 2013 and 2012 (Dollars in Thousands)

	2013	2012
Assets		
Cash	$ 184,297	$ 132,387
Collateral on Loaned Securities	138,273	1,469,510
Receivables		
Contributions Receivable	64,664	60,835
Accounts Receivable – Sale of Investments	939,919	759,053
Accrued Interest and Dividends	88,242	110,360
Accounts Receivable – Other	24,717	47,315
Total Receivables	1,117,542	977,563
Investments at Fair Value		
Equities	21,404,466	19,008,993
Fixed Income	11,354,170	10,747,978
Hedge Funds	493,750	
Commodities	1,194,331	929,259
Real Estate	4,108,198	3,899,087
Private Equity	3,730,991	3,789,891
Total Investments	42,285,906	38,627,163
Capital Assets Net of Depreciation	-	-
Total Assets	**43,726,018**	**41,206,623**
Liabilities		
Accounts Payable – Purchase of Investments	1,743,312	1,367,869
Retiree Payroll and Other Payables	656	508
Accrued Expenses	29,380	24,116
Tax Withholding Payable	28,247	26,580
Obligations under Securities Lending Program	138,273	1,469,510
Accounts Payable – Other	12,631	11,284
Total Liabilities	**1,952,499**	**2,899,867**
Net Assets Held in Trust for Pension Benefits	**41,773,519**	**38,306,756**

Los Angeles County Employees Retirement Association

Exhibit 3: Statement of Changes in Plan Net Assets
For the Years Ended June 30, 2013 and 2012
(Dollars in Thousands)

	2013	2012
Additions		
Contributions		
Employer	$ 723,195	$ 1,078,929
Member	679,572	506,758
Total Contributions	1,402,767	1,585,687
Investment Income		
From Investing Activities		
Net Appreciation/(Depreciation) in Fair Value of Investments	2,661,499	(1,432,805)
Investment Income	2,079,642	1,213,169
Total Investing Activity Income/(Loss)	4,741,141	(219,636)
Less Expenses From Investing Activities	(86,815)	(75,216)
Net Investing Activity Income/(Loss)	4,654,326	(294,852)
From Securities Lending Activities		
Securities Lending Income	4,286	4,234
Less Expenses From Securities Lending Activities		
Borrower Rebates	1,321	373
Management Fees	(918)	(764)
Total Expenses from Securities Lending Activities	403	(391)
Net Securities Lending Income	4,689	3,843
Total Net Investment Income/(Loss)	4,659,015	(291,009)
Miscellaneous	385	1,004
Total Additions/(Declines)	**6,062,167**	**1,295,682**
Deductions		
Retiree Payroll	2,514,096	2,371,393
Administrative Expense	53,863	50,218
Refunds	25,012	17,621
Lump Sum Death Benefits	2,243	1,584
Miscellaneous	190	121
Total Deductions	**2,595,404**	**2,440,937**
Transfer to OPEB Agency Fund	-	-
Net Increase/(Decrease)	3,466,763	(1,145,255)
Net Assets Held in Trust for Pension Benefits Beginning of Year	38,306,756	39,452,011
End of Year	**41,773,519**	**38,306,756**

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Los Angeles County Employees Retirement Association

Exhibit 4: Allocation of Assets by Accounting Reserve Amounts
(Dollars in Thousands)

	June 30, 2013	June 30, 2012
1. Member Reserves		
a. Active Members	$ 16,866,229	$ 15,707,024
b. Unclaimed Deposits	-	-
c. Total Member Reserves	$ 16,866,229	$ 15,707,024
2. Employer Reserves		
a. Actual Employer Contributions	$ 20,612,325	$ 20,381,597
b. Advanced Employer Contributions	-	-
c. Total Employer Contributions	$ 20,612,325	$ 20,381,597
3. County Contribution Credit Reserve	$ 21,891	$ 470,710
4. STAR Reserve	614,011	614,011
5. Contingency Reserve	-	135,850
6. Total Reserves at Book Value	$ 38,114,456	$ 37,309,192
7. Unrealized Investment Portfolio Appreciation	3,659,063	997,564
8. **Total Reserves at Fair Value**	**$ 41,773,519**	**$ 38,306,756**

Note: These amounts were determined by LACERA for accounting purposes and are reported in the June 30, 2013 CAFR.

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Exhibit 5: Five-Year Smoothing of Gains and Losses on Market Value
(Dollars in Thousands)

June 30, 2013 Valuation										
Plan Year Ending	Contributions	Benefit Payments	Expected Market Value	Actual Market Value	Phase-Out of Gain / (Loss)					
6/30/2013	$ 1,402,767	$ 2,541,351	$ 40,037,011	$ 41,773,519	80.00%	x	$ 1,736,508	=	$	1,389,206
6/30/2012	1,585,687	2,390,598	41,654,490	38,306,756	60.00%	x	(3,347,734)	=		(2,008,640)
6/30/2011	1,407,917	2,269,791	35,130,366	39,452,011	40.00%	x	4,321,645	=		1,728,658
6/30/2010	1,273,316	2,130,738	31,972,625	33,433,888	20.00%	x	1,461,263	=		292,253
6/30/2009								=		0
					Total Phase-Out of Gain / (Loss)			=	$	1,401,477
					Total Market Value of Assets			=		41,773,519
					Total Actuarial Value of Assets			=	**$**	**40,372,042**

Total Actuarial Value of Assets = Total Market Value of Assets less the Total Phase-Out amount
Phase-Out amounts will be recognized in future years.

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Exhibit 6: Allocation of Valuation and Non-Valuation Assets
(Dollars in Thousands)

	June 30, 2013	June 30, 2012
1. Total Market Value of Assets	$ 43,726,018	$ 41,206,623
2. Current Liabilities	1,952,499	2,899,867
3. Net Assets Held in Trust for Pension Benefits	$ 41,773,519	$ 38,306,756
4. Market Stabilization Reserve[1]	1,401,477	(1,586,386)
5. Actuarial Value of Fund Assets	$ 40,372,042	$ 39,893,142
6. Non-Valuation Reserves[2]		
a. Unclaimed Deposits	$ -	$ -
b. Contingency Reserve	417,735	383,068
c. Advanced Employer Contributions	-	-
d. County Contribution Credit Reserve	21,891	470,710
e. Reserve for STAR Program	-	-
f. Total	$ 439,626	$ 853,778
7. Valuation Assets[2]		
a. Member Reserves	$ 16,866,229	$ 15,707,024
b. Employer Reserves for Funding Purposes	$ 23,066,187	$ 23,332,340
c. Total	$ 39,932,416	$ 39,039,364

(1) The Market Stabilization Reserve represents the difference between the Market Value of the fund less Current Liabilities, and the Actuarial Value of the fund as determined in Exhibit 5.

(2) The values used for funding purposes for all reserves are based on the Board's Funding Policy. Amounts used for funding purposes may differ from those reported in the financial report as shown in Exhibit 4.

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Section 4: Actuarial Liabilities

In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of LACERA's assets as of the valuation date, June 30, 2013. In this section, the discussion will focus on the commitments of LACERA for retirement benefits, which are referred to as its actuarial liabilities.

In an active system, the actuarial liabilities will almost always exceed the actuarial assets. This is usually expected in all but a fully closed down fund, where no further contributions of any sort are anticipated. This deficiency has to be provided by future contributions. An actuarial valuation method sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion. The determination of the level of future contributions needed is discussed in the next section.

Actuarial Balance Sheet – Liabilities

First, we need to determine the amount of the deficiency. We compare the Valuation Assets to the actuarial liabilities. The difference is the amount that needs to be funded by the member and employer contributions in the future. Both the current and future assets (contributions) are compared to the actuarial liabilities in the Actuarial Balance Sheet.

Exhibit 7 contains an analysis of the actuarial present value of all future benefits for inactive members (both retired and deferred vested members) and active members. The analysis is given by class of membership, by plan and by type of benefit. Note that for purposes of this exhibit the Valuation Assets are shown allocated by plan in proportion to each plan's reserves (employer and member).

The actuarial liabilities include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes measures of both benefits already earned and future benefits to be earned. For all members, active and inactive, the value extends over the rest of their lives and for the lives of any surviving beneficiaries.

The actuarial assumptions used to determine the liabilities are based on the results of the 2013 Investigation of Experience Report. New assumptions were adopted by the Board effective with the June 30, 2013 actuarial valuation. See Appendix A of this report for details.

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Exhibit 7: Actuarial Balance Sheet – June 30, 2013
(Dollars in Millions)

	General						Safety			
LIABILITIES	**Plan A**	**Plan B**	**Plan C**	**Plan D**	**Plan E**	**Plan G**	**Plan A**	**Plan B**	**Plan C**	**All Plans**
Present Value of Benefits - Inactives										
- Retirees and Beneficiaries	$ 13,116	$ 329	$ 163	$ 3,480	$ 1,990	$ -	$ 7,822	$ 3,220	$ -	$ 30,120
- Vested Terminated	32	6	2	374	365	0	1	80	0	860
- Inactive Total	13,148	335	165	3,854	2,355	0	7,823	3,300	0	30,980
Present Value of Benefits - Actives										
- Service Retirement	$ 539	$ 140	$ 119	$ 14,261	$ 5,470	$ 162	$ 67	$ 6,911	$ 10	$ 27,679
- Transfer Service (prior LACERA plan)	1	0	*	153	354	*	1	6	0	515
- Disability Retirement	8	2	2	809	N/A	14	8	2,735	7	3,585
- Death	4	1	1	356	N/A	5	*	65	*	432
- Termination (No Refund)	*	*	*	203	105	7	*	43	*	358
- Refund of Member Contributions	*	*	*	66	N/A	5	*	9	*	80
- Active Total	552	143	122	15,848	5,929	193	76	9,769	17	32,649
Total Actuarial Liabilities	**$ 13,700**	**$ 478**	**$ 287**	**$ 19,702**	**$ 8,284**	**$ 193**	**$ 7,899**	**$ 13,069**	**$ 17**	**$ 63,629**
ASSETS										
Valuation Assets	$ 3,598	$ 419	$ 270	$ 14,615	$ 8,847	$ 6	$ 1,969	$ 10,208	$ -	$ 39,932
PV Future Member Contributions	6	3	2	2,818	N/A	101	*	1,156	8	4,094
PV Future Employer Normal Cost Contribs.	19	3	3	3,083	1,303	102	3	1,764	8	6,288
UAAL or (Surplus Funding)	10,077	53	12	(814)	(1,866)	(16)	5,927	(59)	1	13,315
Total Current and Future Assets	**$ 13,700**	**$ 478**	**$ 287**	**$ 19,702**	**$ 8,284**	**$ 193**	**$ 7,899**	**$ 13,069**	**$ 17**	**$ 63,629**

** Less than $0.5 million*

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Actuarial Balance Sheet – Liabilities (continued)

All liabilities reflect the benefits effective through June 30, 2013. This includes permanent STAR COLAs that have been adopted through the valuation date, but does not include the value of any future STAR benefits that may be granted in the future.

Actuarial Balance Sheet – Assets

For the purpose of the Actuarial Balance Sheet, LACERA's assets are equal to the sum of:

(a) Assets currently available to pay benefits and considered for funding purposes (the Valuation Assets);

(b) The present value of future contributions expected to be made by current active members; and

(c) The present value of future contributions expected to be made by the Employer.

Actuarial Cost Method

The Actuarial Balance sheet determines the amount of future contributions that are needed, but the method used to determine when those future contributions will be made in future years is called the "actuarial cost method." For this valuation, the entry age actuarial cost method has been used. Under this method, the contributions required to meet the difference between current assets and current actuarial liabilities are allocated each year between two elements:

- A normal cost amount; and
- Whatever amount is left over, which is used to amortize what is called the UAAL (Unfunded Actuarial Accrued Liability).

The two items described above – the Normal Cost and UAAL – are the keys to understanding the actuarial cost method.

Normal Cost

The Normal Cost is the theoretical contribution rate that will meet the ongoing costs of a group of average new employees. Suppose that a group of new employees was covered under a separate fund from which all benefits and to which all contributions and associated investment returns were paid. Under the entry age actuarial cost method, the Normal Cost contribution rate maintains the funding of benefits as a level percentage of pay. If experience follows the actuarial assumptions precisely, the fund would be completely liquidated when the last payment to the last survivor of the group was made.

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Normal Cost (continued)

By applying the Normal Cost contribution rate to the present value of salaries expected to be paid in the future, we determine the present value of future Normal Cost contributions. Future contributions are expected to be made by both the members and the Employer. The member contribution rates are determined based upon requirements established in the '37 Act and the actuarial assumptions. Based on these member contribution rates, we determine the present value of future member contributions. We subtract that value from the total future Normal Cost contributions expected, based on the entry age cost method. The remaining difference is the Employer's portion of the future Normal Cost contributions.

Actuarial Accrued Liability

The difference between the present value of all future obligations and the present value of the future Normal Cost contributions is referred to as the Actuarial Accrued Liability (AAL). The AAL is then compared to the value of assets available to fund benefits, and the difference is referred to as the UAAL. The results for LACERA for all plans are summarized below:

(Dollars in millions)	2013	2012	Percent Change
A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors	$ 63,629	$ 61,660	3.2%
B. Actuarial present value of total future normal costs for current members	$ 10,382	$ 10,851	-4.3%
C. Actuarial accrued liability [A-B]	$ 53,247	$ 50,809	4.8%
D. Valuation Assets	$ 39,932	$ 39,039	2.3%
E. UAAL or (Surplus Funding) [C-D]	$ 13,315	$ 11,770	13.1%
F. Funded Ratio [D/C]	75.0%	76.8%	-2.3%

Unfunded Actuarial Accrued Liability/ Surplus Funding

The portion allocated to service already rendered or accrued is called the AAL. The difference between the AAL and the Valuation Assets is called the UAAL. If a UAAL amount exists, it usually results from prior years' benefit or assumption changes and the net effect of accumulated gains and losses. If the employer had always contributed the current Normal Cost, and if there were no prior benefit or assumption changes, and if actual experience exactly matched the actuarial assumptions, then the present value of all future Normal Cost contributions would be sufficient to fund all benefits and there would be no UAAL.

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Unfunded Actuarial Accrued Liability/ Surplus Funding (continued)

The term "fully funded" is often applied to a system in which contributions for everyone at the Normal Cost rate are sufficient to pay for the benefits of existing employees. More often than not, systems are not fully funded, either because of past benefit improvements that have not been completely paid for or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated. Under these circumstances, a UAAL exists, implying that past experience has varied from what was assumed to have occurred, based on the current benefit levels and actuarial assumptions.

However, even if a system does not have a positive UAAL, a portion or all of the Normal Cost contribution payments will need to be continued in order to have sufficient funds to pay future benefits. The use of the term "fully funded" may seem to imply no further contributions are required. Therefore, a better term is a "well-funded" plan. This occurs when the value of the assets equals or exceeds the AAL and the difference can be referred to as the Surplus Funding.

Exhibit 7 shows how the UAAL, or Surplus Funding, was derived for each level of plan benefits. In the Actuarial Balance sheet, the total actuarial liability for all future benefits must be equal to the current and future assets.

The Actuarial Balance Sheet for each plan, as well as its UAAL, or Surplus Funding amount, is based on an estimated allocation of the total LACERA Valuation Assets, as disclosed in Exhibit 7. The allocation is based on the relative value of each plan's employer and member reserves as reported to us by LACERA. These allocations are shown for illustrative purposes only, as the UAAL contribution rates are assumed paid by the Employer based on the valuation results in aggregate.

Funding Adequacy

A key consideration in determining the adequacy of the funding of LACERA is how the UAAL is being funded. If the UAAL amount is positive, that is, the AAL to be funded is greater than the Valuation Assets, then the UAAL is amortized. Under LACERA's Funding Policy, any positive amount must be amortized over layered 30-year periods.

If future experience is more favorable than expected based on the actuarial assumptions, then LACERA may move to a Surplus Funding position. Conversely, if experience is less favorable, a larger UAAL will develop.

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Analysis of Change in Unfunded Actuarial Accrued Liability

The UAAL, at any date after establishment of a system, is affected by any actuarial gains or losses arising when the actual experience of the system varies from the experience anticipated by the actuarial assumptions used in the valuations. To the extent actual experience, as it develops, differs from that expected according to the assumptions used, so also will the emerging costs differ from the estimated costs.

This year the funding level has decreased, primarily due to the recognition of prior actuarial asset losses.

The 2013 actuarial valuation reflects an actuarial experience loss of $0.2 billion for the fiscal year just ended. The loss was mainly due to a $0.9 billion loss on actuarial assets, offset by a $0.6 billion gain due to salary increases less than expected, as well as other factors. The effect of the experience gains and losses on the UAAL or Surplus Funding is shown in Exhibit 8a. In addition to the loss on actuarial assets, some other factors which impacted the liabilities are:

- **New Assumptions per 2013 Investigation of Experience:** The changes in economic and demographic assumptions adopted with the 2013 Investigation of Experience Study and effective with the current valuation increased the UAAL by $511 million. See Appendix A of this report for a full listing of assumptions.
- **Salary Increases:** Individual salaries for continuing active members increased at a rate significantly less than the valuation assumption. This resulted in a gain.
- **Actual CPI versus Assumption:** The actual CPI increase was less than assumed for Plan A members, although some members had positive COLA banks to make up for this. Plan A members retired on or after April 1, 1985 received increases in their benefits less than the assumed 3.0%. The members who received COLA increases less than the assumption generated a gain due to CPI of $190 million.
- **Mortality Experience:** An actuarial loss due to mortality generally indicates that retired members are living longer than the current assumption would predict. This year, there was a small gain due to mortality, indicating retirees are living slightly shorter lives than assumed.
- **Other:** Examples of this are gains and losses from termination, service retirement, disability retirement, death, service purchases, reciprocity, and transfers between plans.

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Change in Unfunded Actuarial Accrued Liability – History

Exhibit 8b shows the sources of change in the UAAL over the past five valuations. As is generally the case, the biggest source of change is a return on investments that is either greater than or less than the assumption, causing asset gains and losses.

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Exhibit 8a: Analysis of Change in Unfunded Actuarial Accrued Liability
(Dollars in Millions)

			Amount	As a Percent of June 30, 2013 Actuarial Accrued Liability
Unfunded Actuarial Accrued Liability - June 30, 2012		**$**	**11,770**	22.1%
Increase in UAAL due to New Assumptions			511	1.0%
Interest Accrued			895	1.7%
Benefits Accrued (Normal Cost) *			1,430	2.7%
Contributions (with Assumed Interest)				
Employer - Cash	$ (750)			-1.4%
Employer - Contribution Credit	-			0.0%
Member **	(705)			-1.3%
Total			(1,455)	-2.7%
Expected Unfunded Actuarial Acc. Liability - June 30, 2013		**$**	**13,151**	24.7%
Source of Change				
Asset (Gains) and Losses				
(Gain)/Loss due to Investment Income			893	1.7%
Actuarial (Gains) and Losses				
Salary Increases	$ (563)			-1.1%
CPI Less than Expected	(190)			-0.4%
Mortality Experience	(42)			-0.1%
All Other Experience	67			0.1%
Total			(729)	-1.4%
Total Changes			**164**	0.3%
Unfunded Actuarial Accrued Liability - June 30, 2013		**$**	**13,315**	25.0%

** Includes estimated increase in value of benefits due to service purchases.*
*** Includes service purchase contributions.*
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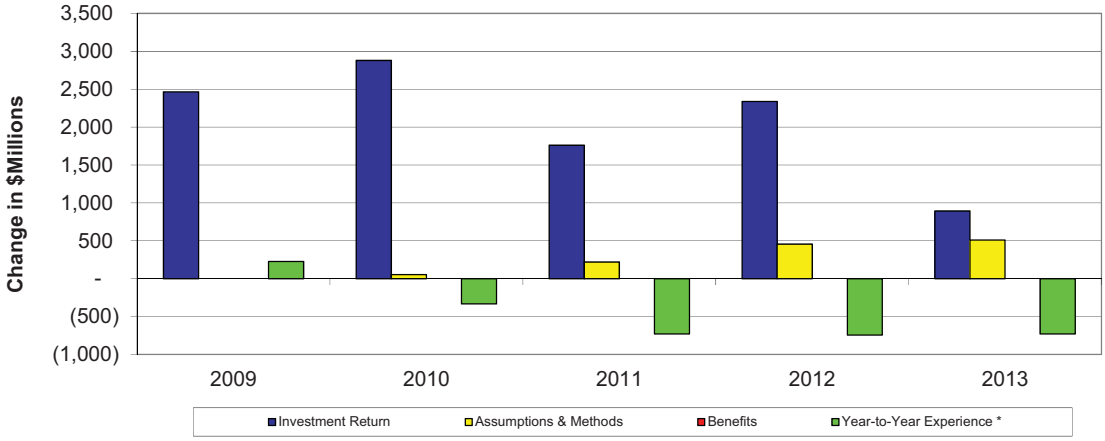
Exhibit 8b: History of Changes in Unfunded Actuarial Accrued Liability
(Dollars in Millions)



	2009	2010	2011	2012	2013	2009-13
Prior Valuation UAAL / (Surplus)	**$ 2,313**	**$ 4,927**	**$ 7,807**	**$ 9,405**	**$ 11,770**	**$ 2,313**
Increase in UAAL due to:						
Expected Increase / (Decrease)	(78)	279	344	315	870	1,730
Asset (Gains) and Losses	2,465	2,879	1,761	2,337	893	10,335
Changes in Benefits*	-	-	-	-	-	-
Changes in Assumptions	-	54	221	457	511	1,243
Changes in Methods	-	-	-	-	-	-
Salary Increases	380	(353)	(579)	(629)	(563)	(1,744)
CPI Less than Expected	(4)	(29)	(215)	(181)	(190)	(619)
Transfers Between D & E	(3)	6	-	-	-	3
Mortality Experience	(63)	(32)	(16)	(22)	(42)	(175)
All Other Experience	(83)	76	82	88	66	229
Total Increase / (Decrease)	**2,614**	**2,880**	**1,598**	**2,365**	**1,545**	**11,002**
Valuation UAAL / (Surplus)	**$ 4,927**	**$ 7,807**	**$ 9,405**	**$ 11,770**	**$ 13,315**	**$ 13,315**
Funded Ratio	**88.9%**	**83.3%**	**80.6%**	**76.8%**	**75.0%**	**75.0%**

** Year-to-Year Experience includes changes due to Salary, CPI, Transfers, Mortality and Other Experience.*

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Section 5: Member Contributions

Normal Contributions for non-PEPRA Plans

Member contributions are of two types: Normal contributions and cost-of-living contributions.

Normal contributions for each plan (except for General Plan G and Safety Plan C, as discussed below) are defined in the following sections of the County Employees' Retirement Law:

Plan	'37 Act Reference	Formula
General A	31621.3	1/240th of FAC at age 55
General B	31621.1	1/120th of FAC at age 55
General C	31621	1/120th of FAC at age 60
General D	31621	1/120th of FAC at age 60
General E	N/A	Plan E is non-contributory
Safety A	31639.5	1/200th of FAC at age 50
Safety B	31639.25	1/100th of FAC at age 50

Note: FAC = Final Average Compensation

Normal member contributions are determined using the Entry Age Normal Funding Method and the following actuarial assumptions:

1. Expected rate of return on assets.
2. Individual salary increase rate (wage growth + merit).
3. Mortality for members on service retirement.

Effective with the 2013 valuation, the assumed rate of investment return was lowered to 7.50%, the wage growth assumption was lowered to 3.50%, and the mortality assumptions were revised. These assumption changes necessitate a change in the normal member contribution rates. Normal member contribution rates decreased slightly at earlier entry ages, and increased slightly at older entry ages.

Cost-of-Living Contributions for non-PEPRA Plans

The determination of the member cost-of-living contributions is based on Section 31873 of the County Employees' Retirement Law. This section requires that the cost of this benefit be shared equally between members and the Employer. Unlike the member normal contributions, these rates are based on the actuarial cost of the benefits and reflect all assumptions used in the valuation of liabilities.

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Cost-of-Living Contributions (continued)

As this is a triennial valuation, we are recommending a change in the member cost-of-living contribution rates. The cost-of-living contributions, expressed as a percentage of the normal contribution rates, are based on the June 30, 2013 actuarial valuation and are as follows:

Plan	COLA %
General A	84.18%
General B	22.89%
General C	24.57%
General D	21.86%
General E	0.00%
Safety A	93.72%
Safety B	29.67%

The relative magnitude of these amounts reflects the differences in the normal contribution rates for each plan and the different cost-of-living benefits offered by the different plans.

A sample of the current member contribution rates (normal plus cost-of-living) can be found in Exhibit 9.

Full disclosure of the member rates, showing both the normal and the total (normal plus cost-of-living) contribution rates, can be found in Appendix D.

Member Contribution Rates for PEPRA Plans

Members of the two plans covered by PEPRA contribute a flat rate (i.e., does not vary by entry age) based on whether they are in the General or Safety Plan. This rate is set equal to one half of the total Normal Cost rate. Current contribution rates for members of these plans are as follows:

	General Plan G	Safety Plan C
All Ages	7.63%	13.39%

Note that the member contribution rates for these plans are further split for purposes of this report into a “Normal” and “Cost of Living” component. The cost-of-living component for PEPRA plan members, as shown in Exhibit 9 below, represents the portion of the member contribution rate that applies to the cost of COLA for these plans.

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Member Rate For Contributory Plan Members Only

The average member contribution rate for only those members in contributory plans at June 30, 2013 is 7.87% of payroll.

This number compares to 6.03% of payroll, which is the average member contribution rate among all members. This 6.03% offsets the gross normal cost to yield the Employer normal cost rate.

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Exhibit 9: Sample Member Contribution Rates

	Entry Age	Recommended Rates (Based on 2013 Valuation) Normal	Cost of Living	Total as a % of Pay	Current Rate (Total)	Ratio (New / Current)
General Members						
Plan A	25	2.88%	2.42%	5.30%	5.33%	99.4%
	35	3.60%	3.03%	6.63%	6.58%	100.8%
	45	4.42%	3.72%	8.14%	7.97%	102.1%
	55	4.78%	4.02%	8.80%	8.55%	102.9%
Plan B	25	5.76%	1.32%	7.08%	7.23%	97.9%
	35	7.19%	1.65%	8.84%	8.89%	99.4%
	45	8.85%	2.03%	10.88%	10.78%	100.9%
	55	9.56%	2.19%	11.75%	11.55%	101.7%
Plan C	25	4.84%	1.19%	6.03%	6.20%	97.3%
	35	6.04%	1.48%	7.52%	7.62%	98.7%
	45	7.54%	1.85%	9.39%	9.38%	100.1%
	55	8.92%	2.19%	11.11%	10.94%	101.6%
Plan D	25	4.84%	1.06%	5.90%	6.09%	96.9%
	35	6.04%	1.32%	7.36%	7.48%	98.4%
	45	7.54%	1.65%	9.19%	9.21%	99.8%
	55	8.92%	1.95%	10.87%	10.74%	101.2%
Plan G	All Ages	6.42%	1.21%	7.63%	7.75%	98.5%
Safety Members						
Plan A	25	4.13%	3.87%	8.00%	8.18%	97.8%
	35	5.09%	4.77%	9.86%	9.89%	99.7%
	45	6.07%	5.69%	11.76%	11.55%	101.8%
	55	6.12%	5.74%	11.86%	11.61%	102.2%
Plan B	25	8.26%	2.45%	10.71%	10.87%	98.5%
	35	10.17%	3.02%	13.19%	13.18%	100.1%
	45	12.14%	3.60%	15.74%	15.38%	102.3%
	55	12.24%	3.63%	15.87%	15.45%	102.7%
Plan C	All Ages	10.74%	2.65%	13.39%	13.25%	101.1%

Note: A portion of some of the member contribution rates is paid for ("picked up") by the Employer and is not considered part of the member's contribution account for refund purposes. Such contributions are referred to as the surcharge amount and are subject to change each year. The rates shown in the table are prior to any surcharge payments.

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Section 6: Employer Contributions

Contributions to LACERA are determined using the Entry Age Normal Cost Method. The portion of the actuarial present value of retirement benefits allocated to a valuation year by the Actuarial Cost Method is called the Normal Cost. These amounts are usually expressed as a percentage of payroll and called the Normal Cost Contribution Rate. Exhibit 10 illustrates the Normal Cost Rates by type of benefit and for each plan based on this valuation. A comparison with last year is also shown.

Under the Funding Policy adopted in 2009, the total contribution rate is set equal to the Normal Cost contribution and a payment by the employer towards the UAAL. A portion of the Normal Cost contribution is funded by member contributions. The remainder is paid for by the employer.

Employer Contribution Rate

The total calculated Employer contribution rates for each plan, along with a comparison to the prior year's computed rates, can be found in Exhibit 11. These results are expressed as a percentage of payroll and annual contribution dollars. Note that LACERA's UAAL contribution rate is not determined separately for each plan, but is funded evenly as a percentage of pay over salaries for all members. The total Employer contribution rate was 19.82% for the fiscal year beginning in 2013.

For the fiscal year beginning in 2014, the required rate increased to 21.34%. This is equal to the net aggregate calculated Normal Cost contribution rate of 9.44% based on the 2013 Valuation, plus a 30-year layered amortization payment of the UAAL.

(All values as a % of Payroll)

Employer Normal Cost	9.44%
30-year Layered Amortization of UAAL	11.90
Total Employer Contribution	21.34%

The 1.52% increase from last year in the total Employer contribution rate was primarily due to the recognition of deferred investment losses, which caused a 1.01% increase in the UAAL rate, and the change in assumptions with the 2013 Investigation of Experience, which caused a 0.82% increase. This was somewhat offset by the investment gain for the current year, and COLA increases and salary increases that were smaller than assumed. The UAAL rate reflects a layered 30-year amortization from the valuation date with a July 1, 2014 implementation date for the new Employer contribution rate.

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Employer Contribution Rate (continued)

The change in the calculated Normal Cost contribution rates from year to year is generally due to a few factors. This year, the Normal Cost rate was also impacted by the adoption of new assumptions per the 2013 Investigation of Experience. These factors are listed in order of magnitude (i.e., the adoption of new assumptions had the greatest impact this year):

1. **Change in Assumptions:** The new assumptions adopted in 2013 caused an increase in the normal cost rate.

2. **Experience**: Normal experience from year to year reflects differences in both the weighting between membership groups and their characteristics, as well as what was assumed to occur during the past fiscal year and what actually occurred, particularly with respect to salary increases.

Hypothetical Population Used for Normal Cost Rate for New Plans

For plans that have been in existence for less than five years, the normal cost rate is calculated based on a hypothetical population which includes all current active members with less than five years of service, as if each of these members had entered the respective new plan (split by General and Safety).

The following table shows a comparison between what the normal cost rate would have been if it had been based on the current population only, and the normal cost rate based on the hypothetical smoothed population used in the valuation. Note that when all plans are aggregated, the difference in the total normal cost rate due to using the hypothetical population for the new plans is less than 0.01% of pay.

	Current Population	Smoothed Population
General Plan G		
Normal Cost Rate	15.04%	15.26%
Member Rate	7.52%	7.63%
Safety Plan C		
Normal Cost Rate	37.08%	26.78%
Member Rate	18.54%	13.39%

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Exhibit 10: Calculated Normal Cost Contribution Rates – June 30, 2013

	General							Safety				Grand
A. Normal Cost Contribution Rate	Plan A	Plan B	Plan C	Plan D	Plan E	Plan G	Total	Plan A	Plan B	Plan C	Total	**Total**
Service Retirement	17.90%	13.54%	11.96%	12.55%	8.53%	12.88%	11.43%	15.40%	15.02%	15.67%	15.03%	12.13%
Disability Retirement	0.88%	0.67%	0.63%	1.09%	0.00%	1.16%	0.77%	8.59%	8.67%	10.06%	8.67%	2.31%
Death	0.27%	0.23%	0.22%	0.39%	0.00%	0.39%	0.28%	0.34%	0.30%	0.31%	0.30%	0.28%
Termination (No Refund)	0.34%	0.31%	0.27%	0.52%	0.52%	0.45%	0.52%	0.39%	0.44%	0.45%	0.44%	0.50%
Refund of Member Contributions	0.09%	0.12%	0.10%	0.36%	0.00%	0.38%	0.25%	0.16%	0.23%	0.29%	0.23%	0.25%
Total	**19.48%**	**14.87%**	**13.18%**	**14.91%**	**9.05%**	**15.26%**	**13.25%**	**24.88%**	**24.66%**	**26.78%**	**24.67%**	**15.47%**
B. Member Contributions	(4.87)%	(7.28)%	(6.07)%	(7.07)%	0.00%	(7.63)%	(5.01)%	(0.87)%	(10.27)%	(13.39)%	(10.26)%	(6.03)%
C. Net Employer Normal Cost as of June 30, 2013 (A) - (B)	14.61%	7.59%	7.11%	7.84%	9.05%	7.63%	8.24%	24.01%	14.39%	13.39%	14.41%	9.44%
D. Net Employer Normal Cost as of June 30, 2012	14.45%	7.86%	7.45%	8.15%	9.00%	7.72%	8.49%	24.54%	14.86%	13.09%	14.90%	9.73%
E. Increase (Decrease) as a Percentage of Payroll (C) - (D)	0.16%	(0.27)%	(0.34)%	(0.31)%	0.05%	(0.09)%	(0.25)%	(0.53)%	(0.47)%	0.30%	(0.49)%	(0.29)%
F. Estimated Payroll for fiscal year beginning July 1, 2014*	$ 52	$ 15	$ 14	$ 3,761	$ 1,612	$ 87	$ 5,541	$ 6	$ 1,339	$ 4	$ 1,349	$ 6,890
G. Estimated Total Normal Cost Contribution in Dollars (A x F)**	$ 10	$ 2	$ 2	$ 561	$ 146	$ 13	$ 734	$ 1	$ 330	$ 1	$ 333	$ 1,067

* *Estimated Payroll based upon annualized salary rate as of June 30, 2013 increased by 3.50% wage inflation. Dollar figures in millions.*
** *The timing of the Normal Cost shown in this exhibit is spread over the entire year and corresponds to payroll timing.*

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Exhibit 11: Total Employer Contributions

	General							Safety				All
	Plan A	Plan B	Plan C	Plan D	Plan E	Plan G	Total	Plan A	Plan B	Plan C	Total	Plans
A. Net Employer Normal Cost												
1. Basic Benefits	11.65%	6.13%	5.79%	6.55%	7.58%	6.42%	6.88%	18.75%	11.73%	10.74%	11.75%	7.83%
2. Cost-of-Living Benefits	2.96%	1.46%	1.32%	1.29%	1.47%	1.21%	1.36%	5.26%	2.66%	2.65%	2.66%	1.61%
3. Total June 30, 2013	14.61%	7.59%	7.11%	7.84%	9.05%	7.63%	8.24%	24.01%	14.39%	13.39%	14.41%	9.44%
B. UAAL Contribution Rate	11.90%	11.90%	11.90%	11.90%	11.90%	11.90%	11.90%	11.90%	11.90%	11.90%	11.90%	11.90%
C. Total June 30, 2013 Contribution Rate (A) + (B)	**26.51%**	**19.49%**	**19.01%**	**19.74%**	**20.95%**	**19.53%**	**20.14%**	**35.91%**	**26.29%**	**25.29%**	**26.31%**	**21.34%**
D. Total June 30, 2012 Contribution Rate	24.54%	17.95%	17.54%	18.24%	19.09%	17.81%	18.58%	34.63%	24.95%	23.18%	24.99%	19.82%
E. Estimated Payroll for fiscal year beginning July 1, 2014*	$ 52	$ 15	$ 14	$ 3,761	$ 1,612	$ 87	$ 5,541	$ 6	$ 1,339	$ 4	$ 1,349	$ 6,890
F. Estimated Annual Contribution (C x E)	**$ 14**	**$ 3**	**$ 3**	**$ 742**	**$ 338**	**$ 17**	**$ 1,116**	**$ 2**	**$ 352**	**$ 1**	**$ 355**	**$ 1,471**
G. Last Year's Estimated Annual Contribution	$ 19	$ 3	$ 3	$ 687	$ 325	$ -	$ 1,037	$ 4	$ 334	$ -	$ 338	$ 1,375
H. Increase / (Decrease) in Annual Contribution	$ (5)	$ -	$ -	$ 55	$ 13	$ 17	$ 79	$ (2)	$ 18	$ 1	$ 17	$ 96

** Estimated Payroll based upon annualized salary rate as of June 30, 2013 increased by 3.50% wage inflation. Dollar figures in millions.*

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Exhibit 12: Unfunded Actuarial Accrued Liability Detail

Unfunded Actuarial Accrued Liability - 30 Year Layered Amortization Detail

Date Established	Description	Balance as of June 30, 2013	Interest on Balance	Amort. Payment on June 30, 2014 [1]	Balance as of June 30, 2014 [2]	Remaining Period as of June 30, 2014	July 1, 2014 Amortization Payment
June 30, 2009	Initial UAAL	$ 5,440.5	$ 408.0	$ 347.1	$ 5,501.3	25 Years	$ 341.2
June 30, 2010	(Gain) / Loss	2,933.0	220.0	183.1	2,970.0	26 Years	179.9
June 30, 2011	(Gain) / Loss	1,437.3	107.8	87.9	1,457.2	27 Years	86.4
June 30, 2012	(Gain) / Loss	2,325.8	174.4	139.5	2,360.7	28 Years	137.1
June 30, 2013	(Gain) / Loss	1,178.4	88.4	(56.4) [3]	1,323.2	29 Years	75.3
						Total Amortization Payment July 1, 2014:	$ 819.9
						Projected Payroll July 1, 2014:	$ 6,889.4
	UAAL as of June 30, 2013:	**$ 13,315.0**				**UAAL Contribution Rate (as a % of Payroll) FYB July 1, 2014:**	**11.90%**

Explanatory Notes:

[1] *Amortization Payments are based on a fixed schedule that increases by the payroll assumption each year.*

[2] *The assets and liabilities used in the calculation of the UAAL are as of June 30, 2013; whereas, the contribution rates are not effective until July 1, 2014. Therefore, the UAAL is adjusted to June 30, 2014 based on the actual contribution rate for the period.*

[3] *The 30-year amortization of UAAL does not begin until July 1, 2014; however, the UAAL amount is adjusted based on the July 1, 2013 contribution rate.*

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Section 7: Accounting Information

GASB reporting standards are required for defined benefit pension plan reporting and disclosures (Statement No. 25). The reporting requirements for Statement No. 25 include certain supplementary information that must be added to the financial statements. These include:

1. A Schedule of Funding Progress
2. A Schedule of Employer Contributions

The Schedule of Funding Progress, Exhibit 13, compares actuarial assets and liabilities of the system, based on the actuarial funding method used. The required Schedule of Employer Contributions, Exhibit 14, compares the employer contributions required based on the actuarial valuation – the actuarial required contribution (ARC) – with the employer contributions actually made. Information shown in this exhibit comes from LACERA's audited financial statements. The ARC must be calculated based on certain parameters required for disclosure purposes.

We believe the actuarial methods and assumptions used in this valuation to determine the employer's contribution for funding purposes satisfy the GASB reporting requirements.

GASB Statement No. 27 is required for pension accounting by state and local governmental employers.

The comparability of the data from year to year can be affected by changes in actuarial assumptions, benefit provisions, accounting policies, etc. For example, assumptions were changed in 2013 based on the triennial Investigation of Experience. See Appendix A of this report for details.

Exhibit 15 compares the Actuarial Value of Valuation Assets to the types of Actuarial Accrued Liabilities, applying them first to Active Member contributions, then to retirees and beneficiaries, and then the remaining amount to the Active Members benefits. This is referred to as the Solvency Test. Although not required under GASB, this test is part of the CAFR guidelines specified by the Government Finance Officers Association (GFOA).

It should be noted that GASB recently adopted Statements 67 and 68 dealing with accounting disclosure for public retirement systems. These new standards will have a material impact on pension accounting. The effective date for GASB Statement No. 67 is for periods beginning after June 15, 2013 and the effective date for GASB Statement No. 68 is for periods beginning after June 15, 2014.

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Exhibit 13: Schedule of Funding Progress
(All Dollars in Thousands)

Actuarial Valuation Date	(a) Actuarial Value of Valuation Assets	(b) Actuarial Accrued Liabilities	(b-a) Unfunded Actuarial Accrued Liabilities (UAAL)	(a/b) Funded Ratio	(c) Covered Payroll[1]	[(b-a)/c] UAAL as a Percentage of Covered Payroll
June 30, 2004[2]	27,089,440	32,700,505	5,611,065	82.8%	4,919,531	114.1%
June 30, 2005	29,497,485	34,375,949	4,878,464	85.8%	4,982,084	97.9%
June 30, 2006	32,819,725	36,258,929	3,439,204	90.5%	5,205,804	66.1%
June 30, 2007[2]	37,041,832	39,502,456	2,460,624	93.8%	5,615,736	43.8%
June 30, 2008	39,662,361	41,975,631	2,313,270	94.5%	6,123,888	37.8%
June 30, 2009	39,541,865	44,468,636	4,926,771	88.9%	6,547,616	75.2%
June 30, 2010[2]	38,839,392	46,646,838	7,807,446	83.3%	6,695,439	116.6%
June 30, 2011[2]	39,193,627	48,598,166	9,404,539	80.6%	6,650,674	141.4%
June 30, 2012[2]	39,039,364	51,320,699	12,281,335	76.1%	6,619,816	185.5%
June 30, 2013[2]	39,932,416	53,247,776	13,315,360	75.0%	6,595,902	201.9%

(1) Covered Payroll includes compensation paid to all active employees on which contributions are calculated, as reported by LACERA. Covered Payroll differs from the Active Member Valuation Payroll shown in Table C-1, which is an annualized compensation of only those members who were active on the actuarial valuation date.

(2) Assumption changes.

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Exhibit 14: Schedule of Contributions from the Employer
(All Dollars in Thousands)

Fiscal Year Ending	Annual Required Contribution (ARC)	Actual Employer Contributions			Percentage of ARC Contributed
		Cash Payment	Transfer from Reserve Accounts	Total	
6/30/2004	$ 521,978	$ 395,062	$ 126,916	$ 521,978	100%
6/30/2005	750,352	527,810	222,542	750,352	100%
6/30/2006	855,531	676,667	179,368	856,035*	100%
6/30/2007	863,626	751,851	111,775	863,626	100%
6/30/2008	827,911	788,029	40,601	828,630	100%
6/30/2009	847,172	831,672	15,500	847,172	100%
6/30/2010	843,704	843,703	0	843,703	100%
6/30/2011	944,174	944,174	0	944,174	100%
6/30/2012	1,078,929	1,078,929	0	1,078,929	100%
6/30/2013	1,172,014	1,172,014	0	1,172,014	100%

** Total actual employer contributions differ from the Annual Required Contribution due to transfers from CalPERS and certain adjustments for court cases.*

Los Angeles County Employees Retirement Association

Exhibit 15: Solvency Test
(Dollars in Millions)

Actuarial Valuation Date	Actuarial Value of Valuation Assets	Actuarial Accrued Liabilities for: Active Member Contributions (A)	Retirees and Beneficiaries[1] (B)	Active Members (Employer Financed Portion) (C)	Portion of Actuarial Accrued Liabilities Covered by Assets: (A)	(B)	(C)
June 30, 2004	27,089	4,042	18,857	9,802	100%	100%	43%
June 30, 2005	29,497	4,308	20,238	9,829	100%	100%	50%
June 30, 2006	32,820	4,628	21,377	10,254	100%	100%	66%
June 30, 2007	37,042	4,852	22,398	12,253	100%	100%	80%
June 30, 2008	39,662	5,279	23,730	12,966	100%	100%	82%
June 30, 2009	39,542	5,795	24,692	13,982	100%	100%	65%
June 30, 2010	38,839	6,278	26,220	14,148	100%	100%	45%
June 30, 2011	39,194	6,529	27,559	14,511	100%	100%	35%
June 30, 2012	39,039	6,961	29,629	14,730	100%	100%	17%
June 30, 2013	39,932	7,837	30,980	14,430	100%	100%	8%

(1) Includes deferred vested members.

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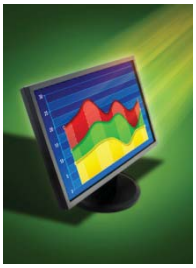
Section 8: Supplemental Information



Cash Flow Projection

Exhibits 16a and 16b are a chart and graph that illustrate both the cash flow history for the past 10 years and a projection on the valuation basis for the next 10 years.

Contributions include both employer and member contributions. The table shows that net cash flow has been increasing over the last five years. Over the next few years, contributions are expected to grow faster than benefit payments, as contribution rates increase due to the recognition of currently deferred asset losses and the scheduled decrease in the investment return assumption is phased in. After these two events have occurred, the cash flow is expected to become increasingly negative. This is a typical pattern for a mature retirement system where it is expected that contributions will be less than benefits and that the system will begin drawing on the fund that has been built up over prior years.

Note that the actual cash contributions since 1998 do not reflect the transfers made between reserve funds, but only cash coming into the system. We are assuming no further transfers, only full cash contributions.

The projected cash flows include contributions, statutory benefits and administrative expenses only. They are based on the actuarial assumptions as stated in Appendix A of this valuation report. The total Employer contribution rate is assumed to be 19.82% for the first year and 21.34% for the second year; total Employer contributions for the remainder of the period reflect the expected recognition of asset losses currently being deferred. The aggregate member rate is assumed to stay at the calculated rate for June 30, 2013 of 6.03% of payroll. Expenses are based on the expenses for the year ended June 30, 2013, increased annually with the actuarial inflation assumption of 3.00%.

Any increases or reductions in future contribution rates will increase or decrease the net cash flow. The projected cash flows do not include:

- Projected STAR benefits that have not yet been granted. STAR benefits that were vested as of January 2013 are included.
- Projected benefits payable under certain insurance contracts for a group of retired members. These payments are netted against the total expected retiree benefits.

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Exhibit 16a: Cash Flow History and Projections – Dollars

Cash Flow History

Plan Year Ending	Total Contributions	Benefits & Administrative Expenses[2]	Net Cash Flow
2004	$ 658	$ 1,484	$ (826)
2005	814	1,601	(787)
2006	973	1,842	(869)
2007	1,100	1,835 [3]	(735)
2008	1,203	1,960	(757)
2009	1,247	2,065	(818)
2010	1,273	2,177	(904)
2011	1,408	2,318	(910)
2012	1,586	2,439	(853)
2013	1,403	2,593	(1,190)

Cash Flow Projections[1]

Plan Year Ending	Total Contributions	Benefits & Administrative Expenses[2]	Net Cash Flow
2014	$ 1,724	$ 2,802	$ (1,078)
2015	1,886	2,903	(1,018)
2016	1,892	3,053	(1,161)
2017	1,922	3,206	(1,285)
2018	2,009	3,367	(1,358)
2019	2,055	3,537	(1,481)
2020	2,127	3,715	(1,587)
2021	2,202	3,899	(1,697)
2022	2,279	4,090	(1,811)
2023	2,359	4,287	(1,928)

(1) *Future contributions reflect the expected impact of asset gains and losses currently being deferred.*

(2) *Investment expenses are assumed to be covered by investment return.*

(3) *Benefit payments for the Plan Year ending 2006 include approximately $94 million in retroactive benefit payments pursuant to the Ventura settlement.*

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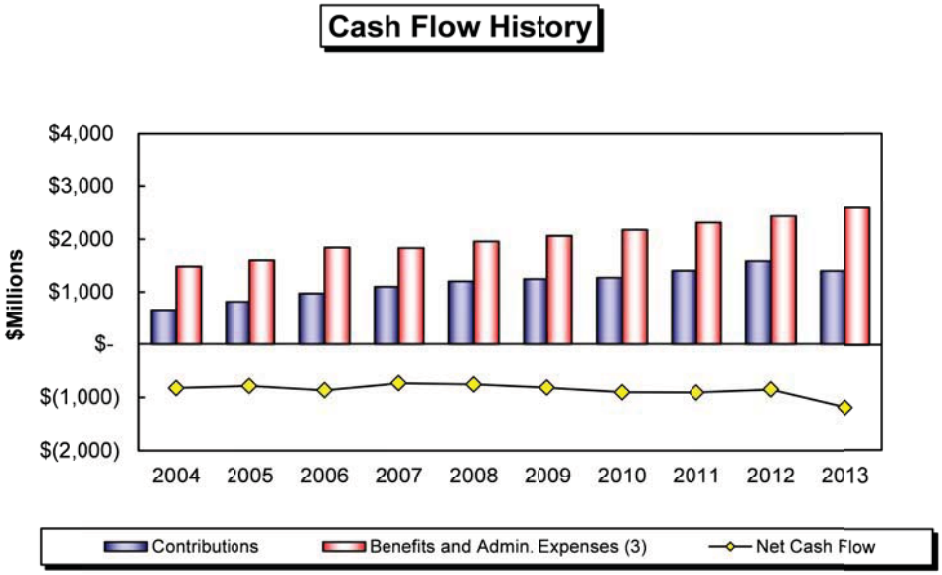
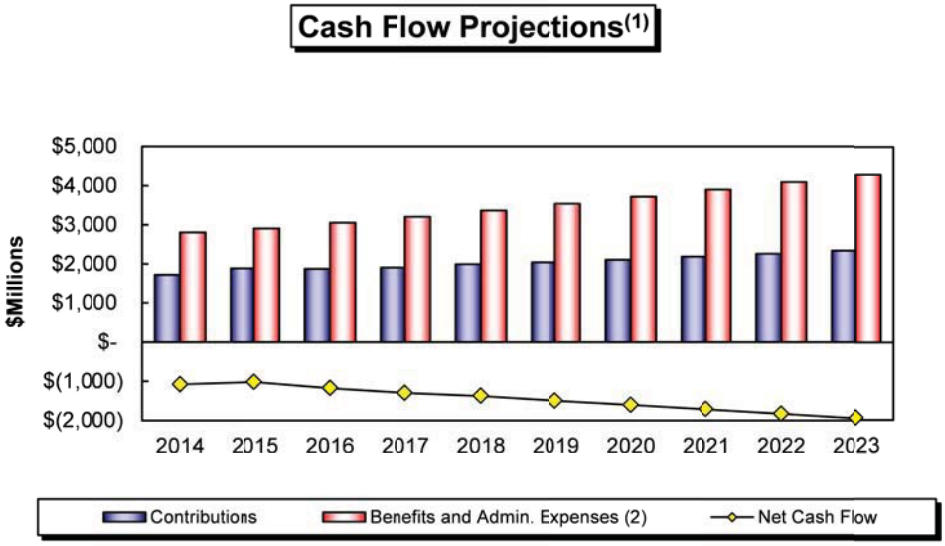
Exhibit 16b: Cash Flow History and Projections – Charts





(1) *Future contributions reflect the expected impact of asset gains and losses currently being deferred.*

(2) *Investment expenses are assumed to be covered by investment return.*

(3) *Benefit payments for the Plan Year ending 2006 include approximately $94 million in retroactive benefit payments pursuant to the Ventura settlement.*

Appendix A: Actuarial Procedures and Assumptions

The actuarial procedures and assumptions used in this valuation are described in this section. The assumptions were reviewed and changed for the June 30, 2013 actuarial valuation as a result of the 2013 triennial Investigation of Experience Study.

The actuarial assumptions used in the valuations are intended to estimate the future experience of the members of LACERA and of LACERA itself in areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of LACERA's benefits.

Table A-1 summarizes the assumptions. The mortality rates are taken from the sources listed.

Tables A-2 and A-3 show how members are expected to leave retired status due to death.

Table A-4 presents the probability of refund of contributions upon termination of employment while vested.

Table A-5 presents the expected annual percentage increase in salaries.

Tables A-6 to A-13 were developed from the experience as measured by the 2013 Investigation of Experience Study. The rates are the probabilities a member will leave the system for various reasons.

Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method. Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age).

For members who transferred between plans, entry age is based on original entry into the system.

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Actuarial Cost Method (continued)

The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Accrued Liability (UAAL). The original UAAL as of June 30, 2009 is amortized as a level percentage of the projected salaries of present and future members of LACERA over a closed 30-year period. Future gains and losses are amortized over new closed 30-year periods. This is referred to as "layered" amortization.

For plans that have been in existence for less than five years, the normal cost rate is calculated based on a hypothetical population which includes all current active members with less than five years of service, as if each of these members had entered their respective new plan (split by General and Safety). This normal cost rate is then multiplied by the present value of future compensation of current active members in the respective plans to calculate the present value of future normal costs in aggregate. For all plans, the present value of future benefits minus the present value of future normal costs will be equal to the Actuarial Accrued Liability (AAL).

For General Plan G and Safety Plan C, the normal cost rate is rounded up to the nearest 0.02%.

Records and Data

The data used in this valuation consist of financial information and the age, service, and income records for active and inactive members and their survivors. All of the data were supplied by LACERA and are accepted for valuation purposes without audit.

Replacement of Terminated Members

The ages and relative salaries at entry of future members are assumed to follow a new entrant distribution based on the pattern of current members. Under this assumption, the normal cost rates for active members will remain fairly stable in future years unless there are changes in the governing law, the actuarial assumptions or the pattern of the new entrants.

Growth in Membership

For benefit determination purposes, no growth in the membership of LACERA is assumed. For funding purposes, if amortization is required, the total payroll of covered members is assumed to grow due to the combined effects of future wage increases of current active members and the replacement of the current active members by new employees. No growth in the total number of active members is assumed.

Internal Revenue Code Section 415 Limit

The Internal Revenue Code Section 415 maximum benefit limitations are not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

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Internal Revenue Code Section 401(a)(17)	The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.
Employer Contributions	The employer contribution rate is set by the Board of Investments based on actuarial valuations.
Member Contributions	The member contribution rates vary by entry age and are described in the law. Code references are shown in Appendix B of the valuation report. The methods and assumptions used are detailed later in this section. The individual member rates by entry age, plan and class are illustrated in Appendix D of the valuation report.
Valuation of Assets	The assets are valued using a five-year smoothed method based on the difference between the expected market value and the actual market value of the assets as of the valuation date. The expected market value is the prior year's market value increased with the net increase in the cash flow of funds, all increased with interest during the past fiscal year at the expected investment return rate assumption. The five-year smoothing valuation basis for all assets was adopted effective June 30, 2009.
Investment Earnings and Expenses	The future investment earnings of the assets of LACERA are assumed to accrue at an annual rate of 7.50% compounded annually, net of both investment and administrative expenses. This rate was adopted effective June 30, 2013.
Post-Retirement Benefit Increases	Post-retirement increases are assumed for the valuation in accordance with the benefits provided as described in Appendix B. These adjustments are assumed payable each year in the future as they are less than the expected increase in the Consumer Price Index (CPI) of 3.00% per year. This CPI rate was adopted effective June 30, 2013.
Interest on Member Contributions	The annual credited interest rate on member contributions is assumed to be 7.50% compounded semi-annually for an annualized rate of 7.64%. This rate was adopted effective June 30, 2013.
Future Salaries	The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-5. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 3.50% per annum rate of increase in the general wage level of the membership. These rates were adopted effective June 30, 2013.

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Future Salaries (continued)

Increases are assumed to occur mid-year (i.e., January 1st) and only apply to base salary, excluding megaflex compensation. The mid-year timing reflects that salary increases occur throughout the year, or on average mid-year.

For plans with a one-year final average compensation period, actual average annual compensation is used. For other plans, the monthly rate as of June of the valuation year was annualized. Due to irregular compensation payments included as pensionable earnings, actual annual pay is preferred over annualizing a single monthly payment amount.

Social Security Wage Base

Plan E members have their benefits offset by an assumed Social Security Benefit. For valuation funding purposes, we need to project the Social Security Benefit. We assume the current Social Security provisions will continue and the annual Wage Base will increase at the rate of 3.50% per year. Note, statutory provisions describe exactly how to compute the offset for purposes of determining a member's offset amount at time of termination or retirement. This rate was adopted effective June 30, 2013.

Note that it is assumed all Plan E members born after 1950 have less than 10 years of Social Security-covered service and, therefore, do not have their benefit offset.

General Plan G and Safety Plan C members have their compensation limited to approximately 120% of the Social Security Wage Base. The limit for 2013 is $136,440 (after applying the 120% factor) and is projected to increase at the CPI rate of 3.00%. This rate of increase was adopted effective June 30, 2013.

Retirement

After members attain age 50 (55 for Plan E members, and 52 for General Plan G members) and have 10 years of service (5 years of service for General Plan G and Safety Plan C), they may retire with a benefit commencing immediately. All members, except Plan E, General Plan G, and Safety Plan C members, may also retire regardless of age after 20 years of service for safety members and after 30 years of service for general members. The retirement rates vary by age and are shown by plan in Tables A-6 through A-13.

All general members who attain or who have attained age 75 in active service and all safety members who have attained age 60 in active service are assumed to retire immediately (except for Safety Plan C members who have not yet attained 5 years of service).

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Retirement (continued)

Deferred vested members are assumed to retire at the later of their current age and the assumed retirement age specified as follows:

Assumption for Deferred Commencement	
Plan	**Age at Commencement**
GA	60
GB	60
GC	60
GD	57
GE	60
GG	57
SA	55
SB	50
SC	50

The assumptions regarding termination of employment, early retirement, and unreduced service retirement are treated as a single set of decrements in regards to a particular member. For example, a general member hired at age 30 has a probability to withdraw from LACERA due to death, disability or *other termination of employment* until age 50. After age 50, the member could still withdraw due to death, disability or *retirement*. Thus, in no year during the member's projected employment would they be eligible for both a probability of other termination of employment and a probability of retirement.

The retirement probabilities were adopted effective June 30, 2013.

Disablement

The rates of disablement used in the valuation are also illustrated in Tables A-6 through A-13. These rates were adopted effective June 30, 2013.

Post-Retirement Mortality – Other Than Disabled Members

The same post-retirement mortality rates are used in the valuation for active members, members retired for service, and beneficiaries. These rates are illustrated in Table A-2. Current beneficiary mortality is assumed to be the same assumption as healthy members of the same sex. Future beneficiaries are assumed to be of the opposite sex, and have the same mortality as General members. Note that these assumptions include a margin for expected future mortality improvement. These rates were adopted effective June 30, 2013.

Males General members: RP-2000 Combined Mortality Table for Males, projected to 2025 using Projection Scale AA, with ages set back one year.

Safety members: RP-2000 Combined Mortality Table for Males, projected to 2025 using Projection Scale AA, with ages set back two years.

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Post-Retirement Mortality – Other Than Disabled Members (continued)

Females General members: RP-2000 Combined Mortality Table for Females, projected to 2025 using Projection Scale AA, with ages set back one year.

Safety members: RP-2000 Combined Mortality Table for Females, projected to 2025 using Projection Scale AA, with ages set back one year.

Post-Retirement Mortality – Disabled Members

For disabled members, the mortality rates used in the valuation rates are illustrated in Table A-3. Note that these assumptions include a margin for expected future mortality improvement. These rates were adopted effective June 30, 2013.

Males General members: Average of RP-2000 Combined and Disabled Mortality Tables for Males, projected to 2025 using Projection Scale AA, with ages set back one year.

Safety members: RP-2000 Combined Mortality Table for Males, projected to 2025 using Projection Scale AA, with no age adjustment.

Females General members: Average of RP-2000 Combined and Disabled Mortality Tables for Females, projected to 2025 using Projection Scale AA, with ages set back one year.

Safety members: RP-2000 Combined Mortality Table for Females, projected to 2025 using Projection Scale AA, with no age adjustment.

Mortality while in Active Status

For active members, the mortality rates used in the valuation rates are illustrated in Tables A-6 through A-13. These rates were adopted effective June 30, 2013.

Class	Gender	Proposed Table	
General	Male	RP 2000 Employee Male, Proj. 2025*	+1
General	Female	RP 2000 Employee Female, Proj. 2025*	-2
Safety	Male	RP 2000 Employee Male, Proj. 2025*	-5
Safety	Female	RP 2000 Employee Female, Proj. 2025*	-2

** Projection using Scale AA.*

Note that Safety members have an additional service-connected mortality rate of 0.01% per year.

Other Employment Terminations

Tables A-6 to A-13 show, for all ages, the rates assumed in this valuation for future termination from active service other than for death, disability or retirement. These rates do not apply to members eligible for service retirement. These rates were adopted effective June 30, 2013.

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Other Employment Terminations (continued)

Terminating employees may withdraw their contributions immediately upon termination of employment and forfeit the right to further benefits, or they may leave their contributions with LACERA. Former contributing members whose contributions are on deposit may later elect to receive a refund, may return to work or may remain inactive until becoming eligible to receive a retirement benefit under either LACERA or a reciprocal retirement system. All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately.

All terminating members are assumed not to be rehired. Table A-4 gives the assumed probabilities that vested members will withdraw their contributions and elect a refund immediately upon termination and the probability the remaining members will elect a deferred vested benefit. All non-vested members are assumed to elect a refund and withdraw their contributions. These rates were adopted effective June 30, 2013.

Probability of Eligible Survivors

For members not currently in pay status, 80% of all males and 55% of all females are assumed to have eligible survivors (spouses or qualified domestic partners). Survivors are assumed to be four years younger than male members and two years older than female members. Survivors are assumed to be of the opposite sex as the member. There is no explicit assumption for children's benefits. We believe the survivor benefits based on this assumption are sufficient to cover children's benefits as they occur.

Valuation of Vested Terminated Members

The deferred retirement benefit is calculated based on the member's final compensation and service at termination. The compensation amount is projected until the assumed retirement age for members who are assumed to be employed by a reciprocal agency. For members who are missing compensation data, Final Compensation is estimated as the average amount for all members who terminated during the same year and had a valid compensation amount. The greater of the present value of the calculated benefit and the employee's current contribution balance is valued.

Reciprocal Employment

18% of General and 35% of Safety current and future deferred vested members are assumed to work for a reciprocal employer. Current vested reciprocal members are assumed to receive annual salary increases of 4.5%. Future reciprocal vested members are assumed to receive the same salary increases they would have received if they had stayed in active employment with LACERA and retired at the assumed retirement age.

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Valuation of Annuity Purchases

Over 30 years ago, LACERA purchased single life annuities from two insurance companies for some retired members (currently less than 5% of the retired population). The total liability for these members is calculated and then offset by the expected value of the benefit to be paid by the insurance companies.

For affected members, the insurance companies are responsible for:

(1) Straight life annuity payments
(2) Statutory COLAs

LACERA is responsible for:

(1) Benefit payments payable to any beneficiary
(2) STAR COLAs

Member Contribution Rate Assumptions

The following assumptions summarize the procedures used to compute member contribution rates based on entry age:

In general, the member rate is determined by the present value of the future benefit (PVFB) payable at retirement age, divided by the present value of all future salaries payable between age at entry and retirement age. For these purposes, per the CERL:

A. The annuity factor used for general members is based on a 40% / 60% blend of the male and female annuity factors using current valuation assumptions. For Safety members it is based on a 90% / 10% blend of the male and female annuity factors using current valuation assumptions.

B. The annuity factor used in determining the present value of future benefits (PVFB) at entry age is equal to the life only annuity factor at 7.50%.

C. The Final Compensation is the average of the member's highest monthly pensionable earnings during any 12-consecutive-month period.

   Example: For a Plan C Member who enters at age 59 or earlier, the Final Compensation (age 60) will be the monthly average of the annual salaries during age 59. (Since salaries are assumed to increased, age 59 will be the highest one year.)

D. The Member Rates are assumed to increase with entry age. There are a few exceptions at the higher entry ages where the calculated rate is less than the previous entry age (for example, age 53 for General A). In these cases the member contribution rate is adjusted so that it is no less than the value for the previous entry age.

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Implementation Schedule for Changes in Assumptions

LACERA implements changes in member and employer contribution rates, interest crediting rates and operating tables in the fiscal year following adoption of the valuation or investigation of experience that the rates and tables are based upon. For example, a change in the investment return assumption adopted for use in the June 30, 2013 actuarial valuation is used for crediting interest to reserves in the fiscal year beginning July 1, 2014.

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Table A-1: Summary of Valuation Assumptions as of June 30, 2013

I.	Economic assumptions	
	A. General wage increases	3.50%
	B. Investment earnings	7.50%
	C. Growth in membership	0.00%
	D. Post-retirement benefit increases (varies by plan)	Plan COLA not greater than CPI assumption.
	E. CPI inflation assumption	3.00%
II.	Demographic assumptions	
	A. Salary increases due to service	Table A-5
	B. Retirement	Tables A-6 to A-13
	C. Disablement	Tables A-6 to A-13
	D. Mortality during active employment	Tables A-6 to A-13
	E. Mortality for active members after termination and service retired members	Table A-2

Basis – RP-2000 Combined Mortality Table for respective genders projected to 2025 using Projection Scale AA:

Class of Members	Age Adjustment
General – males	-1 year
General – females	-1 year
Safety – males	-2 years
Safety – females	-1 year

	F. Mortality among disabled members	Table A-3

Basis – Average of RP-2000 Combined and Disabled Mortality Tables, projected to 2025 using Projection Scale AA:

General – males	-1 year
General – females	-1 year

Basis –RP-2000 Combined Mortality Table, for respective genders projected to 2025 using Projection Scale AA

Safety – males	0 years
Safety – females	0 years

	G. Mortality for beneficiaries	Table A-2

Basis – Beneficiaries are assumed to have the same mortality as a general member of the opposite sex who has taken a service retirement.

	H. Other terminations of employment	Tables A-6 to A-13
	I. Refund of contributions on vested termination	Table A-4

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Table A-2: Mortality for Members Retired for Service*

Age	Safety Male	Safety Female	General Male	General Female
20	0.020%	0.013%	0.020%	0.013%
25	0.026%	0.014%	0.027%	0.014%
30	0.035%	0.018%	0.036%	0.018%
35	0.056%	0.034%	0.062%	0.034%
40	0.083%	0.044%	0.086%	0.044%
45	0.099%	0.071%	0.103%	0.071%
50	0.124%	0.098%	0.130%	0.098%
55	0.176%	0.189%	0.193%	0.189%
60	0.352%	0.392%	0.397%	0.392%
65	0.704%	0.760%	0.793%	0.760%
70	1.256%	1.311%	1.392%	1.311%
75	2.083%	2.136%	2.323%	2.136%
80	3.854%	3.482%	4.393%	3.482%
85	7.340%	5.832%	8.371%	5.832%
90	13.285%	11.053%	14.682%	11.053%

**Note that the mortality assumptions adopted by LACERA per the 2013 Investigation of Experience report contain a margin for expected future mortality improvement. See the Investigation of Experience report for details.*

Table A-3: Mortality for Members Retired for Disability*

Table A-3: Mortality for Members Retired for Disability

Age	Safety Male	Safety Female	General Male	General Female
20	0.021%	0.013%	0.709%	0.262%
25	0.029%	0.015%	0.827%	0.262%
30	0.039%	0.021%	1.014%	0.285%
35	0.068%	0.036%	1.027%	0.307%
40	0.088%	0.048%	0.990%	0.277%
45	0.109%	0.075%	0.886%	0.291%
50	0.136%	0.109%	0.967%	0.387%
55	0.224%	0.222%	1.127%	0.697%
60	0.451%	0.446%	1.557%	1.112%
65	0.895%	0.856%	2.094%	1.554%
70	1.522%	1.477%	2.791%	2.214%
75	2.660%	2.299%	3.818%	3.119%
80	5.007%	3.849%	6.117%	4.585%
85	9.292%	6.663%	9.845%	6.850%
90	16.592%	12.215%	14.806%	11.601%

**Note that the mortality assumptions adopted by LACERA per the 2013 Investigation of Experience report contain a margin for expected future mortality improvement. See the Investigation of Experience report for details.*

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Table A-4: Immediate Refund of Contributions Upon Termination of Employment (Excludes Plan E)

Years of Service	Safety	General
0	100%	100%
1	100%	100%
2	100%	100%
3	100%	100%
4	100%	100%
5	35%	35%
6	35%	35%
7	35%	35%
8	33%	34%
9	31%	34%
10	29%	33%
11	27%	33%
12	25%	32%
13	22%	31%
14	19%	30%
15	16%	30%
16	13%	29%
17	10%	28%
18	6%	25%
19	2%	23%
20	0%	20%
21	0%	18%
22	0%	15%
23	0%	12%
24	0%	9%
25	0%	6%
26	0%	3%
27	0%	0%
28	0%	0%
29	0%	0%
30 & Up	0%	0%

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Table A-5: Annual Increase in Salary*

Years of Service	Due to Promotion and Longevity		Total Annual Increase*	
	General	Safety	General	Safety
<1	6.00%	8.00%	9.71%	11.78%
1	5.25%	7.00%	8.93%	10.75%
2	4.50%	6.00%	8.16%	9.71%
3	3.75%	4.00%	7.38%	7.64%
4	3.00%	3.00%	6.61%	6.60%
5	2.50%	2.50%	6.09%	6.09%
6	2.00%	2.00%	5.57%	5.57%
7	1.75%	1.75%	5.31%	5.31%
8	1.50%	1.50%	5.05%	5.05%
9	1.30%	1.30%	4.85%	4.85%
10	1.15%	1.15%	4.69%	4.69%
11	1.00%	1.00%	4.53%	4.54%
12	0.85%	0.85%	4.38%	4.38%
13	0.70%	0.70%	4.22%	4.22%
14	0.60%	0.60%	4.12%	4.12%
15	0.50%	0.50%	4.02%	4.02%
16	0.40%	0.50%	3.91%	4.02%
17	0.35%	0.50%	3.86%	4.02%
18	0.30%	0.50%	3.81%	4.02%
19	0.25%	0.50%	3.76%	4.02%
20 or More	0.25%	0.50%	3.76%	4.02%

** The total expected increase in salary includes both merit (shown above) and the general wage increase assumption of 3.50% per annum. The total result is compounded rather than additive. For example, the total increase to service less than one year is 9.71% for General members.*

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Appendix A: Rates of Separation From Active Service Tables A-6 to A-13

A schedule of the probabilities of termination of employment due to the following causes can be found on the following pages:

Service Retirement:	Member retires after meeting age and service requirements for reasons other than disability.
Withdrawal:	Member terminates and elects a refund of member contributions, or a deferred vested retirement benefit.
Service Disability:	Member receives disability retirement; disability is service related.
Ordinary Disability:	Member receives disability retirement; disability is not service related.
Service Death:	Member dies before retirement; death is service related.
Ordinary Death:	Member dies before retirement; death is not service related.

Each rate represents the probability that a member will separate from service at each age due to the particular cause. For example, a rate of 0.0300 for a member's service retirement at age 50 means we assume that 30 out of 1,000 members who are age 50 will retire at that age.

Each table represents the detailed rates needed for each LACERA plan by sex:

Table A-6: General Plan A, B & C Males
A-7: General Plan A, B & C Females
A-8: General Plan D Males
A-9: General Plan D Females
A-10: General Plan E Males
A-11: General Plan E Females
A-12: Safety Plan A & B Males
A-13: Safety Plan A & B Females

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Table A-6: Rate of Separation From Active Service For General Members Plans A, B & C - Male

Age	Service Retirement	Other Terminations	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	0.0050	0.0002	0.0001	N/A	0.0002
19	0.0000	0.0050	0.0002	0.0001	N/A	0.0002
20	0.0000	0.0050	0.0002	0.0001	N/A	0.0002
21	0.0000	0.0050	0.0002	0.0001	N/A	0.0002
22	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
23	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
24	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
25	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
26	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
27	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
28	0.0000	0.0050	0.0002	0.0001	N/A	0.0004
29	0.0000	0.0050	0.0002	0.0001	N/A	0.0004
30	0.0000	0.0050	0.0002	0.0001	N/A	0.0004
31	0.0000	0.0050	0.0002	0.0001	N/A	0.0005
32	0.0000	0.0050	0.0002	0.0001	N/A	0.0006
33	0.0000	0.0050	0.0002	0.0001	N/A	0.0006
34	0.0000	0.0050	0.0003	0.0001	N/A	0.0007
35	0.0000	0.0050	0.0003	0.0001	N/A	0.0007
36	0.0000	0.0050	0.0004	0.0001	N/A	0.0008
37	0.0000	0.0050	0.0004	0.0001	N/A	0.0008
38	0.0000	0.0050	0.0005	0.0001	N/A	0.0009
39	0.0000	0.0050	0.0005	0.0001	N/A	0.0009
40	0.0300	0.0050	0.0006	0.0002	N/A	0.0009
41	0.0300	0.0050	0.0006	0.0002	N/A	0.0009
42	0.0300	0.0050	0.0007	0.0002	N/A	0.0010
43	0.0300	0.0050	0.0007	0.0003	N/A	0.0010
44	0.0300	0.0050	0.0008	0.0003	N/A	0.0011
45	0.0300	0.0050	0.0009	0.0003	N/A	0.0011
46	0.0300	0.0050	0.0010	0.0004	N/A	0.0012
47	0.0300	0.0050	0.0011	0.0004	N/A	0.0012
48	0.0300	0.0050	0.0012	0.0004	N/A	0.0013
49	0.0300	0.0050	0.0013	0.0004	N/A	0.0014
50	0.0300	0.0050	0.0014	0.0004	N/A	0.0014
51	0.0300	0.0050	0.0015	0.0004	N/A	0.0015
52	0.0300	0.0050	0.0016	0.0004	N/A	0.0016
53	0.0300	0.0050	0.0018	0.0005	N/A	0.0017
54	0.0600	0.0050	0.0020	0.0006	N/A	0.0019
55	0.1000	0.0050	0.0022	0.0006	N/A	0.0021
56	0.1200	0.0050	0.0024	0.0007	N/A	0.0024
57	0.1700	0.0050	0.0026	0.0008	N/A	0.0027
58	0.2200	0.0050	0.0029	0.0009	N/A	0.0029
59	0.2400	0.0050	0.0032	0.0010	N/A	0.0033
60	0.2600	0.0050	0.0036	0.0010	N/A	0.0037
61	0.3100	0.0050	0.0039	0.0011	N/A	0.0041
62	0.3500	0.0050	0.0042	0.0012	N/A	0.0045
63	0.2800	0.0050	0.0042	0.0014	N/A	0.0049
64	0.2800	0.0050	0.0042	0.0015	N/A	0.0053
65	0.2800	0.0050	0.0042	0.0017	N/A	0.0058
66	0.2800	0.0050	0.0042	0.0018	N/A	0.0062
67	0.2800	0.0050	0.0042	0.0020	N/A	0.0064
68	0.2800	0.0050	0.0042	0.0022	N/A	0.0067
69	0.2800	0.0050	0.0042	0.0023	N/A	0.0068
70	0.2800	0.0050	0.0042	0.0025	N/A	0.0071
71	0.2800	0.0050	0.0042	0.0026	N/A	0.0077
72	0.2800	0.0050	0.0042	0.0028	N/A	0.0085
73	0.2800	0.0050	0.0042	0.0030	N/A	0.0094
74	0.2800	0.0050	0.0042	0.0031	N/A	0.0106
75	1.0000	0.0000	0.0000	0.0000	N/A	0.0000

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Los Angeles County Employees Retirement Association

Table A-7: Rate of Separation From Active Service For General Members Plans A, B & C - Female

Age	Service Retirement	Other Terminations	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
19	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
20	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
21	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
22	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
23	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
24	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
25	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
26	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
27	0.0000	0.0050	0.0001	0.0001	N/A	0.0001
28	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
29	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
30	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
31	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
32	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
33	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
34	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
35	0.0000	0.0050	0.0003	0.0001	N/A	0.0003
36	0.0000	0.0050	0.0003	0.0001	N/A	0.0003
37	0.0000	0.0050	0.0004	0.0001	N/A	0.0004
38	0.0000	0.0050	0.0004	0.0001	N/A	0.0004
39	0.0000	0.0050	0.0005	0.0001	N/A	0.0004
40	0.0300	0.0050	0.0005	0.0002	N/A	0.0004
41	0.0300	0.0050	0.0005	0.0002	N/A	0.0004
42	0.0300	0.0050	0.0006	0.0002	N/A	0.0005
43	0.0300	0.0050	0.0007	0.0003	N/A	0.0005
44	0.0300	0.0050	0.0007	0.0003	N/A	0.0006
45	0.0300	0.0050	0.0008	0.0003	N/A	0.0006
46	0.0300	0.0050	0.0009	0.0004	N/A	0.0007
47	0.0300	0.0050	0.0009	0.0004	N/A	0.0008
48	0.0300	0.0050	0.0010	0.0004	N/A	0.0008
49	0.0300	0.0050	0.0011	0.0004	N/A	0.0008
50	0.0300	0.0050	0.0012	0.0004	N/A	0.0009
51	0.0300	0.0050	0.0012	0.0004	N/A	0.0010
52	0.0300	0.0050	0.0013	0.0004	N/A	0.0011
53	0.0300	0.0050	0.0014	0.0005	N/A	0.0012
54	0.0600	0.0050	0.0015	0.0006	N/A	0.0014
55	0.1000	0.0050	0.0016	0.0006	N/A	0.0016
56	0.1200	0.0050	0.0016	0.0007	N/A	0.0018
57	0.1700	0.0050	0.0017	0.0008	N/A	0.0021
58	0.2200	0.0050	0.0020	0.0009	N/A	0.0024
59	0.2400	0.0050	0.0022	0.0010	N/A	0.0027
60	0.2600	0.0050	0.0024	0.0010	N/A	0.0032
61	0.3100	0.0050	0.0027	0.0011	N/A	0.0032
62	0.3500	0.0050	0.0029	0.0012	N/A	0.0035
63	0.2800	0.0050	0.0031	0.0014	N/A	0.0038
64	0.2800	0.0050	0.0034	0.0015	N/A	0.0041
65	0.2800	0.0050	0.0037	0.0017	N/A	0.0044
66	0.2800	0.0050	0.0040	0.0018	N/A	0.0048
67	0.2800	0.0050	0.0044	0.0020	N/A	0.0051
68	0.2800	0.0050	0.0048	0.0022	N/A	0.0055
69	0.2800	0.0050	0.0052	0.0023	N/A	0.0058
70	0.2800	0.0050	0.0052	0.0025	N/A	0.0061
71	0.2800	0.0050	0.0052	0.0026	N/A	0.0064
72	0.2800	0.0050	0.0052	0.0028	N/A	0.0067
73	0.2800	0.0050	0.0052	0.0030	N/A	0.0068
74	0.2800	0.0050	0.0052	0.0031	N/A	0.0073
75	1.0000	0.0000	0.0000	0.0000	N/A	0.0078

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Los Angeles County Employees Retirement Association

Table A-8: Rate of Separation From Active Service For General Members Plan D and G - Male

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	0.0002	0.0001	N/A	0.0002
19	0.0000	0.0002	0.0001	N/A	0.0002
20	0.0000	0.0002	0.0001	N/A	0.0002
21	0.0000	0.0002	0.0001	N/A	0.0002
22	0.0000	0.0002	0.0001	N/A	0.0003
23	0.0000	0.0002	0.0001	N/A	0.0003
24	0.0000	0.0002	0.0001	N/A	0.0003
25	0.0000	0.0002	0.0001	N/A	0.0003
26	0.0000	0.0002	0.0001	N/A	0.0003
27	0.0000	0.0002	0.0001	N/A	0.0003
28	0.0000	0.0002	0.0001	N/A	0.0004
29	0.0000	0.0002	0.0001	N/A	0.0004
30	0.0000	0.0002	0.0001	N/A	0.0004
31	0.0000	0.0002	0.0001	N/A	0.0005
32	0.0000	0.0002	0.0001	N/A	0.0006
33	0.0000	0.0002	0.0001	N/A	0.0006
34	0.0000	0.0003	0.0001	N/A	0.0007
35	0.0000	0.0003	0.0001	N/A	0.0007
36	0.0000	0.0004	0.0001	N/A	0.0008
37	0.0000	0.0004	0.0001	N/A	0.0008
38	0.0000	0.0005	0.0001	N/A	0.0009
39	0.0000	0.0005	0.0001	N/A	0.0009
40	0.0200	0.0006	0.0002	N/A	0.0009
41	0.0200	0.0006	0.0002	N/A	0.0009
42	0.0200	0.0007	0.0002	N/A	0.0010
43	0.0200	0.0007	0.0003	N/A	0.0010
44	0.0200	0.0008	0.0003	N/A	0.0011
45	0.0200	0.0009	0.0003	N/A	0.0011
46	0.0200	0.0010	0.0004	N/A	0.0012
47	0.0200	0.0011	0.0004	N/A	0.0012
48	0.0200	0.0012	0.0004	N/A	0.0013
49	0.0200	0.0013	0.0004	N/A	0.0014
50	0.0200	0.0014	0.0004	N/A	0.0014
51	0.0200	0.0015	0.0004	N/A	0.0015
52	0.0200	0.0016	0.0004	N/A	0.0016
53	0.0200	0.0018	0.0005	N/A	0.0017
54	0.0200	0.0020	0.0006	N/A	0.0019
55	0.0250	0.0022	0.0006	N/A	0.0021
56	0.0250	0.0024	0.0007	N/A	0.0024
57	0.0300	0.0026	0.0008	N/A	0.0027
58	0.0350	0.0029	0.0009	N/A	0.0029
59	0.0500	0.0032	0.0010	N/A	0.0033
60	0.0600	0.0036	0.0010	N/A	0.0037
61	0.0700	0.0039	0.0011	N/A	0.0041
62	0.1000	0.0042	0.0012	N/A	0.0045
63	0.0900	0.0042	0.0014	N/A	0.0049
64	0.1200	0.0042	0.0015	N/A	0.0053
65	0.2000	0.0042	0.0017	N/A	0.0058
66	0.2000	0.0042	0.0018	N/A	0.0062
67	0.1800	0.0042	0.0020	N/A	0.0064
68	0.1600	0.0042	0.0022	N/A	0.0067
69	0.1600	0.0042	0.0023	N/A	0.0068
70	0.2000	0.0042	0.0025	N/A	0.0071
71	0.2000	0.0042	0.0026	N/A	0.0077
72	0.2000	0.0042	0.0028	N/A	0.0085
73	0.2000	0.0042	0.0030	N/A	0.0094
74	0.2000	0.0042	0.0031	N/A	0.0106
75	1.0000	0.0042	0.0000	N/A	0.0119

Years of Service	Other Terminations
0	0.0800
1	0.0550
2	0.0375
3	0.0300
4	0.0250
5	0.0233
6	0.0217
7	0.0200
8	0.0190
9	0.0180
10	0.0170
11	0.0160
12	0.0150
13	0.0140
14	0.0130
15	0.0120
16	0.0110
17	0.0100
18	0.0092
19	0.0084
20	0.0076
21	0.0068
22	0.0060
23	0.0056
24	0.0052
25	0.0048
26	0.0044
27	0.0040
28	0.0040
29	0.0040
30 & Above	0.0000

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Los Angeles County Employees Retirement Association

Table A-9: Rate of Separation From Active Service For General Members Plan D and G - Female

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	0.0001	0.0001	N/A	0.0001
19	0.0000	0.0001	0.0001	N/A	0.0001
20	0.0000	0.0001	0.0001	N/A	0.0001
21	0.0000	0.0001	0.0001	N/A	0.0001
22	0.0000	0.0001	0.0001	N/A	0.0001
23	0.0000	0.0001	0.0001	N/A	0.0001
24	0.0000	0.0001	0.0001	N/A	0.0001
25	0.0000	0.0001	0.0001	N/A	0.0001
26	0.0000	0.0001	0.0001	N/A	0.0001
27	0.0000	0.0001	0.0001	N/A	0.0001
28	0.0000	0.0001	0.0001	N/A	0.0002
29	0.0000	0.0001	0.0001	N/A	0.0002
30	0.0000	0.0001	0.0001	N/A	0.0002
31	0.0000	0.0001	0.0001	N/A	0.0002
32	0.0000	0.0001	0.0001	N/A	0.0002
33	0.0000	0.0002	0.0001	N/A	0.0003
34	0.0000	0.0002	0.0001	N/A	0.0003
35	0.0000	0.0003	0.0001	N/A	0.0003
36	0.0000	0.0003	0.0001	N/A	0.0003
37	0.0000	0.0004	0.0001	N/A	0.0004
38	0.0000	0.0004	0.0001	N/A	0.0004
39	0.0000	0.0005	0.0001	N/A	0.0004
40	0.0200	0.0005	0.0002	N/A	0.0004
41	0.0200	0.0005	0.0002	N/A	0.0004
42	0.0200	0.0006	0.0002	N/A	0.0005
43	0.0200	0.0007	0.0003	N/A	0.0005
44	0.0200	0.0007	0.0003	N/A	0.0006
45	0.0200	0.0008	0.0003	N/A	0.0006
46	0.0200	0.0009	0.0004	N/A	0.0007
47	0.0200	0.0009	0.0004	N/A	0.0008
48	0.0200	0.0010	0.0004	N/A	0.0008
49	0.0200	0.0011	0.0004	N/A	0.0008
50	0.0200	0.0012	0.0004	N/A	0.0009
51	0.0200	0.0012	0.0004	N/A	0.0010
52	0.0200	0.0013	0.0004	N/A	0.0011
53	0.0200	0.0014	0.0005	N/A	0.0012
54	0.0200	0.0015	0.0006	N/A	0.0014
55	0.0250	0.0016	0.0006	N/A	0.0016
56	0.0250	0.0016	0.0007	N/A	0.0018
57	0.0300	0.0017	0.0008	N/A	0.0021
58	0.0350	0.0020	0.0009	N/A	0.0024
59	0.0500	0.0022	0.0010	N/A	0.0027
60	0.0600	0.0024	0.0010	N/A	0.0029
61	0.0700	0.0027	0.0011	N/A	0.0032
62	0.1000	0.0029	0.0012	N/A	0.0035
63	0.0900	0.0031	0.0014	N/A	0.0038
64	0.1200	0.0034	0.0015	N/A	0.0041
65	0.2000	0.0037	0.0017	N/A	0.0044
66	0.2000	0.0040	0.0018	N/A	0.0048
67	0.1800	0.0044	0.0020	N/A	0.0051
68	0.1600	0.0048	0.0022	N/A	0.0055
69	0.1600	0.0052	0.0023	N/A	0.0058
70	0.2000	0.0052	0.0025	N/A	0.0061
71	0.2000	0.0052	0.0026	N/A	0.0064
72	0.2000	0.0052	0.0028	N/A	0.0067
73	0.2000	0.0052	0.0030	N/A	0.0068
74	0.2000	0.0052	0.0031	N/A	0.0073
75	1.0000	0.0000	0.0000	N/A	0.0078

Years of Service	Other Terminations
0	0.0800
1	0.0550
2	0.0375
3	0.0300
4	0.0250
5	0.0233
6	0.0217
7	0.0200
8	0.0190
9	0.0180
10	0.0170
11	0.0160
12	0.0150
13	0.0140
14	0.0130
15	0.0120
16	0.0110
17	0.0100
18	0.0092
19	0.0084
20	0.0076
21	0.0068
22	0.0060
23	0.0056
24	0.0052
25	0.0048
26	0.0044
27	0.0040
28	0.0040
29	0.0040
30 & Above	0.0000

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Los Angeles County Employees Retirement Association

Table A-10: Rate of Separation From Active Service For General Members Plan E - Male

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	N/A	N/A	N/A	0.0002
19	0.0000	N/A	N/A	N/A	0.0002
20	0.0000	N/A	N/A	N/A	0.0002
21	0.0000	N/A	N/A	N/A	0.0002
22	0.0000	N/A	N/A	N/A	0.0003
23	0.0000	N/A	N/A	N/A	0.0003
24	0.0000	N/A	N/A	N/A	0.0003
25	0.0000	N/A	N/A	N/A	0.0003
26	0.0000	N/A	N/A	N/A	0.0003
27	0.0000	N/A	N/A	N/A	0.0003
28	0.0000	N/A	N/A	N/A	0.0004
29	0.0000	N/A	N/A	N/A	0.0004
30	0.0000	N/A	N/A	N/A	0.0004
31	0.0000	N/A	N/A	N/A	0.0005
32	0.0000	N/A	N/A	N/A	0.0006
33	0.0000	N/A	N/A	N/A	0.0006
34	0.0000	N/A	N/A	N/A	0.0007
35	0.0000	N/A	N/A	N/A	0.0007
36	0.0000	N/A	N/A	N/A	0.0008
37	0.0000	N/A	N/A	N/A	0.0008
38	0.0000	N/A	N/A	N/A	0.0009
39	0.0000	N/A	N/A	N/A	0.0009
40	0.0000	N/A	N/A	N/A	0.0009
41	0.0000	N/A	N/A	N/A	0.0009
42	0.0000	N/A	N/A	N/A	0.0010
43	0.0000	N/A	N/A	N/A	0.0010
44	0.0000	N/A	N/A	N/A	0.0011
45	0.0000	N/A	N/A	N/A	0.0011
46	0.0000	N/A	N/A	N/A	0.0012
47	0.0000	N/A	N/A	N/A	0.0012
48	0.0000	N/A	N/A	N/A	0.0013
49	0.0000	N/A	N/A	N/A	0.0014
50	0.0000	N/A	N/A	N/A	0.0014
51	0.0000	N/A	N/A	N/A	0.0015
52	0.0000	N/A	N/A	N/A	0.0016
53	0.0000	N/A	N/A	N/A	0.0017
54	0.0000	N/A	N/A	N/A	0.0019
55	0.0300	N/A	N/A	N/A	0.0021
56	0.0250	N/A	N/A	N/A	0.0024
57	0.0250	N/A	N/A	N/A	0.0027
58	0.0250	N/A	N/A	N/A	0.0029
59	0.0300	N/A	N/A	N/A	0.0033
60	0.0450	N/A	N/A	N/A	0.0037
61	0.0600	N/A	N/A	N/A	0.0041
62	0.0900	N/A	N/A	N/A	0.0045
63	0.0900	N/A	N/A	N/A	0.0049
64	0.1600	N/A	N/A	N/A	0.0053
65	0.2500	N/A	N/A	N/A	0.0058
66	0.1800	N/A	N/A	N/A	0.0062
67	0.1700	N/A	N/A	N/A	0.0064
68	0.1600	N/A	N/A	N/A	0.0067
69	0.1600	N/A	N/A	N/A	0.0068
70	0.2000	N/A	N/A	N/A	0.0071
71	0.2000	N/A	N/A	N/A	0.0077
72	0.2000	N/A	N/A	N/A	0.0085
73	0.2000	N/A	N/A	N/A	0.0094
74	0.2000	N/A	N/A	N/A	0.0106
75	1.0000	N/A	N/A	N/A	0.0119

Years of Service	Other Terminations
0	0.1400
1	0.0750
2	0.0550
3	0.0400
4	0.0300
5	0.0277
6	0.0253
7	0.0230
8	0.0220
9	0.0210
10	0.0200
11	0.0190
12	0.0180
13	0.0174
14	0.0168
15	0.0162
16	0.0156
17	0.0150
18	0.0144
19	0.0138
20	0.0132
21	0.0126
22	0.0120
23	0.0116
24	0.0112
25	0.0108
26	0.0104
27	0.0100
28	0.0100
29	0.0100
30 & Above	0.0100

Los Angeles County Employees Retirement Association

Table A-11: Rate of Separation From Active Service For General Members Plan E - Female

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	N/A	N/A	N/A	0.0001
19	0.0000	N/A	N/A	N/A	0.0001
20	0.0000	N/A	N/A	N/A	0.0001
21	0.0000	N/A	N/A	N/A	0.0001
22	0.0000	N/A	N/A	N/A	0.0001
23	0.0000	N/A	N/A	N/A	0.0001
24	0.0000	N/A	N/A	N/A	0.0001
25	0.0000	N/A	N/A	N/A	0.0001
26	0.0000	N/A	N/A	N/A	0.0001
27	0.0000	N/A	N/A	N/A	0.0001
28	0.0000	N/A	N/A	N/A	0.0002
29	0.0000	N/A	N/A	N/A	0.0002
30	0.0000	N/A	N/A	N/A	0.0002
31	0.0000	N/A	N/A	N/A	0.0002
32	0.0000	N/A	N/A	N/A	0.0002
33	0.0000	N/A	N/A	N/A	0.0003
34	0.0000	N/A	N/A	N/A	0.0003
35	0.0000	N/A	N/A	N/A	0.0003
36	0.0000	N/A	N/A	N/A	0.0003
37	0.0000	N/A	N/A	N/A	0.0004
38	0.0000	N/A	N/A	N/A	0.0004
39	0.0000	N/A	N/A	N/A	0.0004
40	0.0000	N/A	N/A	N/A	0.0004
41	0.0000	N/A	N/A	N/A	0.0004
42	0.0000	N/A	N/A	N/A	0.0005
43	0.0000	N/A	N/A	N/A	0.0005
44	0.0000	N/A	N/A	N/A	0.0006
45	0.0000	N/A	N/A	N/A	0.0006
46	0.0000	N/A	N/A	N/A	0.0007
47	0.0000	N/A	N/A	N/A	0.0008
48	0.0000	N/A	N/A	N/A	0.0008
49	0.0000	N/A	N/A	N/A	0.0008
50	0.0000	N/A	N/A	N/A	0.0009
51	0.0000	N/A	N/A	N/A	0.0010
52	0.0000	N/A	N/A	N/A	0.0011
53	0.0000	N/A	N/A	N/A	0.0012
54	0.0000	N/A	N/A	N/A	0.0014
55	0.0300	N/A	N/A	N/A	0.0016
56	0.0250	N/A	N/A	N/A	0.0018
57	0.0250	N/A	N/A	N/A	0.0021
58	0.0250	N/A	N/A	N/A	0.0024
59	0.0300	N/A	N/A	N/A	0.0027
60	0.0450	N/A	N/A	N/A	0.0029
61	0.0600	N/A	N/A	N/A	0.0032
62	0.0900	N/A	N/A	N/A	0.0035
63	0.0900	N/A	N/A	N/A	0.0038
64	0.1600	N/A	N/A	N/A	0.0041
65	0.2500	N/A	N/A	N/A	0.0044
66	0.1800	N/A	N/A	N/A	0.0048
67	0.1700	N/A	N/A	N/A	0.0051
68	0.1600	N/A	N/A	N/A	0.0055
69	0.1600	N/A	N/A	N/A	0.0058
70	0.2000	N/A	N/A	N/A	0.0061
71	0.2000	N/A	N/A	N/A	0.0064
72	0.2000	N/A	N/A	N/A	0.0067
73	0.2000	N/A	N/A	N/A	0.0068
74	0.2000	N/A	N/A	N/A	0.0073
75	1.0000	N/A	N/A	N/A	0.0078

Years of Service	Other Terminations
0	0.1400
1	0.0750
2	0.0550
3	0.0400
4	0.0300
5	0.0277
6	0.0253
7	0.0230
8	0.0220
9	0.0210
10	0.0200
11	0.0190
12	0.0180
13	0.0174
14	0.0168
15	0.0162
16	0.0156
17	0.0150
18	0.0144
19	0.0138
20	0.0132
21	0.0126
22	0.0120
23	0.0116
24	0.0112
25	0.0108
26	0.0104
27	0.0100
28	0.0100
29	0.0100
30 & Above	0.0100

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Los Angeles County Employees Retirement Association

Table A-12: Rate of Separation From Active Service For Safety Members Plan A, B & C - Male

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	0.0027	0.0000	0.0001	0.0000
19	0.0000	0.0027	0.0000	0.0001	0.0000
20	0.0000	0.0027	0.0000	0.0001	0.0002
21	0.0000	0.0027	0.0000	0.0001	0.0002
22	0.0000	0.0027	0.0000	0.0001	0.0002
23	0.0000	0.0027	0.0000	0.0001	0.0002
24	0.0000	0.0027	0.0000	0.0001	0.0002
25	0.0000	0.0027	0.0000	0.0001	0.0002
26	0.0000	0.0027	0.0000	0.0001	0.0002
27	0.0000	0.0027	0.0000	0.0001	0.0002
28	0.0000	0.0027	0.0000	0.0001	0.0003
29	0.0000	0.0027	0.0000	0.0001	0.0003
30	0.0000	0.0027	0.0000	0.0001	0.0003
31	0.0000	0.0027	0.0000	0.0001	0.0003
32	0.0000	0.0027	0.0000	0.0001	0.0003
33	0.0000	0.0029	0.0000	0.0001	0.0003
34	0.0000	0.0031	0.0000	0.0001	0.0004
35	0.0000	0.0032	0.0000	0.0001	0.0004
36	0.0000	0.0034	0.0000	0.0001	0.0004
37	0.0000	0.0036	0.0000	0.0001	0.0005
38	0.0000	0.0038	0.0000	0.0001	0.0006
39	0.0000	0.0040	0.0000	0.0001	0.0006
40	0.0100	0.0041	0.0000	0.0001	0.0007
41	0.0100	0.0043	0.0000	0.0001	0.0007
42	0.0100	0.0045	0.0000	0.0001	0.0008
43	0.0100	0.0049	0.0000	0.0001	0.0008
44	0.0100	0.0052	0.0000	0.0001	0.0009
45	0.0100	0.0056	0.0000	0.0001	0.0009
46	0.0100	0.0059	0.0000	0.0001	0.0009
47	0.0100	0.0063	0.0000	0.0001	0.0009
48	0.0100	0.0072	0.0000	0.0001	0.0010
49	0.0100	0.0081	0.0000	0.0001	0.0010
50	0.0100	0.0090	0.0000	0.0001	0.0011
51	0.0200	0.0108	0.0000	0.0001	0.0011
52	0.0250	0.0126	0.0000	0.0001	0.0012
53	0.0300	0.0180	0.0000	0.0001	0.0012
54	0.1000	0.0270	0.0000	0.0001	0.0013
55	0.2400	0.0900	0.0000	0.0001	0.0014
56	0.1800	0.0720	0.0000	0.0001	0.0014
57	0.2000	0.1080	0.0000	0.0001	0.0015
58	0.2400	0.1260	0.0000	0.0001	0.0016
59	0.4000	0.1800	0.0000	0.0001	0.0017
60	1.0000	0.0000	0.0000	0.0000	0.0019

Years of Service	Other Terminations
0	0.0300
1	0.0250
2	0.0200
3	0.0150
4	0.0120
5	0.0113
6	0.0107
7	0.0100
8	0.0092
9	0.0084
10	0.0076
11	0.0068
12	0.0060
13	0.0054
14	0.0048
15	0.0042
16	0.0036
17	0.0030
18	0.0024
19	0.0018
20 & Above	0.0000

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Los Angeles County Employees Retirement Association

Table A-13: Rate of Separation From Active Service For Safety Members Plan A, B & C – Female

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	0.0033	0.0000	0.0001	0.0001
19	0.0000	0.0033	0.0000	0.0001	0.0001
20	0.0000	0.0033	0.0000	0.0001	0.0001
21	0.0000	0.0033	0.0000	0.0001	0.0001
22	0.0000	0.0033	0.0000	0.0001	0.0001
23	0.0000	0.0033	0.0000	0.0001	0.0001
24	0.0000	0.0033	0.0000	0.0001	0.0001
25	0.0000	0.0033	0.0000	0.0001	0.0001
26	0.0000	0.0033	0.0000	0.0001	0.0001
27	0.0000	0.0033	0.0000	0.0001	0.0001
28	0.0000	0.0038	0.0000	0.0001	0.0002
29	0.0000	0.0041	0.0000	0.0001	0.0002
30	0.0000	0.0046	0.0000	0.0001	0.0002
31	0.0000	0.0050	0.0000	0.0001	0.0002
32	0.0000	0.0054	0.0000	0.0001	0.0002
33	0.0000	0.0060	0.0000	0.0001	0.0003
34	0.0000	0.0067	0.0000	0.0001	0.0003
35	0.0000	0.0072	0.0000	0.0001	0.0003
36	0.0000	0.0078	0.0000	0.0001	0.0003
37	0.0000	0.0085	0.0000	0.0001	0.0004
38	0.0000	0.0088	0.0000	0.0001	0.0004
39	0.0000	0.0091	0.0000	0.0001	0.0004
40	0.0100	0.0095	0.0000	0.0001	0.0004
41	0.0100	0.0097	0.0000	0.0001	0.0004
42	0.0100	0.0101	0.0000	0.0001	0.0005
43	0.0100	0.0104	0.0000	0.0001	0.0005
44	0.0100	0.0108	0.0000	0.0001	0.0006
45	0.0100	0.0111	0.0000	0.0001	0.0006
46	0.0100	0.0114	0.0000	0.0001	0.0007
47	0.0100	0.0118	0.0000	0.0001	0.0008
48	0.0100	0.0122	0.0000	0.0001	0.0008
49	0.0100	0.0135	0.0000	0.0001	0.0008
50	0.0100	0.0203	0.0000	0.0001	0.0009
51	0.0200	0.0237	0.0000	0.0001	0.0010
52	0.0250	0.0270	0.0000	0.0001	0.0011
53	0.0300	0.0338	0.0000	0.0001	0.0012
54	0.1000	0.0405	0.0000	0.0001	0.0014
55	0.2400	0.0473	0.0000	0.0001	0.0016
56	0.1800	0.0810	0.0000	0.0001	0.0018
57	0.2000	0.0810	0.0000	0.0001	0.0021
58	0.2400	0.0810	0.0000	0.0001	0.0024
59	0.4000	0.0810	0.0000	0.0001	0.0027
60	1.0000	0.0000	0.0000	0.0000	0.0029

Years of Service	Other Terminations
0	0.0300
1	0.0250
2	0.0200
3	0.0150
4	0.0120
5	0.0113
6	0.0107
7	0.0100
8	0.0092
9	0.0084
10	0.0076
11	0.0068
12	0.0060
13	0.0054
14	0.0048
15	0.0042
16	0.0036
17	0.0030
18	0.0024
19	0.0018
20 & Above	0.0000

Los Angeles County Employees Retirement Association

Appendix B: Summary of Plan Provisions

All actuarial calculations are based on our understanding of the statutes governing LACERA as contained in the County Employees Retirement Plan (CERL) of 1937 and the Public Employees' Pension Relief Act (PEPRA) with provisions adopted by the LACERA Board, effective through July 1, 2013. The benefit and contribution provisions of this law are summarized briefly below, along with corresponding references to the State Code. This summary does not attempt to cover all the detailed provisions of the law.

MEMBERSHIP	Government Code Section
Permanent employees of Los Angeles County (County) and participating districts who work ¾ time or more are eligible for membership in LACERA.	(31551, 31552, Bylaws)
Employees eligible for safety membership (law enforcement, firefighting and lifeguards) become safety members on the first day of the month after date of hire.	(31558)
All other employees become general members on the first day of the month after date of hire.	(31493, Bylaws)
Elective officers become members on the first day of the month after filing a declaration with the Board of Retirement (Board).	(31553, 31562)

General members in Plan E may transfer all their Plan E service credit to Plan D during an approved transfer period by making the required contributions. Transferred members relinquish, waive, and forfeit any and all vested or accrued benefits available under any other retirement plan and are entitled only to the benefits of Plan D.

RETIREMENT PLANS

The County has established nine defined benefit plans (General Plans A, B, C, D, E and G and Safety Plans A, B and C) and two defined contribution plans (General Plan F and Safety Plan F) based on a member's date of entry into LACERA. (31494.1, 31494.3)

Plan A: General and safety members – prior to September 1977.

Plan B: General members – September 1977 through September 1978. Safety members – September 1977 to present.

Plan C: General members – October 1978 through May 1979. Safety members – first hired on or after January 1, 2013. (7522.02)

Plan D: General members – hired June 1979 through January 3, 1982; and those hired on or after January 4, 1982 and elect Plan D instead of Plan E; or, former Plan E general members who elected to transfer to Plan D.

Plan E: General members – hired on or after January 4, 1982, unless they elect Plan D; or, former general members in Plans A-D who elected to transfer to Plan E. (31487, 31496)

Plan G: General members – first hired on or after January 1, 2013. (7522.02)

MEMBER CONTRIBUTIONS

Plans A, B, D and General Plan C members

Contributions are based on the entry age and class of each member and are required of all members in Plans A, B, C, and D. Current member rates are shown in Appendix D. Section 5 provides additional detail on how these rates are calculated. (31620)

Contributions cease when general members are credited with 30 years of service in a contributory plan, provided they were members of LACERA or a reciprocal system on March 7, 1973, and continuously thereafter. All safety members are eligible for the 30-year cessation of contributions. (31625.2, 31836.1)

Interest is credited to contributions semiannually on June 30 and December 31 at an interest rate set by the Board of Investments on amounts that have been on deposit for at least six months. (31591, 31700)

In addition to the normal contributions, members pay one-half of the cost of their plan's COLA. This is discussed further in Section 5 of this report. (31873)

General Plan G and Safety Plan C members

Members contribute 50% of the aggregate Normal Cost rate for their Plan. (7522.30)

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EMPLOYER CONTRIBUTIONS

The employer (County or district) contributes to the retirement fund a percent of the total compensation provided for all members based on an actuarial valuation and recommendation of the actuary and the Board of Investments. (31453, 31454 31581)

SERVICE RETIREMENT ALLOWANCE

Eligibility

Plans A-D:	**General members** Age 50 with 10 years of County service; Any age with 30 years of service; or Age 70 regardless of service.	(31672)
Plans A-B:	**Safety members** Age 50 with 10 years of County service; Any age with 20 years of service; or Age 60 regardless of service.	(31662.4, 31662.6, 31663.25)
Plan C:	Age 50 with 5 years of service.	(7522.25(d))
Plan E:	Age 65 with 10 years of service. A reduced benefit is also payable at age 55 with 10 years of service.	(31491.3)
Plan G:	Age 52 with 5 years of service.	(7522.20(a))

Final Compensation

Plans A, B, D and General Plan C	Average of the member's highest monthly pensionable earnings during any 12-consecutive-month period.	(31462.3, 31461.45)
Plan E:	Average of the member's highest monthly pensionable earnings during any three 12-consecutive month periods.	(31488)
General Plan G and Safety Plan C	Average of the member's highest monthly pensionable earnings during any 36-consecutive month period.	(7522.32)

The amount of compensation that is taken into account in computing benefits payable to any person who first becomes a member on or after July 1, 1996, shall not exceed the dollar limitations in Section 401(a)(17) of Title 26 of the US Code. (31671)

The amount of compensation taken into account for General Plan G and Safety Plan C members is limited to $136,440 for 2013. The amount of compensation taken into account shall be adjusted based on changes in the Consumer Price Index for All Urban Consumers. Adjustments shall be effective annually on January 1. (7522.10)

SERVICE RETIREMENT ALLOWANCE (Continued)

Monthly Allowance

Plans A-B:	**Safety members** 1/50 x Final Compensation x Safety age factor x Years of service. (The Safety Plan A and Safety Plan B age factors are the same.)	(31664)
Plans A-D:	**General members** 1/60 x Final Compensation x a Plan specific age factor x years of service.	(31676.1) (31676.11) (31676.14)
Plan C:	**Safety members** Final Compensation x Safety Plan percentage x Years of service.	(7522.25(d))
Plan G:	**General members** Final Compensation x General Plan percentage x Years of service.	(7522.20(a))
Plan E:	**General members [(a)+(b)-(c)] x d where:** (a) 2% x Final Compensation x (Years of Service (up to 35 years), plus (b) 1 % x Final Compensation x Years of Service in excess of 35 (up to 10) (c) Estimated Primary Insurance Amount (PIA) x Years of Covered Service (up to 35) divided by 35. (d) Age Factor The PIA is calculated based on certain assumptions specified by statute, and an assumed Social Security retirement age of 62. If retirement occurs prior to age 65, benefit amount is adjusted by an actuarial equivalent factor (see Sample Plan Age Factors).	(31491, 31491.3 (b)&(c))

Social Security Integration

Plans A-C:	**General Members** For County service covered by Social Security prior to January 1, 1983, the 1/60 factor is replaced by 1/90 for the first $350 of compensation.	(31808)
Plan D:	The 1/90 factor is applied to the first $1,050 of compensation.	

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SERVICE RETIREMENT ALLOWANCE (Continued)

Sample Plan Age Factors

Plan	Age 50	Age 55	Age 60	Age 65 & Up	
General A	0.885	1.169	1.464	1.567	(31676.14)
General B	0.745	1.000	1.309	1.567	(31676.11)
General C&D	0.709	0.895	1.150	1.459	(31676.1)
General E	N/A	0.375	0.601	1.000	(31491.3(a))
Safety A&B	1.000	1.310	1.310	1.310	(31664)

Sample Plan Age Percentages

Plan	Age 50	Age 55	Age 60	Age 65 & Up	
General G	N/A	1.30%	1.80%	2.30%*	(7522.20(a))
Safety C	2.00%	2.50%	2.70%	2.70%	(7522.25(d))

**Maximum percentage for General Plan G is 2.50% at age 67.*

Maximum Allowance

Plans A-B and General Plans C-D:
Allowance may not exceed 100% of final compensation.

General Plans G and Safety Plan C:
Maximum allowance does not apply.

Plan E: The sum of the normal retirement allowance and the estimated PIA cannot exceed 70% of Final Compensation for a member with 35 or less years of service, and cannot exceed 80% of Final Compensation if service exceeds 35 years. (31491.3)

Unmodified Retirement Allowance (Normal Form)

Plans A-D, G: Life Annuity payable to retired member with 65% continuance to an eligible survivor (or eligible children). (31760.12, 31785.4)

Plan E: Life Annuity payable to retired member with 55% continuance to an eligible survivor (or eligible children). (31491, 31492.1)

Eligible survivor includes certain domestic partners. (31780.2)

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SERVICE RETIREMENT ALLOWANCE (Continued)

Optional Retirement Allowance

A member may elect to have the actuarial equivalent of the service or disability retirement allowance applied to a lesser retirement allowance during the retired member's life in order to provide an optional survivor allowance. (31760)

Unmodified Plus:	Members with eligible survivors may elect a higher percent than the standard unmodified continuance, up to 100%. The benefit is actuarially reduced from the unmodified amount. The elected percent of the member's reduced allowance is payable to the eligible survivor.	(31760.5)
Option 1:	Member's allowance is reduced to pay a cash refund of any unpaid annuity payments (up to the amount of the member's contributions at retirement) to the member's estate or to a beneficiary having an insurable interest in the life of the member.	(31761)
Option 2:	100% of member's reduced allowance is payable to a surviving spouse or beneficiary having an insurable interest in the life of the member.	(31762)
Option 3:	50% of member's reduced allowance is payable to a surviving spouse or beneficiary having an insurable interest in the life of the member.	(31763)
Option 4:	Other % of member's reduced allowance is payable to a surviving spouse or beneficiary(ies) having an insurable interest in the life of the member.	(31764)

A member may not revoke and name another beneficiary if the member elects Option 2, 3 or 4. (31782)

Pension Advance Option:	The Pension Advance Option is available to members who are fully insured under Social Security for the purpose of coordinating a member's retirement allowance with benefits receivable from Social Security. It is not available to disability retirees or members who elect Option 2, 3 or 4. The allowance is increased prior to age 62 and then reduced after 62 by amounts which have equivalent actuarial values. The automatic 65% continuance for eligible spouses of members who elect the Pension Advance Option is based on the unmodified allowance the member would have received if the member had not elected the option.	(31810, 31811)

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SERVICE RETIREMENT ALLOWANCE (Continued)

All Allowances (31600)

All allowances are made on a pro-rata basis (based on the number of days in that month) if not in effect for the entire month of retirement. For deaths that occur mid-month, the full month's payment is made.

SERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

Eligibility

Plans A-D, G:	Any age or years of service; disability must result from occupational injury or disease, and member must be permanently incapacitated for the performance of duty.	(31720, 31720.5)
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance

Greater of (1) 50% of final compensation, and (2) the service retirement allowance, if eligible to retire. (31727.4)

Normal Form Of Payment

Life Annuity with 100% continuance to a surviving spouse (or eligible children). (31760, 31786)

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NONSERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

Eligibility

Plans A-D, G:	Any age with five years of service, and permanently incapacitated for the performance of duty.	(31720, 31836)
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance

The monthly allowance is equal to a service retirement allowance if the member is eligible to retire; otherwise allowance equals (a) or (b) where:		(31726, 31726.5)
General Members:	(a) 90% of 1/60 of Final Compensation x years of service, if member must rely on service in another retirement system in order to be eligible to retire, or allowance exceeds 1/3 of final compensation.	(31727(a))
	(b) 90% of 1/60 of Final Compensation x years of service projected to age 65, not to exceed 1/3 of Final Compensation.	(31727(b))
Safety Members:	1/60 is replaced by 1/50 and age 65 is replaced by age 55 in (a) and (b) above.	(31727.2)

Normal Form Of Payment

Life Annuity with 65% continuance to a surviving spouse (or eligible children).	(31760, 31760.1, 31760.12, 31785, 31785.4)

SERVICE-CONNECTED DEATH BENEFITS

Eligibility

		(31787)
Plans A-D, G:	Active members who die in service as a result of injury or disease arising out of and in the course of employment.	
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance

An annual death allowance is payable monthly to an eligible survivor (or eligible children) equal to 50% of the member's Final Compensation.	(31787)

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SERVICE-CONNECTED DEATH BENEFITS (Continued)

Optional Combined Benefit (31781.3)

In lieu of the monthly allowance above, a surviving spouse may elect:

(a) A lump sum equal to 1/12 of the compensation earned in the preceding 12 months x years of service (benefit not to exceed 50% of the 12 months' compensation), plus

(b) A monthly payment equal to 50% of the member's Final Compensation, reduced by a monthly amount, which is the actuarial equivalent of (a) above based on the age of surviving spouse.

Death Benefit (Lump Sum) (31781)

The member's accumulated contributions with interest, plus 1/12 of the compensation earned in the preceding 12 months x years of service (benefit not to exceed 50% of the 12 months' compensation).

Additional Allowance for Children (31787.5)

25% of death allowance (whether or not the monthly allowance or combined benefit is chosen) for one child, 40% for two children, and 50% for three or more children.

Additional Amount for Spouse of Safety Member (31787.6)

A surviving spouse of a safety member is also entitled to receive a lump-sum death benefit equal to 12 x monthly rate of compensation at the time of member's death in addition to all other benefits.

Note: *For valuation purposes, an unmarried member is assumed to take the lump sum benefit. A married member is assumed to take the monthly allowance or the lump sum, whichever is more valuable.*

NONSERVICE-CONNECTED DEATH BENEFITS

Eligibility (31780)

Plans A-D, G:	Active members who die while in service or while physically or mentally incapacitated for the performance of duty.	
Plan E:	Not available under Plan E.	(31487)

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NONSERVICE-CONNECTED DEATH BENEFITS (Continued)

Death Benefit (Lump Sum) (31781)

The member's accumulated contributions with interest, plus 1/12 of the compensation earned in preceding 12 months x the number of completed years of service (benefit not to exceed 50% of the 12 months' compensation).

Optional Death Benefit

In lieu of the lump-sum death benefit, the following several optional death benefits are available to provide flexibility to survivors.

First Optional Death Benefit (31781.1, 31781.12)

If a member who would have been entitled to a non-service-connected disability retirement allowance dies prior to retirement as a result of such disability, the surviving spouse (or eligible children) may elect to receive an optional death allowance equal to 65% of the monthly retirement allowance to which the member would have been entitled as of the date of death.

Second Optional Death Benefit (31781.2, 31765.2)

If a member dies prior to reaching the minimum retirement age but has 10 or more years of County service, a surviving spouse (or eligible children) may elect to leave the amount of the death benefit on deposit until the earliest date the member could have retired and at that time receive the allowance provided for in Section 31765 (an Option 3 benefit) or 31765.2 (a 65% continuance).

Third Optional Death Benefit

A surviving spouse of a member who dies after five years of County service may elect a combined benefit equal to:

(a) A lump sum equal to 1/12 of the compensation earnable in the preceding 12 months x the number of completed years of service (benefit not to exceed 50% of the 12 months' compensation), plus (31781.3)

(b) A monthly payment equal to 65% of the monthly retirement allowance to which the member would have been entitled if the member retired or could have retired for a non-service-connected disability as of the date of death, reduced by a monthly amount which is the actuarial equivalent of (a) above based on the age of surviving spouse. (31781.1, 31781.12)

Fourth Optional Death Benefit

If a member dies while eligible or a service retirement and the surviving spouse is designated as beneficiary, the spouse (or eligible children) may elect to receive 65% of the monthly retirement allowance to which the member would have been entitled as of the date of death. (31765.1, 31765.2)

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NONSERVICE-CONNECTED DEATH BENEFITS (Continued)

Fifth Optional Death Benefit

If a member dies while eligible for a service retirement and the surviving spouse is designated as beneficiary and survives the member by not less than 30 days, the spouse (or eligible children) may elect to receive the same retirement allowance as the spouse would have received had the member retired on the date of death and selected Option 3. (31765)

Note: *For valuation purposes, an unmarried member is assumed to take the lump sum benefit. A married member is assumed to take the first optional death benefit or the lump sum, whichever is more valuable.*

POSTRETIREMENT DEATH BENEFIT

Plans A-E:	A one-time lump-sum benefit of $5,000 is payable to the estate or to the beneficiary designated by the member upon the death of any member while receiving a retirement allowance. This is in addition to any other death or survivor benefits. The amount may be paid from surplus earnings of the retirement system, if any, but is currently paid by the County based on agreement with LACERA. It is not included for valuation purposes.	(31789.3)

DEFERRED VESTED BENEFITS

Eligibility

Plans A, B, D and General Plan C:		
	Five years of county or reciprocal service. Member contributions must be left on deposit.	(31700)
Safety Plan C:	Age 50 with 5 years of service.	(7522.20(a))
Plan E:	Age 55 with 10 years of service.	(31491)
Plan G:	Age 52 with 5 years of service.	(7522.25(d))

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DEFERRED VESTED BENEFITS (Continued)

Monthly Allowance

Plans A-D, G:	Same as service retirement allowance; payable any time after the member would have been eligible for service retirement.	(31703, 31704, 31705)
	If a terminated member dies before the effective date of the deferred retirement allowance, the member's accumulated contributions are paid to the estate or to the named beneficiary.	(31702)
Plan E:	Same as service retirement allowance at normal retirement age 65 or in an actuarially equivalent reduced amount at early retirement, after age 55.	(31491)

TRANSFERS BETWEEN PLAN D AND PLAN E

Members in Plan D may transfer to Plan E on a prospective basis. Members in Plan E may transfer to Plan D on a prospective basis.	(31494.2, 31494.5)

RECIPROCITY

All Plans:	Reciprocal benefits are may be granted to members who are entitled to retirement benefits from two or more retirement systems established under the CERL or from a County retirement system and the California Public Employees' Retirement System (CalPERS). Reciprocity also applies to the members of the State Teachers' Retirement System Defined Benefit Plan.	(31830, 31840.4, 31840.8)
	Final Compensation may be based on service with CalPERS or another County retirement system, if greater.	
	Deferred members are eligible for disability and death benefits from LACERA, if disabled while a member of CalPERS or another County retirement system, but combined benefits are limited.	(31835)

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TRANSFER FROM CALPERS

Whenever firefighting or law enforcement functions performed by a city of the state subject to the California Public Employees Retirement Law are transferred to the County, fire authority, or district, employees performing those functions become members of LACERA. LACERA and CalPERS may enter into an agreement whereby the members' service credit plus the members' and the cities' or states' retirement contributions are transferred from CalPERS to LACERA. (31657)

COST-OF-LIVING INCREASES

Cost-of-living increases (or decreases) are applied to all retirement allowances (service and disability), optional death allowances, and annual death allowances effective April 1, based on changes in the Consumer Price Index (CPI) from the previous January 1 to the current January 1, to the nearest ½ of 1%. (31870, 31870.1)

Plan A:	Members (and their beneficiaries) are limited to a maximum 3% cost-of-living increase.	
Plans B-D, G:	Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. When the CPI exceeds 2% or 3%, the difference between the actual CPI and the maximum cost-of-living increase given in any year is credited to the COLA Accumulation. It may be used in future years to provide cost-of-living increases when the CPI falls below 2% or 3%, depending on the retirement plan.	(31870, 31870.1)
Plan E:	Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. The 2% is pro-rated based on service earned after June 4, 2002. "Elective COLA" increases for service earned prior to June 4, 2002 may be purchased by the member.	(31495.5)

STAR PROGRAM

Contributory plan members who have a COLA Accumulation of more than 20% resulting from CPI increases that exceeded the maximum cost-of-living increases that could be granted are eligible for a supplemental cost-of-living increase effective January 1 known as the Supplemental Targeted Adjustment for Retirees Cost-of-Living Adjustment (STAR COLA). These benefits are not evaluated in this report, or as part of the actuarially required funding amount, unless they have been vested by the Board of Retirement. (31874.3(b))

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Los Angeles County Employees Retirement Association

Appendix C: Valuation Data and Schedules

On the following table, Exhibit C-1, we present a summary of LACERA membership at June 30, 2013 for active members. Similar information is shown in Exhibit C-2Ret for retired members and C-2Def for deferred vested members.

The number of total active members decreased by 0.4% and the total salary decreased by 0.3% since the last valuation. The total number of retired members and their beneficiaries increased by 2.3%, while the average retirement benefit amount increased by 3.1%.

Note that salary amounts shown are the prior year annual pensionable earnings for those members of plans with a one-year final compensation period. For plans with a three-year final compensation period (Plan E only), the monthly rate of pay at June 2013 is shown.

Additional statistical data on both active and retired members is shown in the following tables. Additional detailed summaries are supplied to the system staff in a supplementary report.

Exhibit C-3: Age Distribution of Active Members

Exhibit C-4: Age, Service, Compensation Distribution of Active Members

Exhibit C-5: Age, Retirement Year, Benefit Amount and Plan Distribution of Retired Members

Exhibits C-4 and C-5 are shown for all plans combined as well as for each plan separately.

Data on LACERA membership as of June 30, 2013 was supplied to us by the system staff. Based on our review of this data and discussions with LACERA staff, all retiree and beneficiary records were included in our valuation.

All active and deferred records supplied by LACERA were included in the valuation.

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Los Angeles County Employees Retirement Association

Exhibit C-1: LACERA Membership – Active Members as of June 30, 2013

	Sex	Vested	NonVested	Total Number	Annual Salary	Average Age	Average Monthly Salary	Average Credited Service
General Members								
Plan A	M	177	-	177	$ 17,776,788	65.1	$ 8,369	35.7
	F	408	-	408	30,783,240	62.7	6,287	35.2
Plan B	M	46	-	46	4,234,176	62.4	7,671	34.9
	F	119	-	119	9,882,228	59.5	6,920	33.8
Plan C	M	45	-	45	4,165,464	61.0	7,714	35.1
	F	110	-	110	9,025,104	59.7	6,837	33.7
Plan D	M	14,472	2,496	16,968	1,238,367,300	46.8	6,082	13.4
	F	29,460	5,223	34,683	2,297,336,352	46.0	5,520	13.3
Plan E	M	5,753	2,143	7,896	562,814,220	51.3	5,940	17.8
	F	12,188	4,482	16,670	993,697,440	50.6	4,967	18.5
Plan G	M	-	363	363	17,450,220	35.0	4,006	0.2
	F	-	1,521	1,521	67,620,000	34.6	3,705	0.3
Total		62,778	16,228	79,006	$ 5,253,152,532	47.6	$ 5,541	14.8
Safety Members								
Plan A	M	34	-	34	$ 4,861,200	59.8	$ 11,915	35.8
	F	1	-	1	101,532	63.0	8,461	42.7
Plan B	M	9,671	1,093	10,764	1,067,180,316	42.7	8,262	16.0
	F	1,467	213	1,680	158,730,492	40.0	7,874	13.4
Plan C	M	-	58	58	3,725,568	34.1	5,353	0.1
	F	-	2	2	303,120	43.0	12,630	0.3
Total		11,173	1,366	12,539	$ 1,234,902,228	42.3	$ 8,207	15.7
Grand Total		73,951	17,594	91,545	$ 6,488,054,760	46.9	$ 5,906	14.9

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Los Angeles County Employees Retirement Association

Exhibit C-2Ret: LACERA Membership – Retired Members as of June 30, 2013

	Sex	Number	Annual Allowance	Average Age	Average Monthly Benefit
General Members					
Plan A	M	10,292	$ 595,479,909	76.3	$ 4,822
	F	16,338	648,633,932	76.8	3,308
Plan B	M	212	10,968,233	71.0	4,311
	F	486	17,992,977	71.9	3,085
Plan C	M	131	4,999,483	70.5	3,180
	F	303	9,144,918	71.9	2,515
Plan D	M	3,467	116,472,853	67.1	2,800
	F	6,097	170,866,929	67.0	2,335
Plan E	M	3,267	78,594,034	70.2	2,005
	F	6,346	120,430,329	70.0	1,581
Total		46,939	$ 1,773,583,597	73.2	$ 3,149
Safety Members					
Plan A	M	5,852	$ 509,505,930	71.9	$ 7,255
	F	2,017	113,851,804	74.6	4,704
Plan B	M	2,565	178,466,599	56.5	5,798
	F	713	35,659,329	51.7	4,168
Total		11,147	$ 837,483,662	67.5	$ 6,261
Grand Total		58,086	$ 2,611,067,259	72.1	$ 3,746

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Los Angeles County Employees Retirement Association

Exhibit C-2Def: LACERA Membership – Deferred Members as of June 30, 2013 Subtotaled by Plan and Retirement Type

	Sex	Number	Average Age
General Members			
Plan A	M	49	66.1
	F	117	65.0
Plan B	M	6	63.5
	F	22	62.1
Plan C	M	7	60.7
	F	19	59.3
Plan D	M	2,412	45.8
	F	4,931	44.6
Plan E	M	1,211	54.7
	F	2,773	54.7
Plan G	M	3	41.0
	F	24	43.9
Total		11,574	48.7
Safety Members			
Plan A	M	6	63.3
	F	-	-
Plan B	M	565	40.8
	F	174	41.9
Total		745	41.2
Grand Total		12,319	48.2

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Los Angeles County Employees Retirement Association

Exhibit C-2a: LACERA Membership – Retired Members as of June 30, 2013 Subtotaled by Plan and Retirement Type

Plan	Retirement Type	Number	Annual Benefits in Thousands	Average Monthly Benefit
General Plans:				
Plan A				
	Healthy	19,580	$ 1,034,121	$ 4,401
	Disabled	2,059	70,995	2,873
	Beneficiaries	4,991	138,998	2,321
	Total	26,630	$ 1,244,114	$ 3,893
Plan B				
	Healthy	575	$ 25,639	$ 3,716
	Disabled	69	1,897	2,291
	Beneficiaries	54	1,425	2,199
	Total	698	$ 28,961	$ 3,458
Plan C				
	Healthy	333	$ 12,049	$ 3,015
	Disabled	51	1,268	2,072
	Beneficiaries	50	827	1,378
	Total	434	$ 14,144	$ 2,716
Plan D				
	Healthy	7,273	$ 231,681	$ 2,655
	Disabled	1,453	41,743	2,394
	Beneficiaries	838	13,916	1,384
	Total	9,564	$ 287,340	$ 2,504
Plan E				
	Healthy	8,919	$ 192,202	$ 1,796
	Disabled	0	0	N/A
	Beneficiaries	694	6,822	819
	Total	9,613	$ 199,024	$ 1,725
Safety Plans:				
Plan A				
	Healthy	2,778	$ 254,280	$ 7,628
	Disabled	3,585	290,651	6,756
	Beneficiaries	1,506	78,427	4,340
	Total	7,869	$ 623,358	$ 6,601
Plan B				
	Healthy	1,346	$ 110,953	$ 6,869
	Disabled	1,743	95,373	4,560
	Beneficiaries	189	7,800	3,439
	Total	3,278	$ 214,126	$ 5,444
Grand Totals		58,086	2,611,067	3,746

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Los Angeles County Employees Retirement Association

Exhibit C-2b: LACERA Membership – Retired Members as of June 30, 2013 Subtotaled by Retirement Type and Plan

Type	Plan	Number		Annual Benefits in Thousands		Average Monthly Benefit
Healthy Retirees						
	General A	19,580	$	1,034,121	$	4,401
	General B	575		25,639		3,716
	General C	333		12,049		3,015
	General D	7,273		231,681		2,655
	General E	8,919		192,202		1,796
	Safety A	2,778		254,280		7,628
	Safety B	1,346		110,953		6,869
	Total	40,804	$	1,860,925	$	3,801
Disabled Retirees						
	General A	2,059	$	70,995	$	2,873
	General B	69		1,897		2,291
	General C	51		1,268		2,072
	General D	1,453		41,743		2,394
	Safety A	3,585		290,651		6,756
	Safety B	1,743		95,373		4,560
	Total	8,960	$	501,927	$	4,668
Beneficiaries						
	General A	4,991	$	138,998	$	2,321
	General B	54		1,425		2,199
	General C	50		827		1,378
	General D	838		13,916		1,384
	General E	694		6,822		819
	Safety A	1,506		78,427		4,340
	Safety B	189		7,800		3,439
	Total	8,322	$	248,215	$	2,486
Grand Totals		58,086	$	2,611,067	$	3,746

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Los Angeles County Employees Retirement Association

Exhibit C-3: Age Distribution of Active Members as of June 30, 2013

	Age Groups						
	0-29	30-39	40-49	50-59	60-69	70+	Total
General Plans:							
Plan A							
Male	-	-	-	28	116	33	177
Female	-	-	-	122	246	40	408
Plan B							
Male	-	-	-	10	33	3	46
Female	-	-	-	59	59	1	119
Plan C							
Male	-	-	-	15	28	2	45
Female	-	-	-	57	50	3	110
Plan D							
Male	868	3,966	5,151	4,681	2,078	224	16,968
Female	1,765	8,853	10,746	9,455	3,557	307	34,683
Plan E							
Male	224	1,106	1,919	2,601	1,783	263	7,896
Female	466	2,367	4,283	5,895	3,335	324	16,670
Plan G							
Male	142	125	53	32	9	2	363
Female	608	517	215	151	28	2	1,521
Safety Plans:							
Plan A							
Male	-	-	-	19	14	1	34
Female	-	-	-	-	1	-	1
Plan B							
Male	946	2,909	4,172	2,645	89	3	10,764
Female	184	655	594	241	6	-	1,680
Plan C							
Male	26	18	5	8	1	-	58
Female	-	1	-	1	-	-	2
Grand Totals:	5,229	20,517	27,138	26,020	11,433	1,208	91,545

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Los Angeles County Employees Retirement Association

Exhibit C-4: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 All Plans

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	315	118	44	59	32	20	0	0	0	0	0	0	588
25-29	1,035	656	346	387	572	1,617	28	0	0	0	0	0	4,641
30-34	754	608	413	477	930	5,070	958	46	0	0	0	0	9,256
35-39	429	360	277	303	650	4,485	3,847	846	64	0	0	0	11,261
40-44	299	255	197	195	457	3,264	4,080	2,750	1,375	116	0	0	12,988
45-49	210	178	124	131	351	2,309	2,963	2,449	3,695	1,580	160	0	14,150
50-54	201	167	105	123	264	1,934	2,338	1,724	2,895	2,868	1,295	126	14,040
55-59	108	111	97	79	209	1,442	1,858	1,378	1,997	2,014	1,809	878	11,980
60-64	52	58	50	53	123	882	1,228	919	1,390	1,117	1,060	1,329	8,261
65 & Over	18	14	17	17	48	503	812	636	855	543	366	551	4,380
Total Count	3,421	2,525	1,670	1,824	3,636	21,526	18,112	10,748	12,271	8,238	4,690	2,884	91,545

Average Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	41,652	42,025	41,117	43,070	48,707	50,619	-	-	-	-	-	-	42,518
25-29	45,641	48,375	49,233	51,422	56,708	57,698	67,301	-	-	-	-	-	52,473
30-34	52,053	55,366	60,255	57,928	60,881	62,208	64,847	68,721	-	-	-	-	60,796
35-39	56,019	62,461	65,478	67,825	62,932	64,244	69,453	76,506	81,677	-	-	-	66,724
40-44	57,014	60,065	64,347	64,759	65,158	65,428	71,747	80,339	82,549	84,190	-	-	72,216
45-49	53,442	53,652	65,812	63,480	62,776	61,770	68,240	78,678	86,333	83,835	91,888	-	75,120
50-54	60,160	55,288	69,227	62,189	58,006	58,893	66,014	77,589	82,585	90,871	93,520	92,712	77,354
55-59	55,776	58,458	62,827	72,398	64,231	59,905	65,023	73,285	76,252	88,376	85,992	77,795	75,130
60-64	66,720	66,602	64,660	70,492	61,399	61,891	64,134	70,038	73,917	81,185	83,754	77,321	73,179
65 & Over	91,013	87,056	57,260	74,094	82,229	67,117	65,304	68,995	66,414	77,080	85,126	80,570	71,665
Avg. Annual Compensation	51,193	54,856	60,044	60,270	61,488	62,373	68,079	76,711	80,566	86,595	87,698	78,759	70,873

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Los Angeles County Employees Retirement Association

Exhibit C-4a: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 General Plan A

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	1	6	2	4	14	123	150
60-64	0	0	0	0	0	6	4	7	20	14	19	162	232
65 & Over	0	0	0	0	0	2	11	15	14	21	9	131	203
Total Count	0	0	0	0	0	8	16	28	36	39	42	416	585

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	35,916	79,852	69,168	69,630	86,271	70,455	72,038
60-64	-	-	-	-	-	83,004	103,605	78,924	73,610	87,366	90,844	76,763	78,974
65 & Over	-	-	-	-	-	62,130	97,999	85,144	94,071	101,862	96,936	96,370	95,726
Avg. Annual Compensation	-	-	-	-	-	77,785	95,520	82,455	81,320	93,353	90,625	81,072	83,009

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-4b: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 General Plan B

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0	1	3	4
55-59	0	0	0	0	0	0	0	1	2	1	12	49	65
60-64	0	0	0	0	0	0	5	1	4	3	11	50	74
65 & Over	0	0	0	0	0	0	0	0	0	1	5	16	22
Total Count	0	0	0	0	0	0	5	2	6	5	29	118	165

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	62,712	67,304	66,156
55-59	-	-	-	-	-	-	-	48,156	111,876	84,288	75,653	75,508	76,368
60-64	-	-	-	-	-	-	114,019	48,156	97,308	99,560	82,609	93,503	93,108
65 & Over	-	-	-	-	-	-	-	-	-	128,544	139,654	73,191	90,812
Avg. Annual Compensation	-	-	-	-	-	-	114,019	48,156	102,164	102,302	88,880	82,610	85,554

Milliman

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Los Angeles County Employees
Retirement Association

Exhibit C-4c: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013
General Plan C

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	1	0	0	12	1	14
55-59	0	0	0	0	0	0	0	1	1	1	41	14	58
60-64	0	0	0	0	0	0	0	1	1	1	43	16	62
65 & Over	0	0	0	0	0	0	1	1	1	2	15	1	21
Total Count	0	0	0	0	0	0	1	4	3	4	111	32	155

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	53,304	-	-	65,498	79,164	65,603
55-59	-	-	-	-	-	-	-	50,184	104,148	102,660	72,347	89,026	77,062
60-64	-	-	-	-	-	-	-	108,240	135,072	168,984	88,496	106,498	95,509
65 & Over	-	-	-	-	-	-	44,796	80,412	83,208	180,468	83,808	54,504	89,570
Avg. Annual Compensation	-	-	-	-	-	-	44,796	73,035	107,476	158,145	79,411	96,375	85,100

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-4d: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 General Plan D

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	44	80	27	39	15	12	0	0	0	0	0	0	217
25-29	270	472	248	242	345	815	24	0	0	0	0	0	2,416
30-34	206	454	298	336	644	3,157	558	40	0	0	0	0	5,693
35-39	136	261	210	218	467	2,978	2,314	496	46	0	0	0	7,126
40-44	106	190	144	133	333	2,234	2,518	1,479	679	75	0	0	7,891
45-49	74	125	95	103	254	1,622	1,898	1,443	1,592	677	123	0	8,006
50-54	54	99	76	83	200	1,369	1,543	1,094	1,439	1,138	512	80	7,687
55-59	30	66	71	49	161	1,028	1,202	918	1,116	910	623	275	6,449
60-64	13	38	32	33	81	606	812	594	812	513	330	225	4,089
65 & Over	5	5	10	15	29	300	493	359	467	234	127	33	2,077
Total Count	938	1,790	1,211	1,251	2,529	14,121	11,362	6,423	6,151	3,547	1,715	613	51,651

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	36,554	37,947	35,448	36,661	45,875	45,562	-	-	-	-	-	-	38,092
25-29	47,059	47,511	47,583	47,187	53,965	48,034	68,280	-	-	-	-	-	48,740
30-34	59,515	55,473	59,165	55,206	58,898	57,992	60,221	64,865	-	-	-	-	58,113
35-39	67,138	64,008	65,011	68,487	61,577	62,235	66,504	70,073	78,537	-	-	-	64,661
40-44	60,373	61,666	63,704	66,424	63,410	64,311	70,166	76,167	76,071	81,350	-	-	69,445
45-49	55,616	54,338	64,934	63,638	62,200	61,895	68,436	76,432	77,666	80,136	87,887	-	71,036
50-54	69,804	56,657	70,743	65,053	60,064	60,706	67,910	78,615	77,669	85,073	85,267	86,553	73,530
55-59	56,672	61,129	61,925	77,717	65,271	60,712	68,903	76,163	76,138	88,839	85,863	91,203	75,048
60-64	102,762	60,239	68,285	73,359	58,150	62,532	67,003	71,561	76,074	86,031	89,171	87,563	74,048
65 & Over	84,446	54,859	59,912	75,852	82,159	67,717	66,183	71,174	67,082	81,963	93,723	110,692	71,918
Avg. Annual Compensation	56,981	54,786	59,406	59,539	60,309	60,612	67,800	75,397	76,206	84,952	87,049	90,309	68,454

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-4e: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 General Plan E

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	11	19	3	3	8	3	0	0	0	0	0	0	47
25-29	31	121	50	52	101	287	1	0	0	0	0	0	643
30-34	41	103	65	68	161	839	170	0	0	0	0	0	1,447
35-39	32	71	50	36	119	854	758	103	3	0	0	0	2,026
40-44	24	56	48	43	90	658	893	552	291	17	0	0	2,672
45-49	16	50	27	25	80	513	763	587	946	510	13	0	3,530
50-54	22	61	28	36	62	518	688	474	895	952	348	17	4,101
55-59	8	43	25	29	43	387	624	412	739	864	832	389	4,395
60-64	7	19	18	20	42	263	404	305	542	566	637	859	3,682
65 & Over	3	9	7	2	19	196	302	253	371	285	209	367	2,023
Total Count	195	552	321	314	725	4,518	4,603	2,686	3,787	3,194	2,039	1,632	24,566

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	40,627	37,492	31,556	32,448	36,999	46,672	-	-	-	-	-	-	38,027
25-29	43,625	42,288	42,589	40,871	45,230	43,989	33,060	-	-	-	-	-	43,468
30-34	57,241	48,545	58,898	53,293	54,824	50,266	48,455	-	-	-	-	-	51,165
35-39	57,444	54,230	65,749	54,521	59,060	54,235	55,561	60,982	49,876	-	-	-	55,691
40-44	50,763	53,093	65,062	54,624	66,234	56,344	58,366	66,088	62,165	64,667	-	-	60,063
45-49	47,209	50,849	68,958	60,817	60,361	51,319	56,198	67,385	69,523	62,642	68,450	-	62,004
50-54	52,030	50,011	63,557	53,770	49,624	51,024	56,612	66,450	73,424	73,534	66,395	71,665	65,327
55-59	62,083	53,780	64,609	65,470	56,267	54,701	55,916	63,943	70,093	79,591	71,373	66,807	67,596
60-64	78,490	78,136	58,215	65,762	67,664	58,729	57,192	65,936	69,677	75,385	79,028	71,720	70,147
65 & Over	136,396	104,943	53,472	60,906	82,335	64,881	61,848	63,042	64,383	70,339	77,883	71,669	67,856
Avg. Annual Compensation	54,143	50,702	59,632	53,981	57,119	53,213	56,704	65,606	69,494	73,429	73,563	70,537	63,360

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-4f: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 General Plan G

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	190	0	0	0	0	0	0	0	0	0	0	0	190
25-29	560	0	0	0	0	0	0	0	0	0	0	0	560
30-34	417	0	0	0	0	0	0	0	0	0	0	0	417
35-39	225	0	0	0	0	0	0	0	0	0	0	0	225
40-44	155	0	0	0	0	0	0	0	0	0	0	0	155
45-49	113	0	0	0	0	0	0	0	0	0	0	0	113
50-54	117	0	0	0	0	0	0	0	0	0	0	0	117
55-59	66	0	0	0	0	0	0	0	0	0	0	0	66
60-64	31	0	0	0	0	0	0	0	0	0	0	0	31
65 & Over	10	0	0	0	0	0	0	0	0	0	0	0	10
Total Count	1,884	0	0	0	0	0	0	0	0	0	0	0	1,884

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	35,526	-	-	-	-	-	-	-	-	-	-	-	35,526
25-29	39,550	-	-	-	-	-	-	-	-	-	-	-	39,550
30-34	45,507	-	-	-	-	-	-	-	-	-	-	-	45,507
35-39	47,696	-	-	-	-	-	-	-	-	-	-	-	47,696
40-44	55,271	-	-	-	-	-	-	-	-	-	-	-	55,271
45-49	52,088	-	-	-	-	-	-	-	-	-	-	-	52,088
50-54	54,118	-	-	-	-	-	-	-	-	-	-	-	54,118
55-59	51,036	-	-	-	-	-	-	-	-	-	-	-	51,036
60-64	48,518	-	-	-	-	-	-	-	-	-	-	-	48,518
65 & Over	80,682	-	-	-	-	-	-	-	-	-	-	-	80,682
Avg. Annual Compensation	45,154	-	-	-	-	-	-	-	-	-	-	-	45,154

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-4g: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 Safety Plan A

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	1	0	1	7	10	19
60-64	0	0	0	0	0	0	0	0	0	1	3	10	14
65 & Over	0	0	0	0	0	0	0	0	0	0	0	2	2
Total Count	0	0	0	0	0	0	0	1	0	2	10	22	35

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	116,040	-	105,564	122,270	121,348	120,577
60-64	-	-	-	-	-	-	-	-	-	128,988	114,964	176,302	159,778
65 & Over	-	-	-	-	-	-	-	-	-	-	-	217,434	217,434
Avg. Annual Compensation	-	-	-	-	-	-	-	116,040	-	117,276	120,078	155,062	141,792

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-4h: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 Safety Plan B

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	63	19	14	17	9	5	0	0	0	0	0	0	127
25-29	155	63	48	93	126	515	3	0	0	0	0	0	1,003
30-34	76	51	50	73	125	1,074	230	6	0	0	0	0	1,685
35-39	31	28	17	49	64	653	775	247	15	0	0	0	1,879
40-44	10	9	5	19	34	372	669	719	405	24	0	0	2,266
45-49	6	3	2	3	17	174	302	419	1,157	393	24	0	2,500
50-54	2	7	1	4	2	47	107	155	561	778	422	25	2,111
55-59	1	2	1	1	5	27	31	39	137	233	280	18	775
60-64	0	1	0	0	0	7	3	11	11	19	17	7	76
65 & Over	0	0	0	0	0	5	5	8	2	0	1	1	22
Total Count	344	183	138	259	382	2,879	2,125	1,604	2,288	1,447	744	51	12,444

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	61,960	63,726	54,098	59,649	63,835	65,124	-	-	-	-	-	-	61,306
25-29	63,913	66,538	64,678	68,340	73,419	80,631	70,884	-	-	-	-	-	74,324
30-34	63,447	68,189	68,519	74,771	78,897	83,928	88,187	94,426	-	-	-	-	81,920
35-39	65,972	68,911	70,452	74,654	80,015	86,490	91,845	95,899	97,667	-	-	-	88,750
40-44	62,712	69,652	76,001	76,045	79,430	88,207	95,558	99,861	108,057	106,895	-	-	97,374
45-49	67,864	71,836	65,052	80,252	82,747	91,421	97,427	102,234	112,004	117,710	125,090	-	107,767
50-54	115,878	81,909	112,716	78,537	111,984	92,812	99,124	104,568	109,809	120,565	126,771	130,322	115,960
55-59	84,768	70,884	82,368	12,684	99,238	103,745	98,827	103,352	109,773	119,350	131,236	133,863	119,634
60-64	-	89,220	-	-	-	107,136	86,860	94,415	110,150	108,517	131,003	124,769	112,003
65 & Over	-	-	-	-	-	120,782	119,429	127,798	85,416	-	148,176	153,384	122,538
Avg. Annual	64,035	68,069	66,600	71,422	77,581	85,344	93,908	100,492	110,508	119,209	128,523	131,262	98,514

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-4i: Age and Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 Safety Plan C

Count

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Total Count
Under 25	7	0	0	0	0	0	0	0	0	0	0	0	7
25-29	19	0	0	0	0	0	0	0	0	0	0	0	19
30-34	14	0	0	0	0	0	0	0	0	0	0	0	14
35-39	5	0	0	0	0	0	0	0	0	0	0	0	5
40-44	4	0	0	0	0	0	0	0	0	0	0	0	4
45-49	1	0	0	0	0	0	0	0	0	0	0	0	1
50-54	6	0	0	0	0	0	0	0	0	0	0	0	6
55-59	3	0	0	0	0	0	0	0	0	0	0	0	3
60-64	1	0	0	0	0	0	0	0	0	0	0	0	1
65 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	60	0	0	0	0	0	0	0	0	0	0	0	60

Compensation

Age	Years of Service 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Average Comp.
Under 25	58,800	-	-	-	-	-	-	-	-	-	-	-	58,800
25-29	59,239	-	-	-	-	-	-	-	-	-	-	-	59,239
30-34	60,182	-	-	-	-	-	-	-	-	-	-	-	60,182
35-39	57,310	-	-	-	-	-	-	-	-	-	-	-	57,310
40-44	58,800	-	-	-	-	-	-	-	-	-	-	-	58,800
45-49	58,800	-	-	-	-	-	-	-	-	-	-	-	58,800
50-54	102,420	-	-	-	-	-	-	-	-	-	-	-	102,420
55-59	124,632	-	-	-	-	-	-	-	-	-	-	-	124,632
60-64	80,040	-	-	-	-	-	-	-	-	-	-	-	80,040
65 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Avg. Annual Compensation	67,145	-	-	-	-	-	-	-	-	-	-	-	67,145

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-5: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 All Plans

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	3	10	38	53	104	$ 1,488
35-39	0	0	0	1	0	0	1	8	31	34	75	2,561
40-44	0	0	0	0	0	1	13	72	73	69	228	2,942
45-49	0	0	0	0	1	43	106	142	142	132	566	2,940
50-54	0	0	0	2	21	86	154	184	201	454	1,102	2,907
55-59	0	0	5	30	67	122	165	236	857	1,892	3,374	4,108
60-64	0	4	38	86	113	149	258	883	2,838	2,754	7,123	4,167
65-69	2	16	141	243	203	350	1,148	3,201	3,587	3,120	12,011	4,285
70-74	7	39	168	214	292	1,074	2,328	2,963	2,494	1,224	10,803	4,011
75-79	26	68	166	298	839	1,893	1,861	1,721	1,047	546	8,465	3,573
80-84	52	81	231	758	1,169	1,709	1,082	659	506	402	6,649	3,287
85-89	63	96	526	892	941	824	380	313	337	294	4,666	2,963
90-94	37	126	466	496	358	190	160	168	142	119	2,262	2,636
95-99	23	67	170	125	28	43	25	43	34	23	581	2,279
100 & Over	11	24	22	4	0	3	7	4	2	0	77	2,088
Total Count	221	521	1,933	3,149	4,032	6,487	7,691	10,607	12,329	11,116	**58,086**	
Avg Monthly Benefit	$ 1,618	$ 2,131	$ 2,584	$ 2,725	$ 3,187	$ 3,867	$ 3,679	$ 4,252	$ 3,775	$ 4,019		**$ 3,746**

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-5a: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 General Plan A

Age	Retirement Year Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	0	0	0	0	0	0	0	2	9	9	20	$ 1,518
35-39	0	0	0	0	0	0	0	0	4	2	6	1,969
40-44	0	0	0	0	0	0	2	1	6	1	10	2,149
45-49	0	0	0	0	1	1	1	3	5	2	13	1,865
50-54	0	0	0	0	1	2	5	4	11	7	30	2,337
55-59	0	0	2	6	7	3	16	36	88	158	316	3,850
60-64	0	2	24	32	31	35	84	316	794	789	2,107	4,705
65-69	1	8	66	84	69	151	609	1,322	1,493	471	4,274	4,917
70-74	2	26	90	99	137	749	1,170	1,707	672	237	4,889	4,524
75-79	14	38	100	173	649	1,250	1,203	708	306	202	4,643	3,888
80-84	23	46	153	580	821	1,374	591	270	244	218	4,320	3,405
85-89	35	55	399	697	835	638	224	192	213	195	3,483	2,927
90-94	24	102	396	471	326	137	125	131	115	95	1,922	2,577
95-99	12	61	168	124	25	30	18	35	31	21	525	2,293
100 & Over	9	23	22	4	0	2	7	4	1	0	72	1,938
Total Count	120	361	1,420	2,270	2,902	4,372	4,055	4,731	3,992	2,407	**26,630**	
Avg Monthly Benefit	$ 1,257	$ 1,646	$ 2,166	$ 2,292	$ 2,857	$ 3,831	$ 3,756	$ 4,934	$ 4,872	$ 4,815		**$ 3,893**

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Los Angeles County Employees Retirement Association

Exhibit C-5b: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 General Plan B

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	0	0	0	0	0	$ -
35-39	0	0	0	0	0	0	0	0	0	0	0	-
40-44	0	0	0	0	0	0	0	0	0	0	0	-
45-49	0	0	0	0	0	0	0	0	0	0	0	-
50-54	0	0	0	0	0	0	0	0	2	1	3	1,555
55-59	0	0	0	0	0	2	1	2	15	18	38	3,285
60-64	0	0	0	1	4	4	2	13	40	65	129	4,611
65-69	0	0	0	2	4	4	17	31	50	48	156	3,964
70-74	0	0	0	1	3	3	13	48	31	15	114	3,815
75-79	0	0	0	2	3	10	25	34	20	9	103	3,233
80-84	0	0	0	2	9	22	31	13	6	4	87	2,229
85-89	0	0	0	2	13	20	8	6	3	0	52	1,653
90-94	0	0	0	3	5	4	2	1	0	0	15	1,487
95-99	0	0	0	0	0	0	0	0	0	1	1	690
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	13	41	69	99	148	167	161	**698**	
Avg Monthly Benefit	$ -	$ -	$ -	$ 1,181	$ 1,107	$ 1,650	$ 2,224	$ 3,103	$ 4,109	$ 5,424		**$ 3,458**

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-5c: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 General Plan C

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	0	0	0	1	1	$ 1,448
35-39	0	0	0	0	0	0	0	0	0	1	1	1,155
40-44	0	0	0	0	0	0	0	0	0	1	1	1,448
45-49	0	0	0	0	0	0	0	0	0	0	0	-
50-54	0	0	0	0	0	0	0	1	1	2	4	2,034
55-59	0	0	0	1	4	1	1	0	7	8	22	2,153
60-64	0	0	1	3	2	2	3	16	18	34	79	3,803
65-69	0	0	0	2	2	4	7	13	32	29	89	3,652
70-74	0	0	0	0	4	8	10	18	22	14	76	2,638
75-79	0	0	0	0	6	11	14	28	10	2	71	2,157
80-84	0	0	0	2	6	13	14	6	6	1	48	1,775
85-89	0	0	0	1	6	12	2	2	4	3	30	1,360
90-94	0	0	0	2	2	5	0	1	1	0	11	1,248
95-99	0	0	0	0	0	1	0	0	0	0	1	242
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	1	11	32	57	51	85	101	96	**434**	
Avg Monthly Benefit	$ -	$ -	$ 1,607	$ 1,053	$ 847	$ 1,260	$ 1,743	$ 2,403	$ 2,879	$ 5,028		**$ 2,716**

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Los Angeles County Employees Retirement Association

Exhibit C-5d: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 General Plan D

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	0	3	10	15	28	$ 983
35-39	0	0	0	0	0	0	1	1	6	13	21	1,719
40-44	0	0	0	0	0	1	3	19	17	19	59	1,798
45-49	0	0	0	0	0	6	10	33	45	46	140	1,933
50-54	0	0	0	0	1	9	37	55	85	281	468	1,771
55-59	0	0	0	3	8	28	50	89	419	470	1,067	2,108
60-64	0	0	1	3	17	28	61	252	528	870	1,760	2,771
65-69	0	0	0	3	12	36	174	315	755	1,067	2,362	3,027
70-74	0	0	0	4	15	60	165	364	701	451	1,760	2,616
75-79	0	0	0	3	20	55	163	373	302	137	1,053	2,164
80-84	0	0	0	5	16	61	190	163	99	57	591	1,912
85-89	0	0	0	5	11	48	60	24	29	14	191	1,558
90-94	0	0	1	2	8	17	9	8	4	6	55	1,408
95-99	0	0	0	0	1	3	1	2	2	0	9	1,404
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	2	28	109	352	924	1,701	3,002	3,446	**9,564**	
Avg Monthly Benefit	$ -	$ -	$ 5,045	$ 1,230	$ 1,330	$ 1,463	$ 1,707	$ 2,030	$ 2,453	$ 3,147		**$ 2,504**

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-5e: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 General Plan E

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	2	1	7	4	14	$ 518
35-39	0	0	0	0	0	0	0	0	1	5	6	1,732
40-44	0	0	0	0	0	0	0	1	2	8	11	1,746
45-49	0	0	0	0	0	0	0	2	8	13	23	904
50-54	0	0	0	0	0	0	0	1	4	12	17	677
55-59	0	0	0	0	0	0	0	4	90	421	515	706
60-64	0	0	0	0	0	0	5	72	687	682	1,446	1,307
65-69	0	0	0	0	0	2	45	479	902	1,418	2,846	2,203
70-74	0	0	0	0	0	12	283	505	1,010	450	2,260	1,992
75-79	0	0	0	0	9	111	267	529	348	140	1,404	1,629
80-84	0	0	0	2	36	112	231	152	86	61	680	1,214
85-89	0	0	0	3	24	90	64	42	45	32	300	1,032
90-94	0	0	0	2	17	21	11	13	5	8	77	741
95-99	0	0	0	1	2	6	4	0	1	0	14	751
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	8	88	354	912	1,801	3,196	3,254	**9,613**	
Avg Monthly Benefit	$ -	$ -	$ -	$ 319	$ 347	$ 684	$ 856	$ 1,309	$ 1,665	$ 2,413		**$ 1,725**

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-5f: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 Safety Plan A

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	0	0	0	4	4	$ 3,047
35-39	0	0	0	1	0	0	0	0	0	1	2	2,369
40-44	0	0	0	0	0	0	0	0	0	0	0	-
45-49	0	0	0	0	0	1	1	3	0	2	7	4,924
50-54	0	0	0	0	0	2	0	3	0	5	10	5,207
55-59	0	0	3	7	11	8	12	10	43	119	213	8,580
60-64	0	2	12	42	37	47	73	159	502	113	987	7,981
65-69	1	8	75	145	109	135	272	978	266	58	2,047	7,286
70-74	5	13	78	109	133	238	684	306	53	54	1,673	6,789
75-79	12	30	66	120	151	453	187	49	61	54	1,183	6,020
80-84	29	35	78	166	280	123	25	54	64	61	915	5,349
85-89	28	41	127	184	52	16	22	47	43	50	610	4,745
90-94	13	24	69	16	0	6	13	14	17	10	182	4,611
95-99	11	6	2	0	0	3	2	6	0	1	31	3,105
100 & Over	2	1	0	0	0	1	0	0	1	0	5	4,239
Total Count	101	160	510	790	773	1,033	1,291	1,629	1,050	532	**7,869**	
Avg Monthly Benefit	$ 2,047	$ 3,225	$ 3,739	$ 4,120	$ 5,322	$ 6,425	$ 7,131	$ 8,222	$ 8,401	$ 7,314		**$ 6,601**

Milliman

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Los Angeles County Employees Retirement Association

Exhibit C-5g: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 Safety Plan B

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	1	4	12	20	37	$ 2,053
35-39	0	0	0	0	0	0	0	7	20	12	39	3,278
40-44	0	0	0	0	0	0	8	51	48	40	147	3,554
45-49	0	0	0	0	0	35	94	101	84	69	383	3,431
50-54	0	0	0	2	19	73	112	120	98	146	570	3,910
55-59	0	0	0	13	37	80	85	95	195	698	1,203	6,677
60-64	0	0	0	5	22	33	30	55	269	201	615	6,875
65-69	0	0	0	7	7	18	24	63	89	29	237	4,941
70-74	0	0	0	1	0	4	3	15	5	3	31	3,569
75-79	0	0	0	0	1	3	2	0	0	2	8	2,758
80-84	0	0	0	1	1	4	0	1	1	0	8	1,413
85-89	0	0	0	0	0	0	0	0	0	0	0	-
90-94	0	0	0	0	0	0	0	0	0	0	0	-
95-99	0	0	0	0	0	0	0	0	0	0	0	-
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	29	87	250	359	512	821	1,220	**3,278**	
Avg Monthly Benefit	$ -	$ -	$ -	$ 2,107	$ 2,287	$ 3,027	$ 3,324	$ 3,688	$ 5,610	$ 7,492		**$ 5,444**

Milliman

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Appendix D: Member Contribution Rates

This section illustrates the member normal contribution rates and the normal plus cost-of-living contribution rates by entry age.

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Los Angeles County Employees Retirement Association

Exhibit D-1: Normal Member Contribution Rates

	General					Safety		
Entry Age	Plan A	Plan B	Plan C	Plan D	Plan G	Plan A	Plan B	Plan C
16	2.36%	4.71%	3.96%	3.96%	6.42%	3.58%	7.17%	10.74%
17	2.41%	4.82%	4.05%	4.05%	6.42%	3.58%	7.17%	10.74%
18	2.46%	4.93%	4.14%	4.14%	6.42%	3.58%	7.17%	10.74%
19	2.52%	5.04%	4.23%	4.23%	6.42%	3.66%	7.31%	10.74%
20	2.58%	5.15%	4.33%	4.33%	6.42%	3.73%	7.46%	10.74%
21	2.63%	5.27%	4.43%	4.43%	6.42%	3.81%	7.61%	10.74%
22	2.69%	5.39%	4.53%	4.53%	6.42%	3.89%	7.77%	10.74%
23	2.75%	5.51%	4.63%	4.63%	6.42%	3.96%	7.93%	10.74%
24	2.82%	5.63%	4.74%	4.74%	6.42%	4.05%	8.09%	10.74%
25	2.88%	5.76%	4.84%	4.84%	6.42%	4.13%	8.26%	10.74%
26	2.94%	5.88%	4.95%	4.95%	6.42%	4.21%	8.42%	10.74%
27	3.01%	6.02%	5.06%	5.06%	6.42%	4.30%	8.60%	10.74%
28	3.07%	6.15%	5.17%	5.17%	6.42%	4.39%	8.77%	10.74%
29	3.14%	6.29%	5.29%	5.29%	6.42%	4.48%	8.96%	10.74%
30	3.21%	6.43%	5.41%	5.41%	6.42%	4.57%	9.14%	10.74%
31	3.29%	6.57%	5.53%	5.53%	6.42%	4.67%	9.34%	10.74%
32	3.36%	6.72%	5.65%	5.65%	6.42%	4.77%	9.53%	10.74%
33	3.44%	6.87%	5.78%	5.78%	6.42%	4.87%	9.74%	10.74%
34	3.51%	7.03%	5.91%	5.91%	6.42%	4.98%	9.95%	10.74%
35	3.60%	7.19%	6.04%	6.04%	6.42%	5.09%	10.17%	10.74%
36	3.68%	7.36%	6.17%	6.17%	6.42%	5.19%	10.39%	10.74%
37	3.76%	7.52%	6.31%	6.31%	6.42%	5.30%	10.60%	10.74%
38	3.85%	7.69%	6.46%	6.46%	6.42%	5.41%	10.81%	10.74%
39	3.93%	7.86%	6.60%	6.60%	6.42%	5.51%	11.02%	10.74%
40	4.02%	8.03%	6.75%	6.75%	6.42%	5.61%	11.23%	10.74%
41	4.10%	8.20%	6.91%	6.91%	6.42%	5.71%	11.43%	10.74%
42	4.18%	8.37%	7.07%	7.07%	6.42%	5.81%	11.62%	10.74%
43	4.27%	8.53%	7.23%	7.23%	6.42%	5.91%	11.81%	10.74%
44	4.34%	8.69%	7.39%	7.39%	6.42%	5.99%	11.99%	10.74%
45	4.42%	8.85%	7.54%	7.54%	6.42%	6.07%	12.14%	10.74%
46	4.50%	9.00%	7.70%	7.70%	6.42%	6.12%	12.24%	10.74%
47	4.57%	9.14%	7.86%	7.86%	6.42%	6.12%	12.24%	10.74%
48	4.64%	9.28%	8.01%	8.01%	6.42%	6.12%	12.24%	10.74%
49	4.70%	9.40%	8.16%	8.16%	6.42%	6.12%	12.24%	10.74%
50	4.75%	9.49%	8.31%	8.31%	6.42%	6.12%	12.24%	10.74%
51	4.77%	9.55%	8.45%	8.45%	6.42%	6.12%	12.24%	10.74%
52	4.78%	9.56%	8.59%	8.59%	6.42%	6.12%	12.24%	10.74%
53	4.78%	9.56%	8.72%	8.72%	6.42%	6.12%	12.24%	10.74%
54	4.78%	9.56%	8.83%	8.83%	6.42%	6.12%	12.24%	10.74%
55	4.78%	9.56%	8.92%	8.92%	6.42%	6.12%	12.24%	10.74%
56	4.78%	9.56%	8.97%	8.97%	6.42%	6.12%	12.24%	10.74%
57	4.78%	9.56%	8.98%	8.98%	6.42%	6.12%	12.24%	10.74%
58	4.78%	9.56%	8.98%	8.98%	6.42%	6.12%	12.24%	10.74%
59	4.78%	9.56%	8.98%	8.98%	6.42%	6.12%	12.24%	10.74%
60	4.78%	9.56%	8.98%	8.98%	6.42%	6.12%	12.24%	10.74%

Note: For general members entering after age 60, the rate equals the rate at age 60. Likewise, for safety members entering after age 50, the rate equals the rate at age 50.

Milliman

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Los Angeles County Employees Retirement Association

Exhibit D-2: Normal Plus Cost-of-Living Member Contribution Rates

	General					Safety		
Entry Age	Plan A	Plan B	Plan C	Plan D	Plan G	Plan A	Plan B	Plan C
16	4.35%	5.79%	4.93%	4.83%	7.63%	6.94%	9.30%	13.39%
17	4.44%	5.92%	5.05%	4.94%	7.63%	6.94%	9.30%	13.39%
18	4.53%	6.06%	5.16%	5.05%	7.63%	6.94%	9.30%	13.39%
19	4.64%	6.19%	5.27%	5.15%	7.63%	7.09%	9.48%	13.39%
20	4.75%	6.33%	5.39%	5.28%	7.63%	7.23%	9.67%	13.39%
21	4.84%	6.48%	5.52%	5.40%	7.63%	7.38%	9.87%	13.39%
22	4.95%	6.62%	5.64%	5.52%	7.63%	7.54%	10.08%	13.39%
23	5.06%	6.77%	5.77%	5.64%	7.63%	7.67%	10.28%	13.39%
24	5.19%	6.92%	5.90%	5.78%	7.63%	7.85%	10.49%	13.39%
25	5.30%	7.08%	6.03%	5.90%	7.63%	8.00%	10.71%	13.39%
26	5.41%	7.23%	6.17%	6.03%	7.63%	8.16%	10.92%	13.39%
27	5.54%	7.40%	6.30%	6.17%	7.63%	8.33%	11.15%	13.39%
28	5.65%	7.56%	6.44%	6.30%	7.63%	8.50%	11.37%	13.39%
29	5.78%	7.73%	6.59%	6.45%	7.63%	8.68%	11.62%	13.39%
30	5.91%	7.90%	6.74%	6.59%	7.63%	8.85%	11.85%	13.39%
31	6.06%	8.07%	6.89%	6.74%	7.63%	9.05%	12.11%	13.39%
32	6.19%	8.26%	7.04%	6.89%	7.63%	9.24%	12.36%	13.39%
33	6.34%	8.44%	7.20%	7.04%	7.63%	9.43%	12.63%	13.39%
34	6.46%	8.64%	7.36%	7.20%	7.63%	9.65%	12.90%	13.39%
35	6.63%	8.84%	7.52%	7.36%	7.63%	9.86%	13.19%	13.39%
36	6.78%	9.04%	7.69%	7.52%	7.63%	10.05%	13.47%	13.39%
37	6.93%	9.24%	7.86%	7.69%	7.63%	10.27%	13.75%	13.39%
38	7.09%	9.45%	8.05%	7.87%	7.63%	10.48%	14.02%	13.39%
39	7.24%	9.66%	8.22%	8.04%	7.63%	10.67%	14.29%	13.39%
40	7.40%	9.87%	8.41%	8.23%	7.63%	10.87%	14.56%	13.39%
41	7.55%	10.08%	8.61%	8.42%	7.63%	11.06%	14.82%	13.39%
42	7.70%	10.29%	8.81%	8.62%	7.63%	11.26%	15.07%	13.39%
43	7.86%	10.48%	9.01%	8.81%	7.63%	11.45%	15.31%	13.39%
44	7.99%	10.68%	9.21%	9.01%	7.63%	11.60%	15.55%	13.39%
45	8.14%	10.88%	9.39%	9.19%	7.63%	11.76%	15.74%	13.39%
46	8.29%	11.06%	9.59%	9.38%	7.63%	11.86%	15.87%	13.39%
47	8.42%	11.23%	9.79%	9.58%	7.63%	11.86%	15.87%	13.39%
48	8.55%	11.40%	9.98%	9.76%	7.63%	11.86%	15.87%	13.39%
49	8.66%	11.55%	10.16%	9.94%	7.63%	11.86%	15.87%	13.39%
50	8.75%	11.66%	10.35%	10.13%	7.63%	11.86%	15.87%	13.39%
51	8.79%	11.74%	10.53%	10.30%	7.63%	11.86%	15.87%	13.39%
52	8.80%	11.75%	10.70%	10.47%	7.63%	11.86%	15.87%	13.39%
53	8.80%	11.75%	10.86%	10.63%	7.63%	11.86%	15.87%	13.39%
54	8.80%	11.75%	11.00%	10.76%	7.63%	11.86%	15.87%	13.39%
55	8.80%	11.75%	11.11%	10.87%	7.63%	11.86%	15.87%	13.39%
56	8.80%	11.75%	11.17%	10.93%	7.63%	11.86%	15.87%	13.39%
57	8.80%	11.75%	11.19%	10.94%	7.63%	11.86%	15.87%	13.39%
58	8.80%	11.75%	11.19%	10.94%	7.63%	11.86%	15.87%	13.39%
59	8.80%	11.75%	11.19%	10.94%	7.63%	11.86%	15.87%	13.39%
60	8.80%	11.75%	11.19%	10.94%	7.63%	11.86%	15.87%	13.39%

Note: For general members entering after age 60, the rate equals the rate at age 60. Likewise, for safety members entering after age 50, the rate equals the rate at age 50.

Milliman

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Los Angeles County Employees Retirement Association

Appendix E: Historical Information

This section presents historical statistical information on LACERA's membership and the calculated contribution rates.

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Los Angeles County Employees Retirement Association

Exhibit E-1: Active Membership Data

	General Members					Safety Members					Total Members				
Valuation Date (June 30)	Number	Annual Salary (in millions)	Average Age	Average Credited Service	Average Monthly Salary	Number	Annual Salary (in millions)	Average Age	Average Credited Service	Average Monthly Salary	Number	Annual Salary (in millions)	Average Age	Average Credited Service	Average Monthly Salary
1998	65,782	$ 2,837	44.7	12.9	$ 3,594	10,947	$ 725	39.9	13.8	$ 5,519	76,729	$ 3,562	44.0	13.0	$ 3,870
1999	68,652	$ 3,105	44.6	12.7	$ 3,769	11,024	$ 753	40.0	13.7	$ 5,696	79,676	$ 3,858	43.9	12.8	$ 4,035
2000	71,940	$ 3,353	44.4	12.5	$ 3,884	11,264	$ 790	39.8	13.8	$ 5,849	83,204	$ 4,143	43.8	12.6	$ 4,150
2001	75,048	$ 3,608	44.5	12.3	$ 4,006	12,021	$ 860	39.6	13.0	$ 5,967	87,069	$ 4,468	43.9	12.4	$ 4,277
2002	77,062	$ 3,833	44.7	12.3	$ 4,145	12,190	$ 894	39.6	13.8	$ 6,115	89,252	$ 4,727	44.0	12.5	$ 4,414
2003	75,995	$ 3,954	45.2	12.7	$ 4,336	11,765	$ 899	40.1	13.7	$ 6,370	87,760	$ 4,853	44.5	12.9	$ 4,609
2004	74,826	$ 3,967	45.6	13.1	$ 4,418	11,409	$ 885	40.6	14.7	$ 6,467	86,235	$ 4,852	44.9	13.3	$ 4,689
2005	75,167	$ 4,046	45.8	13.2	$ 4,486	11,217	$ 905	41.0	14.9	$ 6,722	86,384	$ 4,951	45.2	13.4	$ 4,777
2006	77,167	$ 4,267	45.7	13.0	$ 4,608	11,464	$ 969	41.2	15.0	$ 7,047	88,631	$ 5,236	45.1	13.3	$ 4,924
2007	79,829	$ 4,673	45.7	12.8	$ 4,878	12,267	$ 1,104	40.8	14.4	$ 7,499	92,096	$ 5,777	45.1	13.0	$ 5,227
2008	81,664	$ 5,017	45.8	12.8	$ 5,119	12,828	$ 1,187	40.5	13.7	$ 7,714	94,492	$ 6,204	45.1	12.9	$ 5,471
2009	82,878	$ 5,348	46.1	13.1	$ 5,377	12,910	$ 1,240	40.8	14.0	$ 8,002	95,788	$ 6,588	45.4	13.2	$ 5,731
2010	81,413	$ 5,318	46.6	13.6	$ 5,444	12,997	$ 1,257	41.3	14.5	$ 8,062	94,410	$ 6,575	45.9	13.7	$ 5,804
2011	80,145	$ 5,295	47.0	14.0	$ 5,506	12,641	$ 1,240	41.9	15.1	$ 8,172	92,786	$ 6,535	46.3	14.2	$ 5,869
2012	79,467	$ 5,272	47.3	14.4	$ 5,528	12,485	$ 1,230	42.3	15.5	$ 8,209	91,952	$ 6,502	46.7	14.6	$ 5,892
2013	79,006	$ 5,253	47.6	14.8	$ 5,541	12,539	$ 1,235	42.3	15.7	$ 8,207	91,545	$ 6,488	46.9	14.9	$ 5,906

Milliman

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Los Angeles County Employees Retirement Association

Exhibit E-2: Retired Membership Data

	General Members				Safety Members				Total Members			
Valuation Date (June 30)	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit
1998	35,462	$ 692	71.1	$ 1,626	7,425	$ 267	62.5	$ 3,001	42,887	$ 959	69.6	$ 1,864
1999	35,837	$ 725	71.4	$ 1,686	7,674	$ 291	63.1	$ 3,166	43,511	$ 1,016	70.0	$ 1,947
2000	36,596	$ 780	71.4	$ 1,778	8,032	$ 324	63.1	$ 3,358	44,628	$ 1,104	69.9	$ 2,062
2001	37,077	$ 890	71.6	$ 2,001	8,319	$ 382	63.4	$ 3,828	45,396	$ 1,272	70.1	$ 2,336
2002	37,618	$ 914	71.8	$ 2,025	8,624	$ 403	63.7	$ 3,892	46,242	$ 1,317	70.3	$ 2,374
2003	38,283	$ 984	71.9	$ 2,142	8,949	$ 443	63.9	$ 4,128	47,232	$ 1,427	70.4	$ 2,518
2004	39,097	$ 1,056	72.0	$ 2,250	9,235	$ 478	64.2	$ 4,318	48,332	$ 1,534	70.5	$ 2,645
2005	40,251	$ 1,138	72.1	$ 2,355	9,518	$ 514	64.6	$ 4,504	49,769	$ 1,652	70.7	$ 2,766
2006	41,309	$ 1,224	72.2	$ 2,469	9,683	$ 549	65.0	$ 4,728	50,992	$ 1,773	70.8	$ 2,898
2007	41,584	$ 1,280	72.2	$ 2,565	9,808	$ 578	65.4	$ 4,914	51,392	$ 1,858	70.9	$ 3,013
2008	42,298	$ 1,356	72.4	$ 2,671	10,052	$ 623	65.8	$ 5,167	52,350	$ 1,979	71.1	$ 3,150
2009	42,825	$ 1,423	72.6	$ 2,768	10,244	$ 663	66.3	$ 5,394	53,069	$ 2,086	71.4	$ 3,275
2010	43,752	$ 1,514	72.7	$ 2,883	10,444	$ 706	66.7	$ 5,638	54,196	$ 2,220	71.6	$ 3,414
2011	44,726	$ 1,597	72.9	$ 2,976	10,645	$ 746	67.0	$ 5,836	55,371	$ 2,343	71.7	$ 3,526
2012	45,899	$ 1,686	73.0	$ 3,061	10,871	$ 789	67.3	$ 6,049	56,770	$ 2,475	71.9	$ 3,633
2013	46,939	$ 1,774	73.2	$ 3,149	11,147	$ 837	67.5	$ 6,261	58,086	$ 2,611	72.1	$ 3,746

Milliman

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Los Angeles County Employees Retirement Association

Exhibit E-3: Contribution Rates

	General Plans					Safety Plans					Total All Plans				
Valuation Date (June 30)	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution
1998	10.27%	3.06%	7.21%	0.00%	7.21%	25.00%	8.70%	16.30%	0.00%	16.30%	13.27%	4.21%	9.06%	0.00%	9.06%
1999	10.98%	3.20%	7.78%	0.00%	7.78%	25.41%	9.12%	16.29%	0.00%	16.29%	13.81%	4.36%	9.45%	0.00%	9.45%
2000	10.91%	3.33%	7.58%	0.00%	7.58%	25.22%	9.44%	15.78%	0.00%	15.78%	13.66%	4.51%	9.15%	0.00%	9.15%
2001	11.27%	3.45%	7.82%	0.00%	7.82%	25.47%	9.27%	16.20%	0.00%	16.20%	14.01%	4.57%	9.44%	0.00%	9.44%
2002	12.04%	3.53%	8.51%	0.21%	8.72%	25.92%	9.37%	16.55%	0.21%	16.76%	14.66%	4.63%	10.03%	0.21%	10.24%
2003	12.25%	3.72%	8.53%	4.66%	13.19%	25.89%	9.55%	16.34%	4.66%	21.00%	14.80%	4.81%	9.99%	4.66%	14.65%
2004	12.20%	3.82%	8.38%	6.41%	14.79%	24.61%	9.61%	15.00%	6.41%	21.41%	14.48%	4.88%	9.60%	6.41%	16.01%
2005	12.22%	3.91%	8.31%	5.33%	13.64%	24.69%	9.68%	15.01%	5.33%	20.34%	14.50%	4.97%	9.53%	5.33%	14.86%
2006	12.22%	4.07%	8.15%	3.49%	11.64%	24.70%	9.70%	15.00%	3.49%	18.49%	14.54%	5.12%	9.42%	3.49%	12.91%
2007	13.15%	4.38%	8.77%	2.24%	11.01%	26.04%	10.18%	15.86%	2.24%	18.10%	15.67%	5.51%	10.16%	2.24%	12.40%
2008	13.18%	4.47%	8.71%	1.99%	10.70%	26.01%	10.22%	15.79%	1.99%	17.78%	15.68%	5.59%	10.09%	1.99%	12.08%
2009	13.29%	4.57%	8.72%	4.12%	12.84%	26.08%	10.21%	15.87%	4.12%	19.99%	15.75%	5.65%	10.10%	4.12%	14.22%
2010	13.32%	4.68%	8.64%	6.47%	15.11%	25.00%	10.19%	14.81%	6.47%	21.28%	15.59%	5.75%	9.84%	6.47%	16.31%
2011	13.36%	4.91%	8.45%	7.89%	16.34%	25.09%	10.50%	14.59%	7.89%	22.48%	15.65%	6.00%	9.65%	7.89%	17.54%
2012	13.50%	5.01%	8.49%	10.09%	18.58%	25.42%	10.52%	14.90%	10.09%	24.99%	15.81%	6.08%	9.73%	10.09%	19.82%
2013	13.25%	5.01%	8.24%	11.90%	20.14%	24.67%	10.26%	14.41%	11.90%	26.31%	15.47%	6.03%	9.44%	11.90%	21.34%

Milliman

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Los Angeles County Employees Retirement Association

Exhibit E-4: Funded Status History

(Dollars in Millions)

		Market Value Basis			Actuarial Value Basis						
Valuation Year	Actuarial Accrued Liability (AAL)	Market Value of Assets (MVA)[1]	Unfunded AAL (UAAL)/Surplus MVA Basis	Funded Ratio MVA Basis	Actuarial Value of Assets (AVA)[1]	Unfunded AAL (UAAL)/Surplus AVA Basis	Funded Ratio AVA Basis	Covered Payroll	Asset Smoothing Ratio (AVA / MVA)	Asset Volatility Ratio (MVA / Payroll)	Liability Volatility Ratio (AAL / Payroll)
1996 [2]	17,300	18,600	1,300	107.5%	17,700	400	102.3%	3,356	95.2%	5.5	5.2
1997 [2]	19,300	21,100	1,800	109.3%	19,600	300	101.6%	3,373	92.9%	6.3	5.7
1998	20,960	22,332	1,372	106.5%	20,851	(109)	99.5%	3,562	93.4%	6.3	5.9
1999	22,785	24,382	1,597	107.0%	23,536	751	103.3%	3,858	96.5%	6.3	5.9
2000	24,721	27,257	2,536	110.3%	25,427	706	102.9%	4,143	93.3%	6.6	6.0
2001	26,490	23,916	(2,574)	90.3%	26,490	-	100.0%	4,469	110.8%	5.4	5.9
2002	28,437	24,085	(4,352)	84.7%	28,262	(175)	99.4%	4,730	117.3%	5.1	6.0
2003	30,474	24,616	(5,858)	80.8%	26,564	(3,910)	87.2%	4,934	107.9%	5.0	6.2
2004	32,700	28,094	(4,606)	85.9%	27,089	(5,611)	82.8%	4,942	96.4%	5.7	6.6
2005	34,375	30,904	(3,471)	89.9%	29,497	(4,878)	85.8%	5,051	95.4%	6.1	6.8
2006	36,259	34,256	(2,003)	94.5%	32,820	(3,439)	90.5%	5,333	95.8%	6.4	6.8
2007	39,503	40,073	570	101.4%	37,042	(2,461)	93.8%	5,886	92.4%	6.8	6.7
2008	41,975	37,834	(4,141)	90.1%	39,662	(2,313)	94.5%	6,257	104.8%	6.0	6.7
2009	44,469	29,723	(14,746)	66.8%	39,542	(4,927)	88.9%	6,673	133.0%	4.5	6.7
2010	46,646	32,629	(14,017)	69.9%	38,839	(7,807)	83.3%	6,739	119.0%	4.8	6.9
2011	48,599	38,587	(10,012)	79.4%	39,194	(9,405)	80.6%	6,705	101.6%	5.8	7.2
2012	50,809	37,453	(13,356)	73.7%	39,039	(11,770)	76.8%	6,675	104.2%	5.6	7.6
2013	53,247	41,334	(11,913)	77.6%	39,932	(13,315)	75.0%	6,656	96.6%	6.2	8.0

[1] *Asset values exclude non-valuation reserves*
[2] *Only rounded values are available.*

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Exhibit E-5: Reconciliation of Changes in Unfunded Actuarial Accrued Liability or Surplus

(Dollars in Millions)

Valuation Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Prior Year UAAL	175	3,910	5,611	4,878	3,439	2,461	2,313	4,927	7,807	9,405	11,770
Normal Cost	722	770	769	787	882	990	1,053	1,219	1,200	1,237	1,430
Contributions	(782)	(815)	(1,076)	(1,196)	(1,258)	(1,249)	(1,310)	(1,322)	(1,461)	(1,646)	(1,455)
Interest	15	357	435	378	267	191	179	382	605	724	895
Changes in Assumptions/Methodology	40	697	-	-	515	-	-	54	221	457	511
Changes in Benefit Provisions	17	-	-	-	-	-	-	-	-	-	-
Expected Current Year UAAL	187	4,919	5,739	4,847	3,845	2,393	2,235	5,260	8,372	10,177	13,151
Actual Current Year UAAL	3,910	5,611	4,878	3,439	2,461	2,313	4,927	7,807	9,405	11,770	13,315
Total (Gain)/Loss on UAAL	3,723	692	(861)	(1,408)	(1,384)	(80)	2,692	2,547	1,033	1,593	164
Asset (Gains)/Losses	3,351	871	(790)	(1,642)	(2,187)	(429)	2,465	2,879	1,761	2,337	893
Ventura Settlement/Court Cases	190	-	-	50	-	15	-	-	-	-	-
Salary Increases	(66)	(270)	(115)	156	673	298	380	(353)	(579)	(629)	(563)
All Other Actuarial (Gains)/Losses	248	91	44	28	130	36	(153)	21	(149)	(115)	(166)

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Exhibit E-6: Reconciliation of Changes in Employer Contribution Rate

Valuation Year	Prior Year Contribution Rate	Changes in Existing Amortization Bases	Assumption/ Method Changes	Salary/Payroll Variations	Plan Amendments	Asset (Gains)/Losses	Demographic/Other (Gains)/Losses	Current Year Contribution Rate
2003	10.24%	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	14.65%
2004	14.65%	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	16.01%
2005	16.01%	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	14.86%
2006	14.86%	-0.29%	0.00%	0.02%	0.00%	-1.82%	0.14%	12.91%
2007	12.91%	-0.28%	1.34%	0.61%	0.00%	-2.14%	-0.04%	12.40%
2008	12.40%	-0.17%	0.00%	0.21%	0.00%	-0.24%	-0.12%	12.08%
2009	12.08%	-0.04%	-1.76%	0.21%	0.00%	3.91%	-0.18%	14.22%
2010	14.22%	0.00%	-0.27%	-0.10%	0.00%	2.29%	0.17%	16.31%
2011	16.31%	0.00%	0.25%	-0.14%	0.00%	1.39%	-0.27%	17.54%
2012	17.54%	0.00%	0.54%	-0.11%	0.00%	1.92%	-0.07%	19.82%
2013	19.82%	0.00%	0.82%	-0.01%	0.00%	0.74%	-0.03%	21.34%

[1] *Data not available.*

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Exhibit E-7: Funding Policy History

	Description of changes, if any	Effective Date	Impact on Contribution Rate	Impact on Funding Ratio	Rationale
2009	Changed from 3-year to 5-year asset smoothing. Included STAR reserve as a valuation asset. Adopted 30-year layered amortization period.	June 30, 2009	-1.68% *	4.40%	See June 30, 2009 valuation report.
2010	Included STAR reserve as a valuation asset.	June 30, 2010	-0.52% *	1.40%	See June 30, 2010 valuation report.
2011	Included STAR reserve as a valuation asset.	June 30, 2011	-0.52% *	1.20%	See June 30, 2011 valuation report.
2012	Included STAR reserve as a valuation asset for 2012 and future valuations (adopted February 2013).	June 30, 2012	-0.53% *	1.20%	See June 30, 2012 valuation report.

**Note that savings due to inclusion of STAR reserve as valuation asset are not cumulative from year to year.*

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Exhibit E-8: History of Changes in Economic Assumptions

(Years with no changes excluded)

	Price Inflation	Wage Inflation	Real Wage Inflation[1]	Investment Return Assumption	Real Investment Return[2]	Effective Date	Change in Contribution Rate	Change in Funding Ratio	Rationale
2004	3.50%	3.75%	0.25%	7.75%	4.25%	July 1, 2004	1.65%	N/A[3]	See 2004 Investigation of Experience Report.
2007	3.50%	4.00%	0.50%	7.75%	4.25%	July 1, 2007	0.66%	-1.3%	See 2007 Investigation of Experience Report.
2011	3.45%	3.95%	0.50%	7.70%	4.25%	July 1, 2011	0.25%	-0.3%	See 2010 Investigation of Experience Report.
2012	3.35%	3.85%	0.50%	7.60%	4.25%	July 1, 2012	0.54%	-0.7%	See 2010 Investigation of Experience Report.
2013	3.00%	3.50%	0.50%	7.50%	4.50%	July 1, 2013	0.37%	-0.1%	See 2013 Investigation of Experience Report.

[1] *Excess of assumed wage inflation over price inflation.*
[2] *Excess of assumed investment return over price inflation.*
[3] *Information not available.*

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Exhibit E-9: History of Changes in Demographic and Other Non-Economic Assumptions

(Years with no changes excluded)

	Demographic Assumption Revisions	Effective Date	Change in Contribution Rate	Change in Funding Ratio	Rationale
2004	Mortality, merit salary scale, retirement, termination, probability of refund, probability of eligible survivor revised.	July 1, 2004	-0.63%	N/A[1]	Refer to the 2004 Investigation of Experience Report
2007	Mortality, retirement, termination, probability of refund, merit salary scale for Safety members revised.	July 1, 2007	0.68%	N/A[1]	Refer to the 2007 Investigation of Experience Report
2010	Mortality, retirement, termination, probability of refund, assumed benefit commencement age revised.	July 1, 2010	-0.27%	-0.1%	Refer to the 2010 Investigation of Experience Report
2013	Mortality, retirement, termination, probability of refund, merit salary scale for Safety members, probability of eligible survivor, assumption for beneficiary age, reciprocity assumption revised.	July 1, 2013	0.45%	-0.6%	Refer to the 2013 Investigation of Experience Report

[1] *Information not available.*

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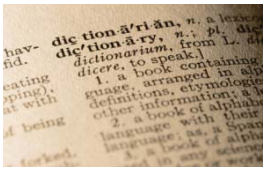
Appendix F: Glossary



The following definitions include excerpts from a list adopted by the major actuarial organizations in the United States. In some cases, the definitions have been modified for specific applicability to LACERA and include terms used exclusively by LACERA. Defined terms are capitalized throughout this Appendix.

Accrued Benefit — The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.

Actuarial Accrued Liability — That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Actuarial Assumptions — Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement, and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

Actuarial Gain (Loss) — A measure of the difference between actual experience and that expected based on a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Present Value — The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions.

Actuarial Valuation — The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

Actuarial Value of Assets — The value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

Actuarially Equivalent — Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Amortization Payment — That portion of the pension plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

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Contingency Reserve Reserves accumulated for future earning deficiencies, investment losses, and other contingencies. Additions include investment income and other revenues; deductions include investment expense, administrative expense, interest allocated to other reserves, funding the STAR Reserve, and distributions to the Contribution Credit Reserve. The Contingency Reserve is used to satisfy the California Government Code requirement for (31592 and 31592.2) LACERA to reserve 1% of the assets against earning deficiencies, investment losses, and other contingencies.

County Contribution Credit Reserve The accumulated balance of the County's proportionate share of excess earnings as stipulated in the Retirement System Funding Agreement between LACERA and the County. Additions include distributions from excess earning during the fiscal years ending 1994 through 1998 and related earnings. Deductions include payments, as the County authorizes, for future employer contributions due LACERA and for funding a portion of the Retiree Healthcare Program under the provisions of Internal Revenue Code 401(h).

Employer Reserve The accumulation of employer contributions for future retirement benefit payments. Additions include contributions from employers and related earnings. Deductions include annuity payments to retired members and survivors, lump sum death benefit payments to member survivors, and supplemental disability payments.

Entry Age Actuarial Cost Method A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

Funded Ratio A measurement of the funded status of the system. The Funded Ratio is calculated by dividing the Valuation Assets by the Actuarial Accrued Liability. For example, a Funded Ratio of 90% indicates assets are 10% less than liabilities.

Funding Goal The Funding Goal is the funded status the Board of Investments would like LACERA to achieve. The main goal is to provide benefit security for its members as well as to achieve and maintain stable employer contributions that are as low as possible. A Funded Ratio equal to 100% is the Funding Goal.

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Layered Amortization Period	Payment of each year's change in the Unfunded Actuarial Accrued Liability (UAAL) is amortized over separate closed periods. For LACERA, the original UAAL as of June 30, 2009 is being amortized over a closed 30-year period, while each year's subsequent gain or loss on the UAAL is amortized over a new closed 30-year period starting with that date. The amortization payments are based on a level percent of pay.
Member Reserve	The accumulation of member contributions. Additions include member contributions and related earnings. Deductions include annuity payments to retirees and refunds to members.
Non-Valuation Reserves	Reserves excluded from the calculation of contribution rates, including the Contingency Reserve, the STAR reserve, the County Contribution Credit Reserve, and any other reserves specifically excluded by the Board of Investments.
Normal Cost	That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.
Plan Year	A twelve-month period beginning July 1 and ending June 30.
Projected Benefits	Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.
STAR Reserve	Reserves accumulated for the payment of cost-of-living benefits as defined in California Government Code Section 31874.3.
Supplemental Targeted Adjustment for Retirees (STAR) Benefits	Supplemental cost-of-living payments to retired members to restore purchasing power at a specified percentage level, as described in California Government Code Section 31874.3.
Surplus Funding	The excess, if any, of the Actuarial Value of Assets over the Actuarial Accrued Liability. Standard actuarial terminology defines this as the "Funding Excess." LACERA uses the term "Surplus Funding."
Unfunded Actuarial Accrued Liability	The excess, if any, of the Actuarial Accrued Liability over the Actuarial Value of Assets.
Valuation Date	The date upon which the Normal Cost, Actuarial Accrued Liability, and Actuarial Value of Assets are determined. Generally, the Valuation Date will coincide with the ending of a Plan Year.
Valuation Reserves	All reserves excluding the Non-Valuation Reserves.

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