LACERA Los Angeles County Employees Retirement Association
300 N. Lake Ave., Pasadena, CA 91101 / PO Box 7060, Pasadena, CA 91109-7060 / www.lacera.com / 626/564-6000

June 16, 2010

ADOPTED
BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

70 JUNE 29, 2010

Sachi A. Hamai
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**
**(3 VOTES)**

**IT IS RECOMMENDED THAT YOUR BOARD**

Adopt revised employer contribution rates approved by the Board of Investments of the Los Angeles County Employees Retirement Association (LACERA). Employer rates to be effective no later than September 30, 2010. Adoption will result in an aggregate employer contribution rate of 14.22% increasing annual employer retirement contributions by $200 million.

**PURPOSE OF RECOMMENDED ACTION**

Set employer and employee contribution rates at a level sufficient to fund plan liabilities identified in the June 30, 2009 Actuarial Valuation Report.

**JUSTIFICATION**

The County Employees Retirement Law requires the Board of Investments to obtain an actuarial valuation of the 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. The LACERA Board of Investments approved the revised employer rates recommended in the 2009 Actuarial Valuation on March 10, 2010.

## IMPLEMENTATION OF STRATEGIC GOAL PLANS

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

## FISCAL IMPACT/FINANCING

LACERA's Actuarial Valuation estimates that County contributions will increase by $200 million for Fiscal Year 2010/2011 resulting in an annual County retirement cost estimate of $987 million. There are no changes to the member contribution rates at this time.

## FINANCING

County Obligation.

## 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 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 not 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 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 returns. 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, 2007, 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, 2010, triennial valuation and investigation.

## 4. RESULTS OF THE 2009 VALUATION

According to Milliman's 2009 valuation, the actuarial value of valuation assets amounted to $39.5 billion and the actuarial accrued liability amounted to $44.5 billion. As a result, LACERA's June 30, 2009 funding status was 88.9%.

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

- $1,053 million increase in liabilities due to normal benefit accruals;
- $227 million net actuarial loss from non-economic plan experience differing from plan assumptions and;
- $2,465 million net actuarial loss due to the assets of the plan performing below the expected actuarial rate of return.

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 10, 2010, meeting that the actuarial asset smoothing method is dampening the contribution rate volatility by smoothing the fiscal year 2007 investment gain and the investment losses from fiscal years 2008 and 2009. 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 66.8% with a required employer contribution rate of 22.64%. As such, it is expected the employer's contribution rate will rise to 22.64% in four years when the fiscal year 2009 portfolio loss is completely recognized. However, if future portfolio returns are below the expected 7.75% rate of return, employer costs will further rise provided all other experience meets expectations.

At their December 9, 2009 meeting, the Board of Investments directed the plan actuary to include the STAR Program reserve as a valuation asset in the June 30, 2009 valuation, and to reevaluate including the STAR Program reserve when conducting the June 30, 2010 valuation. Had the $614 million STAR Reserve been excluded from the actuarial value of assets as of June 30, 2009, the funding ratio would have decreased 1.4% and the County contribution rate would have increased from the 14.22% recommended rate to 14.74%.

Plan demographics reported in the valuation indicate 1.4% increase in the size of the active member population with an overall average age of 45.4 years. Over 97% of active participants are members of the open tiers with less than 3% of our members continuing to be covered by one of the closed plans. The retired population increased by 1.4% and now totals over 53,000. The average benefit payment increased by 4% to $3,275 per month. The average age of the retired population increased by approximately three months to 71.4 years.

5. IMPACT ON EMPLOYER AND EMPLOYEE CONTRIBUTION RATES

As previously stated, LACERA is funded by both employer and employee contributions. Employee normal contributions are defined in the County Employees Retirement Law as those required to fund a specific annuity at a

specified age. Employee normal contribution rates are not impacted by actuarial gains and losses, but are affected by changes made in the interest, salary, and mortality assumptions. The County Employees Retirement Law also requires employees to pay half the contributions required to fund the cost-of-living benefit. Unlike normal contributions, cost-of-living contributions are affected by changes in any of the economic and non-economic assumptions. As there have not been changes in actuarial assumptions, the actuary is not recommending changes in the member contribution rates at this time.

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 the cost for funding the liabilities that have 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 the Association's funding ratio drop below 100%. Because the 2009 valuation determined the funding ratio to be 88.9%, the County is required to make unfunded liability contributions in Fiscal Year 2010/2011 in the amount of 4.12% of active payroll.

Additionally, the actuary has recommended new employer contribution rates for the normal cost. The overall normal cost contribution rate has increased from 10.09% to 10.10%. Applying the new 10.10% normal cost contribution rate and the 4.12% unfunded liability contribution rate the actuary estimates the annual contributions owed by the County will increase by approximately $200 million per year.

It should be noted that the County Contribution Credit Reserve Account, which amounted to $470 million as of June 30, 2009, is not affected by these changes. These funds remain available for the County to use in meeting its future pension costs.

## IMPACT ON CURRENT SERVICES

None.

## CONCLUSION

The County's cost for the retirement plan as a percentage of pay will increase in fiscal year 2010/2011 by approximately $200 million due to significant portfolio

losses sustained in the credit crisis and economic downturn. It is expected the employer costs will rise sharply in the coming years depending on the severity and longevity of the economic downturn. It is foreseeable the employer's contribution rate could rise from the recommended 14.22% to approximately 23% of active member payroll when the sustained losses are fully reflected in the employer's contribution rate.

Respectfully submitted,

GREGG RADEMACHER
Chief Executive Officer

GR:nm
Actval09bofs.doc

Attachment: 2009 Actuarial Valuation Report

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

# Los Angeles County Employees Retirement Association

# ACTUARIAL VALUATION
**June 30, 2009**

By

Karen I. Steffen

Fellow, Society of Actuaries
Member, American Academy of Actuaries

and

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February 26, 2010

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

Dear Members of the Board:

As requested, we have made an actuarial valuation of the Los Angeles County Employees Retirement Association (LACERA) as of June 30, 2009 for determining the contribution rates effective July 1, 2010. 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, 2009, and LACERA's new funding policy that was adopted in December of 2009. It should be noted that under this policy, the reserve value for STAR benefits is included in the 2009 valuation assets; however, the liability for any potential STAR benefits 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.

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 which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

We further certify that all costs, liabilities, rates of interest, and other factors for LACERA have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of LACERA and reasonable expectations) and which, in combination, offer a reasonable estimate of anticipated experience affecting LACERA. Nevertheless, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions. The Board of Investments has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A.

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes.
Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

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 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.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for LACERA. Actuarial computations under GASB Statement No. 25 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 Statement No. 25. 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.

Milliman's work product was prepared exclusively for LACERA for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning LACERA's operations, and uses LACERA's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

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,

Karen I. Steffen, FSA, EA, MAAA
Consulting Actuary

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

KIS/NJC/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

### 2009 Valuation Results

| | June 30, 2009 | June 30, 2008 |
|---|---|---|
| Required County Contribution Rate | 14.22% | 12.08% |
| Funded Ratio | 88.9% | 94.5% |

### Overview

We are pleased to present the results of the June 30, 2009 actuarial valuation. This valuation determines the required contribution rates payable starting July 1, 2010. Several key points are summarized as follows:

- **Investment Returns:** For the fiscal year ending in 2009, the fund returned a negative 18.3% on a market basis, significantly less than the assumed rate of 7.75%. In total, there was a $2.47 billion loss on actuarial assets. The large recognized asset loss has the largest impact of any factors affecting this year's valuation results.

  Note that currently a $9.8 billion net investment loss is being deferred. This is because the asset-smoothing method has recognized only one-fifth of the loss from last year. This loss will be reflected over the next four valuations under the current asset-smoothing method.

- **New Funding Policy:** The Board of Investments adopted a new Funding Policy at their December, 2009 meeting. The most significant change from the last valuation included in the new policy was the implementation of five-year smoothing on asset gains and losses. This change resulted in a higher Funded Ratio and a lower contribution rate than would have been calculated under the previous three-year smoothing period. Other material changes are the inclusion of the STAR reserves as a valuation asset (subject to periodic review) and the adoption of a 30-year layered amortization period.

- **Funding:** The Funded Ratio decreased from 94.5% to 88.9%. The recognition of significant investment losses caused a 5.5% decrease (after reflecting the new Funding Policy) in the Funded Ratio. All other factors had only a minor impact, causing a 0.1% decrease in total.


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**Overview (continued)**

- **Contribution Rates:** The County Normal Cost rate increased slightly from 10.09% to 10.10%. The County's required contribution rate to finance the Unfunded Actuarial Accrued Liability (UAAL) over 30 years increased from 1.99% to 4.12%. The result is an increase in the required total employer contribution rate from the prior valuation of 2.14% (from 12.08% to 14.22% of payroll). The most important factor causing this increase was the recognition of investment losses combined with the new Funding Policy, which resulted in a 2.15% increase. All other factors had only a minor impact, causing a 0.01% decrease in total. There are no recommended changes to member contribution rates.

**Required Contribution Rate**

In accordance with the LACERA's Funding Policy, the required County contribution rate is 14.22% of payroll. This is equal to the payment of the County Normal Cost rate plus a 30-year amortization of the UAAL. It should be noted that the 14.22% is a weighted average for all LACERA plans. The actual percent of payroll to be contributed by the County varies by plan as shown in Exhibit 11.

The new required rate is effective for the fiscal year beginning July 1, 2010. The 14.22% contribution rate is currently adequate to maintain the funding of the retirement system benefits based on the actuarial methods and assumptions used and satisfies the Funding Policy adopted by the Board of Investments.

## Analysis of Change

The following chart shows that the asset loss was the most significant factor affecting the County contribution rate and the funded status. Note that the impact of the asset loss would have been much greater if it had not been offset somewhat by the change in asset smoothing method (from three-year smoothing to five-year smoothing), as well as by the inclusion of the STAR reserves in the valuation assets.

| Sources of Change | County Contribution Rate | Funded Ratio |
|---|---|---|
| **June 30, 2008 Actuarial Valuation** | **12.08%** | **94.5%** |
| Expected Year-to-Year Change | -0.04% | 0.4% |
| Asset Gain/Loss | | |
| Investment Return (Actuarial) | 3.91% | -10.2% |
| Move to 5-Year Smoothing | -1.16% | 3.0% |
| Inclusion of STAR Reserves | -0.52% | 1.4% |
| Contingency Based on Market | -0.08% | 0.3% |
| Combined Asset Gain/Loss | 2.15% | -5.5% |
| Liability Gain/Loss | | |
| Salary / Payroll Variation | 0.21% | -0.8% |
| Retiree COLAs < Expected | 0.00% | 0.0% |
| Assumption Changes | 0.00% | 0.0% |
| Other | -0.18% | 0.3% |
| Combined Liability Gain/Loss | 0.03% | -0.5% |
| **Total Change** | **2.14%** | **-5.6%** |
| **June 30, 2009 Actuarial Valuation** | **14.22%** | **88.9%** |

## Funding Progress

Based on the 2008 valuation, the expected funding status as of June 30, 2009 was a UAAL amount of $2.25 billion. The actual UAAL for the fiscal year ending June 30, 2009 is $4.93 billion. The increase was primarily due to a net loss on valuation assets of $2.47 billion.

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 had maintained a Funded Ratio of approximately 100% for 1996-2002. The Funded Ratio decreased significantly in 2003 and 2004 due to asset losses from earlier in the decade being recognized. Strong investment returns in subsequent years had resulted in an increase in the Funded Ratio to 94.5%. This year the Funded Ratio has decreased to 88.9% due to the recognition of significant asset losses (both current and deferred), as shown in the graph on the following page.

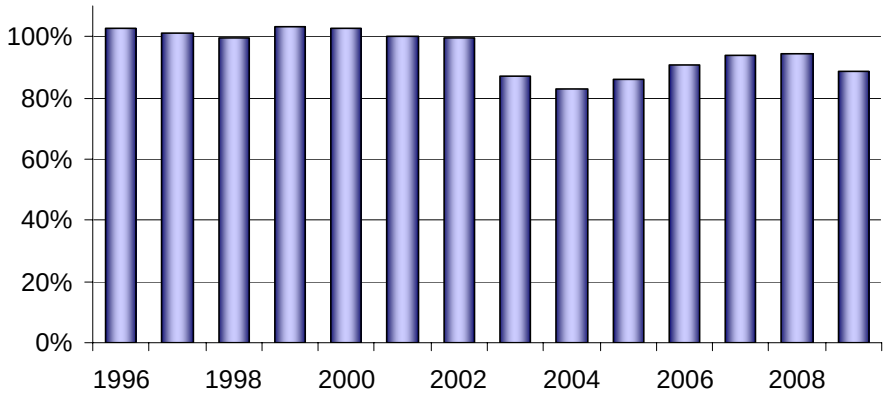
**Funding Progress (continued)**

On June 30, 2009, the total Market Value of the fund was $30.5 billion. The Actuarial Value was $40.3 billion and was split between $0.8 billion of Non-Valuation Assets and $39.5 billion of Valuation Assets. The Valuation Assets are equal to 88.9% of the $44.5 billion AAL. The Actuarial Value of Assets is 132% 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 | | |
| 2000 | $ 31.6 | $ 4.3 | $ 25.4 | $ 24.7 | 102.9% |
| 2001 | 28.4 | 4.4 | 26.5 | 26.5 | 100.0 |
| 2002 | 26.0 | 2.0 | 28.3 | 28.4 | 99.4 |
| 2003 | 26.2 | 1.6 | 26.6 | 30.5 | 87.2 |
| 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 |

**Historical Funded Ratios**



**Association Assets**

Market Value: The market value of assets has increased slightly over the past ten years. The average return for the fund over that period is estimated to be 4.1%; however, due to benefit payments being greater than contributions, the total increase in the market value 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 1.5%.

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**

As noted earlier, the smoothing method is currently deferring $9.8 billion in asset losses. As these losses are recognized over the next four valuations, it is expected there will be significant increases in the required County contribution rate (unless there are large offsetting asset gains in the near future).

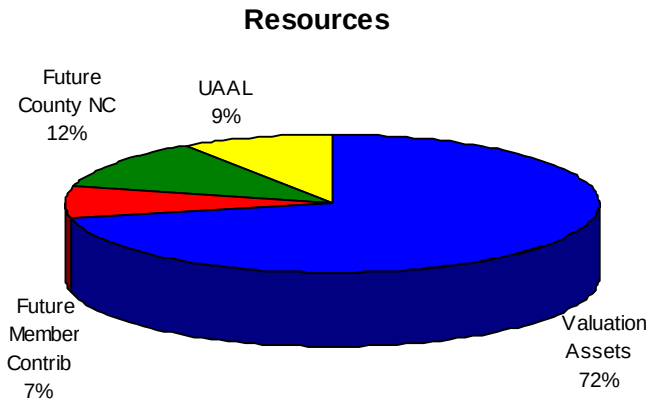
The potential future impact of the recognition of these deferred losses can be estimated by looking at the valuation results if the assets losses were immediately recognized. Using the market value of assets, the required County contribution rate would have been 22.64%, and the Funded Ratio would have been 66.8%.

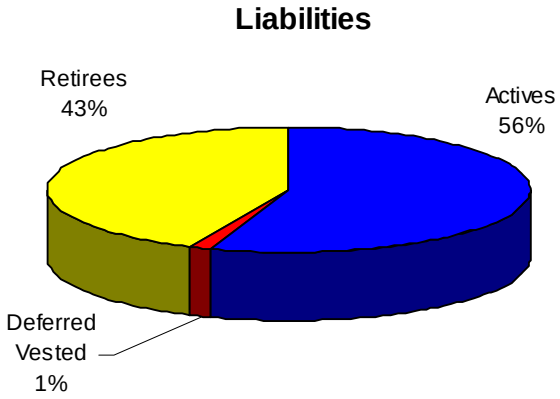
**Actuarial Balance Sheet**

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 County 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 2009 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 are as follows:

- **Asset Smoothing Period:** Asset gains and losses are smoothed over a five-year period (previously three years).
- **Amortization Period:** The 2009 UAAL is amortized 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. The prior method used an open period. The employer contribution rate is not allowed to be less than the rate if LACERA amortized the total UAAL over a 30-year period.

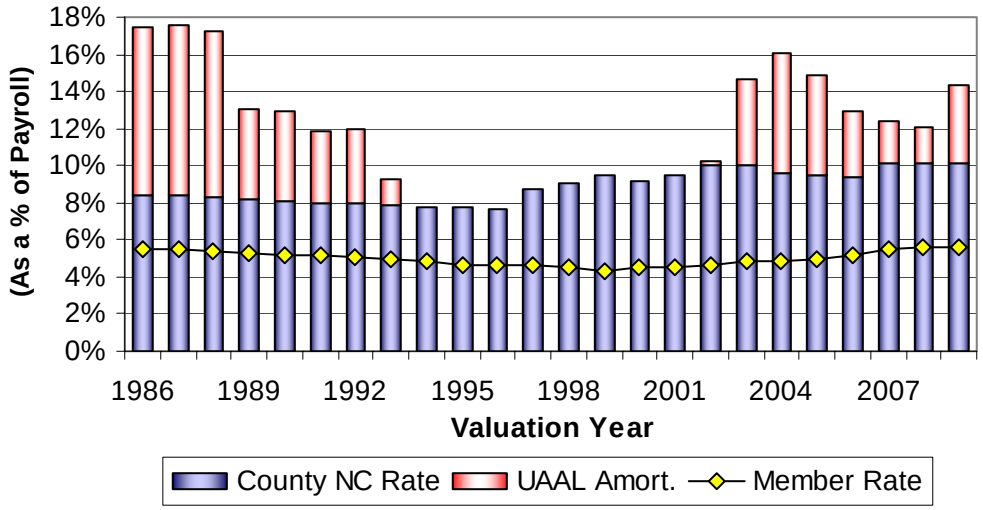
  If LACERA moves to a negative UAAL position, the "surplus" amount will be amortized over an open 30-year period.
- **STAR Reserve:** The STAR reserve is included in the valuation assets (subject to periodic review). There is no corresponding liability for future STAR benefits included in the valuation.

  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 2010 County contribution rate would increase by 0.52% to 14.74%, and the Funded Ratio would decrease by 1.4% to 87.5%.

**County Contribution Rates**

Based on the results of the valuation, the required County contribution rate will increase for the fiscal year beginning in 2010 to a rate of 14.22% of pay. A historical perspective of the County contribution rates is shown in the following graph.

**Required County Contribution Rate**

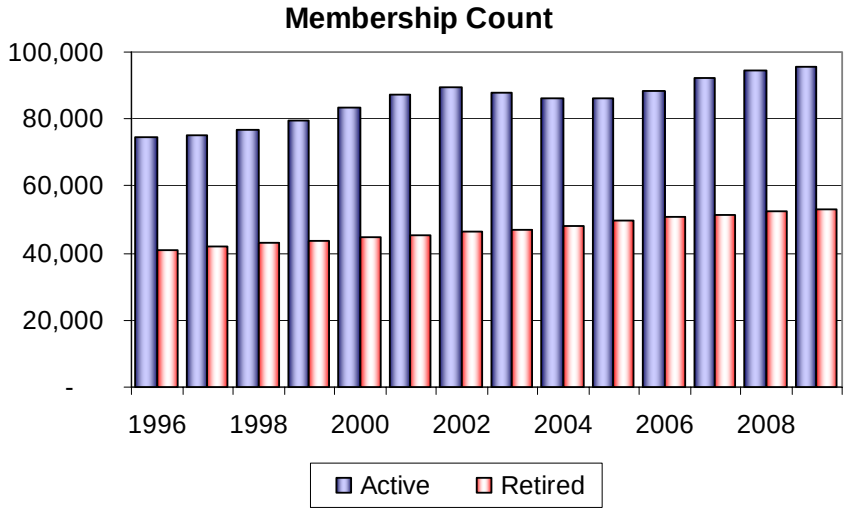


**Member Rates**

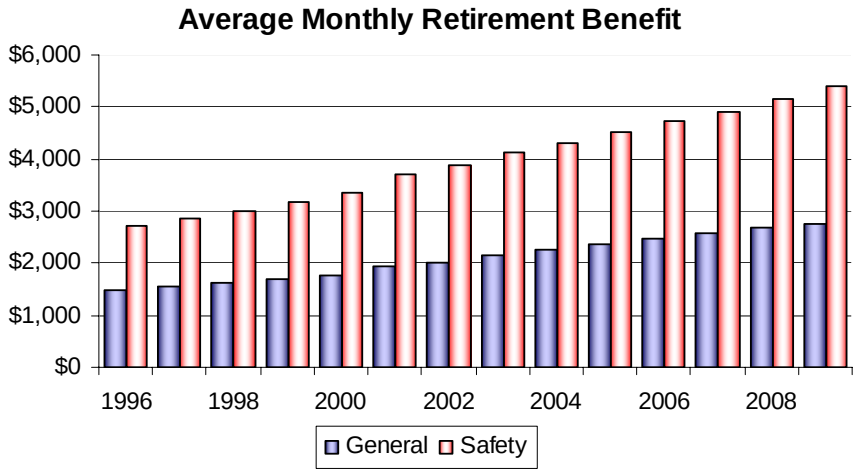
Since this is not a triennial valuation, we have not recommended any changes in member contribution rates. Member rates for all plans are discussed in Section 5, and they are shown in detail in Appendix D.

**Member Information**

Payroll has increased since 2008. As of June 30, 2009, the annualized payroll is $6.67 billion for 95,788 active members. This increase is a result of a 5.2% increase in average pay and a 1.4% increase in active members.




Retired member counts and average retirement benefit amounts continue to increase steadily. For 2009, there were 53,069 retired members and beneficiaries with an average benefit of $3,275 per month. This represents a 1.4% increase in count and a 4.0% increase in the average monthly benefit.



**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, 528 members (638 last year) transferred from Plan E to Plan D during the past year; and 226 members (201 last year) transferred from Plan D to Plan E.

| | Active Contributing Members | Deferred Members* | Retirees, Disabilities, & Beneficiaries |
|---|---|---|---|
| **June 30, 2008 Valuation** | **94,492** | **11,834** | **52,350** |
| Termination without Refund | (1,026) | 1,026 | - |
| Termination with Refund | (675) | (412) | - |
| Active/Deferred Death with Annuity | (67) | (59) | 126 |
| Service Retirement | (1,447) | (395) | 1,842 |
| Disability Retirement | (122) | (11) | 133 |
| Retiree Death without Beneficiary | - | - | (1,377) |
| New Entrants | 4,489 | - | - |
| Rehires | 144 | (139) | (5) |
| **Total Change** | **1,296** | **10** | **719** |
| **June 30, 2009 Valuation** | **95,788** | **11,844** | **53,069** |

** 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 7.75%** | **+0.5% 8.25%** | **-0.5% 7.25%** |
| **County Contribution Rate** | 14.22% | 10.63% | 17.85% |
| Change | | -3.59% | 3.63% |
| **Funded Ratio** | 88.9% | 95.1% | 83.0% |
| Change | | 6.2% | -5.9% |

**Summary Valuation Results**

The following Exhibit 1 presents a summary of key data elements on June 30, 2009 and June 30, 2008, 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.

# Los Angeles County Employees Retirement Association

## Exhibit 1: Summary of Significant Valuation Results

| | | June 30, 2009 | June 30, 2008 | Percentage Change |
|---|---|---|---|---|
| I. | Total Membership | | | |
| | A. Active Members | 95,788 | 94,492 | 1.4% |
| | B. Retired Members & Beneficiaries | 53,069 | 52,350 | 1.4% |
| | C. Deferred Members | 11,844 | 11,834 | 0.1% |
| | D. Total | 160,701 | 158,676 | 1.3% |
| II. | Pay Rate as of June 30, 2009 | | | |
| | A. Annual Total ($millions) | $ 6,673 | $ 6,257 | 6.6% |
| | B. Monthly Average | $ 5,805 | $ 5,518 | 5.2% |
| III. | Average Monthly Benefit Paid to Current Retirees and Beneficiaries | | | |
| | A. Service Retirement | $ 3,339 | $ 3,210 | 4.0% |
| | B. Disability Retirement | $ 3,996 | $ 3,826 | 4.4% |
| | C. Surviving Spouse and Dependents | $ 2,123 | $ 2,014 | 5.4% |
| | D. Total | $ 3,275 | $ 3,150 | 4.0% |
| IV. | Actuarial Accrued Liability | | | |
| | A. Active Members | $ 19,778 | $ 18,245 | 8.4% |
| | B. Retired Members | $ 23,967 | $ 23,026 | 4.1% |
| | C. Vested Terminated Members | $ 724 | $ 704 | 2.8% |
| | D. Total | $ 44,469 | $ 41,975 | 5.9% |
| V. | Assets | | | |
| | A. Market Value of Fund ($millions) | $ 30,499 | $ 38,725 | (21.2)% |
| | B. Actuarial Value ($millions) | | | |
| | 1. Valuation Reserves | $ 39,542 | $ 39,662 | (0.3)% |
| | 2. Non-valuation Reserves | $ 776 | $ 891 | (13.0)% |
| | C. Annual Investment Return | | | |
| | 1. Market Basis | (18.3)% | (1.5)% | na |
| | 2. Valuation (Actuarial) Basis | 1.5% | 9.0% | na |
| VI. | Unfunded Actuarial Accrued Liability or Surplus Funding ($millions) | $ 4,927 | $ 2,313 | 113.0% |
| VII. | Required County contribution rate for all plans combined as a percent of total payroll | | | |
| | A. Gross Normal Cost | 15.75% | 15.68% | 0.4% |
| | B. Member Contributions | (5.65)% | (5.59)% | 1.1% |
| | C. County Normal Cost | 10.10% | 10.09% | 0.1% |
| | D. UAAL Amortization | 4.12% | 1.99% | 107.0% |
| | E. Total Required Contribution Rate | 14.22% | 12.08% | 17.7% |
| VIII. | Funded Ratio | 88.9% | 94.5% | (5.9)% |
| IX. | Results Based on Market Value (Informational Purposes Only) | | | |
| | Total Required Contribution Rate | 22.64% | 13.75% | 64.7% |
| | Funded Ratio | 66.8% | 90.1% | (25.9)% |

## Section 2: Scope of the Report

This report presents the actuarial valuation of the Los Angeles County Employees Retirement Association as of June 30, 2009. 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 purposes of setting contribution rates. The 2009 valuation meets this requirement. Under LACERA's Funding Policy, annual valuations determine the County Contribution rates each year. Member contribution rates are set each triennial valuation.

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, 2009. 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 County 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.

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, 2009.
- 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.

## 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, 2009. 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 County 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

| | | Actuarial Value | | |
|---|---|---|---|---|
| | Market Value of Total Assets | Non-Valuation Reserves | Valuation Assets | Total Fund Return* |
| 2000 | $ 31.6 | $ 4.3 | $ 25.4 | 15.2 |
| 2001 | 28.4 | 4.4 | 26.5 | -5.2 |
| 2002 | 26.1 | 2.0 | 28.3 | -5.6 |
| 2003 | 26.2 | 1.6 | 26.6 | 3.6 |
| 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 |

**As reported in the Investment Section of the CAFR.*

On June 30, 2009, the total market value of the fund, less current liabilities, was $30.5 billion. The actuarial value of the fund was determined to be $40.3 billion, including the non-valuation reserves. The average total fund return for the last ten years is 4.1%.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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).

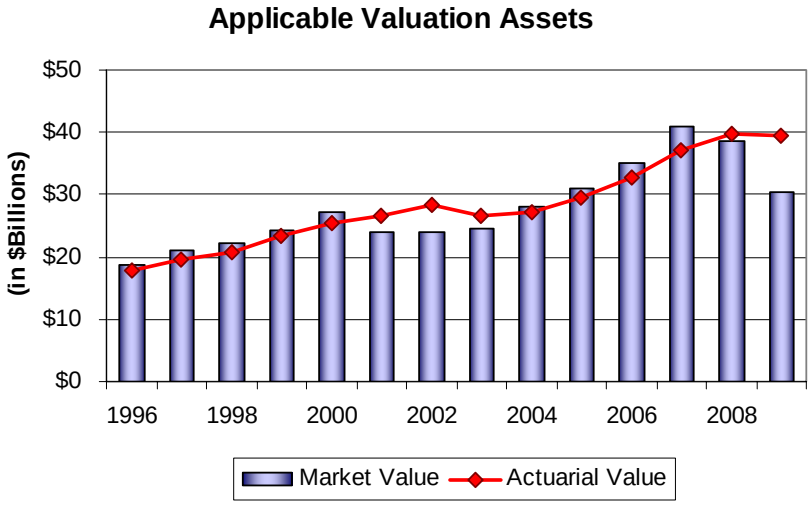
Exhibits 2-4 are taken directly from data furnished to us by LACERA in their annual financial report. We have accepted these tables for use in this report without audit, but we have reviewed them both for the prior year and the current year for reasonableness and consistency with previous reports.

**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. The current assumed rate of return is 7.75%, 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.

**Actuarial Value of Assets**

The development of the June 30, 2009 actuarial value of assets is shown in Exhibit 5. Note the smoothing process is deferring significant investment losses from the last two years and is currently in a net actuarial loss position. The result is an actuarial value of assets that is greater than the June 30, 2009 market value by $9.8 billion. The following graph shows a historical comparison of the actuarial and market assets used for valuation purposes.



**Funding Policy**

At the December 2009 Board of Investments meeting, the following allocation of actuarial assets was adopted under the long-term Funding Policy. 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 adjustments to the employer's contributions and/or funding for discretionary benefits. "Excess Earnings" as defined in the County Employees Retirement Law (CERL) may be appropriated upon reaching the Funding Goal.

Recognized earnings were sufficient to follow priorities 1-7, but were not sufficient to reach the Funding Goal of 100%.

**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, 2009 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, 2010. Although the reserve value for STAR benefits is included in the 2009 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, 2008 and 2009 (Dollars in Thousands)

| | 2009 | 2008 |
|---|---|---|
| **Assets** | | |
| Cash | $ 33,700 | $ 47,965 |
| Collateral on Loaned Securities | 1,219,067 | 2,322,698 |
| Receivables | | |
| Contributions Receivable | 112,479 | 82,562 |
| Accounts Receivable – Sale of Investments | 765,240 | 792,047 |
| Accrued Interest and Dividends | 103,110 | 132,306 |
| Accounts Receivable – Other | 48,562 | 57,566 |
| Total Receivables | 1,029,391 | 1,064,481 |
| Investments at Fair Value | | |
| Stocks | 14,854,082 | 19,241,860 |
| Bonds | 9,800,435 | 12,299,188 |
| Commodities | 389,940 | 638,575 |
| Real Estate | 3,057,774 | 3,996,568 |
| Alternative Assets | 2,815,826 | 3,296,714 |
| Total Investments | 30,918,057 | 39,472,905 |
| Capital Assets Net of Depreciation | - | - |
| **Total Assets** | **33,200,215** | **42,908,049** |
| **Liabilities** | | |
| Accounts Payable – Purchase of Investments | 1,433,312 | 1,799,138 |
| Retiree Payroll and Other Payables | 185 | 267 |
| Accrued Expenses | 26,113 | 36,302 |
| Tax Withholding Payable | 20,021 | 20,365 |
| Obligations under Securities Lending Program | 1,219,067 | 2,322,698 |
| Accounts Payable – Other | 2,536 | 4,608 |
| **Total Liabilities** | **2,701,234** | **4,183,378** |
| **Net Assets Held in Trust for Pension Benefits** | **30,498,981** | **38,724,671** |

## Los Angeles County Employees Retirement Association

**Exhibit 3: Statement of Changes in Plan Net Assets**
**For the Years Ended June 30, 2008 and 2009**
**(Dollars in Thousands)**

| | 2009 | 2008 |
|---|---|---|
| **Additions** | | |
| Contributions | | |
| Employer | $ 831,671 | $ 788,029 |
| Member | 415,545 | 414,752 |
| Total Contributions | 1,247,216 | 1,202,781 |
| Investment Income | | |
| *From Investing Activities* | | |
| Net Appreciation/(Depreciation) in Fair Value of Investments | (8,393,120) | (6,258,819) |
| Investment Income | 1,073,730 | 4,929,295 |
| Total Investing Activity Income/(Loss) | (7,319,390) | (1,329,524) |
| Less Expenses From Investing Activities | (104,603) | (114,183) |
| Net Investing Activity Income/(Loss) | (7,423,993) | (1,443,707) |
| *From Securities Lending Activities* | | |
| Securities Lending Income | 38,753 | 122,531 |
| Less Expenses From Securities Lending Activities | | |
| Borrower Rebates | (21,212) | (103,297) |
| Management Fees | (1,338) | (1,644) |
| Total Expenses from Securities Lending Activities | (22,550) | (104,941) |
| Net Securities Lending Income | 16,203 | 17,590 |
| Total Net Investment Income/(Loss) | (7,407,790) | (1,426,117) |
| Miscellaneous | 1,221 | 1,767 |
| **Total Additions/(Declines)** | **(6,159,353)** | **(221,569)** |
| **Deductions** | | |
| Retiree Payroll | 1,994,620 | 1,885,970 |
| Administrative Expense | 49,730 | 48,223 |
| Refunds | 20,356 | 25,588 |
| Lump Sum Death Benefits | 1,388 | 1,714 |
| Miscellaneous | 243 | 371 |
| **Total Deductions** | **2,066,337** | **1,961,866** |
| Transfer to OPEB Agency Fund | - | - |
| Net Increase/(Decrease) | (8,225,690) | (2,183,435) |
| Net Assets Held in Trust for Pension Benefits Beginning of Year | 38,724,671 | 40,908,106 |
| **End of Year** | **30,498,981** | **38,724,671** |

## Los Angeles County Employees Retirement Association

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

| | June 30, 2009 | June 30, 2008 |
|---|---|---|
| 1. Member Reserves | | |
| a. Active Members | $ 13,168,255 | $ 12,827,695 |
| b. Unclaimed Deposits | - | - |
| c. Total Member Reserves | $ 13,168,255 | $ 12,827,695 |
| 2. Employer Reserves | | |
| a. Actual Employer Contributions | $ 20,954,314 | $ 20,732,940 |
| b. Advanced Employer Contributions | - | - |
| c. Total Employer Contributions | $ 20,954,314 | $ 20,732,940 |
| 3. County Contribution Credit Reserve | $ 470,710 | $ 470,710 |
| 4. STAR Reserve | 614,011 | 629,127 |
| 5. Contingency Reserve | 15,333 | 394,721 |
| 6. Total Reserves at Book Value | $ 35,222,623 | $ 35,055,193 |
| 7. Unrealized Investment Portfolio Appreciation | (4,723,642) | 3,669,478 |
| 8. **Total Reserves at Fair Value** | **$ 30,498,981** | **$ 38,724,671** |

Note: These amounts were determined by LACERA for accounting purposes and are reported in the June 30, 2009 CAFR.


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## Los Angeles County Employees Retirement Association

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

**June 30, 2009 Valuation**

| Plan Year Ending | Contributions | Benefit Payments | Expected Market Value | Actual Market Value | Phase-Out of Gain / (Loss)* | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6/30/2009 | $ 1,247,216 | $ 2,016,364 | $ 40,927,437 | $ 30,498,981 | 80.00% | x | $ (10,428,456) | = | $ (8,342,765) |
| 6/30/2008 | 1,202,781 | 1,913,272 | 43,340,975 | 38,724,671 | 50.00% | x | (4,616,304) | = | (2,308,152) |
| 6/30/2007 | 1,099,629 | 1,822,022 | 37,162,609 | 40,908,106 | 22.22% | x | 3,745,497 | = | 832,333 |
| 6/30/2006 | | | | 35,185,589 | | | | = | 0 |
| | | | | | Total Phase-Out of Gain / (Loss) | | | = | $ (9,818,584) |
| | | | | | Total Market Value of Assets | | | = | 30,498,981 |
| | | | | | Total Actuarial Value of Assets | | | = | **$ 40,317,565** |

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.

** Future phase-out of gains and losses follows this schedule:*

| *Valuation Year* | *Phase-Out of Gain / (Loss) from Plan Year Ending* | | |
|---|---|---|---|
| | *6/30/2007* | *6/30/2008* | *6/30/2009* |
| *6/30/2010* | *11.11%* | *33.33%* | *60.00%* |
| *6/30/2011* | *0.00%* | *16.67%* | *40.00%* |
| *6/30/2012* | *0.00%* | *0.00%* | *20.00%* |
| *6/30/2013* | *0.00%* | *0.00%* | *0.00%* |


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## Los Angeles County Employees Retirement Association

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

| | June 30, 2009 | June 30, 2008 |
|---|---|---|
| 1. Total Market Value of Assets | $ 33,200,215 | $ 42,908,049 |
| 2. Current Liabilities | 2,701,234 | 4,183,378 |
| 3. Net Assets Held in Trust for Pension Benefits | $ 30,498,981 | $ 38,724,671 |
| 4. Market Stabilization Reserve(1) | (9,818,584) | (1,829,037) |
| 5. Actuarial Value of Fund Assets | $ 40,317,565 | $ 40,553,708 |
| 6. Non-Valuation Reserves(2) | | |
| a. Unclaimed Deposits | $ - | $ - |
| b. Contingency Reserve | 304,990 | 405,537 |
| c. Advanced Employer Contributions | - | - |
| d. County Contribution Credit Reserve | 470,710 | 470,710 |
| e. Reserve for STAR Program | - | 15,100 |
| f. Total | $ 775,700 | $ 891,347 |
| 7. Valuation Assets(2) | | |
| a. Member Reserves | $ 13,168,255 | $ 12,827,695 |
| b. Employer Reserves for Funding Purposes | $ 26,373,610 | $ 26,834,666 |
| c. Total | $ 39,541,865 | $ 39,662,361 |

*(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, 2009. 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 and investment returns. 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 Actuarial Value of the Valuation Assets to the Actuarial Liabilities. The difference is the amount that needs to be funded by the Member and County 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 2007 Investigation of Experience Report. New assumptions were adopted by the Board effective with the June 30, 2007 actuarial valuation.


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## Los Angeles County Employees Retirement Association

### Exhibit 7: Actuarial Balance Sheet – June 30, 2009
**(Dollars in Millions)**

| | General | | | | | Safety | | |
|---|---|---|---|---|---|---|---|---|
| ***LIABILITIES*** | **Plan A** | **Plan B** | **Plan C** | **Plan D** | **Plan E** | **Plan A** | **Plan B** | **All Plans** |
| Present Value of Benefits - Inactives | | | | | | | | |
| - Retirees and Beneficiaries | $ 12,212 | $ 190 | $ 92 | $ 1,706 | $ 1,031 | $ 7,353 | $ 1,383 | $ 23,967 |
| - Vested Terminated | 57 | 8 | 2 | 284 | 313 | 1 | 59 | 724 |
| - Inactive Total | 12,269 | 198 | 94 | 1,990 | 1,344 | 7,354 | 1,442 | 24,691 |
| Present Value of Benefits - Actives | | | | | | | | |
| - Service Retirement | $ 1,766 | $ 220 | $ 147 | $ 11,467 | $ 5,299 | $ 335 | $ 5,109 | $ 24,343 |
| - Transfer Service (prior LACERA plan) | 6 | 1 | 1 | 94 | 312 | 2 | 4 | 420 |
| - Disability Retirement | 42 | 5 | 4 | 949 | N/A | 131 | 3,546 | 4,677 |
| - Death | 16 | 2 | 2 | 364 | N/A | 1 | 66 | 451 |
| - Termination (No Refund) | * | * | * | 282 | 171 | * | 60 | 513 |
| - Refund of Member Contributions | * | * | * | 100 | N/A | * | 13 | 113 |
| - Active Total | 1,830 | 228 | 154 | 13,256 | 5,782 | 469 | 8,798 | 30,517 |
| **Total Actuarial Liabilities** | **$ 14,099** | **$ 426** | **$ 248** | **$ 15,246** | **$ 7,126** | **$ 7,823** | **$ 10,240** | **$ 55,208** |
| ***ASSETS*** | | | | | | | | |
| Valuation Assets | $ 7,628 | $ 448 | $ 268 | $ 10,635 | $ 8,298 | $ 4,048 | $ 8,217 | $ 39,542 |
| PV Future Member Contributions | 20 | 7 | 5 | 2,796 | N/A | 1 | 1,231 | 4,060 |
| PV Future County Normal Cost Contribs. | 74 | 7 | 6 | 3,174 | 1,473 | 18 | 1,927 | 6,679 |
| UAAL or (Surplus Funding) | 6,377 | (36) | (31) | (1,359) | (2,645) | 3,756 | (1,135) | 4,927 |
| **Total Current and Future Assets** | **$ 14,099** | **$ 426** | **$ 248** | **$ 15,246** | **$ 7,126** | **$ 7,823** | **$ 10,240** | **$ 55,208** |

** Less than $0.5 million*

**Actuarial Balance Sheet – Liabilities (continued)**

All liabilities reflect the benefits effective through June 30, 2009. This includes the permanent STAR COLA adopted as of 2009, 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 County.

**Actuarial Cost Method**

The Actuarial Balance sheet determines the amount of future contributions that are needed, but the method used to determine the incidence of when those future contributions are yet to 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 – or essentially any actuarial cost 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.

**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 County. 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 County'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) | 2009 | 2008 | Percent Change |
|---|---|---|---|
| A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors | $ 55,208 | $ 52,070 | 6.0% |
| B. Actuarial present value of total future normal costs for current members | $ 10,739 | $ 10,095 | 6.4% |
| C. Actuarial accrued liability [A-B] | $ 44,469 | $ 41,975 | 5.9% |
| D. Valuation Assets | $ 39,542 | $ 39,662 | -0.3% |
| E. UAAL or Surplus Funding [C-D] | $ 4,927 | $ 2,313 | 113.0% |
| F. Funded Ratio [D/C] | 88.9% | 94.5% | -5.9% |

It is interesting to note the maturity of LACERA's fund. Nearly one-half, 44.7%, of the total actuarial obligation (both accrued and future benefits) is for retired and deferred vested members. Of the $30.5 billion in obligations for the active members, the cost method allocates about two-thirds to service already rendered. Of course, Plans A-C for general members and Plan A for safety members are no longer open for new employees. To the extent those older plans represent more costly plan benefits, this adds to the weighting for accrued obligations.

**Unfunded Actuarial Accrued Liability/ Surplus Funding**

The portion allocated to service already rendered or accrued is called the Actuarial Accrued Liability (AAL). The difference between the AAL and the Valuation Assets is called the Unfunded Actuarial Accrued Liability (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 County had always contributed the current Normal Cost, if there were no prior benefit or assumption changes and if actual experience exactly matched the actuarial assumptions, the present value of all future Normal Cost contributions would be sufficient to fund all benefits and there would be no UAAL.

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 County based on the valuation results in aggregate.


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**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.

**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 materially, primarily due to the recognition of current and prior asset losses.

The 2009 actuarial valuation reflects an actuarial experience loss of $2.69 billion for the fiscal year just ended. The loss was mainly due to a $2.47 billion loss on actuarial assets. The effect of the experience gains and losses on the UAAL or Surplus Funding is shown in Exhibit 8a. In addition to the investment return, some other factors which impacted the liabilities are:

- ✓ **Salary Increases –** Individual salaries for continuing active members increased at a rate slightly greater than the valuation assumption. This resulted in a loss.
- ✓ **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.
- ✓ **Actual CPI versus Assumption –** The actual CPI increase was significantly less than assumed; however, almost all members from contributory plans had positive COLA banks to make up for this. Thus, almost all members received increases in their benefits equal to the assumption (3.0% for Plan A, 2.0% for Plans B-D), and there was not a material gain or loss due to CPI. Plan E does not have a COLA bank, so there was a small gain for this group.
- ✓ **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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## Los Angeles County Employees Retirement Association

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

| | | | Amount | As a Percent of June 30, 2009 Actuarial Accrued Liability |
|---|---|---|---|---|
| **Unfunded Actuarial Accrued Liability - June 30, 2008** | | | **$ 2,313** | 5.2% |
| Increase in UAAL due to new assumptions | | | - | 0.0% |
| Interest Accrued | | | 179 | 0.4% |
| Benefits Accrued (Normal Cost) | | | 1,053 | 2.4% |
| Contributions (with Assumed Interest) | | | | |
| Employer - Cash | $ | (863) | | -1.9% |
| Employer - Contribution Credit | | (16) | | 0.0% |
| Member | | (431) | | -1.0% |
| Total | | | (1,310) | -2.9% |
| **Expected Unfunded Actuarial Acc. Liability - June 30, 2009** | | | **$ 2,235** | 5.0% |
| Source of Change | | | | |
| Asset (Gains) and Losses | | | | |
| (Gain)/Loss due to investment income | | | 2,465 | 5.5% |
| Actuarial (Gains) and Losses | | | | |
| Salary Increases | $ | 380 | | 0.9% |
| CPI Less than Expected | | (4) | | 0.0% |
| Transfers Between Plan D & Plan E | | (3) | | 0.0% |
| Mortality Experience | | (63) | | -0.1% |
| All Other Experience | | (83) | | -0.2% |
| Total | | | 227 | 0.5% |
| Recognition of Liabilities due to Court Cases | | | - | 0.0% |
| **Total Changes** | | | **2,692** | 6.1% |
| **Unfunded Actuarial Accrued Liability - June 30, 2009** | | | **$ 4,927** | 11.1% |


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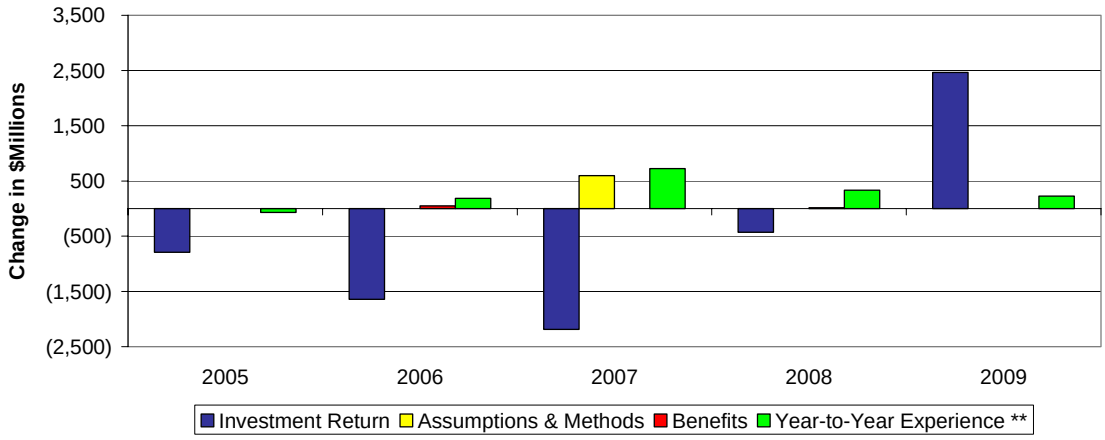
## Los Angeles County Employees Retirement Association

**Exhibit 8b: History of Changes in Unfunded Actuarial Accrued Liability**
**(Dollars in Millions)**




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2005-09 |
|---|---|---|---|---|---|---|
| **Prior Valuation UAAL / (Surplus)** | **$ 5,611** | **$ 4,878** | **$ 3,439** | **$ 2,461** | **2,313** | **$ 5,611** |
| Increase in UAAL due to: | | | | | | |
| Expected Increase / (Decrease) | 128 | (31) | (109) | (68) | (78) | (158) |
| Asset (Gains) and Losses | (790) | (1,642) | (2,187) | (429) | 2,465 | (2,583) |
| Changes in Benefits* | - | 50 | - | 15 | - | 65 |
| Changes in Assumptions | - | - | 515 | - | - | 515 |
| Changes in Methods | - | - | 81 | - | - | 81 |
| Salary Increases | (115) | 156 | 673 | 298 | 380 | 1,392 |
| CPI Less than Expected | - | - | - | - | (4) | (4) |
| Transfers Between D & E | 13 | 10 | 4 | 10 | (3) | 35 |
| Mortality Experience | (1) | (22) | (22) | (51) | (63) | (159) |
| All Other Experience | 32 | 40 | 67 | 77 | (83) | 133 |
| **Total Increase / (Decrease)** | **(733)** | **(1,439)** | **(978)** | **(148)** | **2,614** | **(684)** |
| **Valuation UAAL / (Surplus)** | **$ 4,878** | **$ 3,439** | **$ 2,461** | **$ 2,313** | **$ 4,927** | **$ 4,927** |
| **Funded Ratio** | **85.8%** | **90.5%** | **93.8%** | **94.5%** | **88.9%** | **88.9%** |

* *Benefit changes are as follows:*
*2006: Benefits due to Bugh and Local 1014 court cases.*
*2008: Benefits due to Fire Chief (FLSA) court case.*

*** 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**

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

Normal contributions for each plan 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 |

** 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

**Cost-of-Living Contributions**

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 County. 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.

As this is not a triennial valuation, no changes in the member contribution rates (either normal or cost-of-living) are being recommended.


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**Cost-of-Living Contributions (continued)**

The cost-of-living contributions, expressed as a percentage of the normal rates, are based on the June 30, 2007 actuarial valuation and are as follows:

| | |
|---|---|
| General Plan A: | 79.57% |
| General Plan B: | 22.29% |
| General Plan C: | 23.97% |
| General Plan D: | 21.97% |
| Safety Plan A: | 101.27% |
| Safety Plan B: | 31.40% |

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.

## Los Angeles County Employees Retirement Association

### Exhibit 9: Sample Member Contribution Rates

| | Entry Age | Current Rates (Based on 2007 Valuation) Normal | Cost of Living | Total as a % of Pay |
|---|---|---|---|---|
| ***General Members*** | | | | |
| **Plan A** | 25 | 2.90% | 2.31% | 5.21% |
| | 35 | 3.56% | 2.83% | 6.39% |
| | 45 | 4.32% | 3.44% | 7.76% |
| | 55 | 4.63% | 3.68% | 8.31% |
| **Plan B** | 25 | 5.79% | 1.29% | 7.08% |
| | 35 | 7.12% | 1.59% | 8.71% |
| | 45 | 8.64% | 1.93% | 10.57% |
| | 55 | 9.26% | 2.06% | 11.32% |
| **Plan C** | 25 | 4.91% | 1.18% | 6.09% |
| | 35 | 6.02% | 1.44% | 7.46% |
| | 45 | 7.42% | 1.78% | 9.20% |
| | 55 | 8.65% | 2.07% | 10.72% |
| **Plan D** | 25 | 4.91% | 1.08% | 5.99% |
| | 35 | 6.02% | 1.32% | 7.34% |
| | 45 | 7.42% | 1.63% | 9.05% |
| | 55 | 8.65% | 1.90% | 10.55% |
| ***Safety Members*** | | | | |
| **Plan A** | 25 | 4.08% | 4.13% | 8.21% |
| | 35 | 4.95% | 5.01% | 9.96% |
| | 45 | 5.77% | 5.84% | 11.61% |
| | 55 | 5.80% | 5.87% | 11.67% |
| **Plan B** | 25 | 8.16% | 2.56% | 10.72% |
| | 35 | 9.89% | 3.11% | 13.00% |
| | 45 | 11.54% | 3.62% | 15.16% |
| | 55 | 11.59% | 3.64% | 15.23% |

Note: A portion of some of the member contribution rates is paid for ("picked up") by the County 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: County 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.

During the fiscal year 1994-1995, a Retirement Association Funding Agreement was negotiated with the County. This agreement resulted in the issuance of approximately $2 billion in Pension Obligation Bonds, the proceeds of which were used to fund the UAAL. The agreement also allowed that surplus earnings on LACERA's assets for the period July 1, 1994 through June 30, 1998 would be split between the County (75%) and the STAR program (25%). Those excess earnings were used to create the County Contribution Credit Reserve, which can be used by the County to meet its required contribution requirement without adding in new cash deposits to the fund.

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

The total calculated County 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 County contribution rate was 12.08% for the fiscal year beginning in 2009.

For the fiscal year beginning in 2010, the required rate increased to 14.22%. This is equal to the net aggregate calculated Normal Cost contribution rate of 10.10% based on the 2009 Valuation, plus a 30-year amortization payment of the UAAL.


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**County Contribution Rate**

(All values as a % of Payroll)

| | |
|---|---|
| County Normal Cost | 10.10% |
| 30-year Amortization of UAAL | 4.12 |
| Total County Contribution | 14.22% |

The 2.14% increase in the total County contribution rate was primarily due to the recognition of both current and deferred investment losses, which caused a 3.91% increase in the UAAL rate. This was somewhat offset by changes in the Funding Policy which included the move from a three-year asset smoothing method to a five-year smoothing method, as well as the inclusion of STAR reserves in the valuation assets. The UAAL rate reflects a 30-year amortization from the valuation date with a July 1, 2010 implementation date for the new County contribution rate.

The change in the calculated Normal Cost contribution rates from year-to-year is generally due to two factors. These factors are listed in order of magnitude (i.e., experience had the greatest impact this year):

**(1) Experience**: Normal experience from year-to-year, reflecting differences in both the weighting between membership groups and in their characteristics, as well as on what was assumed to occur during the past fiscal year and what actually occurred, particularly with respect to salary increases. Based on current plan provisions, the aggregate Normal Cost rate is expected to decrease as a greater number of members are covered by General Plans D and E and Safety B. Additionally, as members transfer between Plan D and Plan E, this will also have an impact.

**(2) Contribution Shut-Off**: For general members hired prior to April 1973 and all safety members, member contributions are not collected after the member has 30 years of service. Therefore, the member contributions towards the total annual Normal Cost is zero, resulting in a sizable increase for in the County's share of the Normal Cost contributions for the years when the member has more than 30 years of service. The County's share of the Normal Cost rates for those groups can be expected to increase rather than remain level, as otherwise expected under the entry age cost method. As most general members hired prior to April 1973 have now attained 30 years of service, this statement applies mainly to safety groups.

## Los Angeles County Employees Retirement Association

### Exhibit 10: Calculated Normal Cost Contribution Rates – June 30, 2009

| | General | | | | | | Safety | | | Grand |
|---|---|---|---|---|---|---|---|---|---|---|
| **A. Normal Cost Contribution Rate** | Plan A | Plan B | Plan C | Plan D | Plan E | Total | Plan A | Plan B | Total | **Total** |
| Service Retirement | 15.88% | 13.36% | 12.04% | 12.39% | 7.88% | 11.02% | 12.17% | 12.08% | 12.08% | 11.22% |
| Disability Retirement | 1.09% | 0.96% | 0.92% | 1.48% | 0.00% | 0.98% | 12.92% | 12.75% | 12.75% | 3.25% |
| Death | 0.37% | 0.35% | 0.33% | 0.49% | 0.00% | 0.32% | 0.32% | 0.29% | 0.29% | 0.32% |
| Termination (No Refund) | 0.42% | 0.31% | 0.29% | 0.67% | 0.67% | 0.66% | 0.53% | 0.59% | 0.59% | 0.65% |
| Refund of Member Contributions | 0.09% | 0.12% | 0.11% | 0.48% | 0.00% | 0.31% | 0.26% | 0.37% | 0.37% | 0.32% |
| **Total** | **17.85%** | **15.10%** | **13.69%** | **15.51%** | **8.55%** | **13.29%** | **26.20%** | **26.08%** | **26.08%** | **15.75%** |
| B. Member Contributions | (3.20)% | (6.48)% | (5.58)% | (6.98)% | 0.00% | (4.57)% | (0.96)% | (10.45)% | (10.21)% | (5.65)% |
| C. Net County Normal Cost as of June 30, 2009 (A) - (B) | 14.65% | 8.62% | 8.11% | 8.53% | 8.55% | 8.72% | 25.24% | 15.63% | 15.87% | 10.10% |
| D. Net County Normal Cost as of June 30, 2008 | 14.66% | 8.63% | 7.89% | 8.49% | 8.46% | 8.71% | 25.74% | 15.42% | 15.79% | 10.09% |
| E. Increase (Decrease) as a Percentage of Payroll (C) - (D) | (0.01)% | (0.01)% | 0.22% | 0.04% | 0.09% | 0.01% | (0.50)% | 0.21% | 0.08% | 0.01% |

## Los Angeles County Employees Retirement Association

### Exhibit 11: Total County Contributions

| | General | | | | | | Safety | | | All |
|---|---|---|---|---|---|---|---|---|---|---|
| | Plan A | Plan B | Plan C | Plan D | Plan E | Total | Plan A | Plan B | Total | Plans |
| **A. Net County Normal Cost** | | | | | | | | | | |
| 1. Basic Benefits | 10.09% | 6.91% | 6.64% | 7.16% | 7.22% | 7.26% | 14.41% | 12.79% | 12.81% | 8.63% |
| 2. Cost-of-Living Benefits | 4.56% | 1.71% | 1.47% | 1.37% | 1.33% | 1.46% | 10.83% | 2.84% | 3.06% | 1.47% |
| 3. Total June 30, 2009 | 14.65% | 8.62% | 8.11% | 8.53% | 8.55% | 8.72% | 25.24% | 15.63% | 15.87% | 10.10% |
| B. UAAL Contribution Rate | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% |
| **C. Total June 30, 2009 Contribution Rate (A) + (B)** | **18.77%** | **12.74%** | **12.23%** | **12.65%** | **12.67%** | **12.84%** | **29.36%** | **19.75%** | **19.99%** | **14.22%** |
| D. Total June 30, 2008 Contribution Rate | 16.65% | 10.62% | 9.88% | 10.48% | 10.45% | 10.70% | 27.73% | 17.41% | 17.78% | 12.08% |
| E. Estimated Payroll for fiscal year beginning July 1, 2010* | $ 175 | $ 28 | $ 21 | $ 3,534 | $ 1,841 | $ 5,599 | $ 37 | $ 1,305 | $ 1,342 | $ 6,941 |
| **F. Estimated Annual Contribution (C x E)** | **$ 33** | **$ 4** | **$ 3** | **$ 447** | **$ 233** | **$ 719** | **$ 11** | **$ 258** | **$ 268** | **$ 987** |
| G. Last Year's Estimated Annual Contribution | $ 33 | $ 3 | $ 2 | $ 336 | $ 186 | $ 560 | $ 13 | $ 214 | $ 227 | $ 787 |
| H. Increase / (Decrease) in Annual Contribution | $ - | $ 1 | $ 1 | $ 111 | $ 47 | $ 159 | $ (2) | $ 44 | $ 41 | $ 200 |

** Estimated Payroll based upon annualized salary rate as of June 30, 2009 increased by 4.00% wage inflation. Dollar figures in millions.*

## 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 12, compares actuarial assets and liabilities of the System, based on the actuarial funding method used. The required Schedule of Employer Contributions, Exhibit 13, 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 2007 based on the triennial Investigation of Experience.

Exhibit 14 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).


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## Los Angeles County Employees Retirement Association

**Exhibit 12: 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, 2000 | $ 25,426,507 | $ 24,720,380 | $ (706,127) | 102.9% | $ 4,107,964 | -17.2% |
| June 30, 2001[2] | 26,490,000 | 26,489,976 | (24) | 100.0% | 4,398,443 | 0.0% |
| June 30, 2002[3] | 28,262,129 | 28,437,493 | 175,364 | 99.4% | 4,744,340 | 3.7% |
| June 30, 2003 | 26,564,328 | 30,474,025 | 3,909,697 | 87.2% | 4,933,615 | 79.2% |
| 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% |

*(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 based on triennial Investigation of Experience.*

*(3) Benefits were enhanced under MOU package.*

## Los Angeles County Employees Retirement Association

**Exhibit 13: 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 | |
| 6/30/2000 | $ 342,060 | $ 130,319 | $ 211,832 | $ 342,151 | 100% |
| 6/30/2001 | 390,679 | 193,650 | 197,029 | 390,679 | 100% |
| 6/30/2002 | 414,708 | 258,884 | 155,824 | 414,708 | 100% |
| 6/30/2003 | 518,922 | 324,709 | 194,213 | 518,922 | 100% |
| 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% |

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


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## Los Angeles County Employees Retirement Association

**Exhibit 14: 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, 2000 | $ 25,427 | $ 3,190 | $ 12,922 | $ 8,609 | 100% | 100% | 108% |
| June 30, 2001 | 26,490 | 3,320 | 14,368 | 8,802 | 100% | 100% | 100% |
| June 30, 2002 | 28,262 | 3,596 | 15,424 | 9,417 | 100% | 100% | 98% |
| June 30, 2003 | 26,564 | 3,790 | 16,844 | 9,840 | 100% | 100% | 60% |
| 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% |

*(1) Includes deferred vested members.*

## Section 8: Supplemental Information

**Cash Flow Projection**

Exhibits 15a and 15b 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 fairly level over the last 10 years, but it is expected to begin to significantly decrease for the next 10 years. 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. The projection shows that the negative projected cash flow is projected to almost double in size from 2010 to 2019.

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 County contribution rate is assumed to be 12.08% for the first year and 14.22% for the rest of the 10-year projection. The ultimate rate is equal to the required County Normal Cost rate plus a contribution to finance the UAAL, as calculated in the 2009 valuation. The aggregate member rate is assumed to stay at the calculated rate for June 30, 2009 of 5.65% of payroll. Expenses are based on the expenses for the year ended June 30, 2009, increased annually with the actuarial inflation assumption of 3.5%.

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 2009 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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## Los Angeles County Employees Retirement Association

**Exhibit 15a: Cash Flow History and Projections – Dollars**

### Cash Flow History

| Plan Year Ending | Contributions | Benefits & Administrative Expenses[2] | Net Cash Flow |
|---|---|---|---|
| 2000 | $ 329 | $ 1,094 | $ (765) |
| 2001 | 410 | 1,187 | (777) |
| 2002 | 564 | 1,276 | (712) |
| 2003 | 559 | 1,379 | (820) |
| 2004 | 658 | 1,484 | (826) |
| 2005 | 814 | 1,601 | (787) |
| 2006 | 973 | 1,842 [3] | (869) |
| 2007 | 1,100 | 1,835 | (735) |
| 2008 | 1,203 | 1,960 | (757) |
| 2009 | 1,247 | 2,065 | (818) |

### Cash Flow Projections[1]

| Plan Year Ending | Contributions | Benefits & Administrative Expenses[2] | Net Cash Flow |
|---|---|---|---|
| 2010 | $ 1,179 | $ 2,237 | $ (1,058) |
| 2011 | 1,379 | 2,358 | (979) |
| 2012 | 1,434 | 2,508 | (1,074) |
| 2013 | 1,492 | 2,661 | (1,169) |
| 2014 | 1,551 | 2,820 | (1,269) |
| 2015 | 1,613 | 2,985 | (1,371) |
| 2016 | 1,678 | 3,157 | (1,479) |
| 2017 | 1,745 | 3,335 | (1,591) |
| 2018 | 1,815 | 3,519 | (1,705) |
| 2019 | 1,887 | 3,710 | (1,823) |

(1) *Future contributions are assumed to be at the 10.10% Normal Cost rate plus a UAAL payment of 4.12% after the first year.*

(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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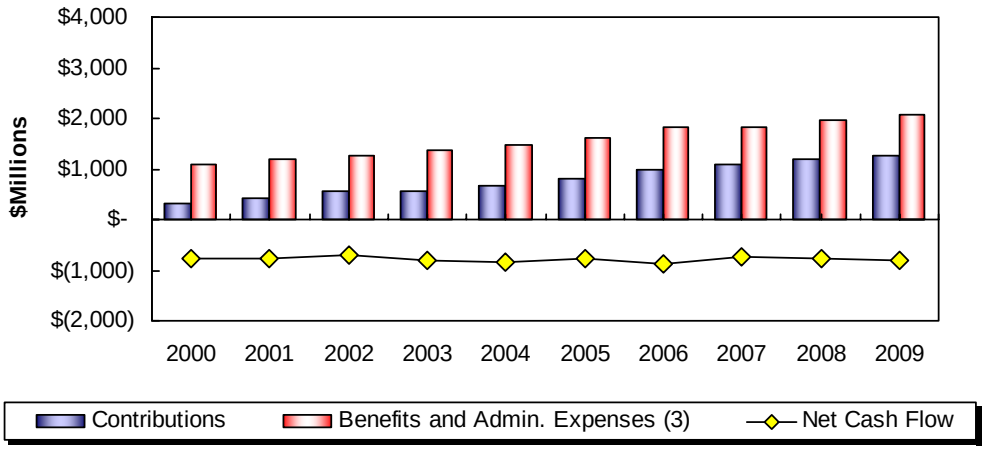
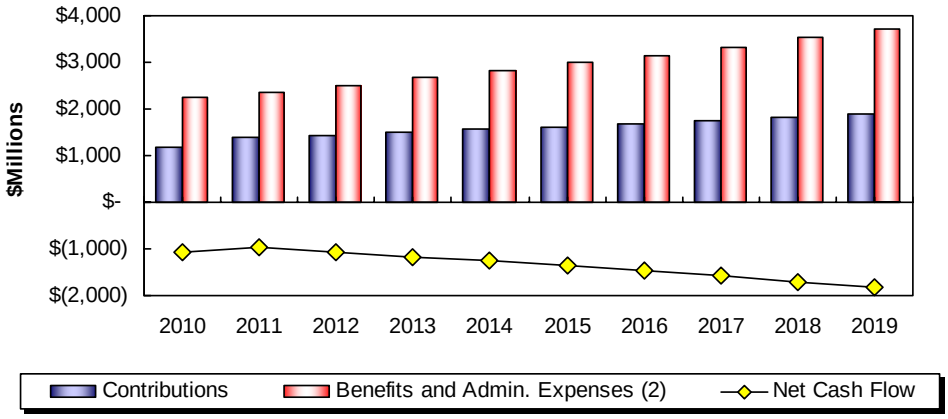
## Los Angeles County Employees Retirement Association

**Exhibit 15b: Cash Flow History and Projections – Charts**

### Cash Flow History




### Cash Flow Projections[1]




(1) *Future contributions are assumed to be at the 10.10% Normal Cost rate plus a UAAL payment of 4.12% after the first year.*

(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*

**Los Angeles County Employees Retirement Association**

## 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 June 30, 2007 as a result of the 2007 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 2007 Investigation of Experience Study. The rates are the probabilities a member will leave the system for various reasons.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**Actuarial Cost Method**

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). 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.

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 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.

**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.

**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.


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| | |
|---|---|
| **County Contributions** | The County 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.<br><br>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 7.75% compounded annually, net of both investment and administrative expenses. This rate was adopted June 30, 2004. |
| **Postretirement Benefit Increases** | Postretirement 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 of 3.5% per year. This rate was adopted June 30, 2004. |
| **Interest on Member Contributions** | The annual credited interest rate on member contributions is assumed to be 7.75% compounded semi-annually for an annualized rate of 7.90%. This rate was adopted June 30, 2004. |
| **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 4.00% per annum rate of increase in the general wage level of the membership. These rates were adopted June 30, 2007.<br><br>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. |


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**Future Salaries (Continued)**

For plans with a one-year final average compensation period, actual average annual compensation is used. For Plan E, the monthly rate as of June of the valuation year was annualized. Due to irregular compensation payments now 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 4.00% 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 June 30, 2007.

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.

**Retirement**

After members attain age 50 (55 for Plan E members) and have ten years of service, they may retire with a benefit commencing immediately. All members, except Plan E 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.

All deferred vested members are assumed to retire at the later of age 50 and earliest eligibility, except for Plan E who are assumed to retire at age 65.

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 June 30, 2007.


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**Disablement**

The rates of disablement used in the valuation are also illustrated in Tables A-6 through A-13. These rates were adopted June 30, 2007.

**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. These rates were adopted June 30, 2004.

*Males* General members: RP-2000 Combined Mortality Table for Males, with ages set back two years.

Safety members: RP-2000 Combined Mortality Table for Males, with ages set back three years.

*Females* General members: RP-2000 Combined Mortality Table for Females, with ages set back two years.

Safety members: RP-2000 Combined Mortality Table for Females, with ages set back two years.

**Post-Retirement Mortality – Disabled Members**

For disabled members, the mortality rates used in the valuation rates are illustrated in Table A-3. These rates were adopted June 30, 2007.

*Males* General members: RP-2000 Combined Mortality Table for Males, with ages set forward one year.

Safety members: RP-2000 Combined Mortality Table for Males, with ages set back two years.

*Females* General members: RP-2000 Combined Mortality Table for Females with no age adjustment.

Safety members: RP-2000 Combined Mortality Table for Females with ages set back two years.

**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 June 30, 2007.

| Class | Sex | Mortality Table | Adjustment |
|---|---|---|---|
| General | Male | RP2000 Employee Male | +0 |
| General | Female | RP2000 Employee Female | -1 |
| Safety | Male | RP2000 Employee Male | -9 |
| Safety | Female | RP2000 Employee Female | -1 |

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


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**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 June 30, 2007.

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 to not 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 June 30, 2007.

**Probability of Eligible Survivors**

For members not currently in pay status, 82% of all males and 65% 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 four 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.

**Reciprocal Employment**

15% 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 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, the:

A. 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 7.75%.

C. The Final Compensation is based on the salary paid in the year prior to attaining the retirement age.

   Example: For a Plan C Member who enters at age 59 or earlier, the Final Compensation at retirement (age 60) will be the monthly average of the annual salaries during age 59.

D. 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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## Los Angeles County Employees Retirement Association

**Table A-1: Summary of Valuation Assumptions as of June 30, 2009**

| | | |
|---|---|---|
| I. | Economic assumptions | |
| | A. General wage increases | 4.00% |
| | B. Investment earnings | 7.75% |
| | 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 | 3.50% |
| 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 sexes for general members, as adjusted:

| Class of Members | Age Adjustment |
|---|---|
| General – males | -2 years |
| General – females | -2 years |
| Safety – males | -3 years |
| Safety – females | -2 years |

| | | |
|---|---|---|
| | F. Mortality among disabled members | Table A-3 |

Basis – RP-2000 Combined Mortality Table, as adjusted:

| | |
|---|---|
| General – males | +1 year |
| General – females | 0 years |
| Safety – males | -2 years |
| Safety – females | -2 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 |


This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

## Los Angeles County Employees Retirement Association

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

| Age | Safety Male | Safety Female | General Male | General Female |
|---|---|---|---|---|
| 20 | 0.030% | 0.019% | 0.032% | 0.019% |
| 25 | 0.037% | 0.020% | 0.037% | 0.020% |
| 30 | 0.038% | 0.023% | 0.039% | 0.023% |
| 35 | 0.056% | 0.039% | 0.063% | 0.039% |
| 40 | 0.090% | 0.060% | 0.096% | 0.060% |
| 45 | 0.122% | 0.094% | 0.130% | 0.094% |
| 50 | 0.173% | 0.143% | 0.186% | 0.143% |
| 55 | 0.267% | 0.221% | 0.292% | 0.221% |
| 60 | 0.469% | 0.392% | 0.527% | 0.392% |
| 65 | 0.876% | 0.765% | 1.001% | 0.765% |
| 70 | 1.608% | 1.345% | 1.787% | 1.345% |
| 75 | 2.728% | 2.297% | 3.039% | 2.297% |
| 80 | 4.691% | 3.760% | 5.212% | 3.760% |
| 85 | 8.049% | 6.251% | 8.972% | 6.251% |
| 90 | 13.604% | 10.730% | 15.059% | 10.730% |

## Los Angeles County Employees Retirement Association

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

| Age | Safety Male | Safety Female | General Male | General Female |
|---|---|---|---|---|
| 20 | 0.032% | 0.019% | 0.036% | 0.019% |
| 25 | 0.037% | 0.020% | 0.038% | 0.021% |
| 30 | 0.039% | 0.023% | 0.050% | 0.026% |
| 35 | 0.063% | 0.039% | 0.084% | 0.048% |
| 40 | 0.096% | 0.060% | 0.114% | 0.071% |
| 45 | 0.130% | 0.094% | 0.162% | 0.112% |
| 50 | 0.186% | 0.143% | 0.245% | 0.168% |
| 55 | 0.292% | 0.221% | 0.420% | 0.272% |
| 60 | 0.527% | 0.392% | 0.768% | 0.506% |
| 65 | 1.001% | 0.765% | 1.441% | 0.971% |
| 70 | 1.787% | 1.345% | 2.457% | 1.674% |
| 75 | 3.039% | 2.297% | 4.217% | 2.811% |
| 80 | 5.212% | 3.760% | 7.204% | 4.588% |
| 85 | 8.972% | 6.251% | 12.280% | 7.745% |
| 90 | 15.059% | 10.730% | 19.977% | 13.168% |


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## Los Angeles County Employees Retirement Association

**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 | 30% | 40% |
| 6 | 30% | 40% |
| 7 | 30% | 40% |
| 8 | 28% | 39% |
| 9 | 26% | 38% |
| 10 | 24% | 36% |
| 11 | 22% | 35% |
| 12 | 20% | 34% |
| 13 | 16% | 33% |
| 14 | 12% | 32% |
| 15 | 8% | 30% |
| 16 | 4% | 29% |
| 17 | 0% | 28% |
| 18 | 0% | 26% |
| 19 | 0% | 25% |
| 20 | 0% | 23% |
| 21 | 0% | 22% |
| 22 | 0% | 20% |
| 23 | 0% | 16% |
| 24 | 0% | 12% |
| 25 | 0% | 8% |
| 26 | 0% | 4% |
| 27 | 0% | 0% |
| 28 | 0% | 0% |
| 29 | 0% | 0% |
| 30 & Up | 0% | 0% |


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## Los Angeles County Employees Retirement Association

### 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% | 6.00% | 10.24% | 10.24% |
| 1 | 5.25% | 5.25% | 9.46% | 9.46% |
| 2 | 4.50% | 4.50% | 8.68% | 8.68% |
| 3 | 3.75% | 3.75% | 7.90% | 7.90% |
| 4 | 3.00% | 3.00% | 7.12% | 7.12% |
| 5 | 2.50% | 2.50% | 6.60% | 6.60% |
| 6 | 2.00% | 2.00% | 6.08% | 6.08% |
| 7 | 1.75% | 1.75% | 5.82% | 5.82% |
| 8 | 1.50% | 1.50% | 5.56% | 5.56% |
| 9 | 1.30% | 1.30% | 5.35% | 5.35% |
| 10 | 1.15% | 1.15% | 5.20% | 5.20% |
| 11 | 1.00% | 1.00% | 5.04% | 5.04% |
| 12 | 0.85% | 0.85% | 4.88% | 4.88% |
| 13 | 0.70% | 0.70% | 4.73% | 4.73% |
| 14 | 0.60% | 0.60% | 4.62% | 4.62% |
| 15 | 0.50% | 0.50% | 4.52% | 4.52% |
| 16 | 0.40% | 0.50% | 4.42% | 4.52% |
| 17 | 0.35% | 0.50% | 4.36% | 4.52% |
| 18 | 0.30% | 0.50% | 4.31% | 4.52% |
| 19 | 0.25% | 0.50% | 4.26% | 4.52% |
| 20 or More | 0.25% | 0.50% | 4.26% | 4.52% |

** The total expected increase in salary includes both merit (shown above) and the general wage increase assumption of 4.00% per annum. The total result is compound rather than additive. For example, the total increase to service less than one year is 10.24%.*


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## Los Angeles County Employees Retirement Association

### 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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# Los Angeles County Employees Retirement Association

## 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 | 0.0003 |
| 19 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 20 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 21 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 22 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 23 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 24 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 25 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 26 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 27 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 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 | 0.0003 | 0.0001 | N/A | 0.0006 |
| 34 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | N/A | 0.0007 |
| 35 | 0.0000 | 0.0050 | 0.0004 | 0.0001 | N/A | 0.0008 |
| 36 | 0.0000 | 0.0050 | 0.0004 | 0.0002 | N/A | 0.0008 |
| 37 | 0.0000 | 0.0050 | 0.0005 | 0.0001 | N/A | 0.0009 |
| 38 | 0.0000 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0010 |
| 39 | 0.0000 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0010 |
| 40 | 0.0300 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0011 |
| 41 | 0.0300 | 0.0050 | 0.0007 | 0.0003 | N/A | 0.0011 |
| 42 | 0.0300 | 0.0050 | 0.0008 | 0.0003 | N/A | 0.0012 |
| 43 | 0.0300 | 0.0050 | 0.0009 | 0.0003 | N/A | 0.0013 |
| 44 | 0.0300 | 0.0050 | 0.0010 | 0.0004 | N/A | 0.0014 |
| 45 | 0.0300 | 0.0050 | 0.0011 | 0.0004 | N/A | 0.0015 |
| 46 | 0.0300 | 0.0050 | 0.0012 | 0.0005 | N/A | 0.0016 |
| 47 | 0.0300 | 0.0050 | 0.0013 | 0.0005 | N/A | 0.0017 |
| 48 | 0.0300 | 0.0050 | 0.0014 | 0.0005 | N/A | 0.0019 |
| 49 | 0.0300 | 0.0050 | 0.0016 | 0.0006 | N/A | 0.0020 |
| 50 | 0.0300 | 0.0050 | 0.0017 | 0.0006 | N/A | 0.0021 |
| 51 | 0.0300 | 0.0050 | 0.0018 | 0.0007 | N/A | 0.0023 |
| 52 | 0.0300 | 0.0050 | 0.0020 | 0.0008 | N/A | 0.0024 |
| 53 | 0.0300 | 0.0050 | 0.0022 | 0.0008 | N/A | 0.0026 |
| 54 | 0.0500 | 0.0050 | 0.0025 | 0.0009 | N/A | 0.0028 |
| 55 | 0.0800 | 0.0050 | 0.0027 | 0.0010 | N/A | 0.0030 |
| 56 | 0.1000 | 0.0050 | 0.0030 | 0.0011 | N/A | 0.0033 |
| 57 | 0.1400 | 0.0050 | 0.0032 | 0.0012 | N/A | 0.0036 |
| 58 | 0.1800 | 0.0050 | 0.0036 | 0.0013 | N/A | 0.0040 |
| 59 | 0.2000 | 0.0050 | 0.0040 | 0.0015 | N/A | 0.0044 |
| 60 | 0.2200 | 0.0050 | 0.0044 | 0.0016 | N/A | 0.0049 |
| 61 | 0.2500 | 0.0050 | 0.0048 | 0.0018 | N/A | 0.0054 |
| 62 | 0.3500 | 0.0050 | 0.0052 | 0.0019 | N/A | 0.0059 |
| 63 | 0.2500 | 0.0050 | 0.0052 | 0.0024 | N/A | 0.0065 |
| 64 | 0.2500 | 0.0050 | 0.0052 | 0.0029 | N/A | 0.0070 |
| 65 | 0.3000 | 0.0050 | 0.0052 | 0.0034 | N/A | 0.0076 |
| 66 | 0.2400 | 0.0050 | 0.0052 | 0.0039 | N/A | 0.0081 |
| 67 | 0.2400 | 0.0050 | 0.0052 | 0.0044 | N/A | 0.0086 |
| 68 | 0.2400 | 0.0050 | 0.0052 | 0.0049 | N/A | 0.0091 |
| 69 | 0.2400 | 0.0050 | 0.0052 | 0.0054 | N/A | 0.0095 |
| 70 | 0.3000 | 0.0050 | 0.0052 | 0.0059 | N/A | 0.0099 |
| 71 | 0.3000 | 0.0050 | 0.0052 | 0.0064 | N/A | 0.0104 |
| 72 | 0.3000 | 0.0050 | 0.0052 | 0.0069 | N/A | 0.0112 |
| 73 | 0.3000 | 0.0050 | 0.0052 | 0.0074 | N/A | 0.0123 |
| 74 | 0.3000 | 0.0050 | 0.0052 | 0.0079 | N/A | 0.0137 |
| 75 | 1.0000 | 0.0000 | 0.0000 | 0.0084 | N/A | 0.0151 |


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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 | 0.0002 | 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 | 0.0002 |
| 23 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 24 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 25 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 26 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 27 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 28 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 29 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 30 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 31 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 32 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 33 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | N/A | 0.0003 |
| 34 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | N/A | 0.0004 |
| 35 | 0.0000 | 0.0050 | 0.0004 | 0.0001 | N/A | 0.0004 |
| 36 | 0.0000 | 0.0050 | 0.0004 | 0.0002 | N/A | 0.0005 |
| 37 | 0.0000 | 0.0050 | 0.0005 | 0.0001 | N/A | 0.0005 |
| 38 | 0.0000 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 39 | 0.0000 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 40 | 0.0300 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 41 | 0.0300 | 0.0050 | 0.0007 | 0.0003 | N/A | 0.0007 |
| 42 | 0.0300 | 0.0050 | 0.0008 | 0.0003 | N/A | 0.0008 |
| 43 | 0.0300 | 0.0050 | 0.0009 | 0.0003 | N/A | 0.0009 |
| 44 | 0.0300 | 0.0050 | 0.0010 | 0.0004 | N/A | 0.0009 |
| 45 | 0.0300 | 0.0050 | 0.0011 | 0.0004 | N/A | 0.0010 |
| 46 | 0.0300 | 0.0050 | 0.0012 | 0.0005 | N/A | 0.0011 |
| 47 | 0.0300 | 0.0050 | 0.0013 | 0.0005 | N/A | 0.0012 |
| 48 | 0.0300 | 0.0050 | 0.0014 | 0.0006 | N/A | 0.0013 |
| 49 | 0.0300 | 0.0050 | 0.0014 | 0.0006 | N/A | 0.0014 |
| 50 | 0.0300 | 0.0050 | 0.0016 | 0.0006 | N/A | 0.0016 |
| 51 | 0.0300 | 0.0050 | 0.0017 | 0.0007 | N/A | 0.0017 |
| 52 | 0.0300 | 0.0050 | 0.0018 | 0.0008 | N/A | 0.0018 |
| 53 | 0.0300 | 0.0050 | 0.0019 | 0.0009 | N/A | 0.0020 |
| 54 | 0.0500 | 0.0050 | 0.0020 | 0.0010 | N/A | 0.0021 |
| 55 | 0.0800 | 0.0050 | 0.0022 | 0.0011 | N/A | 0.0023 |
| 56 | 0.1000 | 0.0050 | 0.0022 | 0.0011 | N/A | 0.0025 |
| 57 | 0.1400 | 0.0050 | 0.0024 | 0.0012 | N/A | 0.0028 |
| 58 | 0.1800 | 0.0050 | 0.0027 | 0.0014 | N/A | 0.0030 |
| 59 | 0.2000 | 0.0050 | 0.0030 | 0.0015 | N/A | 0.0033 |
| 60 | 0.2200 | 0.0050 | 0.0034 | 0.0017 | N/A | 0.0036 |
| 61 | 0.2500 | 0.0050 | 0.0037 | 0.0019 | N/A | 0.0039 |
| 62 | 0.3500 | 0.0050 | 0.0040 | 0.0020 | N/A | 0.0043 |
| 63 | 0.2500 | 0.0050 | 0.0043 | 0.0022 | N/A | 0.0047 |
| 64 | 0.2500 | 0.0050 | 0.0047 | 0.0024 | N/A | 0.0050 |
| 65 | 0.3000 | 0.0050 | 0.0051 | 0.0026 | N/A | 0.0054 |
| 66 | 0.2400 | 0.0050 | 0.0056 | 0.0028 | N/A | 0.0058 |
| 67 | 0.2400 | 0.0050 | 0.0061 | 0.0030 | N/A | 0.0062 |
| 68 | 0.2400 | 0.0050 | 0.0066 | 0.0032 | N/A | 0.0066 |
| 69 | 0.2400 | 0.0050 | 0.0072 | 0.0034 | N/A | 0.0069 |
| 70 | 0.3000 | 0.0050 | 0.0072 | 0.0036 | N/A | 0.0073 |
| 71 | 0.3000 | 0.0050 | 0.0072 | 0.0038 | N/A | 0.0076 |
| 72 | 0.3000 | 0.0050 | 0.0072 | 0.0040 | N/A | 0.0079 |
| 73 | 0.3000 | 0.0050 | 0.0072 | 0.0042 | N/A | 0.0085 |
| 74 | 0.3000 | 0.0050 | 0.0072 | 0.0044 | N/A | 0.0093 |
| 75 | 1.0000 | 0.0000 | 0.0000 | 0.0046 | N/A | 0.0103 |


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# Los Angeles County Employees Retirement Association

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

| Age | Service Retirement | Service Disability | Ordinary Disability | Service Death | Ordinary Death |
|---|---|---|---|---|---|
| 18 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 19 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 20 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 21 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 22 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 23 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 24 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 25 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 26 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 27 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 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 | 0.0003 | 0.0001 | N/A | 0.0006 |
| 34 | 0.0000 | 0.0003 | 0.0001 | N/A | 0.0007 |
| 35 | 0.0000 | 0.0004 | 0.0001 | N/A | 0.0008 |
| 36 | 0.0000 | 0.0004 | 0.0002 | N/A | 0.0008 |
| 37 | 0.0000 | 0.0005 | 0.0001 | N/A | 0.0009 |
| 38 | 0.0000 | 0.0006 | 0.0002 | N/A | 0.0010 |
| 39 | 0.0000 | 0.0006 | 0.0002 | N/A | 0.0010 |
| 40 | 0.0200 | 0.0006 | 0.0002 | N/A | 0.0011 |
| 41 | 0.0200 | 0.0007 | 0.0003 | N/A | 0.0011 |
| 42 | 0.0200 | 0.0008 | 0.0003 | N/A | 0.0012 |
| 43 | 0.0200 | 0.0009 | 0.0003 | N/A | 0.0013 |
| 44 | 0.0200 | 0.0010 | 0.0004 | N/A | 0.0014 |
| 45 | 0.0200 | 0.0011 | 0.0004 | N/A | 0.0015 |
| 46 | 0.0200 | 0.0012 | 0.0005 | N/A | 0.0016 |
| 47 | 0.0200 | 0.0013 | 0.0005 | N/A | 0.0017 |
| 48 | 0.0200 | 0.0014 | 0.0005 | N/A | 0.0019 |
| 49 | 0.0200 | 0.0016 | 0.0006 | N/A | 0.0020 |
| 50 | 0.0200 | 0.0017 | 0.0006 | N/A | 0.0021 |
| 51 | 0.0200 | 0.0018 | 0.0007 | N/A | 0.0023 |
| 52 | 0.0200 | 0.0020 | 0.0008 | N/A | 0.0024 |
| 53 | 0.0200 | 0.0022 | 0.0008 | N/A | 0.0026 |
| 54 | 0.0200 | 0.0025 | 0.0009 | N/A | 0.0028 |
| 55 | 0.0250 | 0.0027 | 0.0010 | N/A | 0.0030 |
| 56 | 0.0250 | 0.0030 | 0.0011 | N/A | 0.0033 |
| 57 | 0.0300 | 0.0032 | 0.0012 | N/A | 0.0036 |
| 58 | 0.0400 | 0.0036 | 0.0013 | N/A | 0.0040 |
| 59 | 0.0600 | 0.0040 | 0.0015 | N/A | 0.0044 |
| 60 | 0.0600 | 0.0044 | 0.0016 | N/A | 0.0049 |
| 61 | 0.0700 | 0.0048 | 0.0018 | N/A | 0.0054 |
| 62 | 0.1000 | 0.0052 | 0.0019 | N/A | 0.0059 |
| 63 | 0.0900 | 0.0052 | 0.0024 | N/A | 0.0065 |
| 64 | 0.1500 | 0.0052 | 0.0029 | N/A | 0.0070 |
| 65 | 0.2400 | 0.0052 | 0.0034 | N/A | 0.0076 |
| 66 | 0.2000 | 0.0052 | 0.0039 | N/A | 0.0081 |
| 67 | 0.2000 | 0.0052 | 0.0044 | N/A | 0.0086 |
| 68 | 0.2000 | 0.0052 | 0.0049 | N/A | 0.0091 |
| 69 | 0.2000 | 0.0052 | 0.0054 | N/A | 0.0095 |
| 70 | 0.2500 | 0.0052 | 0.0059 | N/A | 0.0099 |
| 71 | 0.2500 | 0.0052 | 0.0064 | N/A | 0.0104 |
| 72 | 0.2500 | 0.0052 | 0.0069 | N/A | 0.0112 |
| 73 | 0.2500 | 0.0052 | 0.0074 | N/A | 0.0123 |
| 74 | 0.2500 | 0.0052 | 0.0079 | N/A | 0.0137 |
| 75 | 1.0000 | 0.0000 | 0.0084 | N/A | 0.0151 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.0900 |
| 1 | 0.0650 |
| 2 | 0.0500 |
| 3 | 0.0400 |
| 4 | 0.0300 |
| 5 | 0.0283 |
| 6 | 0.0267 |
| 7 | 0.0250 |
| 8 | 0.0236 |
| 9 | 0.0222 |
| 10 | 0.0208 |
| 11 | 0.0194 |
| 12 | 0.0180 |
| 13 | 0.0168 |
| 14 | 0.0156 |
| 15 | 0.0144 |
| 16 | 0.0132 |
| 17 | 0.0120 |
| 18 | 0.0112 |
| 19 | 0.0104 |
| 20 | 0.0096 |
| 21 | 0.0088 |
| 22 | 0.0080 |
| 23 | 0.0076 |
| 24 | 0.0072 |
| 25 | 0.0068 |
| 26 | 0.0064 |
| 27 | 0.0060 |
| 28 | 0.0060 |
| 29 | 0.0060 |
| 30 & Above | 0.0000 |

# Los Angeles County Employees Retirement Association

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

| 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 | 0.0002 |
| 23 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 24 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 25 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 26 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 27 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 28 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 29 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 30 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 31 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 32 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 33 | 0.0000 | 0.0003 | 0.0001 | N/A | 0.0003 |
| 34 | 0.0000 | 0.0003 | 0.0001 | N/A | 0.0004 |
| 35 | 0.0000 | 0.0004 | 0.0001 | N/A | 0.0004 |
| 36 | 0.0000 | 0.0004 | 0.0002 | N/A | 0.0005 |
| 37 | 0.0000 | 0.0005 | 0.0001 | N/A | 0.0005 |
| 38 | 0.0000 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 39 | 0.0000 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 40 | 0.0200 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 41 | 0.0200 | 0.0007 | 0.0003 | N/A | 0.0007 |
| 42 | 0.0200 | 0.0008 | 0.0003 | N/A | 0.0008 |
| 43 | 0.0200 | 0.0009 | 0.0003 | N/A | 0.0009 |
| 44 | 0.0200 | 0.0010 | 0.0004 | N/A | 0.0009 |
| 45 | 0.0200 | 0.0011 | 0.0004 | N/A | 0.0010 |
| 46 | 0.0200 | 0.0012 | 0.0005 | N/A | 0.0011 |
| 47 | 0.0200 | 0.0013 | 0.0005 | N/A | 0.0012 |
| 48 | 0.0200 | 0.0014 | 0.0006 | N/A | 0.0013 |
| 49 | 0.0200 | 0.0014 | 0.0006 | N/A | 0.0014 |
| 50 | 0.0200 | 0.0016 | 0.0006 | N/A | 0.0016 |
| 51 | 0.0200 | 0.0017 | 0.0007 | N/A | 0.0017 |
| 52 | 0.0200 | 0.0018 | 0.0008 | N/A | 0.0018 |
| 53 | 0.0200 | 0.0019 | 0.0009 | N/A | 0.0020 |
| 54 | 0.0200 | 0.0020 | 0.0010 | N/A | 0.0021 |
| 55 | 0.0250 | 0.0022 | 0.0011 | N/A | 0.0023 |
| 56 | 0.0250 | 0.0022 | 0.0011 | N/A | 0.0025 |
| 57 | 0.0300 | 0.0024 | 0.0012 | N/A | 0.0028 |
| 58 | 0.0400 | 0.0027 | 0.0014 | N/A | 0.0030 |
| 59 | 0.0600 | 0.0030 | 0.0015 | N/A | 0.0033 |
| 60 | 0.0600 | 0.0034 | 0.0017 | N/A | 0.0036 |
| 61 | 0.0700 | 0.0037 | 0.0019 | N/A | 0.0039 |
| 62 | 0.1000 | 0.0040 | 0.0020 | N/A | 0.0043 |
| 63 | 0.0900 | 0.0043 | 0.0022 | N/A | 0.0047 |
| 64 | 0.1500 | 0.0047 | 0.0024 | N/A | 0.0050 |
| 65 | 0.2400 | 0.0051 | 0.0026 | N/A | 0.0054 |
| 66 | 0.2000 | 0.0056 | 0.0028 | N/A | 0.0058 |
| 67 | 0.2000 | 0.0061 | 0.0030 | N/A | 0.0062 |
| 68 | 0.2000 | 0.0066 | 0.0032 | N/A | 0.0066 |
| 69 | 0.2000 | 0.0072 | 0.0034 | N/A | 0.0069 |
| 70 | 0.2500 | 0.0072 | 0.0036 | N/A | 0.0073 |
| 71 | 0.2500 | 0.0072 | 0.0038 | N/A | 0.0076 |
| 72 | 0.2500 | 0.0072 | 0.0040 | N/A | 0.0079 |
| 73 | 0.2500 | 0.0072 | 0.0042 | N/A | 0.0085 |
| 74 | 0.2500 | 0.0072 | 0.0044 | N/A | 0.0093 |
| 75 | 1.0000 | 0.0000 | 0.0046 | N/A | 0.0103 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.0900 |
| 1 | 0.0650 |
| 2 | 0.0500 |
| 3 | 0.0400 |
| 4 | 0.0300 |
| 5 | 0.0283 |
| 6 | 0.0267 |
| 7 | 0.0250 |
| 8 | 0.0236 |
| 9 | 0.0222 |
| 10 | 0.0208 |
| 11 | 0.0194 |
| 12 | 0.0180 |
| 13 | 0.0168 |
| 14 | 0.0156 |
| 15 | 0.0144 |
| 16 | 0.0132 |
| 17 | 0.0120 |
| 18 | 0.0112 |
| 19 | 0.0104 |
| 20 | 0.0096 |
| 21 | 0.0088 |
| 22 | 0.0080 |
| 23 | 0.0076 |
| 24 | 0.0072 |
| 25 | 0.0068 |
| 26 | 0.0064 |
| 27 | 0.0060 |
| 28 | 0.0060 |
| 29 | 0.0060 |
| 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 | 0.0003 |
| 19 | 0.0000 | N/A | N/A | N/A | 0.0003 |
| 20 | 0.0000 | N/A | N/A | N/A | 0.0003 |
| 21 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 22 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 23 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 24 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 25 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 26 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 27 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 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 | 0.0008 |
| 36 | 0.0000 | N/A | N/A | N/A | 0.0008 |
| 37 | 0.0000 | N/A | N/A | N/A | 0.0009 |
| 38 | 0.0000 | N/A | N/A | N/A | 0.0010 |
| 39 | 0.0000 | N/A | N/A | N/A | 0.0010 |
| 40 | 0.0000 | N/A | N/A | N/A | 0.0011 |
| 41 | 0.0000 | N/A | N/A | N/A | 0.0011 |
| 42 | 0.0000 | N/A | N/A | N/A | 0.0012 |
| 43 | 0.0000 | N/A | N/A | N/A | 0.0013 |
| 44 | 0.0000 | N/A | N/A | N/A | 0.0014 |
| 45 | 0.0000 | N/A | N/A | N/A | 0.0015 |
| 46 | 0.0000 | N/A | N/A | N/A | 0.0016 |
| 47 | 0.0000 | N/A | N/A | N/A | 0.0017 |
| 48 | 0.0000 | N/A | N/A | N/A | 0.0019 |
| 49 | 0.0000 | N/A | N/A | N/A | 0.0020 |
| 50 | 0.0000 | N/A | N/A | N/A | 0.0021 |
| 51 | 0.0000 | N/A | N/A | N/A | 0.0023 |
| 52 | 0.0000 | N/A | N/A | N/A | 0.0024 |
| 53 | 0.0000 | N/A | N/A | N/A | 0.0026 |
| 54 | 0.0000 | N/A | N/A | N/A | 0.0028 |
| 55 | 0.0300 | N/A | N/A | N/A | 0.0030 |
| 56 | 0.0300 | N/A | N/A | N/A | 0.0033 |
| 57 | 0.0300 | N/A | N/A | N/A | 0.0036 |
| 58 | 0.0300 | N/A | N/A | N/A | 0.0040 |
| 59 | 0.0350 | N/A | N/A | N/A | 0.0044 |
| 60 | 0.0500 | N/A | N/A | N/A | 0.0049 |
| 61 | 0.0700 | N/A | N/A | N/A | 0.0054 |
| 62 | 0.1000 | N/A | N/A | N/A | 0.0059 |
| 63 | 0.0900 | N/A | N/A | N/A | 0.0065 |
| 64 | 0.1600 | N/A | N/A | N/A | 0.0070 |
| 65 | 0.2500 | N/A | N/A | N/A | 0.0076 |
| 66 | 0.1800 | N/A | N/A | N/A | 0.0081 |
| 67 | 0.1800 | N/A | N/A | N/A | 0.0086 |
| 68 | 0.1800 | N/A | N/A | N/A | 0.0091 |
| 69 | 0.1800 | N/A | N/A | N/A | 0.0095 |
| 70 | 0.2500 | N/A | N/A | N/A | 0.0099 |
| 71 | 0.2500 | N/A | N/A | N/A | 0.0104 |
| 72 | 0.2500 | N/A | N/A | N/A | 0.0112 |
| 73 | 0.2500 | N/A | N/A | N/A | 0.0123 |
| 74 | 0.2500 | N/A | N/A | N/A | 0.0137 |
| 75 | 1.0000 | N/A | N/A | N/A | 0.0151 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.1500 |
| 1 | 0.0900 |
| 2 | 0.0700 |
| 3 | 0.0550 |
| 4 | 0.0450 |
| 5 | 0.0407 |
| 6 | 0.0363 |
| 7 | 0.0320 |
| 8 | 0.0304 |
| 9 | 0.0288 |
| 10 | 0.0272 |
| 11 | 0.0256 |
| 12 | 0.0240 |
| 13 | 0.0228 |
| 14 | 0.0216 |
| 15 | 0.0204 |
| 16 | 0.0192 |
| 17 | 0.0180 |
| 18 | 0.0174 |
| 19 | 0.0168 |
| 20 | 0.0162 |
| 21 | 0.0156 |
| 22 | 0.0150 |
| 23 | 0.0144 |
| 24 | 0.0138 |
| 25 | 0.0132 |
| 26 | 0.0126 |
| 27 | 0.0120 |
| 28 | 0.0120 |
| 29 | 0.0120 |
| 30 & Above | 0.0120 |


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# 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 | 0.0002 |
| 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 | 0.0002 |
| 23 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 24 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 25 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 26 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 27 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 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 | 0.0003 |
| 32 | 0.0000 | N/A | N/A | N/A | 0.0003 |
| 33 | 0.0000 | N/A | N/A | N/A | 0.0003 |
| 34 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 35 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 36 | 0.0000 | N/A | N/A | N/A | 0.0005 |
| 37 | 0.0000 | N/A | N/A | N/A | 0.0005 |
| 38 | 0.0000 | N/A | N/A | N/A | 0.0006 |
| 39 | 0.0000 | N/A | N/A | N/A | 0.0006 |
| 40 | 0.0000 | N/A | N/A | N/A | 0.0006 |
| 41 | 0.0000 | N/A | N/A | N/A | 0.0007 |
| 42 | 0.0000 | N/A | N/A | N/A | 0.0008 |
| 43 | 0.0000 | N/A | N/A | N/A | 0.0009 |
| 44 | 0.0000 | N/A | N/A | N/A | 0.0009 |
| 45 | 0.0000 | N/A | N/A | N/A | 0.0010 |
| 46 | 0.0000 | N/A | N/A | N/A | 0.0011 |
| 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 | 0.0016 |
| 51 | 0.0000 | N/A | N/A | N/A | 0.0017 |
| 52 | 0.0000 | N/A | N/A | N/A | 0.0018 |
| 53 | 0.0000 | N/A | N/A | N/A | 0.0020 |
| 54 | 0.0000 | N/A | N/A | N/A | 0.0021 |
| 55 | 0.0300 | N/A | N/A | N/A | 0.0023 |
| 56 | 0.0300 | N/A | N/A | N/A | 0.0025 |
| 57 | 0.0300 | N/A | N/A | N/A | 0.0028 |
| 58 | 0.0300 | N/A | N/A | N/A | 0.0030 |
| 59 | 0.0350 | N/A | N/A | N/A | 0.0033 |
| 60 | 0.0500 | N/A | N/A | N/A | 0.0036 |
| 61 | 0.0700 | N/A | N/A | N/A | 0.0039 |
| 62 | 0.1000 | N/A | N/A | N/A | 0.0043 |
| 63 | 0.0900 | N/A | N/A | N/A | 0.0047 |
| 64 | 0.1600 | N/A | N/A | N/A | 0.0050 |
| 65 | 0.2500 | N/A | N/A | N/A | 0.0054 |
| 66 | 0.1800 | N/A | N/A | N/A | 0.0058 |
| 67 | 0.1800 | N/A | N/A | N/A | 0.0062 |
| 68 | 0.1800 | N/A | N/A | N/A | 0.0066 |
| 69 | 0.1800 | N/A | N/A | N/A | 0.0069 |
| 70 | 0.2500 | N/A | N/A | N/A | 0.0073 |
| 71 | 0.2500 | N/A | N/A | N/A | 0.0076 |
| 72 | 0.2500 | N/A | N/A | N/A | 0.0079 |
| 73 | 0.2500 | N/A | N/A | N/A | 0.0085 |
| 74 | 0.2500 | N/A | N/A | N/A | 0.0093 |
| 75 | 1.0000 | N/A | N/A | N/A | 0.0103 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.1500 |
| 1 | 0.0900 |
| 2 | 0.0700 |
| 3 | 0.0550 |
| 4 | 0.0450 |
| 5 | 0.0407 |
| 6 | 0.0363 |
| 7 | 0.0320 |
| 8 | 0.0304 |
| 9 | 0.0288 |
| 10 | 0.0272 |
| 11 | 0.0256 |
| 12 | 0.0240 |
| 13 | 0.0228 |
| 14 | 0.0216 |
| 15 | 0.0204 |
| 16 | 0.0192 |
| 17 | 0.0180 |
| 18 | 0.0174 |
| 19 | 0.0168 |
| 20 | 0.0162 |
| 21 | 0.0156 |
| 22 | 0.0150 |
| 23 | 0.0144 |
| 24 | 0.0138 |
| 25 | 0.0132 |
| 26 | 0.0126 |
| 27 | 0.0120 |
| 28 | 0.0120 |
| 29 | 0.0120 |
| 30 & Above | 0.0120 |

# Los Angeles County Employees Retirement Association

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

| Age | Service Retirement | Service Disability | Ordinary Disability | Service Death | Ordinary Death |
|---|---|---|---|---|---|
| 18 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 19 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 20 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 21 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 22 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 23 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 24 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 25 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 26 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 27 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 28 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 29 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 30 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0004 |
| 31 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0004 |
| 32 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0004 |
| 33 | 0.0000 | 0.0052 | 0.0003 | 0.0001 | 0.0004 |
| 34 | 0.0000 | 0.0054 | 0.0003 | 0.0001 | 0.0004 |
| 35 | 0.0000 | 0.0056 | 0.0003 | 0.0001 | 0.0004 |
| 36 | 0.0000 | 0.0058 | 0.0003 | 0.0001 | 0.0004 |
| 37 | 0.0000 | 0.0060 | 0.0003 | 0.0001 | 0.0004 |
| 38 | 0.0000 | 0.0064 | 0.0003 | 0.0001 | 0.0004 |
| 39 | 0.0000 | 0.0068 | 0.0003 | 0.0001 | 0.0004 |
| 40 | 0.0100 | 0.0072 | 0.0004 | 0.0001 | 0.0005 |
| 41 | 0.0100 | 0.0076 | 0.0004 | 0.0001 | 0.0006 |
| 42 | 0.0100 | 0.0080 | 0.0004 | 0.0001 | 0.0006 |
| 43 | 0.0100 | 0.0088 | 0.0004 | 0.0001 | 0.0007 |
| 44 | 0.0100 | 0.0096 | 0.0004 | 0.0001 | 0.0008 |
| 45 | 0.0100 | 0.0104 | 0.0005 | 0.0001 | 0.0008 |
| 46 | 0.0100 | 0.0112 | 0.0005 | 0.0001 | 0.0009 |
| 47 | 0.0100 | 0.0120 | 0.0005 | 0.0001 | 0.0010 |
| 48 | 0.0100 | 0.0136 | 0.0005 | 0.0001 | 0.0010 |
| 49 | 0.0100 | 0.0152 | 0.0006 | 0.0001 | 0.0011 |
| 50 | 0.0100 | 0.0168 | 0.0007 | 0.0001 | 0.0011 |
| 51 | 0.0200 | 0.0184 | 0.0007 | 0.0001 | 0.0012 |
| 52 | 0.0250 | 0.0200 | 0.0008 | 0.0001 | 0.0013 |
| 53 | 0.0300 | 0.0300 | 0.0009 | 0.0001 | 0.0014 |
| 54 | 0.1200 | 0.0500 | 0.0010 | 0.0001 | 0.0015 |
| 55 | 0.2400 | 0.1500 | 0.0020 | 0.0001 | 0.0016 |
| 56 | 0.1800 | 0.1500 | 0.0022 | 0.0001 | 0.0017 |
| 57 | 0.1800 | 0.1500 | 0.0024 | 0.0001 | 0.0019 |
| 58 | 0.2000 | 0.1500 | 0.0024 | 0.0001 | 0.0020 |
| 59 | 0.3000 | 0.1500 | 0.0024 | 0.0001 | 0.0021 |
| 60 | 1.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.0500 |
| 1 | 0.0425 |
| 2 | 0.0350 |
| 3 | 0.0300 |
| 4 | 0.0250 |
| 5 | 0.0217 |
| 6 | 0.0183 |
| 7 | 0.0150 |
| 8 | 0.0132 |
| 9 | 0.0114 |
| 10 | 0.0096 |
| 11 | 0.0078 |
| 12 | 0.0060 |
| 13 | 0.0056 |
| 14 | 0.0052 |
| 15 | 0.0048 |
| 16 | 0.0044 |
| 17 | 0.0040 |
| 18 | 0.0032 |
| 19 | 0.0024 |
| 20 & Above | 0.0000 |

# Los Angeles County Employees Retirement Association

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

| Age | Service Retirement | Service Disability | Ordinary Disability | Service Death | Ordinary Death |
|---|---|---|---|---|---|
| 18 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 19 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 20 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 21 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 22 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 23 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 24 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 25 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 26 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 27 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 28 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 29 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 30 | 0.0000 | 0.0060 | 0.0006 | 0.0001 | 0.0002 |
| 31 | 0.0000 | 0.0070 | 0.0006 | 0.0001 | 0.0003 |
| 32 | 0.0000 | 0.0080 | 0.0006 | 0.0001 | 0.0003 |
| 33 | 0.0000 | 0.0090 | 0.0006 | 0.0001 | 0.0003 |
| 34 | 0.0000 | 0.0100 | 0.0006 | 0.0001 | 0.0004 |
| 35 | 0.0000 | 0.0110 | 0.0008 | 0.0001 | 0.0004 |
| 36 | 0.0000 | 0.0120 | 0.0008 | 0.0001 | 0.0005 |
| 37 | 0.0000 | 0.0125 | 0.0008 | 0.0001 | 0.0005 |
| 38 | 0.0000 | 0.0130 | 0.0008 | 0.0001 | 0.0006 |
| 39 | 0.0000 | 0.0135 | 0.0008 | 0.0001 | 0.0006 |
| 40 | 0.0100 | 0.0140 | 0.0010 | 0.0001 | 0.0006 |
| 41 | 0.0100 | 0.0145 | 0.0010 | 0.0001 | 0.0007 |
| 42 | 0.0100 | 0.0150 | 0.0010 | 0.0001 | 0.0008 |
| 43 | 0.0100 | 0.0155 | 0.0010 | 0.0001 | 0.0009 |
| 44 | 0.0100 | 0.0160 | 0.0012 | 0.0001 | 0.0009 |
| 45 | 0.0100 | 0.0165 | 0.0012 | 0.0001 | 0.0010 |
| 46 | 0.0100 | 0.0170 | 0.0014 | 0.0001 | 0.0011 |
| 47 | 0.0100 | 0.0175 | 0.0014 | 0.0001 | 0.0012 |
| 48 | 0.0100 | 0.0180 | 0.0016 | 0.0001 | 0.0013 |
| 49 | 0.0100 | 0.0185 | 0.0020 | 0.0001 | 0.0014 |
| 50 | 0.0100 | 0.0190 | 0.0022 | 0.0001 | 0.0016 |
| 51 | 0.0200 | 0.0300 | 0.0026 | 0.0001 | 0.0017 |
| 52 | 0.0250 | 0.0350 | 0.0028 | 0.0001 | 0.0018 |
| 53 | 0.0300 | 0.0400 | 0.0034 | 0.0001 | 0.0020 |
| 54 | 0.1200 | 0.0450 | 0.0040 | 0.0001 | 0.0021 |
| 55 | 0.2400 | 0.0700 | 0.0048 | 0.0001 | 0.0023 |
| 56 | 0.1800 | 0.1200 | 0.0054 | 0.0001 | 0.0025 |
| 57 | 0.1800 | 0.1200 | 0.0060 | 0.0001 | 0.0028 |
| 58 | 0.2000 | 0.1200 | 0.0066 | 0.0001 | 0.0030 |
| 59 | 0.3000 | 0.1200 | 0.0072 | 0.0001 | 0.0033 |
| 60 | 1.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.0500 |
| 1 | 0.0425 |
| 2 | 0.0350 |
| 3 | 0.0300 |
| 4 | 0.0250 |
| 5 | 0.0217 |
| 6 | 0.0183 |
| 7 | 0.0150 |
| 8 | 0.0132 |
| 9 | 0.0114 |
| 10 | 0.0096 |
| 11 | 0.0078 |
| 12 | 0.0060 |
| 13 | 0.0056 |
| 14 | 0.0052 |
| 15 | 0.0048 |
| 16 | 0.0044 |
| 17 | 0.0040 |
| 18 | 0.0032 |
| 19 | 0.0024 |
| 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 the LACERA as contained in the County Employees Retirement Plan (CERL) of 1937, with provisions adopted by the LACERA Board, effective through July 1, 2008. 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.

**Government Code Section**

### MEMBERSHIP

| | |
|---|---|
| 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, fire fighting 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, or the first day of the month after they make an election of either Plan D or Plan E, depending on the law in effect at that time. | (31493, 31493.5, 31493.6, 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 seven defined benefit plans (General Plans A, B, C, D and E and Safety Plans A and B) 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.

**RETIREMENT PLANS** (Continued)

| | | |
|---|---|---|
| **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 F:** | General members in Plan D and safety members in Plan B who first became members on or after January 1, 1990, and are subject to the limitations set forth in Section 415 of the Internal Revenue Code of 1986. Currently there are no members participating in Plan F. No further description of Plan F is included here. | (31510) |

**MEMBER CONTRIBUTIONS**

| | | |
|---|---|---|
| **Plans A-D:** | 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 member 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) |

**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 investigation, valuation and recommendation of the actuary. | (31453, 31454 31581) |


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## SERVICE RETIREMENT ALLOWANCE

| | | |
|---|---|---|
| **Eligibility:** | | (31672) |
| **Plans A-D:** | **General members:**<br>Age 50 with 10 years of County service;<br>Any age with 30 years of service; or<br>Age 70 regardless of service. | |
| | **Safety members:**<br>Age 50 with 10 years of County service;<br>Any age with 20 years of service; or<br>Age 60 regardless of service. | (31662.4,<br>31662.6,<br>31663.25) |
| **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) |
| **Final Compensation:** | | |
| **Plans A-D:** | Monthly average of a member's compensation during the last year of service. | (31462.3,<br>31461.45) |
| **Plan E:** | Monthly average of a member's compensation for the last three years of service. | (31488) |

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)

| | | |
|---|---|---|
| **Monthly Allowance:** | | |
| | **Safety members:**<br>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:**<br>1/60 x Final Compensation x a Plan specific age factor x years of service. | (31676.1)<br>(31676.11)<br>(31676.14) |


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**SERVICE RETIREMENT ALLOWANCE** (Continued)

**Plan E:**

**General members: (a)+(b)-(c) 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.

(31491, 31491.3 (b)&(c))

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).

**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.

**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) |

**Maximum Allowance:**

**Plans A-D:**

Allowance may not exceed 100% of final compensation.

**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)



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**SERVICE RETIREMENT ALLOWANCE** (Continued)

**Unmodified Retirement Allowance (Normal Form):**

| | | |
|---|---|---|
| **Plans A-D:** | 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)

**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) |


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**SERVICE RETIREMENT ALLOWANCE** (Continued)

| | | |
|---|---|---|
| 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) |
| **All Allowances:** | 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. | (31600) |

**SERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE**

| | | |
|---|---|---|
| **Eligibility:** | | (31720, 31720.5) |
| **Plans A-D:** | 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. | |
| **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:** | Any age with 5 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:** | | |
| **Plans A-D:** | Active members who die in service as a result of injury or disease arising out of and in the course of employment. | (31787) |
| **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.

(31787.6)

**Additional Amount for Spouse of Safety Member:**

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:** | 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:**

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. (31781.1, 31781.12)

**Second Optional Death Benefit:**

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). (31781.2, 31765.2)

**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 have been entitled if the member retired or been 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)


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**NONSERVICE-CONNECTED DEATH BENEFITS** (Continued)

**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)

**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-D:** 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. (31789.1)

**Plan E:** The only death benefits payable after retirement are the continuance allowances described above under Unmodified and Optional Retirement Allowances. There is no $5,000 lump-sum payment under Plan E. (31492)


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## DEFERRED VESTED BENEFITS

| | | |
|---|---|---|
| **Eligibility:** | | (31700) |
| **Plans A-D:** | Five years of county or reciprocal service. member contributions must be left on deposit. | |
| **Plan E:** | Age 55 with 10 years of service. | (31491) |
| **Monthly Allowance:** | | |
| **Plans A-D:** | Same as service retirement allowance; payable anytime 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) |


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## 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:

**Plans A-E:**

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)

## 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)


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## 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:** | Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase.<br><br>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

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. (318874.3(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, 2009 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 increased by 1.4% and the total salary increased by 6.2% since the last valuation. The total number of retired members and their beneficiaries increased by 1.4%, while the average retirement benefit amount increased by 4.0%.

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 2009 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, 2009 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. However, benefit amounts were zeroed for records of retirees who have returned to work and who were valued as active participants.

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, 2009

| | Sex | Vested | NonVested | Total Number | Annual Salary | Average Age | Average Monthly Salary | Average Credited Service |
|---|---|---|---|---|---|---|---|---|
| ***General Members*** | | | | | | | | |
| Plan A | M | 640 | 1 | 641 | $ 62,431,944 | 61.1 | $ 8,116 | 34.2 |
| | F | 1,327 | - | 1,327 | 103,694,820 | 59.5 | 6,512 | 34.2 |
| Plan B | M | 99 | - | 99 | 9,958,872 | 59.5 | 8,383 | 31.5 |
| | F | 208 | - | 208 | 16,324,560 | 58.2 | 6,540 | 30.8 |
| Plan C | M | 70 | - | 70 | 6,964,104 | 58.3 | 8,291 | 30.7 |
| | F | 165 | - | 165 | 12,958,080 | 57.4 | 6,544 | 29.9 |
| Plan D | M | 11,513 | 5,892 | 17,405 | 1,206,373,068 | 44.7 | 5,776 | 10.4 |
| | F | 22,580 | 11,900 | 34,480 | 2,158,934,052 | 43.9 | 5,218 | 10.5 |
| Plan E | M | 5,838 | 3,491 | 9,329 | 651,594,960 | 49.0 | 5,821 | 15.5 |
| | F | 12,288 | 6,866 | 19,154 | 1,118,324,136 | 48.2 | 4,865 | 16.2 |
| Total | | 54,728 | 28,150 | 82,878 | $ 5,347,558,596 | 46.1 | $ 5,377 | 13.1 |
| ***Safety Members*** | | | | | | | | |
| Plan A | M | 220 | - | 220 | $ 30,221,964 | 56.0 | $ 11,448 | 32.8 |
| | F | 22 | - | 22 | 2,845,272 | 55.4 | 10,778 | 33.7 |
| Plan B | M | 8,348 | 2,627 | 10,975 | 1,053,333,096 | 40.9 | 7,998 | 14.0 |
| | F | 1,171 | 522 | 1,693 | 153,254,760 | 37.9 | 7,544 | 11.2 |
| Total | | 9,761 | 3,149 | 12,910 | $ 1,239,655,092 | 40.8 | $ 8,002 | 14.0 |
| ***Grand Total*** | | 64,489 | 31,299 | 95,788 | $ 6,587,213,688 | 45.4 | $ 5,731 | 13.2 |

# Los Angeles County Employees Retirement Association

## Exhibit C-2Ret: LACERA Membership – Retired Members as of June 30, 2009

| | Sex | Number | Annual Allowance | Average Age | Average Monthly Benefit |
|---|---|---|---|---|---|
| ***General Members*** | | | | | |
| Plan A | M | 11,617 | $ 578,725,694 | 74.4 | $ 4,151 |
| | F | 17,294 | 568,100,808 | 75.4 | 2,737 |
| Plan B | M | 166 | 6,058,745 | 69.8 | 3,042 |
| | F | 405 | 11,098,401 | 70.8 | 2,284 |
| Plan C | M | 123 | 3,197,365 | 70.0 | 2,166 |
| | F | 251 | 5,239,789 | 70.6 | 1,740 |
| Plan D | M | 2,264 | 59,474,511 | 65.6 | 2,189 |
| | F | 3,964 | 83,769,912 | 65.7 | 1,761 |
| Plan E | M | 2,323 | 43,694,287 | 69.5 | 1,567 |
| | F | 4,418 | 63,247,151 | 68.9 | 1,193 |
| Total | | 42,825 | $ 1,422,606,663 | 72.6 | $ 2,768 |
| ***Safety Members*** | | | | | |
| Plan A | M | 6,319 | $ 479,924,928 | 69.2 | $ 6,329 |
| | F | 1,900 | 90,914,649 | 72.2 | 3,987 |
| Plan B | M | 1,538 | 74,292,361 | 52.5 | 4,025 |
| | F | 487 | 17,986,114 | 48.2 | 3,078 |
| Total | | 10,244 | $ 663,118,052 | 66.3 | $ 5,394 |
| ***Grand Total*** | | 53,069 | $ 2,085,724,715 | 71.4 | $ 3,275 |

## Los Angeles County Employees Retirement Association

**Exhibit C-2Def: LACERA Membership – Deferred Members as of June 30, 2009 Subtotaled by Plan and Retirement Type**

| | Sex | Number | Average Age |
|---|---|---|---|
| ***General Members*** | | | |
| Plan A | M | 105 | 62.2 |
| | F | 205 | 60.3 |
| Plan B | M | 11 | 61.2 |
| | F | 37 | 58.0 |
| Plan C | M | 8 | 58.0 |
| | F | 22 | 55.0 |
| Plan D | M | 2,194 | 43.8 |
| | F | 4,288 | 42.7 |
| Plan E | M | 1,283 | 53.0 |
| | F | 2,998 | 52.0 |
| Total | | 11,151 | 47.2 |
| ***Safety Members*** | | | |
| Plan A | M | 10 | 59.7 |
| | F | - | - |
| Plan B | M | 521 | 38.1 |
| | F | 162 | 38.0 |
| Total | | 693 | 38.4 |
| ***Grand Total*** | | 11,844 | 46.7 |


This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-2a: LACERA Membership – Retired Members as of June 30, 2009 Subtotaled by Plan and Retirement Type

| Plan | Retirement Type | Number | Annual Benefits in Thousands | Average Monthly Benefit |
|---|---|---|---|---|
| ***General Plans:*** | | | | |
| **Plan A** | | | | |
| | Healthy | 21,384 | $ 954,615 | $ 3,720 |
| | Disabled | 2,455 | 72,791 | 2,471 |
| | Beneficiaries | 5,072 | 119,420 | 1,962 |
| | Total | 28,911 | $ 1,146,827 | $ 3,306 |
| **Plan B** | | | | |
| | Healthy | 464 | $ 15,028 | $ 2,699 |
| | Disabled | 66 | 1,366 | 1,725 |
| | Beneficiaries | 41 | 763 | 1,551 |
| | Total | 571 | $ 17,157 | $ 2,504 |
| **Plan C** | | | | |
| | Healthy | 275 | $ 6,643 | $ 2,013 |
| | Disabled | 60 | 1,346 | 1,869 |
| | Beneficiaries | 39 | 448 | 957 |
| | Total | 374 | $ 8,437 | $ 1,880 |
| **Plan D** | | | | |
| | Healthy | 4,463 | $ 105,250 | $ 1,965 |
| | Disabled | 1,217 | 30,724 | 2,104 |
| | Beneficiaries | 548 | 7,270 | 1,106 |
| | Total | 6,228 | $ 143,244 | $ 1,917 |
| **Plan E** | | | | |
| | Healthy | 6,302 | $ 103,435 | $ 1,368 |
| | Disabled | 0 | 0 | N/A |
| | Beneficiaries | 439 | 3,506 | 666 |
| | Total | 6,741 | $ 106,941 | $ 1,322 |
| ***Safety Plans:*** | | | | |
| **Plan A** | | | | |
| | Healthy | 3,025 | $ 242,693 | $ 6,686 |
| | Disabled | 3,821 | 268,808 | 5,863 |
| | Beneficiaries | 1,373 | 59,338 | 3,601 |
| | Total | 8,219 | $ 570,840 | $ 5,788 |
| **Plan B** | | | | |
| | Healthy | 524 | $ 32,148 | $ 5,113 |
| | Disabled | 1,377 | 56,361 | 3,411 |
| | Beneficiaries | 124 | 3,769 | 2,533 |
| | Total | 2,025 | $ 92,279 | $ 3,797 |
| **Grand Totals** | | 53,069 | 2,085,725 | 3,275 |

## Los Angeles County Employees Retirement Association

### Exhibit C-2b: LACERA Membership – Retired Members as of June 30, 2009 Subtotaled by Retirement Type and Plan

| Type | Plan | Number | Annual Benefits in Thousands | Average Monthly Benefit |
|---|---|---|---|---|
| **Healthy Retirees** | | | | |
| | General A | 21,384 | $ 954,616 | $ 3,720 |
| | General B | 464 | 15,028 | 2,699 |
| | General C | 275 | 6,643 | 2,013 |
| | General D | 4,463 | 105,250 | 1,965 |
| | General E | 6,302 | 103,435 | 1,368 |
| | Safety A | 3,025 | 242,694 | 6,686 |
| | Safety B | 524 | 32,148 | 5,113 |
| | Total | 36,437 | $ 1,459,814 | $ 3,339 |
| **Disabled Retirees** | | | | |
| | General A | 2,455 | $ 72,791 | $ 2,471 |
| | General B | 66 | 1,366 | 1,725 |
| | General C | 60 | 1,346 | 1,869 |
| | General D | 1,217 | 30,724 | 2,104 |
| | Safety A | 3,821 | 268,808 | 5,863 |
| | Safety B | 1,377 | 56,362 | 3,411 |
| | Total | 8,996 | $ 431,397 | $ 3,996 |
| **Beneficiaries** | | | | |
| | General A | 5,072 | $ 119,420 | $ 1,962 |
| | General B | 41 | 763 | 1,551 |
| | General C | 39 | 448 | 957 |
| | General D | 548 | 7,270 | 1,106 |
| | General E | 439 | 3,506 | 666 |
| | Safety A | 1,373 | 59,338 | 3,601 |
| | Safety B | 124 | 3,769 | 2,533 |
| | Total | 7,636 | $ 194,514 | $ 2,123 |
| **Grand Totals** | | 53,069 | $ 2,085,725 | $ 3,275 |

# Los Angeles County Employees Retirement Association

## Exhibit C-3: Age Distribution of Active Members as of June 30, 2009

| | Age Groups | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70+ | Total |
| ***General Plans:*** | | | | | | | |
| Plan A | | | | | | | |
| Male | - | - | - | 278 | 319 | 44 | 641 |
| Female | - | - | - | 767 | 501 | 59 | 1,327 |
| Plan B | | | | | | | |
| Male | - | - | - | 57 | 40 | 2 | 99 |
| Female | - | - | 1 | 139 | 58 | 10 | 208 |
| Plan C | | | | | | | |
| Male | - | - | - | 45 | 24 | 1 | 70 |
| Female | - | - | 8 | 104 | 49 | 4 | 165 |
| Plan D | | | | | | | |
| Male | 1,674 | 4,478 | 5,139 | 4,254 | 1,670 | 190 | 17,405 |
| Female | 3,429 | 9,550 | 10,528 | 8,079 | 2,651 | 243 | 34,480 |
| Plan E | | | | | | | |
| Male | 574 | 1,558 | 2,403 | 2,953 | 1,625 | 216 | 9,329 |
| Female | 1,086 | 3,199 | 5,572 | 6,304 | 2,744 | 249 | 19,154 |
| ***Safety Plans:*** | | | | | | | |
| Plan A | | | | | | | |
| Male | - | - | - | 203 | 17 | - | 220 |
| Female | - | - | - | 21 | 1 | - | 22 |
| Plan B | | | | | | | |
| Male | 1,452 | 3,123 | 4,340 | 2,003 | 55 | 2 | 10,975 |
| Female | 328 | 642 | 552 | 168 | 3 | - | 1,693 |
| ***Grand Totals:*** | 8,543 | 22,550 | 28,543 | 25,375 | 9,757 | 1,020 | 95,788 |

# Los Angeles County Employees Retirement Association

## Exhibit C-4: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 460 | 599 | 358 | 114 | 44 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1,576 |
| 25-29 | 1,058 | 1,775 | 1,670 | 1,203 | 530 | 716 | 15 | 0 | 0 | 0 | 0 | 0 | 6,967 |
| 30-34 | 810 | 1,314 | 1,422 | 1,409 | 884 | 3,611 | 822 | 11 | 0 | 0 | 0 | 0 | 10,283 |
| 35-39 | 568 | 915 | 1,046 | 928 | 589 | 4,026 | 3,300 | 869 | 26 | 0 | 0 | 0 | 12,267 |
| 40-44 | 409 | 600 | 735 | 659 | 514 | 3,039 | 3,077 | 3,570 | 1,569 | 40 | 0 | 0 | 14,212 |
| 45-49 | 298 | 446 | 617 | 555 | 352 | 2,307 | 2,174 | 2,995 | 3,397 | 1,125 | 65 | 0 | 14,331 |
| 50-54 | 252 | 350 | 459 | 452 | 329 | 1,863 | 1,689 | 2,233 | 2,597 | 2,271 | 1,112 | 77 | 13,684 |
| 55-59 | 147 | 220 | 297 | 295 | 192 | 1,348 | 1,302 | 1,653 | 1,819 | 1,487 | 1,739 | 1,192 | 11,691 |
| 60-64 | 67 | 104 | 153 | 147 | 112 | 854 | 849 | 1,073 | 1,083 | 768 | 911 | 1,149 | 7,270 |
| 65 & Over | 24 | 27 | 39 | 74 | 46 | 438 | 488 | 649 | 620 | 340 | 345 | 417 | 3,507 |
| **Total Count** | 4,093 | 6,350 | 6,796 | 5,836 | 3,592 | 18,203 | 13,716 | 13,053 | 11,111 | 6,031 | 4,172 | 2,835 | 95,788 |

***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 | 43,029 | 46,669 | 46,723 | 42,006 | 45,204 | 40,092 | - | - | - | - | - | - | 45,236 |
| 25-29 | 48,769 | 52,223 | 54,144 | 52,910 | 51,817 | 55,100 | 53,377 | - | - | - | - | - | 52,545 |
| 30-34 | 52,940 | 53,012 | 55,272 | 56,629 | 59,066 | 61,991 | 65,592 | 73,639 | - | - | - | - | 58,516 |
| 35-39 | 54,331 | 55,650 | 57,182 | 58,273 | 59,858 | 66,381 | 73,446 | 73,917 | 75,327 | - | - | - | 65,765 |
| 40-44 | 54,314 | 54,311 | 53,842 | 57,201 | 61,071 | 66,458 | 74,740 | 78,921 | 79,344 | 90,150 | - | - | 70,732 |
| 45-49 | 50,454 | 49,903 | 48,913 | 53,571 | 58,556 | 63,748 | 71,187 | 78,432 | 85,594 | 87,712 | 82,495 | - | 73,222 |
| 50-54 | 54,903 | 52,076 | 52,993 | 54,652 | 62,292 | 62,776 | 67,575 | 75,345 | 85,667 | 91,672 | 81,546 | 78,588 | 75,147 |
| 55-59 | 59,038 | 55,342 | 53,385 | 58,088 | 60,932 | 64,603 | 66,737 | 71,840 | 80,176 | 85,909 | 84,565 | 75,425 | 74,316 |
| 60-64 | 65,062 | 53,032 | 50,780 | 62,467 | 60,944 | 65,750 | 67,640 | 69,313 | 76,317 | 81,554 | 84,335 | 79,953 | 73,670 |
| 65 & Over | 114,084 | 66,501 | 85,985 | 81,090 | 83,969 | 68,944 | 65,243 | 63,653 | 72,986 | 82,183 | 74,899 | 81,406 | 72,449 |
| **Avg. Annual Compensation** | 51,794 | 52,565 | 53,945 | 55,990 | 58,966 | 64,276 | 70,874 | 75,414 | 82,210 | 87,679 | 82,879 | 78,226 | 68,769 |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-4a: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 1 | 2 | 4 | 13 | 94 | 30 | 144 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 6 | 10 | 16 | 19 | 37 | 322 | 491 | 901 |
| 60-64 | 0 | 0 | 0 | 0 | 1 | 7 | 14 | 18 | 39 | 31 | 191 | 351 | 652 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 4 | 19 | 15 | 65 | 159 | 271 |
| **Total Count** | 0 | 0 | 0 | 0 | 1 | 16 | 31 | 40 | 81 | 96 | 672 | 1,031 | 1,968 |

***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 | - | - | - | - | - | - | 97,548 | 39,204 | 80,577 | 72,354 | 70,487 | 70,030 | 70,594 |
| 55-59 | - | - | - | - | - | 70,946 | 98,102 | 73,591 | 90,728 | 80,908 | 81,390 | 76,696 | 78,986 |
| 60-64 | - | - | - | - | 113,820 | 118,114 | 89,262 | 95,474 | 89,595 | 84,173 | 93,270 | 90,062 | 91,164 |
| 65 & Over | - | - | - | - | - | 55,740 | 83,436 | 72,018 | 121,430 | 117,344 | 82,601 | 94,111 | 93,564 |
| **Avg. Annual Compensation** | - | - | - | - | 113,820 | 88,731 | 91,253 | 81,562 | 96,883 | 86,497 | 83,358 | 83,738 | 84,414 |

Milliman

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# Los Angeles County Employees Retirement Association

## Exhibit C-4b: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 1 | 0 | 1 |
| 50-54 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 61 | 1 | 66 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 3 | 8 | 104 | 8 | 130 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 61 | 4 | 70 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 34 | 1 | 40 |
| **Total Count** | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 4 | 9 | 13 | 261 | 14 | 307 |

***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 | - | - | - | - | - | - | - | - | - | - | 67,896 | - | 67,896 |
| 50-54 | - | - | - | - | - | - | 44,664 | - | 68,712 | 77,484 | 75,462 | 100,476 | 75,200 |
| 55-59 | - | - | - | - | - | 159,372 | 103,578 | 102,837 | 102,040 | 85,909 | 88,224 | 111,570 | 91,070 |
| 60-64 | - | - | - | - | - | - | 75,714 | - | 94,788 | 91,848 | 86,218 | 99,972 | 86,987 |
| 65 & Over | - | - | - | - | - | - | - | - | 137,524 | 124,218 | 76,184 | 72,852 | 83,103 |
| **Avg. Annual Compensation** | - | - | - | - | - | 159,372 | 80,650 | 102,837 | 105,656 | 92,069 | 83,126 | 104,698 | 85,614 |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-4c: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 1 | 0 | 0 | 2 | 5 | 0 | 8 |
| 50-54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 47 | 3 | 58 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 | 77 | 3 | 91 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 6 | 45 | 3 | 59 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 17 | 1 | 19 |
| **Total Count** | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 6 | 22 | 191 | 10 | 235 |

***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 | - | - | - | - | - | - | 53,304 | - | - | 90,690 | 61,303 | - | 67,650 |
| 50-54 | - | - | - | - | - | - | - | 104,748 | 102,660 | 81,216 | 70,227 | 88,680 | 73,472 |
| 55-59 | - | - | - | - | - | - | 105,000 | 121,188 | 106,224 | 98,426 | 90,592 | 102,756 | 92,434 |
| 60-64 | - | - | - | - | - | 42,456 | - | 83,208 | 114,008 | 94,148 | 76,006 | 156,924 | 83,451 |
| 65 & Over | - | - | - | - | - | - | - | - | - | 298,704 | 73,084 | 243,348 | 93,920 |
| **Avg. Annual Compensation** | - | - | - | - | - | 42,456 | 79,152 | 103,048 | 109,522 | 100,966 | 79,819 | 128,843 | 84,775 |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-4d: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 274 | 316 | 183 | 65 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 855 |
| 25-29 | 703 | 1,064 | 960 | 785 | 337 | 390 | 9 | 0 | 0 | 0 | 0 | 0 | 4,248 |
| 30-34 | 575 | 882 | 885 | 1,003 | 619 | 2,124 | 440 | 8 | 0 | 0 | 0 | 0 | 6,536 |
| 35-39 | 415 | 625 | 718 | 657 | 397 | 2,472 | 1,789 | 405 | 14 | 0 | 0 | 0 | 7,492 |
| 40-44 | 292 | 432 | 514 | 499 | 337 | 1,943 | 1,783 | 1,544 | 579 | 26 | 0 | 0 | 7,949 |
| 45-49 | 219 | 334 | 439 | 395 | 241 | 1,547 | 1,363 | 1,506 | 1,300 | 346 | 28 | 0 | 7,718 |
| 50-54 | 180 | 252 | 327 | 329 | 233 | 1,274 | 1,116 | 1,285 | 1,163 | 635 | 208 | 16 | 7,018 |
| 55-59 | 101 | 148 | 203 | 207 | 138 | 904 | 846 | 962 | 888 | 538 | 240 | 140 | 5,315 |
| 60-64 | 43 | 69 | 100 | 96 | 75 | 591 | 533 | 661 | 517 | 325 | 103 | 97 | 3,210 |
| 65 & Over | 14 | 8 | 24 | 33 | 31 | 278 | 274 | 371 | 306 | 151 | 41 | 13 | 1,544 |
| **Total Count** | 2,816 | 4,130 | 4,353 | 4,069 | 2,424 | 11,524 | 8,153 | 6,742 | 4,767 | 2,021 | 620 | 266 | 51,885 |

***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 | 41,948 | 40,857 | 37,677 | 36,070 | 36,181 | 40,092 | - | - | - | - | - | - | 40,074 |
| 25-29 | 48,475 | 48,348 | 48,239 | 49,410 | 47,696 | 49,576 | 50,403 | - | - | - | - | - | 48,606 |
| 30-34 | 52,026 | 50,768 | 52,348 | 54,614 | 58,131 | 59,160 | 59,702 | 77,974 | - | - | - | - | 55,742 |
| 35-39 | 53,158 | 54,602 | 56,074 | 56,500 | 57,846 | 64,454 | 68,809 | 68,114 | 71,901 | - | - | - | 62,407 |
| 40-44 | 54,653 | 53,803 | 53,461 | 57,337 | 61,511 | 66,394 | 72,077 | 73,327 | 70,347 | 85,658 | - | - | 66,639 |
| 45-49 | 51,248 | 51,595 | 50,837 | 54,679 | 59,752 | 64,720 | 71,373 | 75,413 | 79,464 | 75,420 | 84,518 | - | 68,608 |
| 50-54 | 56,517 | 50,490 | 53,488 | 56,385 | 64,238 | 65,715 | 70,304 | 75,716 | 83,506 | 80,365 | 83,029 | 85,018 | 71,268 |
| 55-59 | 56,029 | 54,613 | 54,754 | 58,442 | 61,517 | 66,553 | 68,721 | 73,958 | 82,313 | 87,136 | 88,648 | 81,353 | 72,913 |
| 60-64 | 63,063 | 51,787 | 51,249 | 65,830 | 60,076 | 66,188 | 69,667 | 71,890 | 78,905 | 87,598 | 97,934 | 95,592 | 73,093 |
| 65 & Over | 106,467 | 57,097 | 80,149 | 84,267 | 85,678 | 70,093 | 65,890 | 65,068 | 73,439 | 84,192 | 90,086 | 97,762 | 71,980 |
| **Avg. Annual Compensation** | 51,408 | 50,501 | 51,745 | 54,802 | 58,312 | 63,864 | 69,594 | 73,435 | 79,404 | 82,838 | 88,214 | 87,567 | 64,861 |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-4e: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 106 | 131 | 73 | 28 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 355 |
| 25-29 | 231 | 308 | 268 | 217 | 106 | 171 | 4 | 0 | 0 | 0 | 0 | 0 | 1,305 |
| 30-34 | 163 | 239 | 267 | 239 | 174 | 843 | 169 | 2 | 0 | 0 | 0 | 0 | 2,096 |
| 35-39 | 115 | 183 | 196 | 184 | 144 | 900 | 694 | 239 | 6 | 0 | 0 | 0 | 2,661 |
| 40-44 | 104 | 116 | 159 | 122 | 134 | 722 | 725 | 1,049 | 513 | 6 | 0 | 0 | 3,650 |
| 45-49 | 74 | 100 | 164 | 148 | 94 | 618 | 598 | 982 | 1,161 | 367 | 19 | 0 | 4,325 |
| 50-54 | 67 | 93 | 127 | 119 | 85 | 552 | 508 | 764 | 1,009 | 774 | 491 | 18 | 4,607 |
| 55-59 | 45 | 68 | 89 | 88 | 48 | 424 | 420 | 650 | 818 | 683 | 801 | 516 | 4,650 |
| 60-64 | 24 | 33 | 50 | 51 | 34 | 246 | 289 | 392 | 519 | 390 | 498 | 686 | 3,212 |
| 65 & Over | 10 | 19 | 15 | 41 | 15 | 156 | 202 | 272 | 292 | 171 | 188 | 241 | 1,622 |
| **Total Count** | 939 | 1,290 | 1,408 | 1,237 | 851 | 4,632 | 3,609 | 4,350 | 4,318 | 2,391 | 1,997 | 1,461 | 28,483 |

***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 | 37,493 | 36,118 | 33,651 | 34,584 | 36,644 | - | - | - | - | - | - | - | 35,925 |
| 25-29 | 42,656 | 43,827 | 42,207 | 44,197 | 44,326 | 46,203 | 45,009 | - | - | - | - | - | 43,704 |
| 30-34 | 52,240 | 47,600 | 45,400 | 49,443 | 50,383 | 51,635 | 52,380 | 47,946 | - | - | - | - | 50,130 |
| 35-39 | 55,765 | 50,908 | 48,322 | 54,273 | 57,060 | 55,655 | 61,796 | 58,415 | 62,270 | - | - | - | 56,638 |
| 40-44 | 52,054 | 48,304 | 46,862 | 49,602 | 50,574 | 53,755 | 64,574 | 65,058 | 61,230 | 75,564 | - | - | 59,461 |
| 45-49 | 46,837 | 42,233 | 41,124 | 48,462 | 49,291 | 55,015 | 61,414 | 70,650 | 71,764 | 65,044 | 56,463 | - | 63,492 |
| 50-54 | 48,375 | 54,177 | 49,992 | 49,685 | 50,905 | 53,929 | 58,067 | 68,294 | 77,408 | 72,741 | 64,343 | 60,579 | 65,856 |
| 55-59 | 64,875 | 54,199 | 47,585 | 57,256 | 54,660 | 59,177 | 59,872 | 67,262 | 74,403 | 75,231 | 71,436 | 66,894 | 68,052 |
| 60-64 | 68,644 | 52,058 | 46,059 | 56,135 | 59,488 | 61,232 | 61,002 | 63,666 | 71,848 | 74,760 | 77,423 | 71,297 | 69,152 |
| 65 & Over | 124,747 | 70,461 | 95,321 | 78,533 | 80,438 | 67,058 | 61,443 | 61,436 | 68,697 | 75,568 | 68,856 | 69,706 | 68,281 |
| **Avg. Annual Compensation** | 49,724 | 46,922 | 45,365 | 50,622 | 51,580 | 54,990 | 60,999 | 66,493 | 72,121 | 72,809 | 70,800 | 69,348 | 62,139 |

Milliman

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# Los Angeles County Employees Retirement Association

## Exhibit C-4f: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 1 | 2 | 12 | 57 | 5 | 77 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 13 | 101 | 29 | 147 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 16 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| **Total Count** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 25 | 166 | 44 | 242 |

***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 | - | - | - | - | - | - | - | 107,244 | 125,052 | 118,852 | 128,496 | 130,879 | 126,782 |
| 55-59 | - | - | - | - | - | - | 114,576 | 91,404 | 105,168 | 122,895 | 137,391 | 155,679 | 138,811 |
| 60-64 | - | - | - | - | - | - | - | - | - | - | 137,728 | 150,216 | 143,972 |
| 65 & Over | - | - | - | - | - | - | - | - | - | - | - | 298,140 | 298,140 |
| **Avg. Annual Compensation** | - | - | - | - | - | - | 114,576 | 99,324 | 115,110 | 120,954 | 134,353 | 158,343 | 136,641 |

Milliman

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# Los Angeles County Employees Retirement Association

## Exhibit C-4g: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 80 | 152 | 102 | 21 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 366 |
| 25-29 | 124 | 403 | 442 | 201 | 87 | 155 | 2 | 0 | 0 | 0 | 0 | 0 | 1,414 |
| 30-34 | 72 | 193 | 270 | 167 | 91 | 644 | 213 | 1 | 0 | 0 | 0 | 0 | 1,651 |
| 35-39 | 38 | 107 | 132 | 87 | 48 | 654 | 817 | 225 | 6 | 0 | 0 | 0 | 2,114 |
| 40-44 | 13 | 52 | 62 | 38 | 43 | 374 | 569 | 977 | 477 | 8 | 0 | 0 | 2,613 |
| 45-49 | 5 | 12 | 14 | 12 | 17 | 142 | 212 | 507 | 936 | 410 | 12 | 0 | 2,279 |
| 50-54 | 5 | 5 | 5 | 4 | 11 | 37 | 63 | 180 | 416 | 830 | 154 | 4 | 1,714 |
| 55-59 | 1 | 4 | 5 | 0 | 6 | 13 | 22 | 19 | 87 | 201 | 94 | 5 | 457 |
| 60-64 | 0 | 2 | 3 | 0 | 2 | 9 | 11 | 1 | 4 | 14 | 5 | 0 | 51 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 2 | 0 | 0 | 0 | 0 | 9 |
| **Total Count** | 338 | 930 | 1,035 | 530 | 316 | 2,029 | 1,915 | 1,912 | 1,926 | 1,463 | 265 | 9 | 12,668 |

***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 | 54,064 | 67,847 | 72,307 | 70,276 | 71,558 | - | - | - | - | - | - | - | 66,328 |
| 25-29 | 61,827 | 68,871 | 74,208 | 75,987 | 76,909 | 78,816 | 83,496 | - | - | - | - | - | 72,539 |
| 30-34 | 61,816 | 69,968 | 74,621 | 79,017 | 82,029 | 84,884 | 88,242 | 90,336 | - | - | - | - | 80,142 |
| 35-39 | 62,797 | 69,884 | 76,366 | 80,121 | 84,894 | 88,427 | 93,497 | 100,829 | 96,380 | - | - | - | 89,154 |
| 40-44 | 64,783 | 71,932 | 74,903 | 79,811 | 90,332 | 91,312 | 96,037 | 102,647 | 109,747 | 115,687 | - | - | 98,929 |
| 45-49 | 69,230 | 66,714 | 79,807 | 80,083 | 92,822 | 91,160 | 97,640 | 102,472 | 111,262 | 118,360 | 129,038 | - | 107,336 |
| 50-54 | 84,245 | 92,947 | 96,857 | 59,895 | 109,047 | 93,570 | 95,775 | 102,687 | 111,641 | 117,979 | 129,632 | 119,691 | 114,117 |
| 55-59 | 100,272 | 101,736 | 101,016 | - | 97,656 | 95,838 | 100,016 | 109,548 | 108,416 | 117,001 | 131,155 | 125,359 | 116,041 |
| 60-64 | - | 112,056 | 113,864 | - | 91,836 | 122,321 | 114,799 | 94,152 | 159,195 | 117,823 | 117,862 | - | 119,271 |
| 65 & Over | - | - | - | - | - | 83,208 | 145,450 | 85,878 | - | - | - | - | 125,296 |
| **Avg. Annual Compensation** | 60,765 | 69,555 | 74,875 | 77,640 | 83,700 | 87,580 | 94,550 | 102,431 | 110,893 | 117,937 | 129,923 | 122,840 | 95,247 |

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, 2009 All Plans

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 12 | 28 | 73 | 120 | $ 1,400 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 60 | 54 | 122 | 2,634 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 1 | 25 | 87 | 131 | 101 | 345 | 2,791 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 11 | 80 | 162 | 175 | 142 | 570 | 2,705 |
| 50-54 | 0 | 0 | 0 | 1 | 21 | 55 | 123 | 148 | 182 | 547 | 1,077 | 2,467 |
| 55-59 | 0 | 0 | 0 | 28 | 84 | 109 | 142 | 209 | 681 | 2,232 | 3,485 | 3,425 |
| 60-64 | 0 | 1 | 16 | 143 | 231 | 196 | 274 | 955 | 2,961 | 3,429 | 8,206 | 3,992 |
| 65-69 | 1 | 3 | 41 | 176 | 243 | 272 | 996 | 2,355 | 3,295 | 2,797 | 10,179 | 3,837 |
| 70-74 | 1 | 28 | 62 | 187 | 260 | 796 | 1,934 | 2,153 | 2,179 | 1,218 | 8,818 | 3,364 |
| 75-79 | 16 | 49 | 109 | 223 | 851 | 1,328 | 2,117 | 1,489 | 883 | 612 | 7,677 | 3,041 |
| 80-84 | 29 | 55 | 114 | 678 | 1,233 | 1,274 | 1,264 | 621 | 450 | 430 | 6,148 | 2,736 |
| 85-89 | 30 | 44 | 244 | 825 | 967 | 815 | 422 | 295 | 299 | 273 | 4,214 | 2,428 |
| 90-94 | 17 | 44 | 209 | 465 | 384 | 101 | 98 | 103 | 130 | 90 | 1,641 | 2,120 |
| 95-99 | 12 | 47 | 98 | 145 | 34 | 3 | 19 | 20 | 19 | 11 | 408 | 1,957 |
| 100 & Over | 6 | 7 | 18 | 2 | 0 | 0 | 1 | 4 | 12 | 9 | 59 | 1,283 |
| **Total Count** | 112 | 278 | 911 | 2,873 | 4,310 | 4,961 | 7,501 | 8,620 | 11,485 | 12,018 | **53,069** | |
| **Avg Monthly Benefit** | $ 1,344 | $ 1,536 | $ 1,892 | $ 2,349 | $ 2,448 | $ 2,874 | $ 3,475 | $ 3,305 | $ 3,823 | $ 3,452 | | **$ 3,275** |

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, 2009 General Plan A

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 6 | 22 | 33 | $ 1,305 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 6 | 1,912 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 10 | 1,761 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 7 | 14 | 1,714 |
| 50-54 | 0 | 0 | 0 | 0 | 4 | 7 | 3 | 11 | 14 | 49 | 88 | 2,323 |
| 55-59 | 0 | 0 | 0 | 16 | 33 | 25 | 26 | 37 | 252 | 509 | 898 | 3,340 |
| 60-64 | 0 | 1 | 9 | 64 | 79 | 63 | 93 | 540 | 1,105 | 1,473 | 3,427 | 4,235 |
| 65-69 | 1 | 0 | 21 | 92 | 101 | 115 | 690 | 1,110 | 1,874 | 817 | 4,821 | 4,223 |
| 70-74 | 0 | 14 | 36 | 112 | 131 | 612 | 1,232 | 1,377 | 958 | 346 | 4,818 | 3,660 |
| 75-79 | 5 | 22 | 64 | 144 | 643 | 923 | 1,694 | 834 | 335 | 268 | 4,932 | 3,172 |
| 80-84 | 13 | 28 | 69 | 502 | 915 | 1,089 | 975 | 337 | 259 | 262 | 4,449 | 2,688 |
| 85-89 | 15 | 30 | 185 | 685 | 902 | 728 | 307 | 211 | 228 | 218 | 3,509 | 2,366 |
| 90-94 | 8 | 27 | 179 | 451 | 376 | 94 | 74 | 87 | 109 | 78 | 1,483 | 2,087 |
| 95-99 | 9 | 32 | 91 | 145 | 34 | 2 | 17 | 19 | 16 | 9 | 374 | 1,867 |
| 100 & Over | 4 | 7 | 18 | 2 | 0 | 0 | 1 | 4 | 8 | 5 | 49 | 1,435 |
| **Total Count** | 55 | 161 | 672 | 2,213 | 3,218 | 3,659 | 5,116 | 4,575 | 5,171 | 4,071 | **28,911** | |
| **Avg Monthly Benefit** | $ 1,135 | $ 1,133 | $ 1,492 | $ 2,011 | $ 2,062 | $ 2,610 | $ 3,463 | $ 3,380 | $ 4,392 | $ 4,372 | | **$ 3,306** |

# Los Angeles County Employees Retirement Association

## Exhibit C-5b: Distribution of Retired Members by Age and Retirement Year as of June 30, 2009 General Plan B

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| 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 | 1 | 1 | 1,628 |
| 50-54 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 14 | 16 | 1,547 |
| 55-59 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 | 13 | 23 | 42 | 2,629 |
| 60-64 | 0 | 0 | 0 | 0 | 3 | 5 | 4 | 13 | 27 | 55 | 107 | 3,019 |
| 65-69 | 0 | 0 | 0 | 0 | 1 | 4 | 6 | 17 | 49 | 31 | 108 | 3,044 |
| 70-74 | 0 | 0 | 0 | 0 | 2 | 2 | 9 | 26 | 44 | 18 | 101 | 2,903 |
| 75-79 | 0 | 0 | 0 | 0 | 1 | 12 | 15 | 33 | 13 | 12 | 86 | 2,142 |
| 80-84 | 0 | 0 | 0 | 0 | 3 | 10 | 34 | 14 | 8 | 2 | 71 | 1,633 |
| 85-89 | 0 | 0 | 0 | 0 | 1 | 15 | 9 | 2 | 2 | 3 | 32 | 1,360 |
| 90-94 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 2 | 0 | 0 | 7 | 617 |
| 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 | 0 | 16 | 51 | 80 | 109 | 156 | 159 | **571** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ - | $ 1,024 | $ 988 | $ 1,480 | $ 1,998 | $ 2,858 | $ 3,654 | | **$ 2,504** |



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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, 2009 General Plan C

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| 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 | 1 | 0 | 1 | 3,657 |
| 50-54 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 0 | 7 | 12 | 1,082 |
| 55-59 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 3 | 10 | 16 | 37 | 2,043 |
| 60-64 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 6 | 19 | 23 | 54 | 2,092 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 9 | 20 | 27 | 69 | 2,166 |
| 70-74 | 0 | 0 | 0 | 0 | 0 | 7 | 12 | 15 | 30 | 11 | 75 | 2,046 |
| 75-79 | 0 | 0 | 0 | 0 | 1 | 7 | 10 | 20 | 14 | 7 | 59 | 1,941 |
| 80-84 | 0 | 0 | 0 | 0 | 3 | 7 | 20 | 4 | 5 | 5 | 44 | 1,168 |
| 85-89 | 0 | 0 | 0 | 0 | 2 | 7 | 6 | 1 | 1 | 3 | 20 | 1,317 |
| 90-94 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 3 | 930 |
| 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 | 1 | 12 | 39 | 63 | 59 | 101 | 99 | **374** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ 1,472 | $ 899 | $ 846 | $ 1,192 | $ 1,690 | $ 2,322 | $ 2,510 | | **$ 1,880** |

Milliman

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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, 2009 General Plan D

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 10 | 16 | 30 | $ 926 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 14 | 12 | 30 | 1,538 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 27 | 26 | 61 | 1,836 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 36 | 52 | 44 | 142 | 1,737 |
| 50-54 | 0 | 0 | 0 | 0 | 2 | 7 | 25 | 41 | 61 | 306 | 442 | 1,554 |
| 55-59 | 0 | 0 | 0 | 1 | 4 | 16 | 30 | 55 | 240 | 454 | 800 | 1,722 |
| 60-64 | 0 | 0 | 0 | 0 | 2 | 16 | 37 | 176 | 317 | 644 | 1,192 | 2,097 |
| 65-69 | 0 | 0 | 0 | 0 | 5 | 14 | 63 | 179 | 377 | 754 | 1,392 | 2,307 |
| 70-74 | 0 | 0 | 0 | 0 | 4 | 21 | 62 | 181 | 420 | 375 | 1,063 | 1,916 |
| 75-79 | 0 | 0 | 0 | 0 | 3 | 19 | 62 | 227 | 222 | 119 | 652 | 1,712 |
| 80-84 | 0 | 0 | 0 | 0 | 7 | 13 | 79 | 110 | 46 | 46 | 301 | 1,434 |
| 85-89 | 0 | 0 | 0 | 0 | 4 | 17 | 37 | 21 | 13 | 10 | 102 | 1,199 |
| 90-94 | 0 | 0 | 0 | 0 | 1 | 2 | 7 | 2 | 3 | 3 | 18 | 1,103 |
| 95-99 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1,089 |
| 100 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 388 |
| **Total Count** | 0 | 0 | 0 | 1 | 32 | 125 | 418 | 1,039 | 1,803 | 2,810 | **6,228** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ 2,293 | $ 1,157 | $ 1,240 | $ 1,320 | $ 1,554 | $ 1,863 | $ 2,213 | | **$ 1,917** |

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, 2009 General Plan E

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 10 | 13 | $ 356 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 868 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 10 | 752 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 5 | 1,147 |
| 50-54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 13 | 663 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 8 | 567 | 580 | 620 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 501 | 752 | 1,262 | 1,021 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 304 | 475 | 1,107 | 1,891 | 1,727 |
| 70-74 | 0 | 0 | 0 | 0 | 0 | 1 | 119 | 263 | 671 | 414 | 1,468 | 1,569 |
| 75-79 | 0 | 0 | 0 | 0 | 1 | 46 | 121 | 337 | 237 | 135 | 877 | 1,214 |
| 80-84 | 0 | 0 | 0 | 0 | 4 | 32 | 133 | 124 | 71 | 59 | 423 | 1,089 |
| 85-89 | 0 | 0 | 0 | 0 | 4 | 44 | 53 | 31 | 22 | 11 | 165 | 717 |
| 90-94 | 0 | 0 | 0 | 0 | 3 | 3 | 10 | 5 | 1 | 3 | 25 | 745 |
| 95-99 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 239 |
| 100 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 6 | 423 |
| **Total Count** | 0 | 0 | 0 | 0 | 12 | 127 | 443 | 1,078 | 1,997 | 3,084 | **6,741** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ - | $ 381 | $ 371 | $ 697 | $ 882 | $ 1,312 | $ 1,615 | | **$ 1,322** |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-5f: Distribution of Retired Members by Age and Retirement Year as of June 30, 2009 Safety Plan A

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 1 | 7 | $ 2,046 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 5 | 4,786 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 4 | 3,686 |
| 50-54 | 0 | 0 | 0 | 1 | 4 | 2 | 3 | 7 | 7 | 11 | 35 | 4,468 |
| 55-59 | 0 | 0 | 0 | 10 | 35 | 37 | 37 | 72 | 89 | 393 | 673 | 6,871 |
| 60-64 | 0 | 0 | 7 | 79 | 135 | 98 | 118 | 184 | 929 | 368 | 1,918 | 6,713 |
| 65-69 | 0 | 3 | 20 | 84 | 135 | 135 | 215 | 730 | 471 | 54 | 1,847 | 6,265 |
| 70-74 | 1 | 14 | 26 | 75 | 123 | 152 | 496 | 289 | 55 | 54 | 1,285 | 5,620 |
| 75-79 | 11 | 27 | 45 | 79 | 201 | 320 | 211 | 38 | 60 | 70 | 1,062 | 4,906 |
| 80-84 | 16 | 27 | 45 | 176 | 300 | 123 | 23 | 32 | 61 | 56 | 859 | 4,425 |
| 85-89 | 15 | 14 | 59 | 140 | 54 | 4 | 10 | 29 | 33 | 28 | 386 | 4,194 |
| 90-94 | 9 | 17 | 30 | 14 | 0 | 0 | 6 | 7 | 16 | 6 | 105 | 3,228 |
| 95-99 | 3 | 15 | 7 | 0 | 0 | 0 | 1 | 1 | 3 | 1 | 31 | 3,183 |
| 100 & Over | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1,042 |
| **Total Count** | 57 | 117 | 239 | 658 | 989 | 871 | 1,123 | 1,392 | 1,731 | 1,042 | **8,219** | |
| **Avg Monthly Benefit** | $ 1,545 | $ 2,091 | $ 3,014 | $ 3,487 | $ 3,832 | $ 4,865 | $ 5,856 | $ 6,480 | $ 7,376 | $ 7,517 | | **$ 5,788** |

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, 2009 Safety Plan B

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 9 | 24 | 37 | $ 2,112 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 45 | 37 | 85 | 3,092 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 80 | 96 | 63 | 259 | 3,095 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 11 | 68 | 122 | 115 | 87 | 403 | 3,090 |
| 50-54 | 0 | 0 | 0 | 0 | 10 | 37 | 90 | 87 | 97 | 150 | 471 | 3,319 |
| 55-59 | 0 | 0 | 0 | 0 | 9 | 26 | 45 | 36 | 69 | 270 | 455 | 5,254 |
| 60-64 | 0 | 0 | 0 | 0 | 9 | 12 | 19 | 29 | 63 | 114 | 246 | 4,661 |
| 65-69 | 0 | 0 | 0 | 0 | 1 | 1 | 7 | 6 | 29 | 7 | 51 | 3,295 |
| 70-74 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 1 | 0 | 8 | 2,625 |
| 75-79 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 0 | 2 | 1 | 9 | 1,218 |
| 80-84 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1,068 |
| 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 | 0 | 31 | 89 | 258 | 368 | 526 | 753 | **2,025** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ - | $ 1,913 | $ 2,115 | $ 2,793 | $ 3,040 | $ 3,367 | $ 5,089 | | **$ 3,797** |



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# Los Angeles County Employees Retirement Association

## 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 A | Plan B |
| 16 | 2.41% | 4.82% | 4.08% | 4.08% | 3.59% | 7.17% |
| 17 | 2.46% | 4.92% | 4.16% | 4.16% | 3.59% | 7.17% |
| 18 | 2.51% | 5.02% | 4.25% | 4.25% | 3.59% | 7.17% |
| 19 | 2.56% | 5.12% | 4.34% | 4.34% | 3.65% | 7.31% |
| 20 | 2.62% | 5.23% | 4.43% | 4.43% | 3.72% | 7.44% |
| 21 | 2.67% | 5.34% | 4.52% | 4.52% | 3.79% | 7.58% |
| 22 | 2.72% | 5.45% | 4.62% | 4.62% | 3.86% | 7.72% |
| 23 | 2.78% | 5.56% | 4.71% | 4.71% | 3.93% | 7.87% |
| 24 | 2.84% | 5.68% | 4.81% | 4.81% | 4.01% | 8.01% |
| 25 | 2.90% | 5.79% | 4.91% | 4.91% | 4.08% | 8.16% |
| 26 | 2.96% | 5.91% | 5.01% | 5.01% | 4.16% | 8.32% |
| 27 | 3.02% | 6.03% | 5.11% | 5.11% | 4.24% | 8.47% |
| 28 | 3.08% | 6.16% | 5.22% | 5.22% | 4.32% | 8.63% |
| 29 | 3.14% | 6.29% | 5.33% | 5.33% | 4.40% | 8.80% |
| 30 | 3.21% | 6.42% | 5.44% | 5.44% | 4.48% | 8.97% |
| 31 | 3.28% | 6.55% | 5.55% | 5.55% | 4.57% | 9.14% |
| 32 | 3.34% | 6.69% | 5.66% | 5.66% | 4.66% | 9.32% |
| 33 | 3.41% | 6.83% | 5.78% | 5.78% | 4.75% | 9.51% |
| 34 | 3.49% | 6.97% | 5.90% | 5.90% | 4.85% | 9.70% |
| 35 | 3.56% | 7.12% | 6.02% | 6.02% | 4.95% | 9.89% |
| 36 | 3.64% | 7.28% | 6.15% | 6.15% | 5.04% | 10.09% |
| 37 | 3.72% | 7.43% | 6.28% | 6.28% | 5.14% | 10.28% |
| 38 | 3.79% | 7.59% | 6.41% | 6.41% | 5.23% | 10.46% |
| 39 | 3.87% | 7.75% | 6.55% | 6.55% | 5.32% | 10.64% |
| 40 | 3.95% | 7.90% | 6.69% | 6.69% | 5.41% | 10.82% |
| 41 | 4.03% | 8.06% | 6.83% | 6.83% | 5.50% | 10.99% |
| 42 | 4.10% | 8.21% | 6.97% | 6.97% | 5.58% | 11.15% |
| 43 | 4.18% | 8.36% | 7.12% | 7.12% | 5.65% | 11.31% |
| 44 | 4.25% | 8.50% | 7.27% | 7.27% | 5.72% | 11.44% |
| 45 | 4.32% | 8.64% | 7.42% | 7.42% | 5.77% | 11.54% |
| 46 | 4.39% | 8.78% | 7.56% | 7.56% | 5.80% | 11.59% |
| 47 | 4.45% | 8.91% | 7.70% | 7.70% | 5.80% | 11.59% |
| 48 | 4.52% | 9.03% | 7.84% | 7.84% | 5.80% | 11.59% |
| 49 | 4.57% | 9.14% | 7.98% | 7.98% | 5.80% | 11.59% |
| 50 | 4.61% | 9.21% | 8.11% | 8.11% | 5.80% | 11.59% |
| 51 | 4.63% | 9.26% | 8.24% | 8.24% | 5.80% | 11.59% |
| 52 | 4.63% | 9.26% | 8.36% | 8.36% | 5.80% | 11.59% |
| 53 | 4.63% | 9.26% | 8.47% | 8.47% | 5.80% | 11.59% |
| 54 | 4.63% | 9.26% | 8.57% | 8.57% | 5.80% | 11.59% |
| 55 | 4.63% | 9.26% | 8.65% | 8.65% | 5.80% | 11.59% |
| 56 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |
| 57 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |
| 58 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |
| 59 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |
| 60 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |

*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.*

# 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 A | Plan B |
| 16 | 4.33% | 5.89% | 5.06% | 4.98% | 7.23% | 9.42% |
| 17 | 4.42% | 6.02% | 5.16% | 5.07% | 7.23% | 9.42% |
| 18 | 4.51% | 6.14% | 5.27% | 5.18% | 7.23% | 9.42% |
| 19 | 4.60% | 6.26% | 5.38% | 5.29% | 7.35% | 9.61% |
| 20 | 4.70% | 6.40% | 5.49% | 5.40% | 7.49% | 9.78% |
| 21 | 4.79% | 6.53% | 5.60% | 5.51% | 7.63% | 9.96% |
| 22 | 4.88% | 6.66% | 5.73% | 5.64% | 7.77% | 10.14% |
| 23 | 4.99% | 6.80% | 5.84% | 5.74% | 7.91% | 10.34% |
| 24 | 5.10% | 6.95% | 5.96% | 5.87% | 8.07% | 10.53% |
| 25 | 5.21% | 7.08% | 6.09% | 5.99% | 8.21% | 10.72% |
| 26 | 5.32% | 7.23% | 6.21% | 6.11% | 8.37% | 10.93% |
| 27 | 5.42% | 7.37% | 6.33% | 6.23% | 8.53% | 11.13% |
| 28 | 5.53% | 7.53% | 6.47% | 6.37% | 8.69% | 11.34% |
| 29 | 5.64% | 7.69% | 6.61% | 6.50% | 8.86% | 11.56% |
| 30 | 5.76% | 7.85% | 6.74% | 6.64% | 9.02% | 11.79% |
| 31 | 5.89% | 8.01% | 6.88% | 6.77% | 9.20% | 12.01% |
| 32 | 6.00% | 8.18% | 7.02% | 6.90% | 9.38% | 12.25% |
| 33 | 6.12% | 8.35% | 7.17% | 7.05% | 9.56% | 12.50% |
| 34 | 6.27% | 8.52% | 7.31% | 7.20% | 9.76% | 12.75% |
| 35 | 6.39% | 8.71% | 7.46% | 7.34% | 9.96% | 13.00% |
| 36 | 6.54% | 8.90% | 7.62% | 7.50% | 10.14% | 13.26% |
| 37 | 6.68% | 9.09% | 7.79% | 7.66% | 10.35% | 13.51% |
| 38 | 6.81% | 9.28% | 7.95% | 7.82% | 10.53% | 13.74% |
| 39 | 6.95% | 9.48% | 8.12% | 7.99% | 10.71% | 13.98% |
| 40 | 7.09% | 9.66% | 8.29% | 8.16% | 10.89% | 14.22% |
| 41 | 7.24% | 9.86% | 8.47% | 8.33% | 11.07% | 14.44% |
| 42 | 7.36% | 10.04% | 8.64% | 8.50% | 11.23% | 14.65% |
| 43 | 7.51% | 10.22% | 8.83% | 8.68% | 11.37% | 14.86% |
| 44 | 7.63% | 10.39% | 9.01% | 8.87% | 11.51% | 15.03% |
| 45 | 7.76% | 10.57% | 9.20% | 9.05% | 11.61% | 15.16% |
| 46 | 7.88% | 10.74% | 9.37% | 9.22% | 11.67% | 15.23% |
| 47 | 7.99% | 10.90% | 9.55% | 9.39% | 11.67% | 15.23% |
| 48 | 8.12% | 11.04% | 9.72% | 9.56% | 11.67% | 15.23% |
| 49 | 8.21% | 11.18% | 9.89% | 9.73% | 11.67% | 15.23% |
| 50 | 8.28% | 11.26% | 10.05% | 9.89% | 11.67% | 15.23% |
| 51 | 8.31% | 11.32% | 10.22% | 10.05% | 11.67% | 15.23% |
| 52 | 8.31% | 11.32% | 10.36% | 10.20% | 11.67% | 15.23% |
| 53 | 8.31% | 11.32% | 10.50% | 10.33% | 11.67% | 15.23% |
| 54 | 8.31% | 11.32% | 10.62% | 10.45% | 11.67% | 15.23% |
| 55 | 8.31% | 11.32% | 10.72% | 10.55% | 11.67% | 15.23% |
| 56 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |
| 57 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |
| 58 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |
| 59 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |
| 60 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |

*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.*



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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 |


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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 |


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# Los Angeles County Employees Retirement Association

## Exhibit E-3: Contribution Rates

| | General Members | | | | | Safety Members | | | | | Total All Members | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Valuation Date (June 30) | Calculated Normal Cost | Member Contributions | Net County Normal Cost | UAAL Rate | Total Annual Contribution | Calculated Normal Cost | Member Contributions | Net County Normal Cost | UAAL Rate | Total Annual Contribution | Calculated Normal Cost | Member Contributions | Net County Normal Cost | UAAL Rate | Total Annual 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% |

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# Los Angeles County Employees Retirement Association

## 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.

| | |
|---|---|
| **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 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. |
| **Member Reserve** | The accumulation of member contributions. Additions include member contributions and related earnings. Deductions include annuity payments to retirees and refunds to members. |


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| | |
|---|---|
| **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. |
| **Open Amortization Period** | As discussed in the Actuarial Cost Method section of Appendix C, LACERA uses an open (often referred to as "rolling") 30-year amortization period. That is, the amortization begins again or is recalculated at each valuation date. This is as opposed to a closed (or "fixed") amortization period which is a specific number of years that is counted from one date and declines to zero with the passage of time. |
| **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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# Los Angeles County Employees Retirement Association

# ACTUARIAL VALUATION
**June 30, 2009**

By

Karen I. Steffen

Fellow, Society of Actuaries
Member, American Academy of Actuaries

and

Nick J. Collier

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February 26, 2010

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

Dear Members of the Board:

As requested, we have made an actuarial valuation of the Los Angeles County Employees Retirement Association (LACERA) as of June 30, 2009 for determining the contribution rates effective July 1, 2010. 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, 2009, and LACERA's new funding policy that was adopted in December of 2009. It should be noted that under this policy, the reserve value for STAR benefits is included in the 2009 valuation assets; however, the liability for any potential STAR benefits 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.

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 which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

We further certify that all costs, liabilities, rates of interest, and other factors for LACERA have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of LACERA and reasonable expectations) and which, in combination, offer a reasonable estimate of anticipated experience affecting LACERA. Nevertheless, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions. The Board of Investments has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A.

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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 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.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for LACERA. Actuarial computations under GASB Statement No. 25 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 Statement No. 25. 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.

Milliman's work product was prepared exclusively for LACERA for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning LACERA's operations, and uses LACERA's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

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,

Karen I. Steffen, FSA, EA, MAAA
Consulting Actuary

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

KIS/NJC/nlo

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# Los Angeles County Employees Retirement Association

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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

### 2009 Valuation Results

| | June 30, 2009 | June 30, 2008 |
|---|---|---|
| Required County Contribution Rate | 14.22% | 12.08% |
| Funded Ratio | 88.9% | 94.5% |

### Overview

We are pleased to present the results of the June 30, 2009 actuarial valuation. This valuation determines the required contribution rates payable starting July 1, 2010. Several key points are summarized as follows:

- **Investment Returns:** For the fiscal year ending in 2009, the fund returned a negative 18.3% on a market basis, significantly less than the assumed rate of 7.75%. In total, there was a $2.47 billion loss on actuarial assets. The large recognized asset loss has the largest impact of any factors affecting this year's valuation results.

  Note that currently a $9.8 billion net investment loss is being deferred. This is because the asset-smoothing method has recognized only one-fifth of the loss from last year. This loss will be reflected over the next four valuations under the current asset-smoothing method.

- **New Funding Policy:** The Board of Investments adopted a new Funding Policy at their December, 2009 meeting. The most significant change from the last valuation included in the new policy was the implementation of five-year smoothing on asset gains and losses. This change resulted in a higher Funded Ratio and a lower contribution rate than would have been calculated under the previous three-year smoothing period. Other material changes are the inclusion of the STAR reserves as a valuation asset (subject to periodic review) and the adoption of a 30-year layered amortization period.

- **Funding:** The Funded Ratio decreased from 94.5% to 88.9%. The recognition of significant investment losses caused a 5.5% decrease (after reflecting the new Funding Policy) in the Funded Ratio. All other factors had only a minor impact, causing a 0.1% decrease in total.


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**Overview (continued)**

- **Contribution Rates:** The County Normal Cost rate increased slightly from 10.09% to 10.10%. The County's required contribution rate to finance the Unfunded Actuarial Accrued Liability (UAAL) over 30 years increased from 1.99% to 4.12%. The result is an increase in the required total employer contribution rate from the prior valuation of 2.14% (from 12.08% to 14.22% of payroll). The most important factor causing this increase was the recognition of investment losses combined with the new Funding Policy, which resulted in a 2.15% increase. All other factors had only a minor impact, causing a 0.01% decrease in total. There are no recommended changes to member contribution rates.

**Required Contribution Rate**

In accordance with the LACERA's Funding Policy, the required County contribution rate is 14.22% of payroll. This is equal to the payment of the County Normal Cost rate plus a 30-year amortization of the UAAL. It should be noted that the 14.22% is a weighted average for all LACERA plans. The actual percent of payroll to be contributed by the County varies by plan as shown in Exhibit 11.

The new required rate is effective for the fiscal year beginning July 1, 2010. The 14.22% contribution rate is currently adequate to maintain the funding of the retirement system benefits based on the actuarial methods and assumptions used and satisfies the Funding Policy adopted by the Board of Investments.

## Analysis of Change

The following chart shows that the asset loss was the most significant factor affecting the County contribution rate and the funded status. Note that the impact of the asset loss would have been much greater if it had not been offset somewhat by the change in asset smoothing method (from three-year smoothing to five-year smoothing), as well as by the inclusion of the STAR reserves in the valuation assets.

| Sources of Change | County Contribution Rate | Funded Ratio |
|---|---|---|
| **June 30, 2008 Actuarial Valuation** | **12.08%** | **94.5%** |
| Expected Year-to-Year Change | -0.04% | 0.4% |
| Asset Gain/Loss | | |
| Investment Return (Actuarial) | 3.91% | -10.2% |
| Move to 5-Year Smoothing | -1.16% | 3.0% |
| Inclusion of STAR Reserves | -0.52% | 1.4% |
| Contingency Based on Market | -0.08% | 0.3% |
| Combined Asset Gain/Loss | 2.15% | -5.5% |
| Liability Gain/Loss | | |
| Salary / Payroll Variation | 0.21% | -0.8% |
| Retiree COLAs < Expected | 0.00% | 0.0% |
| Assumption Changes | 0.00% | 0.0% |
| Other | -0.18% | 0.3% |
| Combined Liability Gain/Loss | 0.03% | -0.5% |
| **Total Change** | **2.14%** | **-5.6%** |
| **June 30, 2009 Actuarial Valuation** | **14.22%** | **88.9%** |

## Funding Progress

Based on the 2008 valuation, the expected funding status as of June 30, 2009 was a UAAL amount of $2.25 billion. The actual UAAL for the fiscal year ending June 30, 2009 is $4.93 billion. The increase was primarily due to a net loss on valuation assets of $2.47 billion.

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 had maintained a Funded Ratio of approximately 100% for 1996-2002. The Funded Ratio decreased significantly in 2003 and 2004 due to asset losses from earlier in the decade being recognized. Strong investment returns in subsequent years had resulted in an increase in the Funded Ratio to 94.5%. This year the Funded Ratio has decreased to 88.9% due to the recognition of significant asset losses (both current and deferred), as shown in the graph on the following page.

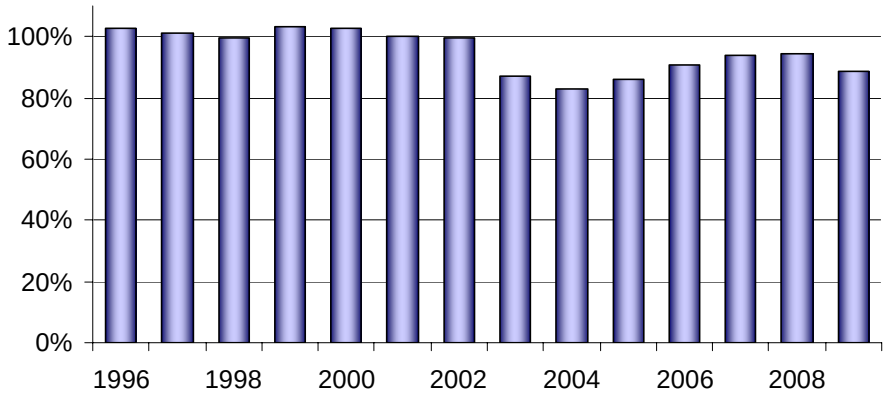
**Funding Progress (continued)**

On June 30, 2009, the total Market Value of the fund was $30.5 billion. The Actuarial Value was $40.3 billion and was split between $0.8 billion of Non-Valuation Assets and $39.5 billion of Valuation Assets. The Valuation Assets are equal to 88.9% of the $44.5 billion AAL. The Actuarial Value of Assets is 132% 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 | | |
| 2000 | $ 31.6 | $ 4.3 | $ 25.4 | $ 24.7 | 102.9% |
| 2001 | 28.4 | 4.4 | 26.5 | 26.5 | 100.0 |
| 2002 | 26.0 | 2.0 | 28.3 | 28.4 | 99.4 |
| 2003 | 26.2 | 1.6 | 26.6 | 30.5 | 87.2 |
| 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 |

**Historical Funded Ratios**



**Association Assets**

Market Value: The market value of assets has increased slightly over the past ten years. The average return for the fund over that period is estimated to be 4.1%; however, due to benefit payments being greater than contributions, the total increase in the market value 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 1.5%.

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**

As noted earlier, the smoothing method is currently deferring $9.8 billion in asset losses. As these losses are recognized over the next four valuations, it is expected there will be significant increases in the required County contribution rate (unless there are large offsetting asset gains in the near future).

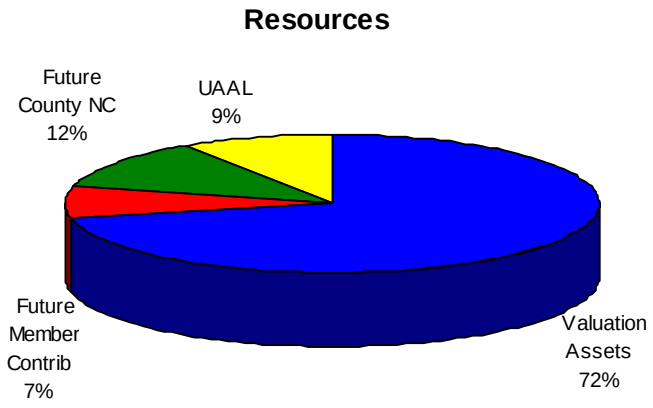
The potential future impact of the recognition of these deferred losses can be estimated by looking at the valuation results if the assets losses were immediately recognized. Using the market value of assets, the required County contribution rate would have been 22.64%, and the Funded Ratio would have been 66.8%.

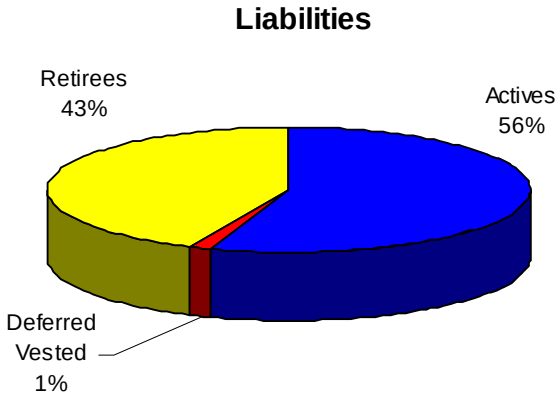
**Actuarial Balance Sheet**

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 County 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 2009 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 are as follows:

- **Asset Smoothing Period:** Asset gains and losses are smoothed over a five-year period (previously three years).
- **Amortization Period:** The 2009 UAAL is amortized 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. The prior method used an open period. The employer contribution rate is not allowed to be less than the rate if LACERA amortized the total UAAL over a 30-year period.

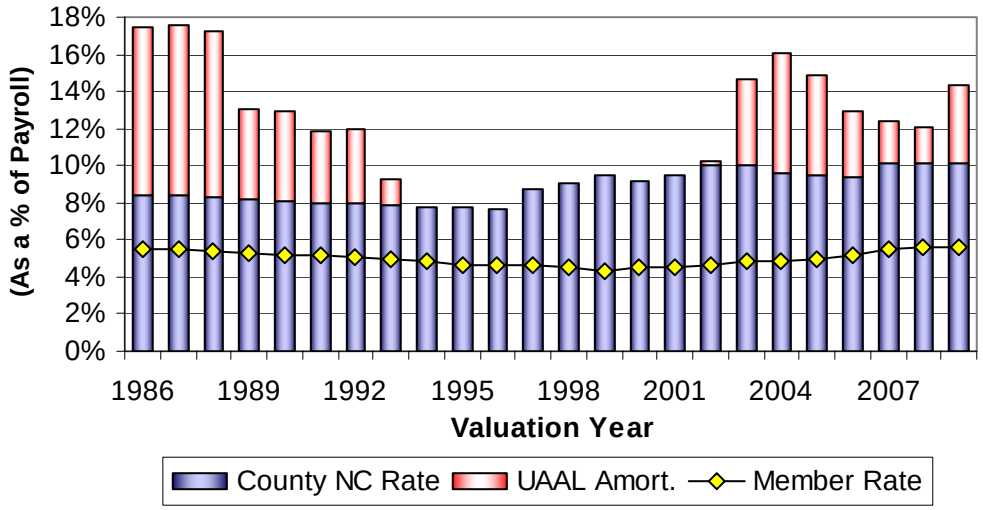
  If LACERA moves to a negative UAAL position, the "surplus" amount will be amortized over an open 30-year period.
- **STAR Reserve:** The STAR reserve is included in the valuation assets (subject to periodic review). There is no corresponding liability for future STAR benefits included in the valuation.

  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 2010 County contribution rate would increase by 0.52% to 14.74%, and the Funded Ratio would decrease by 1.4% to 87.5%.

**County Contribution Rates**

Based on the results of the valuation, the required County contribution rate will increase for the fiscal year beginning in 2010 to a rate of 14.22% of pay. A historical perspective of the County contribution rates is shown in the following graph.

**Required County Contribution Rate**

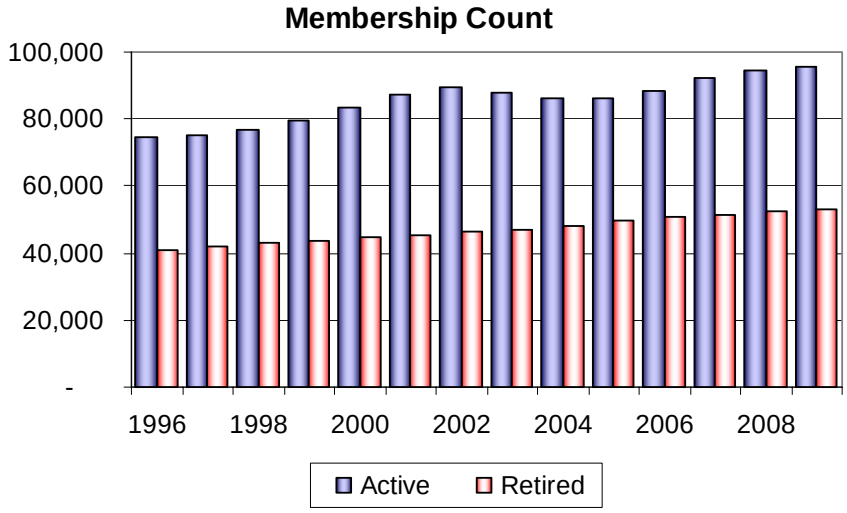


**Member Rates**

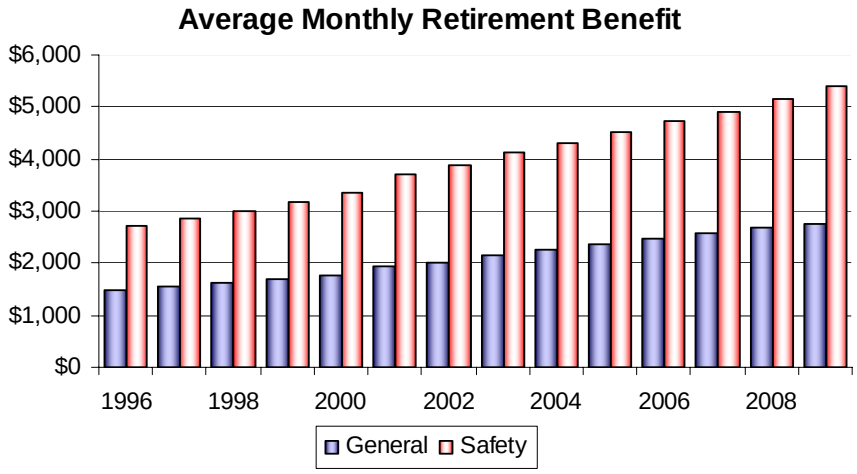
Since this is not a triennial valuation, we have not recommended any changes in member contribution rates. Member rates for all plans are discussed in Section 5, and they are shown in detail in Appendix D.

**Member Information**

Payroll has increased since 2008. As of June 30, 2009, the annualized payroll is $6.67 billion for 95,788 active members. This increase is a result of a 5.2% increase in average pay and a 1.4% increase in active members.




Retired member counts and average retirement benefit amounts continue to increase steadily. For 2009, there were 53,069 retired members and beneficiaries with an average benefit of $3,275 per month. This represents a 1.4% increase in count and a 4.0% increase in the average monthly benefit.



**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, 528 members (638 last year) transferred from Plan E to Plan D during the past year; and 226 members (201 last year) transferred from Plan D to Plan E.

| | Active Contributing Members | Deferred Members* | Retirees, Disabilities, & Beneficiaries |
|---|---|---|---|
| **June 30, 2008 Valuation** | **94,492** | **11,834** | **52,350** |
| Termination without Refund | (1,026) | 1,026 | - |
| Termination with Refund | (675) | (412) | - |
| Active/Deferred Death with Annuity | (67) | (59) | 126 |
| Service Retirement | (1,447) | (395) | 1,842 |
| Disability Retirement | (122) | (11) | 133 |
| Retiree Death without Beneficiary | - | - | (1,377) |
| New Entrants | 4,489 | - | - |
| Rehires | 144 | (139) | (5) |
| **Total Change** | **1,296** | **10** | **719** |
| **June 30, 2009 Valuation** | **95,788** | **11,844** | **53,069** |

** 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 7.75%** | **+0.5% 8.25%** | **-0.5% 7.25%** |
| **County Contribution Rate** | 14.22% | 10.63% | 17.85% |
| Change | | -3.59% | 3.63% |
| **Funded Ratio** | 88.9% | 95.1% | 83.0% |
| Change | | 6.2% | -5.9% |

**Summary Valuation Results**

The following Exhibit 1 presents a summary of key data elements on June 30, 2009 and June 30, 2008, 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.

# Los Angeles County Employees Retirement Association

## Exhibit 1: Summary of Significant Valuation Results

| | | June 30, 2009 | June 30, 2008 | Percentage Change |
|---|---|---|---|---|
| I. | Total Membership | | | |
| | A. Active Members | 95,788 | 94,492 | 1.4% |
| | B. Retired Members & Beneficiaries | 53,069 | 52,350 | 1.4% |
| | C. Deferred Members | 11,844 | 11,834 | 0.1% |
| | D. Total | 160,701 | 158,676 | 1.3% |
| II. | Pay Rate as of June 30, 2009 | | | |
| | A. Annual Total ($millions) | $ 6,673 | $ 6,257 | 6.6% |
| | B. Monthly Average | $ 5,805 | $ 5,518 | 5.2% |
| III. | Average Monthly Benefit Paid to Current Retirees and Beneficiaries | | | |
| | A. Service Retirement | $ 3,339 | $ 3,210 | 4.0% |
| | B. Disability Retirement | $ 3,996 | $ 3,826 | 4.4% |
| | C. Surviving Spouse and Dependents | $ 2,123 | $ 2,014 | 5.4% |
| | D. Total | $ 3,275 | $ 3,150 | 4.0% |
| IV. | Actuarial Accrued Liability | | | |
| | A. Active Members | $ 19,778 | $ 18,245 | 8.4% |
| | B. Retired Members | $ 23,967 | $ 23,026 | 4.1% |
| | C. Vested Terminated Members | $ 724 | $ 704 | 2.8% |
| | D. Total | $ 44,469 | $ 41,975 | 5.9% |
| V. | Assets | | | |
| | A. Market Value of Fund ($millions) | $ 30,499 | $ 38,725 | (21.2)% |
| | B. Actuarial Value ($millions) | | | |
| | 1. Valuation Reserves | $ 39,542 | $ 39,662 | (0.3)% |
| | 2. Non-valuation Reserves | $ 776 | $ 891 | (13.0)% |
| | C. Annual Investment Return | | | |
| | 1. Market Basis | (18.3)% | (1.5)% | na |
| | 2. Valuation (Actuarial) Basis | 1.5% | 9.0% | na |
| VI. | Unfunded Actuarial Accrued Liability or Surplus Funding ($millions) | $ 4,927 | $ 2,313 | 113.0% |
| VII. | Required County contribution rate for all plans combined as a percent of total payroll | | | |
| | A. Gross Normal Cost | 15.75% | 15.68% | 0.4% |
| | B. Member Contributions | (5.65)% | (5.59)% | 1.1% |
| | C. County Normal Cost | 10.10% | 10.09% | 0.1% |
| | D. UAAL Amortization | 4.12% | 1.99% | 107.0% |
| | E. Total Required Contribution Rate | 14.22% | 12.08% | 17.7% |
| VIII. | Funded Ratio | 88.9% | 94.5% | (5.9)% |
| IX. | Results Based on Market Value (Informational Purposes Only) | | | |
| | Total Required Contribution Rate | 22.64% | 13.75% | 64.7% |
| | Funded Ratio | 66.8% | 90.1% | (25.9)% |

## Section 2: Scope of the Report

This report presents the actuarial valuation of the Los Angeles County Employees Retirement Association as of June 30, 2009. 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 purposes of setting contribution rates. The 2009 valuation meets this requirement. Under LACERA's Funding Policy, annual valuations determine the County Contribution rates each year. Member contribution rates are set each triennial valuation.

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, 2009. 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 County 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.

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, 2009.
- 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.

## 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, 2009. 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 County 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

| | | Actuarial Value | | |
|---|---|---|---|---|
| | Market Value of Total Assets | Non-Valuation Reserves | Valuation Assets | Total Fund Return* |
| 2000 | $ 31.6 | $ 4.3 | $ 25.4 | 15.2 |
| 2001 | 28.4 | 4.4 | 26.5 | -5.2 |
| 2002 | 26.1 | 2.0 | 28.3 | -5.6 |
| 2003 | 26.2 | 1.6 | 26.6 | 3.6 |
| 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 |

**As reported in the Investment Section of the CAFR.*

On June 30, 2009, the total market value of the fund, less current liabilities, was $30.5 billion. The actuarial value of the fund was determined to be $40.3 billion, including the non-valuation reserves. The average total fund return for the last ten years is 4.1%.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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).

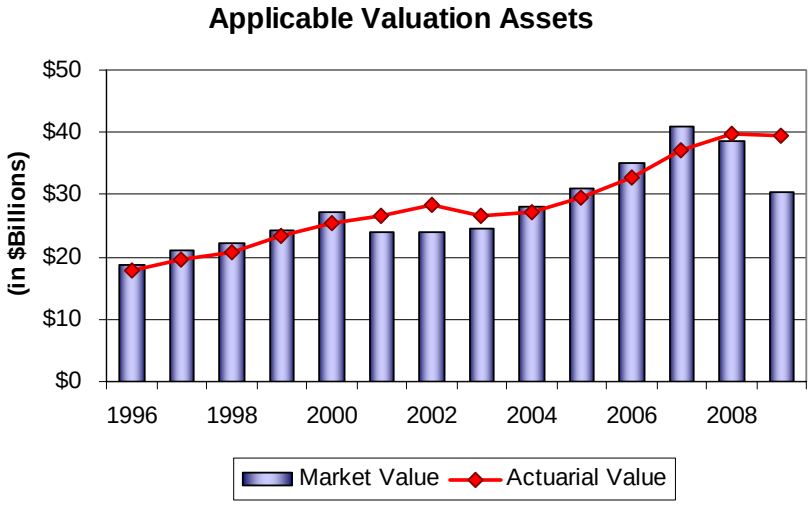
Exhibits 2-4 are taken directly from data furnished to us by LACERA in their annual financial report. We have accepted these tables for use in this report without audit, but we have reviewed them both for the prior year and the current year for reasonableness and consistency with previous reports.

**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. The current assumed rate of return is 7.75%, 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.

**Actuarial Value of Assets**

The development of the June 30, 2009 actuarial value of assets is shown in Exhibit 5. Note the smoothing process is deferring significant investment losses from the last two years and is currently in a net actuarial loss position. The result is an actuarial value of assets that is greater than the June 30, 2009 market value by $9.8 billion. The following graph shows a historical comparison of the actuarial and market assets used for valuation purposes.



**Funding Policy**

At the December 2009 Board of Investments meeting, the following allocation of actuarial assets was adopted under the long-term Funding Policy. 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 adjustments to the employer's contributions and/or funding for discretionary benefits. "Excess Earnings" as defined in the County Employees Retirement Law (CERL) may be appropriated upon reaching the Funding Goal.

Recognized earnings were sufficient to follow priorities 1-7, but were not sufficient to reach the Funding Goal of 100%.

**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, 2009 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, 2010. Although the reserve value for STAR benefits is included in the 2009 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, 2008 and 2009 (Dollars in Thousands)

| | 2009 | 2008 |
|---|---|---|
| **Assets** | | |
| Cash | $ 33,700 | $ 47,965 |
| Collateral on Loaned Securities | 1,219,067 | 2,322,698 |
| Receivables | | |
| Contributions Receivable | 112,479 | 82,562 |
| Accounts Receivable – Sale of Investments | 765,240 | 792,047 |
| Accrued Interest and Dividends | 103,110 | 132,306 |
| Accounts Receivable – Other | 48,562 | 57,566 |
| Total Receivables | 1,029,391 | 1,064,481 |
| Investments at Fair Value | | |
| Stocks | 14,854,082 | 19,241,860 |
| Bonds | 9,800,435 | 12,299,188 |
| Commodities | 389,940 | 638,575 |
| Real Estate | 3,057,774 | 3,996,568 |
| Alternative Assets | 2,815,826 | 3,296,714 |
| Total Investments | 30,918,057 | 39,472,905 |
| Capital Assets Net of Depreciation | - | - |
| **Total Assets** | **33,200,215** | **42,908,049** |
| **Liabilities** | | |
| Accounts Payable – Purchase of Investments | 1,433,312 | 1,799,138 |
| Retiree Payroll and Other Payables | 185 | 267 |
| Accrued Expenses | 26,113 | 36,302 |
| Tax Withholding Payable | 20,021 | 20,365 |
| Obligations under Securities Lending Program | 1,219,067 | 2,322,698 |
| Accounts Payable – Other | 2,536 | 4,608 |
| **Total Liabilities** | **2,701,234** | **4,183,378** |
| **Net Assets Held in Trust for Pension Benefits** | **30,498,981** | **38,724,671** |

## Los Angeles County Employees Retirement Association

**Exhibit 3: Statement of Changes in Plan Net Assets**
**For the Years Ended June 30, 2008 and 2009**
**(Dollars in Thousands)**

| | 2009 | 2008 |
|---|---|---|
| **Additions** | | |
| Contributions | | |
| Employer | $ 831,671 | $ 788,029 |
| Member | 415,545 | 414,752 |
| Total Contributions | 1,247,216 | 1,202,781 |
| Investment Income | | |
| *From Investing Activities* | | |
| Net Appreciation/(Depreciation) in Fair Value of Investments | (8,393,120) | (6,258,819) |
| Investment Income | 1,073,730 | 4,929,295 |
| Total Investing Activity Income/(Loss) | (7,319,390) | (1,329,524) |
| Less Expenses From Investing Activities | (104,603) | (114,183) |
| Net Investing Activity Income/(Loss) | (7,423,993) | (1,443,707) |
| *From Securities Lending Activities* | | |
| Securities Lending Income | 38,753 | 122,531 |
| Less Expenses From Securities Lending Activities | | |
| Borrower Rebates | (21,212) | (103,297) |
| Management Fees | (1,338) | (1,644) |
| Total Expenses from Securities Lending Activities | (22,550) | (104,941) |
| Net Securities Lending Income | 16,203 | 17,590 |
| Total Net Investment Income/(Loss) | (7,407,790) | (1,426,117) |
| Miscellaneous | 1,221 | 1,767 |
| **Total Additions/(Declines)** | **(6,159,353)** | **(221,569)** |
| **Deductions** | | |
| Retiree Payroll | 1,994,620 | 1,885,970 |
| Administrative Expense | 49,730 | 48,223 |
| Refunds | 20,356 | 25,588 |
| Lump Sum Death Benefits | 1,388 | 1,714 |
| Miscellaneous | 243 | 371 |
| **Total Deductions** | **2,066,337** | **1,961,866** |
| Transfer to OPEB Agency Fund | - | - |
| Net Increase/(Decrease) | (8,225,690) | (2,183,435) |
| Net Assets Held in Trust for Pension Benefits Beginning of Year | 38,724,671 | 40,908,106 |
| **End of Year** | **30,498,981** | **38,724,671** |

## Los Angeles County Employees Retirement Association

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

| | June 30, 2009 | June 30, 2008 |
|---|---|---|
| 1. Member Reserves | | |
| a. Active Members | $ 13,168,255 | $ 12,827,695 |
| b. Unclaimed Deposits | - | - |
| c. Total Member Reserves | $ 13,168,255 | $ 12,827,695 |
| 2. Employer Reserves | | |
| a. Actual Employer Contributions | $ 20,954,314 | $ 20,732,940 |
| b. Advanced Employer Contributions | - | - |
| c. Total Employer Contributions | $ 20,954,314 | $ 20,732,940 |
| 3. County Contribution Credit Reserve | $ 470,710 | $ 470,710 |
| 4. STAR Reserve | 614,011 | 629,127 |
| 5. Contingency Reserve | 15,333 | 394,721 |
| 6. Total Reserves at Book Value | $ 35,222,623 | $ 35,055,193 |
| 7. Unrealized Investment Portfolio Appreciation | (4,723,642) | 3,669,478 |
| 8. **Total Reserves at Fair Value** | **$ 30,498,981** | **$ 38,724,671** |

Note: These amounts were determined by LACERA for accounting purposes and are reported in the June 30, 2009 CAFR.


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## Los Angeles County Employees Retirement Association

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

**June 30, 2009 Valuation**

| Plan Year Ending | Contributions | Benefit Payments | Expected Market Value | Actual Market Value | Phase-Out of Gain / (Loss)* | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6/30/2009 | $ 1,247,216 | $ 2,016,364 | $ 40,927,437 | $ 30,498,981 | 80.00% | x | $ (10,428,456) | = | $ (8,342,765) |
| 6/30/2008 | 1,202,781 | 1,913,272 | 43,340,975 | 38,724,671 | 50.00% | x | (4,616,304) | = | (2,308,152) |
| 6/30/2007 | 1,099,629 | 1,822,022 | 37,162,609 | 40,908,106 | 22.22% | x | 3,745,497 | = | 832,333 |
| 6/30/2006 | | | | 35,185,589 | | | | = | 0 |
| | | | | | Total Phase-Out of Gain / (Loss) | | | = | $ (9,818,584) |
| | | | | | Total Market Value of Assets | | | = | 30,498,981 |
| | | | | | Total Actuarial Value of Assets | | | = | **$ 40,317,565** |

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.

** Future phase-out of gains and losses follows this schedule:*

| *Valuation Year* | *Phase-Out of Gain / (Loss) from Plan Year Ending* | | |
|---|---|---|---|
| | *6/30/2007* | *6/30/2008* | *6/30/2009* |
| *6/30/2010* | *11.11%* | *33.33%* | *60.00%* |
| *6/30/2011* | *0.00%* | *16.67%* | *40.00%* |
| *6/30/2012* | *0.00%* | *0.00%* | *20.00%* |
| *6/30/2013* | *0.00%* | *0.00%* | *0.00%* |


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## Los Angeles County Employees Retirement Association

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

| | June 30, 2009 | June 30, 2008 |
|---|---|---|
| 1. Total Market Value of Assets | $ 33,200,215 | $ 42,908,049 |
| 2. Current Liabilities | 2,701,234 | 4,183,378 |
| 3. Net Assets Held in Trust for Pension Benefits | $ 30,498,981 | $ 38,724,671 |
| 4. Market Stabilization Reserve(1) | (9,818,584) | (1,829,037) |
| 5. Actuarial Value of Fund Assets | $ 40,317,565 | $ 40,553,708 |
| 6. Non-Valuation Reserves(2) | | |
| a. Unclaimed Deposits | $ - | $ - |
| b. Contingency Reserve | 304,990 | 405,537 |
| c. Advanced Employer Contributions | - | - |
| d. County Contribution Credit Reserve | 470,710 | 470,710 |
| e. Reserve for STAR Program | - | 15,100 |
| f. Total | $ 775,700 | $ 891,347 |
| 7. Valuation Assets(2) | | |
| a. Member Reserves | $ 13,168,255 | $ 12,827,695 |
| b. Employer Reserves for Funding Purposes | $ 26,373,610 | $ 26,834,666 |
| c. Total | $ 39,541,865 | $ 39,662,361 |

*(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, 2009. 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 and investment returns. 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 Actuarial Value of the Valuation Assets to the Actuarial Liabilities. The difference is the amount that needs to be funded by the Member and County 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 2007 Investigation of Experience Report. New assumptions were adopted by the Board effective with the June 30, 2007 actuarial valuation.


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## Los Angeles County Employees Retirement Association

### Exhibit 7: Actuarial Balance Sheet – June 30, 2009
**(Dollars in Millions)**

| | General | | | | | Safety | | |
|---|---|---|---|---|---|---|---|---|
| ***LIABILITIES*** | **Plan A** | **Plan B** | **Plan C** | **Plan D** | **Plan E** | **Plan A** | **Plan B** | **All Plans** |
| Present Value of Benefits - Inactives | | | | | | | | |
| - Retirees and Beneficiaries | $ 12,212 | $ 190 | $ 92 | $ 1,706 | $ 1,031 | $ 7,353 | $ 1,383 | $ 23,967 |
| - Vested Terminated | 57 | 8 | 2 | 284 | 313 | 1 | 59 | 724 |
| - Inactive Total | 12,269 | 198 | 94 | 1,990 | 1,344 | 7,354 | 1,442 | 24,691 |
| Present Value of Benefits - Actives | | | | | | | | |
| - Service Retirement | $ 1,766 | $ 220 | $ 147 | $ 11,467 | $ 5,299 | $ 335 | $ 5,109 | $ 24,343 |
| - Transfer Service (prior LACERA plan) | 6 | 1 | 1 | 94 | 312 | 2 | 4 | 420 |
| - Disability Retirement | 42 | 5 | 4 | 949 | N/A | 131 | 3,546 | 4,677 |
| - Death | 16 | 2 | 2 | 364 | N/A | 1 | 66 | 451 |
| - Termination (No Refund) | * | * | * | 282 | 171 | * | 60 | 513 |
| - Refund of Member Contributions | * | * | * | 100 | N/A | * | 13 | 113 |
| - Active Total | 1,830 | 228 | 154 | 13,256 | 5,782 | 469 | 8,798 | 30,517 |
| **Total Actuarial Liabilities** | **$ 14,099** | **$ 426** | **$ 248** | **$ 15,246** | **$ 7,126** | **$ 7,823** | **$ 10,240** | **$ 55,208** |
| ***ASSETS*** | | | | | | | | |
| Valuation Assets | $ 7,628 | $ 448 | $ 268 | $ 10,635 | $ 8,298 | $ 4,048 | $ 8,217 | $ 39,542 |
| PV Future Member Contributions | 20 | 7 | 5 | 2,796 | N/A | 1 | 1,231 | 4,060 |
| PV Future County Normal Cost Contribs. | 74 | 7 | 6 | 3,174 | 1,473 | 18 | 1,927 | 6,679 |
| UAAL or (Surplus Funding) | 6,377 | (36) | (31) | (1,359) | (2,645) | 3,756 | (1,135) | 4,927 |
| **Total Current and Future Assets** | **$ 14,099** | **$ 426** | **$ 248** | **$ 15,246** | **$ 7,126** | **$ 7,823** | **$ 10,240** | **$ 55,208** |

** Less than $0.5 million*

**Actuarial Balance Sheet – Liabilities (continued)**

All liabilities reflect the benefits effective through June 30, 2009. This includes the permanent STAR COLA adopted as of 2009, 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 County.

**Actuarial Cost Method**

The Actuarial Balance sheet determines the amount of future contributions that are needed, but the method used to determine the incidence of when those future contributions are yet to 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 – or essentially any actuarial cost 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.

**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 County. 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 County'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) | 2009 | 2008 | Percent Change |
|---|---|---|---|
| A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors | $ 55,208 | $ 52,070 | 6.0% |
| B. Actuarial present value of total future normal costs for current members | $ 10,739 | $ 10,095 | 6.4% |
| C. Actuarial accrued liability [A-B] | $ 44,469 | $ 41,975 | 5.9% |
| D. Valuation Assets | $ 39,542 | $ 39,662 | -0.3% |
| E. UAAL or Surplus Funding [C-D] | $ 4,927 | $ 2,313 | 113.0% |
| F. Funded Ratio [D/C] | 88.9% | 94.5% | -5.9% |

It is interesting to note the maturity of LACERA's fund. Nearly one-half, 44.7%, of the total actuarial obligation (both accrued and future benefits) is for retired and deferred vested members. Of the $30.5 billion in obligations for the active members, the cost method allocates about two-thirds to service already rendered. Of course, Plans A-C for general members and Plan A for safety members are no longer open for new employees. To the extent those older plans represent more costly plan benefits, this adds to the weighting for accrued obligations.

**Unfunded Actuarial Accrued Liability/ Surplus Funding**

The portion allocated to service already rendered or accrued is called the Actuarial Accrued Liability (AAL). The difference between the AAL and the Valuation Assets is called the Unfunded Actuarial Accrued Liability (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 County had always contributed the current Normal Cost, if there were no prior benefit or assumption changes and if actual experience exactly matched the actuarial assumptions, the present value of all future Normal Cost contributions would be sufficient to fund all benefits and there would be no UAAL.

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 County based on the valuation results in aggregate.


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**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.

**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 materially, primarily due to the recognition of current and prior asset losses.

The 2009 actuarial valuation reflects an actuarial experience loss of $2.69 billion for the fiscal year just ended. The loss was mainly due to a $2.47 billion loss on actuarial assets. The effect of the experience gains and losses on the UAAL or Surplus Funding is shown in Exhibit 8a. In addition to the investment return, some other factors which impacted the liabilities are:

- ✓ **Salary Increases –** Individual salaries for continuing active members increased at a rate slightly greater than the valuation assumption. This resulted in a loss.
- ✓ **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.
- ✓ **Actual CPI versus Assumption –** The actual CPI increase was significantly less than assumed; however, almost all members from contributory plans had positive COLA banks to make up for this. Thus, almost all members received increases in their benefits equal to the assumption (3.0% for Plan A, 2.0% for Plans B-D), and there was not a material gain or loss due to CPI. Plan E does not have a COLA bank, so there was a small gain for this group.
- ✓ **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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## Los Angeles County Employees Retirement Association

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

| | | | Amount | As a Percent of June 30, 2009 Actuarial Accrued Liability |
|---|---|---|---|---|
| **Unfunded Actuarial Accrued Liability - June 30, 2008** | | | **$ 2,313** | 5.2% |
| Increase in UAAL due to new assumptions | | | - | 0.0% |
| Interest Accrued | | | 179 | 0.4% |
| Benefits Accrued (Normal Cost) | | | 1,053 | 2.4% |
| Contributions (with Assumed Interest) | | | | |
| Employer - Cash | $ | (863) | | -1.9% |
| Employer - Contribution Credit | | (16) | | 0.0% |
| Member | | (431) | | -1.0% |
| Total | | | (1,310) | -2.9% |
| **Expected Unfunded Actuarial Acc. Liability - June 30, 2009** | | | **$ 2,235** | 5.0% |
| Source of Change | | | | |
| Asset (Gains) and Losses | | | | |
| (Gain)/Loss due to investment income | | | 2,465 | 5.5% |
| Actuarial (Gains) and Losses | | | | |
| Salary Increases | $ | 380 | | 0.9% |
| CPI Less than Expected | | (4) | | 0.0% |
| Transfers Between Plan D & Plan E | | (3) | | 0.0% |
| Mortality Experience | | (63) | | -0.1% |
| All Other Experience | | (83) | | -0.2% |
| Total | | | 227 | 0.5% |
| Recognition of Liabilities due to Court Cases | | | - | 0.0% |
| **Total Changes** | | | **2,692** | 6.1% |
| **Unfunded Actuarial Accrued Liability - June 30, 2009** | | | **$ 4,927** | 11.1% |


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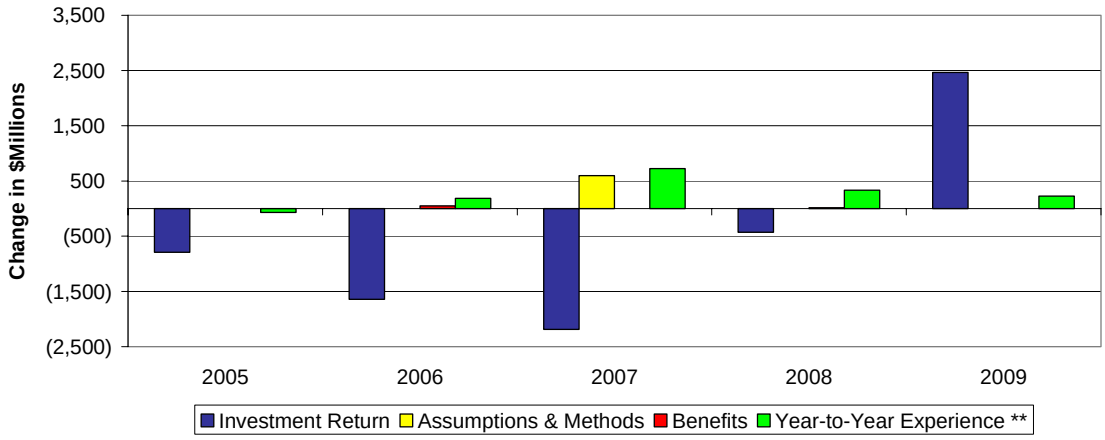
## Los Angeles County Employees Retirement Association

**Exhibit 8b: History of Changes in Unfunded Actuarial Accrued Liability**
**(Dollars in Millions)**




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2005-09 |
|---|---|---|---|---|---|---|
| **Prior Valuation UAAL / (Surplus)** | **$ 5,611** | **$ 4,878** | **$ 3,439** | **$ 2,461** | **2,313** | **$ 5,611** |
| Increase in UAAL due to: | | | | | | |
| Expected Increase / (Decrease) | 128 | (31) | (109) | (68) | (78) | (158) |
| Asset (Gains) and Losses | (790) | (1,642) | (2,187) | (429) | 2,465 | (2,583) |
| Changes in Benefits* | - | 50 | - | 15 | - | 65 |
| Changes in Assumptions | - | - | 515 | - | - | 515 |
| Changes in Methods | - | - | 81 | - | - | 81 |
| Salary Increases | (115) | 156 | 673 | 298 | 380 | 1,392 |
| CPI Less than Expected | - | - | - | - | (4) | (4) |
| Transfers Between D & E | 13 | 10 | 4 | 10 | (3) | 35 |
| Mortality Experience | (1) | (22) | (22) | (51) | (63) | (159) |
| All Other Experience | 32 | 40 | 67 | 77 | (83) | 133 |
| **Total Increase / (Decrease)** | **(733)** | **(1,439)** | **(978)** | **(148)** | **2,614** | **(684)** |
| **Valuation UAAL / (Surplus)** | **$ 4,878** | **$ 3,439** | **$ 2,461** | **$ 2,313** | **$ 4,927** | **$ 4,927** |
| **Funded Ratio** | **85.8%** | **90.5%** | **93.8%** | **94.5%** | **88.9%** | **88.9%** |

* *Benefit changes are as follows:*
*2006: Benefits due to Bugh and Local 1014 court cases.*
*2008: Benefits due to Fire Chief (FLSA) court case.*

*** 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**

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

Normal contributions for each plan 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 |

** 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

**Cost-of-Living Contributions**

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 County. 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.

As this is not a triennial valuation, no changes in the member contribution rates (either normal or cost-of-living) are being recommended.


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**Cost-of-Living Contributions (continued)**

The cost-of-living contributions, expressed as a percentage of the normal rates, are based on the June 30, 2007 actuarial valuation and are as follows:

| | |
|---|---|
| General Plan A: | 79.57% |
| General Plan B: | 22.29% |
| General Plan C: | 23.97% |
| General Plan D: | 21.97% |
| Safety Plan A: | 101.27% |
| Safety Plan B: | 31.40% |

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.

## Los Angeles County Employees Retirement Association

### Exhibit 9: Sample Member Contribution Rates

| | Entry Age | Current Rates (Based on 2007 Valuation) Normal | Cost of Living | Total as a % of Pay |
|---|---|---|---|---|
| ***General Members*** | | | | |
| **Plan A** | 25 | 2.90% | 2.31% | 5.21% |
| | 35 | 3.56% | 2.83% | 6.39% |
| | 45 | 4.32% | 3.44% | 7.76% |
| | 55 | 4.63% | 3.68% | 8.31% |
| **Plan B** | 25 | 5.79% | 1.29% | 7.08% |
| | 35 | 7.12% | 1.59% | 8.71% |
| | 45 | 8.64% | 1.93% | 10.57% |
| | 55 | 9.26% | 2.06% | 11.32% |
| **Plan C** | 25 | 4.91% | 1.18% | 6.09% |
| | 35 | 6.02% | 1.44% | 7.46% |
| | 45 | 7.42% | 1.78% | 9.20% |
| | 55 | 8.65% | 2.07% | 10.72% |
| **Plan D** | 25 | 4.91% | 1.08% | 5.99% |
| | 35 | 6.02% | 1.32% | 7.34% |
| | 45 | 7.42% | 1.63% | 9.05% |
| | 55 | 8.65% | 1.90% | 10.55% |
| ***Safety Members*** | | | | |
| **Plan A** | 25 | 4.08% | 4.13% | 8.21% |
| | 35 | 4.95% | 5.01% | 9.96% |
| | 45 | 5.77% | 5.84% | 11.61% |
| | 55 | 5.80% | 5.87% | 11.67% |
| **Plan B** | 25 | 8.16% | 2.56% | 10.72% |
| | 35 | 9.89% | 3.11% | 13.00% |
| | 45 | 11.54% | 3.62% | 15.16% |
| | 55 | 11.59% | 3.64% | 15.23% |

Note: A portion of some of the member contribution rates is paid for ("picked up") by the County 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: County 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.

During the fiscal year 1994-1995, a Retirement Association Funding Agreement was negotiated with the County. This agreement resulted in the issuance of approximately $2 billion in Pension Obligation Bonds, the proceeds of which were used to fund the UAAL. The agreement also allowed that surplus earnings on LACERA's assets for the period July 1, 1994 through June 30, 1998 would be split between the County (75%) and the STAR program (25%). Those excess earnings were used to create the County Contribution Credit Reserve, which can be used by the County to meet its required contribution requirement without adding in new cash deposits to the fund.

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

The total calculated County 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 County contribution rate was 12.08% for the fiscal year beginning in 2009.

For the fiscal year beginning in 2010, the required rate increased to 14.22%. This is equal to the net aggregate calculated Normal Cost contribution rate of 10.10% based on the 2009 Valuation, plus a 30-year amortization payment of the UAAL.


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**County Contribution Rate**

(All values as a % of Payroll)

| | |
|---|---|
| County Normal Cost | 10.10% |
| 30-year Amortization of UAAL | 4.12 |
| Total County Contribution | 14.22% |

The 2.14% increase in the total County contribution rate was primarily due to the recognition of both current and deferred investment losses, which caused a 3.91% increase in the UAAL rate. This was somewhat offset by changes in the Funding Policy which included the move from a three-year asset smoothing method to a five-year smoothing method, as well as the inclusion of STAR reserves in the valuation assets. The UAAL rate reflects a 30-year amortization from the valuation date with a July 1, 2010 implementation date for the new County contribution rate.

The change in the calculated Normal Cost contribution rates from year-to-year is generally due to two factors. These factors are listed in order of magnitude (i.e., experience had the greatest impact this year):

**(1) Experience**: Normal experience from year-to-year, reflecting differences in both the weighting between membership groups and in their characteristics, as well as on what was assumed to occur during the past fiscal year and what actually occurred, particularly with respect to salary increases. Based on current plan provisions, the aggregate Normal Cost rate is expected to decrease as a greater number of members are covered by General Plans D and E and Safety B. Additionally, as members transfer between Plan D and Plan E, this will also have an impact.

**(2) Contribution Shut-Off**: For general members hired prior to April 1973 and all safety members, member contributions are not collected after the member has 30 years of service. Therefore, the member contributions towards the total annual Normal Cost is zero, resulting in a sizable increase for in the County's share of the Normal Cost contributions for the years when the member has more than 30 years of service. The County's share of the Normal Cost rates for those groups can be expected to increase rather than remain level, as otherwise expected under the entry age cost method. As most general members hired prior to April 1973 have now attained 30 years of service, this statement applies mainly to safety groups.

## Los Angeles County Employees Retirement Association

### Exhibit 10: Calculated Normal Cost Contribution Rates – June 30, 2009

| | General | | | | | | Safety | | | Grand |
|---|---|---|---|---|---|---|---|---|---|---|
| **A. Normal Cost Contribution Rate** | Plan A | Plan B | Plan C | Plan D | Plan E | Total | Plan A | Plan B | Total | **Total** |
| Service Retirement | 15.88% | 13.36% | 12.04% | 12.39% | 7.88% | 11.02% | 12.17% | 12.08% | 12.08% | 11.22% |
| Disability Retirement | 1.09% | 0.96% | 0.92% | 1.48% | 0.00% | 0.98% | 12.92% | 12.75% | 12.75% | 3.25% |
| Death | 0.37% | 0.35% | 0.33% | 0.49% | 0.00% | 0.32% | 0.32% | 0.29% | 0.29% | 0.32% |
| Termination (No Refund) | 0.42% | 0.31% | 0.29% | 0.67% | 0.67% | 0.66% | 0.53% | 0.59% | 0.59% | 0.65% |
| Refund of Member Contributions | 0.09% | 0.12% | 0.11% | 0.48% | 0.00% | 0.31% | 0.26% | 0.37% | 0.37% | 0.32% |
| **Total** | **17.85%** | **15.10%** | **13.69%** | **15.51%** | **8.55%** | **13.29%** | **26.20%** | **26.08%** | **26.08%** | **15.75%** |
| B. Member Contributions | (3.20)% | (6.48)% | (5.58)% | (6.98)% | 0.00% | (4.57)% | (0.96)% | (10.45)% | (10.21)% | (5.65)% |
| C. Net County Normal Cost as of June 30, 2009 (A) - (B) | 14.65% | 8.62% | 8.11% | 8.53% | 8.55% | 8.72% | 25.24% | 15.63% | 15.87% | 10.10% |
| D. Net County Normal Cost as of June 30, 2008 | 14.66% | 8.63% | 7.89% | 8.49% | 8.46% | 8.71% | 25.74% | 15.42% | 15.79% | 10.09% |
| E. Increase (Decrease) as a Percentage of Payroll (C) - (D) | (0.01)% | (0.01)% | 0.22% | 0.04% | 0.09% | 0.01% | (0.50)% | 0.21% | 0.08% | 0.01% |

## Los Angeles County Employees Retirement Association

### Exhibit 11: Total County Contributions

| | General | | | | | | Safety | | | All |
|---|---|---|---|---|---|---|---|---|---|---|
| | Plan A | Plan B | Plan C | Plan D | Plan E | Total | Plan A | Plan B | Total | Plans |
| **A. Net County Normal Cost** | | | | | | | | | | |
| 1. Basic Benefits | 10.09% | 6.91% | 6.64% | 7.16% | 7.22% | 7.26% | 14.41% | 12.79% | 12.81% | 8.63% |
| 2. Cost-of-Living Benefits | 4.56% | 1.71% | 1.47% | 1.37% | 1.33% | 1.46% | 10.83% | 2.84% | 3.06% | 1.47% |
| 3. Total June 30, 2009 | 14.65% | 8.62% | 8.11% | 8.53% | 8.55% | 8.72% | 25.24% | 15.63% | 15.87% | 10.10% |
| B. UAAL Contribution Rate | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% | 4.12% |
| **C. Total June 30, 2009 Contribution Rate (A) + (B)** | **18.77%** | **12.74%** | **12.23%** | **12.65%** | **12.67%** | **12.84%** | **29.36%** | **19.75%** | **19.99%** | **14.22%** |
| D. Total June 30, 2008 Contribution Rate | 16.65% | 10.62% | 9.88% | 10.48% | 10.45% | 10.70% | 27.73% | 17.41% | 17.78% | 12.08% |
| E. Estimated Payroll for fiscal year beginning July 1, 2010* | $ 175 | $ 28 | $ 21 | $ 3,534 | $ 1,841 | $ 5,599 | $ 37 | $ 1,305 | $ 1,342 | $ 6,941 |
| **F. Estimated Annual Contribution (C x E)** | **$ 33** | **$ 4** | **$ 3** | **$ 447** | **$ 233** | **$ 719** | **$ 11** | **$ 258** | **$ 268** | **$ 987** |
| G. Last Year's Estimated Annual Contribution | $ 33 | $ 3 | $ 2 | $ 336 | $ 186 | $ 560 | $ 13 | $ 214 | $ 227 | $ 787 |
| H. Increase / (Decrease) in Annual Contribution | $ - | $ 1 | $ 1 | $ 111 | $ 47 | $ 159 | $ (2) | $ 44 | $ 41 | $ 200 |

** Estimated Payroll based upon annualized salary rate as of June 30, 2009 increased by 4.00% wage inflation. Dollar figures in millions.*

## 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 12, compares actuarial assets and liabilities of the System, based on the actuarial funding method used. The required Schedule of Employer Contributions, Exhibit 13, 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 2007 based on the triennial Investigation of Experience.

Exhibit 14 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).


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## Los Angeles County Employees Retirement Association

**Exhibit 12: 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, 2000 | $ 25,426,507 | $ 24,720,380 | $ (706,127) | 102.9% | $ 4,107,964 | -17.2% |
| June 30, 2001[2] | 26,490,000 | 26,489,976 | (24) | 100.0% | 4,398,443 | 0.0% |
| June 30, 2002[3] | 28,262,129 | 28,437,493 | 175,364 | 99.4% | 4,744,340 | 3.7% |
| June 30, 2003 | 26,564,328 | 30,474,025 | 3,909,697 | 87.2% | 4,933,615 | 79.2% |
| 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% |

*(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 based on triennial Investigation of Experience.*

*(3) Benefits were enhanced under MOU package.*

## Los Angeles County Employees Retirement Association

**Exhibit 13: 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 | |
| 6/30/2000 | $ 342,060 | $ 130,319 | $ 211,832 | $ 342,151 | 100% |
| 6/30/2001 | 390,679 | 193,650 | 197,029 | 390,679 | 100% |
| 6/30/2002 | 414,708 | 258,884 | 155,824 | 414,708 | 100% |
| 6/30/2003 | 518,922 | 324,709 | 194,213 | 518,922 | 100% |
| 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% |

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


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## Los Angeles County Employees Retirement Association

**Exhibit 14: 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, 2000 | $ 25,427 | $ 3,190 | $ 12,922 | $ 8,609 | 100% | 100% | 108% |
| June 30, 2001 | 26,490 | 3,320 | 14,368 | 8,802 | 100% | 100% | 100% |
| June 30, 2002 | 28,262 | 3,596 | 15,424 | 9,417 | 100% | 100% | 98% |
| June 30, 2003 | 26,564 | 3,790 | 16,844 | 9,840 | 100% | 100% | 60% |
| 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% |

*(1) Includes deferred vested members.*

## Section 8: Supplemental Information

**Cash Flow Projection**

Exhibits 15a and 15b 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 fairly level over the last 10 years, but it is expected to begin to significantly decrease for the next 10 years. 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. The projection shows that the negative projected cash flow is projected to almost double in size from 2010 to 2019.

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 County contribution rate is assumed to be 12.08% for the first year and 14.22% for the rest of the 10-year projection. The ultimate rate is equal to the required County Normal Cost rate plus a contribution to finance the UAAL, as calculated in the 2009 valuation. The aggregate member rate is assumed to stay at the calculated rate for June 30, 2009 of 5.65% of payroll. Expenses are based on the expenses for the year ended June 30, 2009, increased annually with the actuarial inflation assumption of 3.5%.

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 2009 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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## Los Angeles County Employees Retirement Association

**Exhibit 15a: Cash Flow History and Projections – Dollars**

### Cash Flow History

| Plan Year Ending | Contributions | Benefits & Administrative Expenses[2] | Net Cash Flow |
|---|---|---|---|
| 2000 | $ 329 | $ 1,094 | $ (765) |
| 2001 | 410 | 1,187 | (777) |
| 2002 | 564 | 1,276 | (712) |
| 2003 | 559 | 1,379 | (820) |
| 2004 | 658 | 1,484 | (826) |
| 2005 | 814 | 1,601 | (787) |
| 2006 | 973 | 1,842 [3] | (869) |
| 2007 | 1,100 | 1,835 | (735) |
| 2008 | 1,203 | 1,960 | (757) |
| 2009 | 1,247 | 2,065 | (818) |

### Cash Flow Projections[1]

| Plan Year Ending | Contributions | Benefits & Administrative Expenses[2] | Net Cash Flow |
|---|---|---|---|
| 2010 | $ 1,179 | $ 2,237 | $ (1,058) |
| 2011 | 1,379 | 2,358 | (979) |
| 2012 | 1,434 | 2,508 | (1,074) |
| 2013 | 1,492 | 2,661 | (1,169) |
| 2014 | 1,551 | 2,820 | (1,269) |
| 2015 | 1,613 | 2,985 | (1,371) |
| 2016 | 1,678 | 3,157 | (1,479) |
| 2017 | 1,745 | 3,335 | (1,591) |
| 2018 | 1,815 | 3,519 | (1,705) |
| 2019 | 1,887 | 3,710 | (1,823) |

(1) *Future contributions are assumed to be at the 10.10% Normal Cost rate plus a UAAL payment of 4.12% after the first year.*

(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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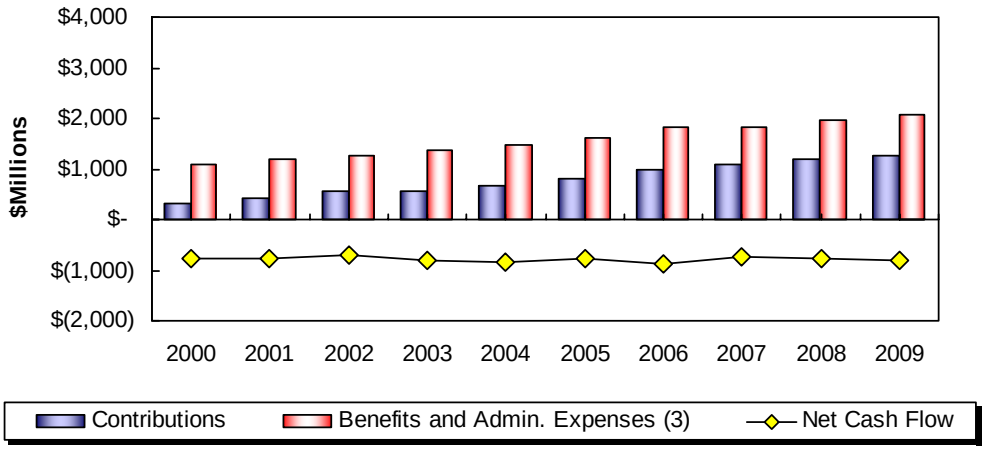
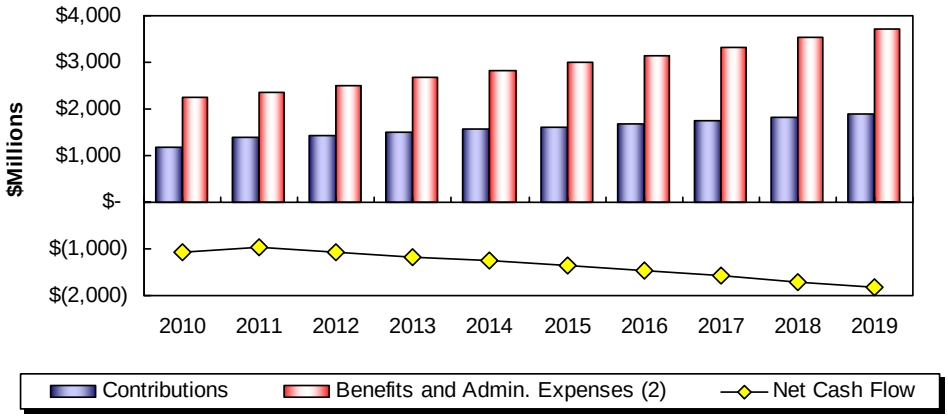
## Los Angeles County Employees Retirement Association

**Exhibit 15b: Cash Flow History and Projections – Charts**

### Cash Flow History




### Cash Flow Projections[1]




(1) *Future contributions are assumed to be at the 10.10% Normal Cost rate plus a UAAL payment of 4.12% after the first year.*

(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*

**Los Angeles County Employees Retirement Association**

## 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 June 30, 2007 as a result of the 2007 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 2007 Investigation of Experience Study. The rates are the probabilities a member will leave the system for various reasons.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**Actuarial Cost Method**

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). 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.

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 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.

**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.

**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.


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| | |
|---|---|
| **County Contributions** | The County 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.<br><br>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 7.75% compounded annually, net of both investment and administrative expenses. This rate was adopted June 30, 2004. |
| **Postretirement Benefit Increases** | Postretirement 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 of 3.5% per year. This rate was adopted June 30, 2004. |
| **Interest on Member Contributions** | The annual credited interest rate on member contributions is assumed to be 7.75% compounded semi-annually for an annualized rate of 7.90%. This rate was adopted June 30, 2004. |
| **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 4.00% per annum rate of increase in the general wage level of the membership. These rates were adopted June 30, 2007.<br><br>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. |


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**Future Salaries (Continued)**

For plans with a one-year final average compensation period, actual average annual compensation is used. For Plan E, the monthly rate as of June of the valuation year was annualized. Due to irregular compensation payments now 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 4.00% 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 June 30, 2007.

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.

**Retirement**

After members attain age 50 (55 for Plan E members) and have ten years of service, they may retire with a benefit commencing immediately. All members, except Plan E 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.

All deferred vested members are assumed to retire at the later of age 50 and earliest eligibility, except for Plan E who are assumed to retire at age 65.

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 June 30, 2007.


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**Disablement**

The rates of disablement used in the valuation are also illustrated in Tables A-6 through A-13. These rates were adopted June 30, 2007.

**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. These rates were adopted June 30, 2004.

*Males* General members: RP-2000 Combined Mortality Table for Males, with ages set back two years.

Safety members: RP-2000 Combined Mortality Table for Males, with ages set back three years.

*Females* General members: RP-2000 Combined Mortality Table for Females, with ages set back two years.

Safety members: RP-2000 Combined Mortality Table for Females, with ages set back two years.

**Post-Retirement Mortality – Disabled Members**

For disabled members, the mortality rates used in the valuation rates are illustrated in Table A-3. These rates were adopted June 30, 2007.

*Males* General members: RP-2000 Combined Mortality Table for Males, with ages set forward one year.

Safety members: RP-2000 Combined Mortality Table for Males, with ages set back two years.

*Females* General members: RP-2000 Combined Mortality Table for Females with no age adjustment.

Safety members: RP-2000 Combined Mortality Table for Females with ages set back two years.

**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 June 30, 2007.

| Class | Sex | Mortality Table | Adjustment |
|---|---|---|---|
| General | Male | RP2000 Employee Male | +0 |
| General | Female | RP2000 Employee Female | -1 |
| Safety | Male | RP2000 Employee Male | -9 |
| Safety | Female | RP2000 Employee Female | -1 |

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


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**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 June 30, 2007.

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 to not 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 June 30, 2007.

**Probability of Eligible Survivors**

For members not currently in pay status, 82% of all males and 65% 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 four 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.

**Reciprocal Employment**

15% 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 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, the:

A. 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 7.75%.

C. The Final Compensation is based on the salary paid in the year prior to attaining the retirement age.

   Example: For a Plan C Member who enters at age 59 or earlier, the Final Compensation at retirement (age 60) will be the monthly average of the annual salaries during age 59.

D. 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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## Los Angeles County Employees Retirement Association

**Table A-1: Summary of Valuation Assumptions as of June 30, 2009**

| | | |
|---|---|---|
| I. | Economic assumptions | |
| | A. General wage increases | 4.00% |
| | B. Investment earnings | 7.75% |
| | 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 | 3.50% |
| 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 sexes for general members, as adjusted:

| Class of Members | Age Adjustment |
|---|---|
| General – males | -2 years |
| General – females | -2 years |
| Safety – males | -3 years |
| Safety – females | -2 years |

| | | |
|---|---|---|
| | F. Mortality among disabled members | Table A-3 |

Basis – RP-2000 Combined Mortality Table, as adjusted:

| | |
|---|---|
| General – males | +1 year |
| General – females | 0 years |
| Safety – males | -2 years |
| Safety – females | -2 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 |


This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

## Los Angeles County Employees Retirement Association

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

| Age | Safety Male | Safety Female | General Male | General Female |
|---|---|---|---|---|
| 20 | 0.030% | 0.019% | 0.032% | 0.019% |
| 25 | 0.037% | 0.020% | 0.037% | 0.020% |
| 30 | 0.038% | 0.023% | 0.039% | 0.023% |
| 35 | 0.056% | 0.039% | 0.063% | 0.039% |
| 40 | 0.090% | 0.060% | 0.096% | 0.060% |
| 45 | 0.122% | 0.094% | 0.130% | 0.094% |
| 50 | 0.173% | 0.143% | 0.186% | 0.143% |
| 55 | 0.267% | 0.221% | 0.292% | 0.221% |
| 60 | 0.469% | 0.392% | 0.527% | 0.392% |
| 65 | 0.876% | 0.765% | 1.001% | 0.765% |
| 70 | 1.608% | 1.345% | 1.787% | 1.345% |
| 75 | 2.728% | 2.297% | 3.039% | 2.297% |
| 80 | 4.691% | 3.760% | 5.212% | 3.760% |
| 85 | 8.049% | 6.251% | 8.972% | 6.251% |
| 90 | 13.604% | 10.730% | 15.059% | 10.730% |

## Los Angeles County Employees Retirement Association

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

| Age | Safety Male | Safety Female | General Male | General Female |
|---|---|---|---|---|
| 20 | 0.032% | 0.019% | 0.036% | 0.019% |
| 25 | 0.037% | 0.020% | 0.038% | 0.021% |
| 30 | 0.039% | 0.023% | 0.050% | 0.026% |
| 35 | 0.063% | 0.039% | 0.084% | 0.048% |
| 40 | 0.096% | 0.060% | 0.114% | 0.071% |
| 45 | 0.130% | 0.094% | 0.162% | 0.112% |
| 50 | 0.186% | 0.143% | 0.245% | 0.168% |
| 55 | 0.292% | 0.221% | 0.420% | 0.272% |
| 60 | 0.527% | 0.392% | 0.768% | 0.506% |
| 65 | 1.001% | 0.765% | 1.441% | 0.971% |
| 70 | 1.787% | 1.345% | 2.457% | 1.674% |
| 75 | 3.039% | 2.297% | 4.217% | 2.811% |
| 80 | 5.212% | 3.760% | 7.204% | 4.588% |
| 85 | 8.972% | 6.251% | 12.280% | 7.745% |
| 90 | 15.059% | 10.730% | 19.977% | 13.168% |


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## Los Angeles County Employees Retirement Association

**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 | 30% | 40% |
| 6 | 30% | 40% |
| 7 | 30% | 40% |
| 8 | 28% | 39% |
| 9 | 26% | 38% |
| 10 | 24% | 36% |
| 11 | 22% | 35% |
| 12 | 20% | 34% |
| 13 | 16% | 33% |
| 14 | 12% | 32% |
| 15 | 8% | 30% |
| 16 | 4% | 29% |
| 17 | 0% | 28% |
| 18 | 0% | 26% |
| 19 | 0% | 25% |
| 20 | 0% | 23% |
| 21 | 0% | 22% |
| 22 | 0% | 20% |
| 23 | 0% | 16% |
| 24 | 0% | 12% |
| 25 | 0% | 8% |
| 26 | 0% | 4% |
| 27 | 0% | 0% |
| 28 | 0% | 0% |
| 29 | 0% | 0% |
| 30 & Up | 0% | 0% |


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## Los Angeles County Employees Retirement Association

### 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% | 6.00% | 10.24% | 10.24% |
| 1 | 5.25% | 5.25% | 9.46% | 9.46% |
| 2 | 4.50% | 4.50% | 8.68% | 8.68% |
| 3 | 3.75% | 3.75% | 7.90% | 7.90% |
| 4 | 3.00% | 3.00% | 7.12% | 7.12% |
| 5 | 2.50% | 2.50% | 6.60% | 6.60% |
| 6 | 2.00% | 2.00% | 6.08% | 6.08% |
| 7 | 1.75% | 1.75% | 5.82% | 5.82% |
| 8 | 1.50% | 1.50% | 5.56% | 5.56% |
| 9 | 1.30% | 1.30% | 5.35% | 5.35% |
| 10 | 1.15% | 1.15% | 5.20% | 5.20% |
| 11 | 1.00% | 1.00% | 5.04% | 5.04% |
| 12 | 0.85% | 0.85% | 4.88% | 4.88% |
| 13 | 0.70% | 0.70% | 4.73% | 4.73% |
| 14 | 0.60% | 0.60% | 4.62% | 4.62% |
| 15 | 0.50% | 0.50% | 4.52% | 4.52% |
| 16 | 0.40% | 0.50% | 4.42% | 4.52% |
| 17 | 0.35% | 0.50% | 4.36% | 4.52% |
| 18 | 0.30% | 0.50% | 4.31% | 4.52% |
| 19 | 0.25% | 0.50% | 4.26% | 4.52% |
| 20 or More | 0.25% | 0.50% | 4.26% | 4.52% |

** The total expected increase in salary includes both merit (shown above) and the general wage increase assumption of 4.00% per annum. The total result is compound rather than additive. For example, the total increase to service less than one year is 10.24%.*


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## Los Angeles County Employees Retirement Association

### 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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# Los Angeles County Employees Retirement Association

## 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 | 0.0003 |
| 19 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 20 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 21 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 22 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 23 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 24 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 25 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 26 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 27 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 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 | 0.0003 | 0.0001 | N/A | 0.0006 |
| 34 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | N/A | 0.0007 |
| 35 | 0.0000 | 0.0050 | 0.0004 | 0.0001 | N/A | 0.0008 |
| 36 | 0.0000 | 0.0050 | 0.0004 | 0.0002 | N/A | 0.0008 |
| 37 | 0.0000 | 0.0050 | 0.0005 | 0.0001 | N/A | 0.0009 |
| 38 | 0.0000 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0010 |
| 39 | 0.0000 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0010 |
| 40 | 0.0300 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0011 |
| 41 | 0.0300 | 0.0050 | 0.0007 | 0.0003 | N/A | 0.0011 |
| 42 | 0.0300 | 0.0050 | 0.0008 | 0.0003 | N/A | 0.0012 |
| 43 | 0.0300 | 0.0050 | 0.0009 | 0.0003 | N/A | 0.0013 |
| 44 | 0.0300 | 0.0050 | 0.0010 | 0.0004 | N/A | 0.0014 |
| 45 | 0.0300 | 0.0050 | 0.0011 | 0.0004 | N/A | 0.0015 |
| 46 | 0.0300 | 0.0050 | 0.0012 | 0.0005 | N/A | 0.0016 |
| 47 | 0.0300 | 0.0050 | 0.0013 | 0.0005 | N/A | 0.0017 |
| 48 | 0.0300 | 0.0050 | 0.0014 | 0.0005 | N/A | 0.0019 |
| 49 | 0.0300 | 0.0050 | 0.0016 | 0.0006 | N/A | 0.0020 |
| 50 | 0.0300 | 0.0050 | 0.0017 | 0.0006 | N/A | 0.0021 |
| 51 | 0.0300 | 0.0050 | 0.0018 | 0.0007 | N/A | 0.0023 |
| 52 | 0.0300 | 0.0050 | 0.0020 | 0.0008 | N/A | 0.0024 |
| 53 | 0.0300 | 0.0050 | 0.0022 | 0.0008 | N/A | 0.0026 |
| 54 | 0.0500 | 0.0050 | 0.0025 | 0.0009 | N/A | 0.0028 |
| 55 | 0.0800 | 0.0050 | 0.0027 | 0.0010 | N/A | 0.0030 |
| 56 | 0.1000 | 0.0050 | 0.0030 | 0.0011 | N/A | 0.0033 |
| 57 | 0.1400 | 0.0050 | 0.0032 | 0.0012 | N/A | 0.0036 |
| 58 | 0.1800 | 0.0050 | 0.0036 | 0.0013 | N/A | 0.0040 |
| 59 | 0.2000 | 0.0050 | 0.0040 | 0.0015 | N/A | 0.0044 |
| 60 | 0.2200 | 0.0050 | 0.0044 | 0.0016 | N/A | 0.0049 |
| 61 | 0.2500 | 0.0050 | 0.0048 | 0.0018 | N/A | 0.0054 |
| 62 | 0.3500 | 0.0050 | 0.0052 | 0.0019 | N/A | 0.0059 |
| 63 | 0.2500 | 0.0050 | 0.0052 | 0.0024 | N/A | 0.0065 |
| 64 | 0.2500 | 0.0050 | 0.0052 | 0.0029 | N/A | 0.0070 |
| 65 | 0.3000 | 0.0050 | 0.0052 | 0.0034 | N/A | 0.0076 |
| 66 | 0.2400 | 0.0050 | 0.0052 | 0.0039 | N/A | 0.0081 |
| 67 | 0.2400 | 0.0050 | 0.0052 | 0.0044 | N/A | 0.0086 |
| 68 | 0.2400 | 0.0050 | 0.0052 | 0.0049 | N/A | 0.0091 |
| 69 | 0.2400 | 0.0050 | 0.0052 | 0.0054 | N/A | 0.0095 |
| 70 | 0.3000 | 0.0050 | 0.0052 | 0.0059 | N/A | 0.0099 |
| 71 | 0.3000 | 0.0050 | 0.0052 | 0.0064 | N/A | 0.0104 |
| 72 | 0.3000 | 0.0050 | 0.0052 | 0.0069 | N/A | 0.0112 |
| 73 | 0.3000 | 0.0050 | 0.0052 | 0.0074 | N/A | 0.0123 |
| 74 | 0.3000 | 0.0050 | 0.0052 | 0.0079 | N/A | 0.0137 |
| 75 | 1.0000 | 0.0000 | 0.0000 | 0.0084 | N/A | 0.0151 |


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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 | 0.0002 | 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 | 0.0002 |
| 23 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 24 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 25 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 26 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 27 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 28 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 29 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 30 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 31 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 32 | 0.0000 | 0.0050 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 33 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | N/A | 0.0003 |
| 34 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | N/A | 0.0004 |
| 35 | 0.0000 | 0.0050 | 0.0004 | 0.0001 | N/A | 0.0004 |
| 36 | 0.0000 | 0.0050 | 0.0004 | 0.0002 | N/A | 0.0005 |
| 37 | 0.0000 | 0.0050 | 0.0005 | 0.0001 | N/A | 0.0005 |
| 38 | 0.0000 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 39 | 0.0000 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 40 | 0.0300 | 0.0050 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 41 | 0.0300 | 0.0050 | 0.0007 | 0.0003 | N/A | 0.0007 |
| 42 | 0.0300 | 0.0050 | 0.0008 | 0.0003 | N/A | 0.0008 |
| 43 | 0.0300 | 0.0050 | 0.0009 | 0.0003 | N/A | 0.0009 |
| 44 | 0.0300 | 0.0050 | 0.0010 | 0.0004 | N/A | 0.0009 |
| 45 | 0.0300 | 0.0050 | 0.0011 | 0.0004 | N/A | 0.0010 |
| 46 | 0.0300 | 0.0050 | 0.0012 | 0.0005 | N/A | 0.0011 |
| 47 | 0.0300 | 0.0050 | 0.0013 | 0.0005 | N/A | 0.0012 |
| 48 | 0.0300 | 0.0050 | 0.0014 | 0.0006 | N/A | 0.0013 |
| 49 | 0.0300 | 0.0050 | 0.0014 | 0.0006 | N/A | 0.0014 |
| 50 | 0.0300 | 0.0050 | 0.0016 | 0.0006 | N/A | 0.0016 |
| 51 | 0.0300 | 0.0050 | 0.0017 | 0.0007 | N/A | 0.0017 |
| 52 | 0.0300 | 0.0050 | 0.0018 | 0.0008 | N/A | 0.0018 |
| 53 | 0.0300 | 0.0050 | 0.0019 | 0.0009 | N/A | 0.0020 |
| 54 | 0.0500 | 0.0050 | 0.0020 | 0.0010 | N/A | 0.0021 |
| 55 | 0.0800 | 0.0050 | 0.0022 | 0.0011 | N/A | 0.0023 |
| 56 | 0.1000 | 0.0050 | 0.0022 | 0.0011 | N/A | 0.0025 |
| 57 | 0.1400 | 0.0050 | 0.0024 | 0.0012 | N/A | 0.0028 |
| 58 | 0.1800 | 0.0050 | 0.0027 | 0.0014 | N/A | 0.0030 |
| 59 | 0.2000 | 0.0050 | 0.0030 | 0.0015 | N/A | 0.0033 |
| 60 | 0.2200 | 0.0050 | 0.0034 | 0.0017 | N/A | 0.0036 |
| 61 | 0.2500 | 0.0050 | 0.0037 | 0.0019 | N/A | 0.0039 |
| 62 | 0.3500 | 0.0050 | 0.0040 | 0.0020 | N/A | 0.0043 |
| 63 | 0.2500 | 0.0050 | 0.0043 | 0.0022 | N/A | 0.0047 |
| 64 | 0.2500 | 0.0050 | 0.0047 | 0.0024 | N/A | 0.0050 |
| 65 | 0.3000 | 0.0050 | 0.0051 | 0.0026 | N/A | 0.0054 |
| 66 | 0.2400 | 0.0050 | 0.0056 | 0.0028 | N/A | 0.0058 |
| 67 | 0.2400 | 0.0050 | 0.0061 | 0.0030 | N/A | 0.0062 |
| 68 | 0.2400 | 0.0050 | 0.0066 | 0.0032 | N/A | 0.0066 |
| 69 | 0.2400 | 0.0050 | 0.0072 | 0.0034 | N/A | 0.0069 |
| 70 | 0.3000 | 0.0050 | 0.0072 | 0.0036 | N/A | 0.0073 |
| 71 | 0.3000 | 0.0050 | 0.0072 | 0.0038 | N/A | 0.0076 |
| 72 | 0.3000 | 0.0050 | 0.0072 | 0.0040 | N/A | 0.0079 |
| 73 | 0.3000 | 0.0050 | 0.0072 | 0.0042 | N/A | 0.0085 |
| 74 | 0.3000 | 0.0050 | 0.0072 | 0.0044 | N/A | 0.0093 |
| 75 | 1.0000 | 0.0000 | 0.0000 | 0.0046 | N/A | 0.0103 |


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# Los Angeles County Employees Retirement Association

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

| Age | Service Retirement | Service Disability | Ordinary Disability | Service Death | Ordinary Death |
|---|---|---|---|---|---|
| 18 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 19 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 20 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 21 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 22 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 23 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 24 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 25 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 26 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 27 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0004 |
| 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 | 0.0003 | 0.0001 | N/A | 0.0006 |
| 34 | 0.0000 | 0.0003 | 0.0001 | N/A | 0.0007 |
| 35 | 0.0000 | 0.0004 | 0.0001 | N/A | 0.0008 |
| 36 | 0.0000 | 0.0004 | 0.0002 | N/A | 0.0008 |
| 37 | 0.0000 | 0.0005 | 0.0001 | N/A | 0.0009 |
| 38 | 0.0000 | 0.0006 | 0.0002 | N/A | 0.0010 |
| 39 | 0.0000 | 0.0006 | 0.0002 | N/A | 0.0010 |
| 40 | 0.0200 | 0.0006 | 0.0002 | N/A | 0.0011 |
| 41 | 0.0200 | 0.0007 | 0.0003 | N/A | 0.0011 |
| 42 | 0.0200 | 0.0008 | 0.0003 | N/A | 0.0012 |
| 43 | 0.0200 | 0.0009 | 0.0003 | N/A | 0.0013 |
| 44 | 0.0200 | 0.0010 | 0.0004 | N/A | 0.0014 |
| 45 | 0.0200 | 0.0011 | 0.0004 | N/A | 0.0015 |
| 46 | 0.0200 | 0.0012 | 0.0005 | N/A | 0.0016 |
| 47 | 0.0200 | 0.0013 | 0.0005 | N/A | 0.0017 |
| 48 | 0.0200 | 0.0014 | 0.0005 | N/A | 0.0019 |
| 49 | 0.0200 | 0.0016 | 0.0006 | N/A | 0.0020 |
| 50 | 0.0200 | 0.0017 | 0.0006 | N/A | 0.0021 |
| 51 | 0.0200 | 0.0018 | 0.0007 | N/A | 0.0023 |
| 52 | 0.0200 | 0.0020 | 0.0008 | N/A | 0.0024 |
| 53 | 0.0200 | 0.0022 | 0.0008 | N/A | 0.0026 |
| 54 | 0.0200 | 0.0025 | 0.0009 | N/A | 0.0028 |
| 55 | 0.0250 | 0.0027 | 0.0010 | N/A | 0.0030 |
| 56 | 0.0250 | 0.0030 | 0.0011 | N/A | 0.0033 |
| 57 | 0.0300 | 0.0032 | 0.0012 | N/A | 0.0036 |
| 58 | 0.0400 | 0.0036 | 0.0013 | N/A | 0.0040 |
| 59 | 0.0600 | 0.0040 | 0.0015 | N/A | 0.0044 |
| 60 | 0.0600 | 0.0044 | 0.0016 | N/A | 0.0049 |
| 61 | 0.0700 | 0.0048 | 0.0018 | N/A | 0.0054 |
| 62 | 0.1000 | 0.0052 | 0.0019 | N/A | 0.0059 |
| 63 | 0.0900 | 0.0052 | 0.0024 | N/A | 0.0065 |
| 64 | 0.1500 | 0.0052 | 0.0029 | N/A | 0.0070 |
| 65 | 0.2400 | 0.0052 | 0.0034 | N/A | 0.0076 |
| 66 | 0.2000 | 0.0052 | 0.0039 | N/A | 0.0081 |
| 67 | 0.2000 | 0.0052 | 0.0044 | N/A | 0.0086 |
| 68 | 0.2000 | 0.0052 | 0.0049 | N/A | 0.0091 |
| 69 | 0.2000 | 0.0052 | 0.0054 | N/A | 0.0095 |
| 70 | 0.2500 | 0.0052 | 0.0059 | N/A | 0.0099 |
| 71 | 0.2500 | 0.0052 | 0.0064 | N/A | 0.0104 |
| 72 | 0.2500 | 0.0052 | 0.0069 | N/A | 0.0112 |
| 73 | 0.2500 | 0.0052 | 0.0074 | N/A | 0.0123 |
| 74 | 0.2500 | 0.0052 | 0.0079 | N/A | 0.0137 |
| 75 | 1.0000 | 0.0000 | 0.0084 | N/A | 0.0151 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.0900 |
| 1 | 0.0650 |
| 2 | 0.0500 |
| 3 | 0.0400 |
| 4 | 0.0300 |
| 5 | 0.0283 |
| 6 | 0.0267 |
| 7 | 0.0250 |
| 8 | 0.0236 |
| 9 | 0.0222 |
| 10 | 0.0208 |
| 11 | 0.0194 |
| 12 | 0.0180 |
| 13 | 0.0168 |
| 14 | 0.0156 |
| 15 | 0.0144 |
| 16 | 0.0132 |
| 17 | 0.0120 |
| 18 | 0.0112 |
| 19 | 0.0104 |
| 20 | 0.0096 |
| 21 | 0.0088 |
| 22 | 0.0080 |
| 23 | 0.0076 |
| 24 | 0.0072 |
| 25 | 0.0068 |
| 26 | 0.0064 |
| 27 | 0.0060 |
| 28 | 0.0060 |
| 29 | 0.0060 |
| 30 & Above | 0.0000 |

# Los Angeles County Employees Retirement Association

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

| 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 | 0.0002 |
| 23 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 24 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 25 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 26 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 27 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 28 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 29 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 30 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0002 |
| 31 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 32 | 0.0000 | 0.0002 | 0.0001 | N/A | 0.0003 |
| 33 | 0.0000 | 0.0003 | 0.0001 | N/A | 0.0003 |
| 34 | 0.0000 | 0.0003 | 0.0001 | N/A | 0.0004 |
| 35 | 0.0000 | 0.0004 | 0.0001 | N/A | 0.0004 |
| 36 | 0.0000 | 0.0004 | 0.0002 | N/A | 0.0005 |
| 37 | 0.0000 | 0.0005 | 0.0001 | N/A | 0.0005 |
| 38 | 0.0000 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 39 | 0.0000 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 40 | 0.0200 | 0.0006 | 0.0002 | N/A | 0.0006 |
| 41 | 0.0200 | 0.0007 | 0.0003 | N/A | 0.0007 |
| 42 | 0.0200 | 0.0008 | 0.0003 | N/A | 0.0008 |
| 43 | 0.0200 | 0.0009 | 0.0003 | N/A | 0.0009 |
| 44 | 0.0200 | 0.0010 | 0.0004 | N/A | 0.0009 |
| 45 | 0.0200 | 0.0011 | 0.0004 | N/A | 0.0010 |
| 46 | 0.0200 | 0.0012 | 0.0005 | N/A | 0.0011 |
| 47 | 0.0200 | 0.0013 | 0.0005 | N/A | 0.0012 |
| 48 | 0.0200 | 0.0014 | 0.0006 | N/A | 0.0013 |
| 49 | 0.0200 | 0.0014 | 0.0006 | N/A | 0.0014 |
| 50 | 0.0200 | 0.0016 | 0.0006 | N/A | 0.0016 |
| 51 | 0.0200 | 0.0017 | 0.0007 | N/A | 0.0017 |
| 52 | 0.0200 | 0.0018 | 0.0008 | N/A | 0.0018 |
| 53 | 0.0200 | 0.0019 | 0.0009 | N/A | 0.0020 |
| 54 | 0.0200 | 0.0020 | 0.0010 | N/A | 0.0021 |
| 55 | 0.0250 | 0.0022 | 0.0011 | N/A | 0.0023 |
| 56 | 0.0250 | 0.0022 | 0.0011 | N/A | 0.0025 |
| 57 | 0.0300 | 0.0024 | 0.0012 | N/A | 0.0028 |
| 58 | 0.0400 | 0.0027 | 0.0014 | N/A | 0.0030 |
| 59 | 0.0600 | 0.0030 | 0.0015 | N/A | 0.0033 |
| 60 | 0.0600 | 0.0034 | 0.0017 | N/A | 0.0036 |
| 61 | 0.0700 | 0.0037 | 0.0019 | N/A | 0.0039 |
| 62 | 0.1000 | 0.0040 | 0.0020 | N/A | 0.0043 |
| 63 | 0.0900 | 0.0043 | 0.0022 | N/A | 0.0047 |
| 64 | 0.1500 | 0.0047 | 0.0024 | N/A | 0.0050 |
| 65 | 0.2400 | 0.0051 | 0.0026 | N/A | 0.0054 |
| 66 | 0.2000 | 0.0056 | 0.0028 | N/A | 0.0058 |
| 67 | 0.2000 | 0.0061 | 0.0030 | N/A | 0.0062 |
| 68 | 0.2000 | 0.0066 | 0.0032 | N/A | 0.0066 |
| 69 | 0.2000 | 0.0072 | 0.0034 | N/A | 0.0069 |
| 70 | 0.2500 | 0.0072 | 0.0036 | N/A | 0.0073 |
| 71 | 0.2500 | 0.0072 | 0.0038 | N/A | 0.0076 |
| 72 | 0.2500 | 0.0072 | 0.0040 | N/A | 0.0079 |
| 73 | 0.2500 | 0.0072 | 0.0042 | N/A | 0.0085 |
| 74 | 0.2500 | 0.0072 | 0.0044 | N/A | 0.0093 |
| 75 | 1.0000 | 0.0000 | 0.0046 | N/A | 0.0103 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.0900 |
| 1 | 0.0650 |
| 2 | 0.0500 |
| 3 | 0.0400 |
| 4 | 0.0300 |
| 5 | 0.0283 |
| 6 | 0.0267 |
| 7 | 0.0250 |
| 8 | 0.0236 |
| 9 | 0.0222 |
| 10 | 0.0208 |
| 11 | 0.0194 |
| 12 | 0.0180 |
| 13 | 0.0168 |
| 14 | 0.0156 |
| 15 | 0.0144 |
| 16 | 0.0132 |
| 17 | 0.0120 |
| 18 | 0.0112 |
| 19 | 0.0104 |
| 20 | 0.0096 |
| 21 | 0.0088 |
| 22 | 0.0080 |
| 23 | 0.0076 |
| 24 | 0.0072 |
| 25 | 0.0068 |
| 26 | 0.0064 |
| 27 | 0.0060 |
| 28 | 0.0060 |
| 29 | 0.0060 |
| 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 | 0.0003 |
| 19 | 0.0000 | N/A | N/A | N/A | 0.0003 |
| 20 | 0.0000 | N/A | N/A | N/A | 0.0003 |
| 21 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 22 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 23 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 24 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 25 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 26 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 27 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 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 | 0.0008 |
| 36 | 0.0000 | N/A | N/A | N/A | 0.0008 |
| 37 | 0.0000 | N/A | N/A | N/A | 0.0009 |
| 38 | 0.0000 | N/A | N/A | N/A | 0.0010 |
| 39 | 0.0000 | N/A | N/A | N/A | 0.0010 |
| 40 | 0.0000 | N/A | N/A | N/A | 0.0011 |
| 41 | 0.0000 | N/A | N/A | N/A | 0.0011 |
| 42 | 0.0000 | N/A | N/A | N/A | 0.0012 |
| 43 | 0.0000 | N/A | N/A | N/A | 0.0013 |
| 44 | 0.0000 | N/A | N/A | N/A | 0.0014 |
| 45 | 0.0000 | N/A | N/A | N/A | 0.0015 |
| 46 | 0.0000 | N/A | N/A | N/A | 0.0016 |
| 47 | 0.0000 | N/A | N/A | N/A | 0.0017 |
| 48 | 0.0000 | N/A | N/A | N/A | 0.0019 |
| 49 | 0.0000 | N/A | N/A | N/A | 0.0020 |
| 50 | 0.0000 | N/A | N/A | N/A | 0.0021 |
| 51 | 0.0000 | N/A | N/A | N/A | 0.0023 |
| 52 | 0.0000 | N/A | N/A | N/A | 0.0024 |
| 53 | 0.0000 | N/A | N/A | N/A | 0.0026 |
| 54 | 0.0000 | N/A | N/A | N/A | 0.0028 |
| 55 | 0.0300 | N/A | N/A | N/A | 0.0030 |
| 56 | 0.0300 | N/A | N/A | N/A | 0.0033 |
| 57 | 0.0300 | N/A | N/A | N/A | 0.0036 |
| 58 | 0.0300 | N/A | N/A | N/A | 0.0040 |
| 59 | 0.0350 | N/A | N/A | N/A | 0.0044 |
| 60 | 0.0500 | N/A | N/A | N/A | 0.0049 |
| 61 | 0.0700 | N/A | N/A | N/A | 0.0054 |
| 62 | 0.1000 | N/A | N/A | N/A | 0.0059 |
| 63 | 0.0900 | N/A | N/A | N/A | 0.0065 |
| 64 | 0.1600 | N/A | N/A | N/A | 0.0070 |
| 65 | 0.2500 | N/A | N/A | N/A | 0.0076 |
| 66 | 0.1800 | N/A | N/A | N/A | 0.0081 |
| 67 | 0.1800 | N/A | N/A | N/A | 0.0086 |
| 68 | 0.1800 | N/A | N/A | N/A | 0.0091 |
| 69 | 0.1800 | N/A | N/A | N/A | 0.0095 |
| 70 | 0.2500 | N/A | N/A | N/A | 0.0099 |
| 71 | 0.2500 | N/A | N/A | N/A | 0.0104 |
| 72 | 0.2500 | N/A | N/A | N/A | 0.0112 |
| 73 | 0.2500 | N/A | N/A | N/A | 0.0123 |
| 74 | 0.2500 | N/A | N/A | N/A | 0.0137 |
| 75 | 1.0000 | N/A | N/A | N/A | 0.0151 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.1500 |
| 1 | 0.0900 |
| 2 | 0.0700 |
| 3 | 0.0550 |
| 4 | 0.0450 |
| 5 | 0.0407 |
| 6 | 0.0363 |
| 7 | 0.0320 |
| 8 | 0.0304 |
| 9 | 0.0288 |
| 10 | 0.0272 |
| 11 | 0.0256 |
| 12 | 0.0240 |
| 13 | 0.0228 |
| 14 | 0.0216 |
| 15 | 0.0204 |
| 16 | 0.0192 |
| 17 | 0.0180 |
| 18 | 0.0174 |
| 19 | 0.0168 |
| 20 | 0.0162 |
| 21 | 0.0156 |
| 22 | 0.0150 |
| 23 | 0.0144 |
| 24 | 0.0138 |
| 25 | 0.0132 |
| 26 | 0.0126 |
| 27 | 0.0120 |
| 28 | 0.0120 |
| 29 | 0.0120 |
| 30 & Above | 0.0120 |


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# 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 | 0.0002 |
| 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 | 0.0002 |
| 23 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 24 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 25 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 26 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 27 | 0.0000 | N/A | N/A | N/A | 0.0002 |
| 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 | 0.0003 |
| 32 | 0.0000 | N/A | N/A | N/A | 0.0003 |
| 33 | 0.0000 | N/A | N/A | N/A | 0.0003 |
| 34 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 35 | 0.0000 | N/A | N/A | N/A | 0.0004 |
| 36 | 0.0000 | N/A | N/A | N/A | 0.0005 |
| 37 | 0.0000 | N/A | N/A | N/A | 0.0005 |
| 38 | 0.0000 | N/A | N/A | N/A | 0.0006 |
| 39 | 0.0000 | N/A | N/A | N/A | 0.0006 |
| 40 | 0.0000 | N/A | N/A | N/A | 0.0006 |
| 41 | 0.0000 | N/A | N/A | N/A | 0.0007 |
| 42 | 0.0000 | N/A | N/A | N/A | 0.0008 |
| 43 | 0.0000 | N/A | N/A | N/A | 0.0009 |
| 44 | 0.0000 | N/A | N/A | N/A | 0.0009 |
| 45 | 0.0000 | N/A | N/A | N/A | 0.0010 |
| 46 | 0.0000 | N/A | N/A | N/A | 0.0011 |
| 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 | 0.0016 |
| 51 | 0.0000 | N/A | N/A | N/A | 0.0017 |
| 52 | 0.0000 | N/A | N/A | N/A | 0.0018 |
| 53 | 0.0000 | N/A | N/A | N/A | 0.0020 |
| 54 | 0.0000 | N/A | N/A | N/A | 0.0021 |
| 55 | 0.0300 | N/A | N/A | N/A | 0.0023 |
| 56 | 0.0300 | N/A | N/A | N/A | 0.0025 |
| 57 | 0.0300 | N/A | N/A | N/A | 0.0028 |
| 58 | 0.0300 | N/A | N/A | N/A | 0.0030 |
| 59 | 0.0350 | N/A | N/A | N/A | 0.0033 |
| 60 | 0.0500 | N/A | N/A | N/A | 0.0036 |
| 61 | 0.0700 | N/A | N/A | N/A | 0.0039 |
| 62 | 0.1000 | N/A | N/A | N/A | 0.0043 |
| 63 | 0.0900 | N/A | N/A | N/A | 0.0047 |
| 64 | 0.1600 | N/A | N/A | N/A | 0.0050 |
| 65 | 0.2500 | N/A | N/A | N/A | 0.0054 |
| 66 | 0.1800 | N/A | N/A | N/A | 0.0058 |
| 67 | 0.1800 | N/A | N/A | N/A | 0.0062 |
| 68 | 0.1800 | N/A | N/A | N/A | 0.0066 |
| 69 | 0.1800 | N/A | N/A | N/A | 0.0069 |
| 70 | 0.2500 | N/A | N/A | N/A | 0.0073 |
| 71 | 0.2500 | N/A | N/A | N/A | 0.0076 |
| 72 | 0.2500 | N/A | N/A | N/A | 0.0079 |
| 73 | 0.2500 | N/A | N/A | N/A | 0.0085 |
| 74 | 0.2500 | N/A | N/A | N/A | 0.0093 |
| 75 | 1.0000 | N/A | N/A | N/A | 0.0103 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.1500 |
| 1 | 0.0900 |
| 2 | 0.0700 |
| 3 | 0.0550 |
| 4 | 0.0450 |
| 5 | 0.0407 |
| 6 | 0.0363 |
| 7 | 0.0320 |
| 8 | 0.0304 |
| 9 | 0.0288 |
| 10 | 0.0272 |
| 11 | 0.0256 |
| 12 | 0.0240 |
| 13 | 0.0228 |
| 14 | 0.0216 |
| 15 | 0.0204 |
| 16 | 0.0192 |
| 17 | 0.0180 |
| 18 | 0.0174 |
| 19 | 0.0168 |
| 20 | 0.0162 |
| 21 | 0.0156 |
| 22 | 0.0150 |
| 23 | 0.0144 |
| 24 | 0.0138 |
| 25 | 0.0132 |
| 26 | 0.0126 |
| 27 | 0.0120 |
| 28 | 0.0120 |
| 29 | 0.0120 |
| 30 & Above | 0.0120 |

# Los Angeles County Employees Retirement Association

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

| Age | Service Retirement | Service Disability | Ordinary Disability | Service Death | Ordinary Death |
|---|---|---|---|---|---|
| 18 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 19 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 20 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 21 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 22 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0002 |
| 23 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 24 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 25 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 26 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 27 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 28 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 29 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0003 |
| 30 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0004 |
| 31 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0004 |
| 32 | 0.0000 | 0.0050 | 0.0003 | 0.0001 | 0.0004 |
| 33 | 0.0000 | 0.0052 | 0.0003 | 0.0001 | 0.0004 |
| 34 | 0.0000 | 0.0054 | 0.0003 | 0.0001 | 0.0004 |
| 35 | 0.0000 | 0.0056 | 0.0003 | 0.0001 | 0.0004 |
| 36 | 0.0000 | 0.0058 | 0.0003 | 0.0001 | 0.0004 |
| 37 | 0.0000 | 0.0060 | 0.0003 | 0.0001 | 0.0004 |
| 38 | 0.0000 | 0.0064 | 0.0003 | 0.0001 | 0.0004 |
| 39 | 0.0000 | 0.0068 | 0.0003 | 0.0001 | 0.0004 |
| 40 | 0.0100 | 0.0072 | 0.0004 | 0.0001 | 0.0005 |
| 41 | 0.0100 | 0.0076 | 0.0004 | 0.0001 | 0.0006 |
| 42 | 0.0100 | 0.0080 | 0.0004 | 0.0001 | 0.0006 |
| 43 | 0.0100 | 0.0088 | 0.0004 | 0.0001 | 0.0007 |
| 44 | 0.0100 | 0.0096 | 0.0004 | 0.0001 | 0.0008 |
| 45 | 0.0100 | 0.0104 | 0.0005 | 0.0001 | 0.0008 |
| 46 | 0.0100 | 0.0112 | 0.0005 | 0.0001 | 0.0009 |
| 47 | 0.0100 | 0.0120 | 0.0005 | 0.0001 | 0.0010 |
| 48 | 0.0100 | 0.0136 | 0.0005 | 0.0001 | 0.0010 |
| 49 | 0.0100 | 0.0152 | 0.0006 | 0.0001 | 0.0011 |
| 50 | 0.0100 | 0.0168 | 0.0007 | 0.0001 | 0.0011 |
| 51 | 0.0200 | 0.0184 | 0.0007 | 0.0001 | 0.0012 |
| 52 | 0.0250 | 0.0200 | 0.0008 | 0.0001 | 0.0013 |
| 53 | 0.0300 | 0.0300 | 0.0009 | 0.0001 | 0.0014 |
| 54 | 0.1200 | 0.0500 | 0.0010 | 0.0001 | 0.0015 |
| 55 | 0.2400 | 0.1500 | 0.0020 | 0.0001 | 0.0016 |
| 56 | 0.1800 | 0.1500 | 0.0022 | 0.0001 | 0.0017 |
| 57 | 0.1800 | 0.1500 | 0.0024 | 0.0001 | 0.0019 |
| 58 | 0.2000 | 0.1500 | 0.0024 | 0.0001 | 0.0020 |
| 59 | 0.3000 | 0.1500 | 0.0024 | 0.0001 | 0.0021 |
| 60 | 1.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.0500 |
| 1 | 0.0425 |
| 2 | 0.0350 |
| 3 | 0.0300 |
| 4 | 0.0250 |
| 5 | 0.0217 |
| 6 | 0.0183 |
| 7 | 0.0150 |
| 8 | 0.0132 |
| 9 | 0.0114 |
| 10 | 0.0096 |
| 11 | 0.0078 |
| 12 | 0.0060 |
| 13 | 0.0056 |
| 14 | 0.0052 |
| 15 | 0.0048 |
| 16 | 0.0044 |
| 17 | 0.0040 |
| 18 | 0.0032 |
| 19 | 0.0024 |
| 20 & Above | 0.0000 |

# Los Angeles County Employees Retirement Association

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

| Age | Service Retirement | Service Disability | Ordinary Disability | Service Death | Ordinary Death |
|---|---|---|---|---|---|
| 18 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 19 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 20 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 21 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 22 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 23 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 24 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 25 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 26 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 27 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 28 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 29 | 0.0000 | 0.0050 | 0.0006 | 0.0001 | 0.0002 |
| 30 | 0.0000 | 0.0060 | 0.0006 | 0.0001 | 0.0002 |
| 31 | 0.0000 | 0.0070 | 0.0006 | 0.0001 | 0.0003 |
| 32 | 0.0000 | 0.0080 | 0.0006 | 0.0001 | 0.0003 |
| 33 | 0.0000 | 0.0090 | 0.0006 | 0.0001 | 0.0003 |
| 34 | 0.0000 | 0.0100 | 0.0006 | 0.0001 | 0.0004 |
| 35 | 0.0000 | 0.0110 | 0.0008 | 0.0001 | 0.0004 |
| 36 | 0.0000 | 0.0120 | 0.0008 | 0.0001 | 0.0005 |
| 37 | 0.0000 | 0.0125 | 0.0008 | 0.0001 | 0.0005 |
| 38 | 0.0000 | 0.0130 | 0.0008 | 0.0001 | 0.0006 |
| 39 | 0.0000 | 0.0135 | 0.0008 | 0.0001 | 0.0006 |
| 40 | 0.0100 | 0.0140 | 0.0010 | 0.0001 | 0.0006 |
| 41 | 0.0100 | 0.0145 | 0.0010 | 0.0001 | 0.0007 |
| 42 | 0.0100 | 0.0150 | 0.0010 | 0.0001 | 0.0008 |
| 43 | 0.0100 | 0.0155 | 0.0010 | 0.0001 | 0.0009 |
| 44 | 0.0100 | 0.0160 | 0.0012 | 0.0001 | 0.0009 |
| 45 | 0.0100 | 0.0165 | 0.0012 | 0.0001 | 0.0010 |
| 46 | 0.0100 | 0.0170 | 0.0014 | 0.0001 | 0.0011 |
| 47 | 0.0100 | 0.0175 | 0.0014 | 0.0001 | 0.0012 |
| 48 | 0.0100 | 0.0180 | 0.0016 | 0.0001 | 0.0013 |
| 49 | 0.0100 | 0.0185 | 0.0020 | 0.0001 | 0.0014 |
| 50 | 0.0100 | 0.0190 | 0.0022 | 0.0001 | 0.0016 |
| 51 | 0.0200 | 0.0300 | 0.0026 | 0.0001 | 0.0017 |
| 52 | 0.0250 | 0.0350 | 0.0028 | 0.0001 | 0.0018 |
| 53 | 0.0300 | 0.0400 | 0.0034 | 0.0001 | 0.0020 |
| 54 | 0.1200 | 0.0450 | 0.0040 | 0.0001 | 0.0021 |
| 55 | 0.2400 | 0.0700 | 0.0048 | 0.0001 | 0.0023 |
| 56 | 0.1800 | 0.1200 | 0.0054 | 0.0001 | 0.0025 |
| 57 | 0.1800 | 0.1200 | 0.0060 | 0.0001 | 0.0028 |
| 58 | 0.2000 | 0.1200 | 0.0066 | 0.0001 | 0.0030 |
| 59 | 0.3000 | 0.1200 | 0.0072 | 0.0001 | 0.0033 |
| 60 | 1.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Years of Service | Other Terminations |
|---|---|
| 0 | 0.0500 |
| 1 | 0.0425 |
| 2 | 0.0350 |
| 3 | 0.0300 |
| 4 | 0.0250 |
| 5 | 0.0217 |
| 6 | 0.0183 |
| 7 | 0.0150 |
| 8 | 0.0132 |
| 9 | 0.0114 |
| 10 | 0.0096 |
| 11 | 0.0078 |
| 12 | 0.0060 |
| 13 | 0.0056 |
| 14 | 0.0052 |
| 15 | 0.0048 |
| 16 | 0.0044 |
| 17 | 0.0040 |
| 18 | 0.0032 |
| 19 | 0.0024 |
| 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 the LACERA as contained in the County Employees Retirement Plan (CERL) of 1937, with provisions adopted by the LACERA Board, effective through July 1, 2008. 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.

**Government Code Section**

### MEMBERSHIP

| | |
|---|---|
| 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, fire fighting 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, or the first day of the month after they make an election of either Plan D or Plan E, depending on the law in effect at that time. | (31493, 31493.5, 31493.6, 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 seven defined benefit plans (General Plans A, B, C, D and E and Safety Plans A and B) 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.

**RETIREMENT PLANS** (Continued)

| | | |
|---|---|---|
| **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 F:** | General members in Plan D and safety members in Plan B who first became members on or after January 1, 1990, and are subject to the limitations set forth in Section 415 of the Internal Revenue Code of 1986. Currently there are no members participating in Plan F. No further description of Plan F is included here. | (31510) |

**MEMBER CONTRIBUTIONS**

| | | |
|---|---|---|
| **Plans A-D:** | 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 member 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) |

**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 investigation, valuation and recommendation of the actuary. | (31453, 31454 31581) |


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## SERVICE RETIREMENT ALLOWANCE

| | | |
|---|---|---|
| **Eligibility:** | | (31672) |
| **Plans A-D:** | **General members:**<br>Age 50 with 10 years of County service;<br>Any age with 30 years of service; or<br>Age 70 regardless of service. | |
| | **Safety members:**<br>Age 50 with 10 years of County service;<br>Any age with 20 years of service; or<br>Age 60 regardless of service. | (31662.4,<br>31662.6,<br>31663.25) |
| **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) |
| **Final Compensation:** | | |
| **Plans A-D:** | Monthly average of a member's compensation during the last year of service. | (31462.3,<br>31461.45) |
| **Plan E:** | Monthly average of a member's compensation for the last three years of service. | (31488) |

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)

| | | |
|---|---|---|
| **Monthly Allowance:** | | |
| | **Safety members:**<br>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:**<br>1/60 x Final Compensation x a Plan specific age factor x years of service. | (31676.1)<br>(31676.11)<br>(31676.14) |


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**SERVICE RETIREMENT ALLOWANCE** (Continued)

**Plan E:**

**General members: (a)+(b)-(c) 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.

(31491, 31491.3 (b)&(c))

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).

**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.

**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) |

**Maximum Allowance:**

**Plans A-D:**

Allowance may not exceed 100% of final compensation.

**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)



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**SERVICE RETIREMENT ALLOWANCE** (Continued)

**Unmodified Retirement Allowance (Normal Form):**

| | | |
|---|---|---|
| **Plans A-D:** | 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)

**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) |


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**SERVICE RETIREMENT ALLOWANCE** (Continued)

| | | |
|---|---|---|
| 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) |
| **All Allowances:** | 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. | (31600) |

**SERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE**

| | | |
|---|---|---|
| **Eligibility:** | | (31720, 31720.5) |
| **Plans A-D:** | 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. | |
| **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:** | Any age with 5 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:** | | |
| **Plans A-D:** | Active members who die in service as a result of injury or disease arising out of and in the course of employment. | (31787) |
| **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.

(31787.6)

**Additional Amount for Spouse of Safety Member:**

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:** | 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:**

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. (31781.1, 31781.12)

**Second Optional Death Benefit:**

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). (31781.2, 31765.2)

**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 have been entitled if the member retired or been 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)


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**NONSERVICE-CONNECTED DEATH BENEFITS** (Continued)

**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)

**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-D:** 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. (31789.1)

**Plan E:** The only death benefits payable after retirement are the continuance allowances described above under Unmodified and Optional Retirement Allowances. There is no $5,000 lump-sum payment under Plan E. (31492)


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## DEFERRED VESTED BENEFITS

| | | |
|---|---|---|
| **Eligibility:** | | (31700) |
| **Plans A-D:** | Five years of county or reciprocal service. member contributions must be left on deposit. | |
| **Plan E:** | Age 55 with 10 years of service. | (31491) |
| **Monthly Allowance:** | | |
| **Plans A-D:** | Same as service retirement allowance; payable anytime 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) |


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## 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:

**Plans A-E:**

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)

## 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)


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## 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:** | Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase.<br><br>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

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. (318874.3(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, 2009 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 increased by 1.4% and the total salary increased by 6.2% since the last valuation. The total number of retired members and their beneficiaries increased by 1.4%, while the average retirement benefit amount increased by 4.0%.

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 2009 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, 2009 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. However, benefit amounts were zeroed for records of retirees who have returned to work and who were valued as active participants.

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, 2009

| | Sex | Vested | NonVested | Total Number | Annual Salary | Average Age | Average Monthly Salary | Average Credited Service |
|---|---|---|---|---|---|---|---|---|
| ***General Members*** | | | | | | | | |
| Plan A | M | 640 | 1 | 641 | $ 62,431,944 | 61.1 | $ 8,116 | 34.2 |
| | F | 1,327 | - | 1,327 | 103,694,820 | 59.5 | 6,512 | 34.2 |
| Plan B | M | 99 | - | 99 | 9,958,872 | 59.5 | 8,383 | 31.5 |
| | F | 208 | - | 208 | 16,324,560 | 58.2 | 6,540 | 30.8 |
| Plan C | M | 70 | - | 70 | 6,964,104 | 58.3 | 8,291 | 30.7 |
| | F | 165 | - | 165 | 12,958,080 | 57.4 | 6,544 | 29.9 |
| Plan D | M | 11,513 | 5,892 | 17,405 | 1,206,373,068 | 44.7 | 5,776 | 10.4 |
| | F | 22,580 | 11,900 | 34,480 | 2,158,934,052 | 43.9 | 5,218 | 10.5 |
| Plan E | M | 5,838 | 3,491 | 9,329 | 651,594,960 | 49.0 | 5,821 | 15.5 |
| | F | 12,288 | 6,866 | 19,154 | 1,118,324,136 | 48.2 | 4,865 | 16.2 |
| Total | | 54,728 | 28,150 | 82,878 | $ 5,347,558,596 | 46.1 | $ 5,377 | 13.1 |
| ***Safety Members*** | | | | | | | | |
| Plan A | M | 220 | - | 220 | $ 30,221,964 | 56.0 | $ 11,448 | 32.8 |
| | F | 22 | - | 22 | 2,845,272 | 55.4 | 10,778 | 33.7 |
| Plan B | M | 8,348 | 2,627 | 10,975 | 1,053,333,096 | 40.9 | 7,998 | 14.0 |
| | F | 1,171 | 522 | 1,693 | 153,254,760 | 37.9 | 7,544 | 11.2 |
| Total | | 9,761 | 3,149 | 12,910 | $ 1,239,655,092 | 40.8 | $ 8,002 | 14.0 |
| ***Grand Total*** | | 64,489 | 31,299 | 95,788 | $ 6,587,213,688 | 45.4 | $ 5,731 | 13.2 |

# Los Angeles County Employees Retirement Association

## Exhibit C-2Ret: LACERA Membership – Retired Members as of June 30, 2009

| | Sex | Number | Annual Allowance | Average Age | Average Monthly Benefit |
|---|---|---|---|---|---|
| ***General Members*** | | | | | |
| Plan A | M | 11,617 | $ 578,725,694 | 74.4 | $ 4,151 |
| | F | 17,294 | 568,100,808 | 75.4 | 2,737 |
| Plan B | M | 166 | 6,058,745 | 69.8 | 3,042 |
| | F | 405 | 11,098,401 | 70.8 | 2,284 |
| Plan C | M | 123 | 3,197,365 | 70.0 | 2,166 |
| | F | 251 | 5,239,789 | 70.6 | 1,740 |
| Plan D | M | 2,264 | 59,474,511 | 65.6 | 2,189 |
| | F | 3,964 | 83,769,912 | 65.7 | 1,761 |
| Plan E | M | 2,323 | 43,694,287 | 69.5 | 1,567 |
| | F | 4,418 | 63,247,151 | 68.9 | 1,193 |
| Total | | 42,825 | $ 1,422,606,663 | 72.6 | $ 2,768 |
| ***Safety Members*** | | | | | |
| Plan A | M | 6,319 | $ 479,924,928 | 69.2 | $ 6,329 |
| | F | 1,900 | 90,914,649 | 72.2 | 3,987 |
| Plan B | M | 1,538 | 74,292,361 | 52.5 | 4,025 |
| | F | 487 | 17,986,114 | 48.2 | 3,078 |
| Total | | 10,244 | $ 663,118,052 | 66.3 | $ 5,394 |
| ***Grand Total*** | | 53,069 | $ 2,085,724,715 | 71.4 | $ 3,275 |

## Los Angeles County Employees Retirement Association

**Exhibit C-2Def: LACERA Membership – Deferred Members as of June 30, 2009 Subtotaled by Plan and Retirement Type**

| | Sex | Number | Average Age |
|---|---|---|---|
| ***General Members*** | | | |
| Plan A | M | 105 | 62.2 |
| | F | 205 | 60.3 |
| Plan B | M | 11 | 61.2 |
| | F | 37 | 58.0 |
| Plan C | M | 8 | 58.0 |
| | F | 22 | 55.0 |
| Plan D | M | 2,194 | 43.8 |
| | F | 4,288 | 42.7 |
| Plan E | M | 1,283 | 53.0 |
| | F | 2,998 | 52.0 |
| Total | | 11,151 | 47.2 |
| ***Safety Members*** | | | |
| Plan A | M | 10 | 59.7 |
| | F | - | - |
| Plan B | M | 521 | 38.1 |
| | F | 162 | 38.0 |
| Total | | 693 | 38.4 |
| ***Grand Total*** | | 11,844 | 46.7 |


This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-2a: LACERA Membership – Retired Members as of June 30, 2009 Subtotaled by Plan and Retirement Type

| Plan | Retirement Type | Number | Annual Benefits in Thousands | Average Monthly Benefit |
|---|---|---|---|---|
| ***General Plans:*** | | | | |
| **Plan A** | | | | |
| | Healthy | 21,384 | $ 954,615 | $ 3,720 |
| | Disabled | 2,455 | 72,791 | 2,471 |
| | Beneficiaries | 5,072 | 119,420 | 1,962 |
| | Total | 28,911 | $ 1,146,827 | $ 3,306 |
| **Plan B** | | | | |
| | Healthy | 464 | $ 15,028 | $ 2,699 |
| | Disabled | 66 | 1,366 | 1,725 |
| | Beneficiaries | 41 | 763 | 1,551 |
| | Total | 571 | $ 17,157 | $ 2,504 |
| **Plan C** | | | | |
| | Healthy | 275 | $ 6,643 | $ 2,013 |
| | Disabled | 60 | 1,346 | 1,869 |
| | Beneficiaries | 39 | 448 | 957 |
| | Total | 374 | $ 8,437 | $ 1,880 |
| **Plan D** | | | | |
| | Healthy | 4,463 | $ 105,250 | $ 1,965 |
| | Disabled | 1,217 | 30,724 | 2,104 |
| | Beneficiaries | 548 | 7,270 | 1,106 |
| | Total | 6,228 | $ 143,244 | $ 1,917 |
| **Plan E** | | | | |
| | Healthy | 6,302 | $ 103,435 | $ 1,368 |
| | Disabled | 0 | 0 | N/A |
| | Beneficiaries | 439 | 3,506 | 666 |
| | Total | 6,741 | $ 106,941 | $ 1,322 |
| ***Safety Plans:*** | | | | |
| **Plan A** | | | | |
| | Healthy | 3,025 | $ 242,693 | $ 6,686 |
| | Disabled | 3,821 | 268,808 | 5,863 |
| | Beneficiaries | 1,373 | 59,338 | 3,601 |
| | Total | 8,219 | $ 570,840 | $ 5,788 |
| **Plan B** | | | | |
| | Healthy | 524 | $ 32,148 | $ 5,113 |
| | Disabled | 1,377 | 56,361 | 3,411 |
| | Beneficiaries | 124 | 3,769 | 2,533 |
| | Total | 2,025 | $ 92,279 | $ 3,797 |
| **Grand Totals** | | 53,069 | 2,085,725 | 3,275 |

## Los Angeles County Employees Retirement Association

### Exhibit C-2b: LACERA Membership – Retired Members as of June 30, 2009 Subtotaled by Retirement Type and Plan

| Type | Plan | Number | Annual Benefits in Thousands | Average Monthly Benefit |
|---|---|---|---|---|
| **Healthy Retirees** | | | | |
| | General A | 21,384 | $ 954,616 | $ 3,720 |
| | General B | 464 | 15,028 | 2,699 |
| | General C | 275 | 6,643 | 2,013 |
| | General D | 4,463 | 105,250 | 1,965 |
| | General E | 6,302 | 103,435 | 1,368 |
| | Safety A | 3,025 | 242,694 | 6,686 |
| | Safety B | 524 | 32,148 | 5,113 |
| | Total | 36,437 | $ 1,459,814 | $ 3,339 |
| **Disabled Retirees** | | | | |
| | General A | 2,455 | $ 72,791 | $ 2,471 |
| | General B | 66 | 1,366 | 1,725 |
| | General C | 60 | 1,346 | 1,869 |
| | General D | 1,217 | 30,724 | 2,104 |
| | Safety A | 3,821 | 268,808 | 5,863 |
| | Safety B | 1,377 | 56,362 | 3,411 |
| | Total | 8,996 | $ 431,397 | $ 3,996 |
| **Beneficiaries** | | | | |
| | General A | 5,072 | $ 119,420 | $ 1,962 |
| | General B | 41 | 763 | 1,551 |
| | General C | 39 | 448 | 957 |
| | General D | 548 | 7,270 | 1,106 |
| | General E | 439 | 3,506 | 666 |
| | Safety A | 1,373 | 59,338 | 3,601 |
| | Safety B | 124 | 3,769 | 2,533 |
| | Total | 7,636 | $ 194,514 | $ 2,123 |
| **Grand Totals** | | 53,069 | $ 2,085,725 | $ 3,275 |

# Los Angeles County Employees Retirement Association

## Exhibit C-3: Age Distribution of Active Members as of June 30, 2009

| | Age Groups | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70+ | Total |
| ***General Plans:*** | | | | | | | |
| Plan A | | | | | | | |
| Male | - | - | - | 278 | 319 | 44 | 641 |
| Female | - | - | - | 767 | 501 | 59 | 1,327 |
| Plan B | | | | | | | |
| Male | - | - | - | 57 | 40 | 2 | 99 |
| Female | - | - | 1 | 139 | 58 | 10 | 208 |
| Plan C | | | | | | | |
| Male | - | - | - | 45 | 24 | 1 | 70 |
| Female | - | - | 8 | 104 | 49 | 4 | 165 |
| Plan D | | | | | | | |
| Male | 1,674 | 4,478 | 5,139 | 4,254 | 1,670 | 190 | 17,405 |
| Female | 3,429 | 9,550 | 10,528 | 8,079 | 2,651 | 243 | 34,480 |
| Plan E | | | | | | | |
| Male | 574 | 1,558 | 2,403 | 2,953 | 1,625 | 216 | 9,329 |
| Female | 1,086 | 3,199 | 5,572 | 6,304 | 2,744 | 249 | 19,154 |
| ***Safety Plans:*** | | | | | | | |
| Plan A | | | | | | | |
| Male | - | - | - | 203 | 17 | - | 220 |
| Female | - | - | - | 21 | 1 | - | 22 |
| Plan B | | | | | | | |
| Male | 1,452 | 3,123 | 4,340 | 2,003 | 55 | 2 | 10,975 |
| Female | 328 | 642 | 552 | 168 | 3 | - | 1,693 |
| ***Grand Totals:*** | 8,543 | 22,550 | 28,543 | 25,375 | 9,757 | 1,020 | 95,788 |

# Los Angeles County Employees Retirement Association

## Exhibit C-4: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 460 | 599 | 358 | 114 | 44 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1,576 |
| 25-29 | 1,058 | 1,775 | 1,670 | 1,203 | 530 | 716 | 15 | 0 | 0 | 0 | 0 | 0 | 6,967 |
| 30-34 | 810 | 1,314 | 1,422 | 1,409 | 884 | 3,611 | 822 | 11 | 0 | 0 | 0 | 0 | 10,283 |
| 35-39 | 568 | 915 | 1,046 | 928 | 589 | 4,026 | 3,300 | 869 | 26 | 0 | 0 | 0 | 12,267 |
| 40-44 | 409 | 600 | 735 | 659 | 514 | 3,039 | 3,077 | 3,570 | 1,569 | 40 | 0 | 0 | 14,212 |
| 45-49 | 298 | 446 | 617 | 555 | 352 | 2,307 | 2,174 | 2,995 | 3,397 | 1,125 | 65 | 0 | 14,331 |
| 50-54 | 252 | 350 | 459 | 452 | 329 | 1,863 | 1,689 | 2,233 | 2,597 | 2,271 | 1,112 | 77 | 13,684 |
| 55-59 | 147 | 220 | 297 | 295 | 192 | 1,348 | 1,302 | 1,653 | 1,819 | 1,487 | 1,739 | 1,192 | 11,691 |
| 60-64 | 67 | 104 | 153 | 147 | 112 | 854 | 849 | 1,073 | 1,083 | 768 | 911 | 1,149 | 7,270 |
| 65 & Over | 24 | 27 | 39 | 74 | 46 | 438 | 488 | 649 | 620 | 340 | 345 | 417 | 3,507 |
| **Total Count** | 4,093 | 6,350 | 6,796 | 5,836 | 3,592 | 18,203 | 13,716 | 13,053 | 11,111 | 6,031 | 4,172 | 2,835 | 95,788 |

***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 | 43,029 | 46,669 | 46,723 | 42,006 | 45,204 | 40,092 | - | - | - | - | - | - | 45,236 |
| 25-29 | 48,769 | 52,223 | 54,144 | 52,910 | 51,817 | 55,100 | 53,377 | - | - | - | - | - | 52,545 |
| 30-34 | 52,940 | 53,012 | 55,272 | 56,629 | 59,066 | 61,991 | 65,592 | 73,639 | - | - | - | - | 58,516 |
| 35-39 | 54,331 | 55,650 | 57,182 | 58,273 | 59,858 | 66,381 | 73,446 | 73,917 | 75,327 | - | - | - | 65,765 |
| 40-44 | 54,314 | 54,311 | 53,842 | 57,201 | 61,071 | 66,458 | 74,740 | 78,921 | 79,344 | 90,150 | - | - | 70,732 |
| 45-49 | 50,454 | 49,903 | 48,913 | 53,571 | 58,556 | 63,748 | 71,187 | 78,432 | 85,594 | 87,712 | 82,495 | - | 73,222 |
| 50-54 | 54,903 | 52,076 | 52,993 | 54,652 | 62,292 | 62,776 | 67,575 | 75,345 | 85,667 | 91,672 | 81,546 | 78,588 | 75,147 |
| 55-59 | 59,038 | 55,342 | 53,385 | 58,088 | 60,932 | 64,603 | 66,737 | 71,840 | 80,176 | 85,909 | 84,565 | 75,425 | 74,316 |
| 60-64 | 65,062 | 53,032 | 50,780 | 62,467 | 60,944 | 65,750 | 67,640 | 69,313 | 76,317 | 81,554 | 84,335 | 79,953 | 73,670 |
| 65 & Over | 114,084 | 66,501 | 85,985 | 81,090 | 83,969 | 68,944 | 65,243 | 63,653 | 72,986 | 82,183 | 74,899 | 81,406 | 72,449 |
| **Avg. Annual Compensation** | 51,794 | 52,565 | 53,945 | 55,990 | 58,966 | 64,276 | 70,874 | 75,414 | 82,210 | 87,679 | 82,879 | 78,226 | 68,769 |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-4a: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 1 | 2 | 4 | 13 | 94 | 30 | 144 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 6 | 10 | 16 | 19 | 37 | 322 | 491 | 901 |
| 60-64 | 0 | 0 | 0 | 0 | 1 | 7 | 14 | 18 | 39 | 31 | 191 | 351 | 652 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 4 | 19 | 15 | 65 | 159 | 271 |
| **Total Count** | 0 | 0 | 0 | 0 | 1 | 16 | 31 | 40 | 81 | 96 | 672 | 1,031 | 1,968 |

***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 | - | - | - | - | - | - | 97,548 | 39,204 | 80,577 | 72,354 | 70,487 | 70,030 | 70,594 |
| 55-59 | - | - | - | - | - | 70,946 | 98,102 | 73,591 | 90,728 | 80,908 | 81,390 | 76,696 | 78,986 |
| 60-64 | - | - | - | - | 113,820 | 118,114 | 89,262 | 95,474 | 89,595 | 84,173 | 93,270 | 90,062 | 91,164 |
| 65 & Over | - | - | - | - | - | 55,740 | 83,436 | 72,018 | 121,430 | 117,344 | 82,601 | 94,111 | 93,564 |
| **Avg. Annual Compensation** | - | - | - | - | 113,820 | 88,731 | 91,253 | 81,562 | 96,883 | 86,497 | 83,358 | 83,738 | 84,414 |

Milliman

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# Los Angeles County Employees Retirement Association

## Exhibit C-4b: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 1 | 0 | 1 |
| 50-54 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 61 | 1 | 66 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 3 | 8 | 104 | 8 | 130 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 61 | 4 | 70 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 34 | 1 | 40 |
| **Total Count** | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 4 | 9 | 13 | 261 | 14 | 307 |

***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 | - | - | - | - | - | - | - | - | - | - | 67,896 | - | 67,896 |
| 50-54 | - | - | - | - | - | - | 44,664 | - | 68,712 | 77,484 | 75,462 | 100,476 | 75,200 |
| 55-59 | - | - | - | - | - | 159,372 | 103,578 | 102,837 | 102,040 | 85,909 | 88,224 | 111,570 | 91,070 |
| 60-64 | - | - | - | - | - | - | 75,714 | - | 94,788 | 91,848 | 86,218 | 99,972 | 86,987 |
| 65 & Over | - | - | - | - | - | - | - | - | 137,524 | 124,218 | 76,184 | 72,852 | 83,103 |
| **Avg. Annual Compensation** | - | - | - | - | - | 159,372 | 80,650 | 102,837 | 105,656 | 92,069 | 83,126 | 104,698 | 85,614 |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-4c: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 1 | 0 | 0 | 2 | 5 | 0 | 8 |
| 50-54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 47 | 3 | 58 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 | 77 | 3 | 91 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 6 | 45 | 3 | 59 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 17 | 1 | 19 |
| **Total Count** | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 6 | 22 | 191 | 10 | 235 |

***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 | - | - | - | - | - | - | 53,304 | - | - | 90,690 | 61,303 | - | 67,650 |
| 50-54 | - | - | - | - | - | - | - | 104,748 | 102,660 | 81,216 | 70,227 | 88,680 | 73,472 |
| 55-59 | - | - | - | - | - | - | 105,000 | 121,188 | 106,224 | 98,426 | 90,592 | 102,756 | 92,434 |
| 60-64 | - | - | - | - | - | 42,456 | - | 83,208 | 114,008 | 94,148 | 76,006 | 156,924 | 83,451 |
| 65 & Over | - | - | - | - | - | - | - | - | - | 298,704 | 73,084 | 243,348 | 93,920 |
| **Avg. Annual Compensation** | - | - | - | - | - | 42,456 | 79,152 | 103,048 | 109,522 | 100,966 | 79,819 | 128,843 | 84,775 |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-4d: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 274 | 316 | 183 | 65 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 855 |
| 25-29 | 703 | 1,064 | 960 | 785 | 337 | 390 | 9 | 0 | 0 | 0 | 0 | 0 | 4,248 |
| 30-34 | 575 | 882 | 885 | 1,003 | 619 | 2,124 | 440 | 8 | 0 | 0 | 0 | 0 | 6,536 |
| 35-39 | 415 | 625 | 718 | 657 | 397 | 2,472 | 1,789 | 405 | 14 | 0 | 0 | 0 | 7,492 |
| 40-44 | 292 | 432 | 514 | 499 | 337 | 1,943 | 1,783 | 1,544 | 579 | 26 | 0 | 0 | 7,949 |
| 45-49 | 219 | 334 | 439 | 395 | 241 | 1,547 | 1,363 | 1,506 | 1,300 | 346 | 28 | 0 | 7,718 |
| 50-54 | 180 | 252 | 327 | 329 | 233 | 1,274 | 1,116 | 1,285 | 1,163 | 635 | 208 | 16 | 7,018 |
| 55-59 | 101 | 148 | 203 | 207 | 138 | 904 | 846 | 962 | 888 | 538 | 240 | 140 | 5,315 |
| 60-64 | 43 | 69 | 100 | 96 | 75 | 591 | 533 | 661 | 517 | 325 | 103 | 97 | 3,210 |
| 65 & Over | 14 | 8 | 24 | 33 | 31 | 278 | 274 | 371 | 306 | 151 | 41 | 13 | 1,544 |
| **Total Count** | 2,816 | 4,130 | 4,353 | 4,069 | 2,424 | 11,524 | 8,153 | 6,742 | 4,767 | 2,021 | 620 | 266 | 51,885 |

***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 | 41,948 | 40,857 | 37,677 | 36,070 | 36,181 | 40,092 | - | - | - | - | - | - | 40,074 |
| 25-29 | 48,475 | 48,348 | 48,239 | 49,410 | 47,696 | 49,576 | 50,403 | - | - | - | - | - | 48,606 |
| 30-34 | 52,026 | 50,768 | 52,348 | 54,614 | 58,131 | 59,160 | 59,702 | 77,974 | - | - | - | - | 55,742 |
| 35-39 | 53,158 | 54,602 | 56,074 | 56,500 | 57,846 | 64,454 | 68,809 | 68,114 | 71,901 | - | - | - | 62,407 |
| 40-44 | 54,653 | 53,803 | 53,461 | 57,337 | 61,511 | 66,394 | 72,077 | 73,327 | 70,347 | 85,658 | - | - | 66,639 |
| 45-49 | 51,248 | 51,595 | 50,837 | 54,679 | 59,752 | 64,720 | 71,373 | 75,413 | 79,464 | 75,420 | 84,518 | - | 68,608 |
| 50-54 | 56,517 | 50,490 | 53,488 | 56,385 | 64,238 | 65,715 | 70,304 | 75,716 | 83,506 | 80,365 | 83,029 | 85,018 | 71,268 |
| 55-59 | 56,029 | 54,613 | 54,754 | 58,442 | 61,517 | 66,553 | 68,721 | 73,958 | 82,313 | 87,136 | 88,648 | 81,353 | 72,913 |
| 60-64 | 63,063 | 51,787 | 51,249 | 65,830 | 60,076 | 66,188 | 69,667 | 71,890 | 78,905 | 87,598 | 97,934 | 95,592 | 73,093 |
| 65 & Over | 106,467 | 57,097 | 80,149 | 84,267 | 85,678 | 70,093 | 65,890 | 65,068 | 73,439 | 84,192 | 90,086 | 97,762 | 71,980 |
| **Avg. Annual Compensation** | 51,408 | 50,501 | 51,745 | 54,802 | 58,312 | 63,864 | 69,594 | 73,435 | 79,404 | 82,838 | 88,214 | 87,567 | 64,861 |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-4e: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 106 | 131 | 73 | 28 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 355 |
| 25-29 | 231 | 308 | 268 | 217 | 106 | 171 | 4 | 0 | 0 | 0 | 0 | 0 | 1,305 |
| 30-34 | 163 | 239 | 267 | 239 | 174 | 843 | 169 | 2 | 0 | 0 | 0 | 0 | 2,096 |
| 35-39 | 115 | 183 | 196 | 184 | 144 | 900 | 694 | 239 | 6 | 0 | 0 | 0 | 2,661 |
| 40-44 | 104 | 116 | 159 | 122 | 134 | 722 | 725 | 1,049 | 513 | 6 | 0 | 0 | 3,650 |
| 45-49 | 74 | 100 | 164 | 148 | 94 | 618 | 598 | 982 | 1,161 | 367 | 19 | 0 | 4,325 |
| 50-54 | 67 | 93 | 127 | 119 | 85 | 552 | 508 | 764 | 1,009 | 774 | 491 | 18 | 4,607 |
| 55-59 | 45 | 68 | 89 | 88 | 48 | 424 | 420 | 650 | 818 | 683 | 801 | 516 | 4,650 |
| 60-64 | 24 | 33 | 50 | 51 | 34 | 246 | 289 | 392 | 519 | 390 | 498 | 686 | 3,212 |
| 65 & Over | 10 | 19 | 15 | 41 | 15 | 156 | 202 | 272 | 292 | 171 | 188 | 241 | 1,622 |
| **Total Count** | 939 | 1,290 | 1,408 | 1,237 | 851 | 4,632 | 3,609 | 4,350 | 4,318 | 2,391 | 1,997 | 1,461 | 28,483 |

***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 | 37,493 | 36,118 | 33,651 | 34,584 | 36,644 | - | - | - | - | - | - | - | 35,925 |
| 25-29 | 42,656 | 43,827 | 42,207 | 44,197 | 44,326 | 46,203 | 45,009 | - | - | - | - | - | 43,704 |
| 30-34 | 52,240 | 47,600 | 45,400 | 49,443 | 50,383 | 51,635 | 52,380 | 47,946 | - | - | - | - | 50,130 |
| 35-39 | 55,765 | 50,908 | 48,322 | 54,273 | 57,060 | 55,655 | 61,796 | 58,415 | 62,270 | - | - | - | 56,638 |
| 40-44 | 52,054 | 48,304 | 46,862 | 49,602 | 50,574 | 53,755 | 64,574 | 65,058 | 61,230 | 75,564 | - | - | 59,461 |
| 45-49 | 46,837 | 42,233 | 41,124 | 48,462 | 49,291 | 55,015 | 61,414 | 70,650 | 71,764 | 65,044 | 56,463 | - | 63,492 |
| 50-54 | 48,375 | 54,177 | 49,992 | 49,685 | 50,905 | 53,929 | 58,067 | 68,294 | 77,408 | 72,741 | 64,343 | 60,579 | 65,856 |
| 55-59 | 64,875 | 54,199 | 47,585 | 57,256 | 54,660 | 59,177 | 59,872 | 67,262 | 74,403 | 75,231 | 71,436 | 66,894 | 68,052 |
| 60-64 | 68,644 | 52,058 | 46,059 | 56,135 | 59,488 | 61,232 | 61,002 | 63,666 | 71,848 | 74,760 | 77,423 | 71,297 | 69,152 |
| 65 & Over | 124,747 | 70,461 | 95,321 | 78,533 | 80,438 | 67,058 | 61,443 | 61,436 | 68,697 | 75,568 | 68,856 | 69,706 | 68,281 |
| **Avg. Annual Compensation** | 49,724 | 46,922 | 45,365 | 50,622 | 51,580 | 54,990 | 60,999 | 66,493 | 72,121 | 72,809 | 70,800 | 69,348 | 62,139 |

Milliman

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# Los Angeles County Employees Retirement Association

## Exhibit C-4f: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 1 | 2 | 12 | 57 | 5 | 77 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 13 | 101 | 29 | 147 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 16 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| **Total Count** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 25 | 166 | 44 | 242 |

***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 | - | - | - | - | - | - | - | 107,244 | 125,052 | 118,852 | 128,496 | 130,879 | 126,782 |
| 55-59 | - | - | - | - | - | - | 114,576 | 91,404 | 105,168 | 122,895 | 137,391 | 155,679 | 138,811 |
| 60-64 | - | - | - | - | - | - | - | - | - | - | 137,728 | 150,216 | 143,972 |
| 65 & Over | - | - | - | - | - | - | - | - | - | - | - | 298,140 | 298,140 |
| **Avg. Annual Compensation** | - | - | - | - | - | - | 114,576 | 99,324 | 115,110 | 120,954 | 134,353 | 158,343 | 136,641 |

Milliman

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# Los Angeles County Employees Retirement Association

## Exhibit C-4g: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2009 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 | 80 | 152 | 102 | 21 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 366 |
| 25-29 | 124 | 403 | 442 | 201 | 87 | 155 | 2 | 0 | 0 | 0 | 0 | 0 | 1,414 |
| 30-34 | 72 | 193 | 270 | 167 | 91 | 644 | 213 | 1 | 0 | 0 | 0 | 0 | 1,651 |
| 35-39 | 38 | 107 | 132 | 87 | 48 | 654 | 817 | 225 | 6 | 0 | 0 | 0 | 2,114 |
| 40-44 | 13 | 52 | 62 | 38 | 43 | 374 | 569 | 977 | 477 | 8 | 0 | 0 | 2,613 |
| 45-49 | 5 | 12 | 14 | 12 | 17 | 142 | 212 | 507 | 936 | 410 | 12 | 0 | 2,279 |
| 50-54 | 5 | 5 | 5 | 4 | 11 | 37 | 63 | 180 | 416 | 830 | 154 | 4 | 1,714 |
| 55-59 | 1 | 4 | 5 | 0 | 6 | 13 | 22 | 19 | 87 | 201 | 94 | 5 | 457 |
| 60-64 | 0 | 2 | 3 | 0 | 2 | 9 | 11 | 1 | 4 | 14 | 5 | 0 | 51 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 2 | 0 | 0 | 0 | 0 | 9 |
| **Total Count** | 338 | 930 | 1,035 | 530 | 316 | 2,029 | 1,915 | 1,912 | 1,926 | 1,463 | 265 | 9 | 12,668 |

***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 | 54,064 | 67,847 | 72,307 | 70,276 | 71,558 | - | - | - | - | - | - | - | 66,328 |
| 25-29 | 61,827 | 68,871 | 74,208 | 75,987 | 76,909 | 78,816 | 83,496 | - | - | - | - | - | 72,539 |
| 30-34 | 61,816 | 69,968 | 74,621 | 79,017 | 82,029 | 84,884 | 88,242 | 90,336 | - | - | - | - | 80,142 |
| 35-39 | 62,797 | 69,884 | 76,366 | 80,121 | 84,894 | 88,427 | 93,497 | 100,829 | 96,380 | - | - | - | 89,154 |
| 40-44 | 64,783 | 71,932 | 74,903 | 79,811 | 90,332 | 91,312 | 96,037 | 102,647 | 109,747 | 115,687 | - | - | 98,929 |
| 45-49 | 69,230 | 66,714 | 79,807 | 80,083 | 92,822 | 91,160 | 97,640 | 102,472 | 111,262 | 118,360 | 129,038 | - | 107,336 |
| 50-54 | 84,245 | 92,947 | 96,857 | 59,895 | 109,047 | 93,570 | 95,775 | 102,687 | 111,641 | 117,979 | 129,632 | 119,691 | 114,117 |
| 55-59 | 100,272 | 101,736 | 101,016 | - | 97,656 | 95,838 | 100,016 | 109,548 | 108,416 | 117,001 | 131,155 | 125,359 | 116,041 |
| 60-64 | - | 112,056 | 113,864 | - | 91,836 | 122,321 | 114,799 | 94,152 | 159,195 | 117,823 | 117,862 | - | 119,271 |
| 65 & Over | - | - | - | - | - | 83,208 | 145,450 | 85,878 | - | - | - | - | 125,296 |
| **Avg. Annual Compensation** | 60,765 | 69,555 | 74,875 | 77,640 | 83,700 | 87,580 | 94,550 | 102,431 | 110,893 | 117,937 | 129,923 | 122,840 | 95,247 |

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, 2009 All Plans

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 12 | 28 | 73 | 120 | $ 1,400 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 60 | 54 | 122 | 2,634 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 1 | 25 | 87 | 131 | 101 | 345 | 2,791 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 11 | 80 | 162 | 175 | 142 | 570 | 2,705 |
| 50-54 | 0 | 0 | 0 | 1 | 21 | 55 | 123 | 148 | 182 | 547 | 1,077 | 2,467 |
| 55-59 | 0 | 0 | 0 | 28 | 84 | 109 | 142 | 209 | 681 | 2,232 | 3,485 | 3,425 |
| 60-64 | 0 | 1 | 16 | 143 | 231 | 196 | 274 | 955 | 2,961 | 3,429 | 8,206 | 3,992 |
| 65-69 | 1 | 3 | 41 | 176 | 243 | 272 | 996 | 2,355 | 3,295 | 2,797 | 10,179 | 3,837 |
| 70-74 | 1 | 28 | 62 | 187 | 260 | 796 | 1,934 | 2,153 | 2,179 | 1,218 | 8,818 | 3,364 |
| 75-79 | 16 | 49 | 109 | 223 | 851 | 1,328 | 2,117 | 1,489 | 883 | 612 | 7,677 | 3,041 |
| 80-84 | 29 | 55 | 114 | 678 | 1,233 | 1,274 | 1,264 | 621 | 450 | 430 | 6,148 | 2,736 |
| 85-89 | 30 | 44 | 244 | 825 | 967 | 815 | 422 | 295 | 299 | 273 | 4,214 | 2,428 |
| 90-94 | 17 | 44 | 209 | 465 | 384 | 101 | 98 | 103 | 130 | 90 | 1,641 | 2,120 |
| 95-99 | 12 | 47 | 98 | 145 | 34 | 3 | 19 | 20 | 19 | 11 | 408 | 1,957 |
| 100 & Over | 6 | 7 | 18 | 2 | 0 | 0 | 1 | 4 | 12 | 9 | 59 | 1,283 |
| **Total Count** | 112 | 278 | 911 | 2,873 | 4,310 | 4,961 | 7,501 | 8,620 | 11,485 | 12,018 | **53,069** | |
| **Avg Monthly Benefit** | $ 1,344 | $ 1,536 | $ 1,892 | $ 2,349 | $ 2,448 | $ 2,874 | $ 3,475 | $ 3,305 | $ 3,823 | $ 3,452 | | **$ 3,275** |

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, 2009 General Plan A

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 6 | 22 | 33 | $ 1,305 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 6 | 1,912 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 10 | 1,761 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 7 | 14 | 1,714 |
| 50-54 | 0 | 0 | 0 | 0 | 4 | 7 | 3 | 11 | 14 | 49 | 88 | 2,323 |
| 55-59 | 0 | 0 | 0 | 16 | 33 | 25 | 26 | 37 | 252 | 509 | 898 | 3,340 |
| 60-64 | 0 | 1 | 9 | 64 | 79 | 63 | 93 | 540 | 1,105 | 1,473 | 3,427 | 4,235 |
| 65-69 | 1 | 0 | 21 | 92 | 101 | 115 | 690 | 1,110 | 1,874 | 817 | 4,821 | 4,223 |
| 70-74 | 0 | 14 | 36 | 112 | 131 | 612 | 1,232 | 1,377 | 958 | 346 | 4,818 | 3,660 |
| 75-79 | 5 | 22 | 64 | 144 | 643 | 923 | 1,694 | 834 | 335 | 268 | 4,932 | 3,172 |
| 80-84 | 13 | 28 | 69 | 502 | 915 | 1,089 | 975 | 337 | 259 | 262 | 4,449 | 2,688 |
| 85-89 | 15 | 30 | 185 | 685 | 902 | 728 | 307 | 211 | 228 | 218 | 3,509 | 2,366 |
| 90-94 | 8 | 27 | 179 | 451 | 376 | 94 | 74 | 87 | 109 | 78 | 1,483 | 2,087 |
| 95-99 | 9 | 32 | 91 | 145 | 34 | 2 | 17 | 19 | 16 | 9 | 374 | 1,867 |
| 100 & Over | 4 | 7 | 18 | 2 | 0 | 0 | 1 | 4 | 8 | 5 | 49 | 1,435 |
| **Total Count** | 55 | 161 | 672 | 2,213 | 3,218 | 3,659 | 5,116 | 4,575 | 5,171 | 4,071 | **28,911** | |
| **Avg Monthly Benefit** | $ 1,135 | $ 1,133 | $ 1,492 | $ 2,011 | $ 2,062 | $ 2,610 | $ 3,463 | $ 3,380 | $ 4,392 | $ 4,372 | | **$ 3,306** |

# Los Angeles County Employees Retirement Association

## Exhibit C-5b: Distribution of Retired Members by Age and Retirement Year as of June 30, 2009 General Plan B

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| 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 | 1 | 1 | 1,628 |
| 50-54 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 14 | 16 | 1,547 |
| 55-59 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 | 13 | 23 | 42 | 2,629 |
| 60-64 | 0 | 0 | 0 | 0 | 3 | 5 | 4 | 13 | 27 | 55 | 107 | 3,019 |
| 65-69 | 0 | 0 | 0 | 0 | 1 | 4 | 6 | 17 | 49 | 31 | 108 | 3,044 |
| 70-74 | 0 | 0 | 0 | 0 | 2 | 2 | 9 | 26 | 44 | 18 | 101 | 2,903 |
| 75-79 | 0 | 0 | 0 | 0 | 1 | 12 | 15 | 33 | 13 | 12 | 86 | 2,142 |
| 80-84 | 0 | 0 | 0 | 0 | 3 | 10 | 34 | 14 | 8 | 2 | 71 | 1,633 |
| 85-89 | 0 | 0 | 0 | 0 | 1 | 15 | 9 | 2 | 2 | 3 | 32 | 1,360 |
| 90-94 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 2 | 0 | 0 | 7 | 617 |
| 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 | 0 | 16 | 51 | 80 | 109 | 156 | 159 | **571** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ - | $ 1,024 | $ 988 | $ 1,480 | $ 1,998 | $ 2,858 | $ 3,654 | | **$ 2,504** |



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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, 2009 General Plan C

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| 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 | 1 | 0 | 1 | 3,657 |
| 50-54 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 0 | 7 | 12 | 1,082 |
| 55-59 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 3 | 10 | 16 | 37 | 2,043 |
| 60-64 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 6 | 19 | 23 | 54 | 2,092 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 9 | 20 | 27 | 69 | 2,166 |
| 70-74 | 0 | 0 | 0 | 0 | 0 | 7 | 12 | 15 | 30 | 11 | 75 | 2,046 |
| 75-79 | 0 | 0 | 0 | 0 | 1 | 7 | 10 | 20 | 14 | 7 | 59 | 1,941 |
| 80-84 | 0 | 0 | 0 | 0 | 3 | 7 | 20 | 4 | 5 | 5 | 44 | 1,168 |
| 85-89 | 0 | 0 | 0 | 0 | 2 | 7 | 6 | 1 | 1 | 3 | 20 | 1,317 |
| 90-94 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 3 | 930 |
| 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 | 1 | 12 | 39 | 63 | 59 | 101 | 99 | **374** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ 1,472 | $ 899 | $ 846 | $ 1,192 | $ 1,690 | $ 2,322 | $ 2,510 | | **$ 1,880** |

Milliman

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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, 2009 General Plan D

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 10 | 16 | 30 | $ 926 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 14 | 12 | 30 | 1,538 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 27 | 26 | 61 | 1,836 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 36 | 52 | 44 | 142 | 1,737 |
| 50-54 | 0 | 0 | 0 | 0 | 2 | 7 | 25 | 41 | 61 | 306 | 442 | 1,554 |
| 55-59 | 0 | 0 | 0 | 1 | 4 | 16 | 30 | 55 | 240 | 454 | 800 | 1,722 |
| 60-64 | 0 | 0 | 0 | 0 | 2 | 16 | 37 | 176 | 317 | 644 | 1,192 | 2,097 |
| 65-69 | 0 | 0 | 0 | 0 | 5 | 14 | 63 | 179 | 377 | 754 | 1,392 | 2,307 |
| 70-74 | 0 | 0 | 0 | 0 | 4 | 21 | 62 | 181 | 420 | 375 | 1,063 | 1,916 |
| 75-79 | 0 | 0 | 0 | 0 | 3 | 19 | 62 | 227 | 222 | 119 | 652 | 1,712 |
| 80-84 | 0 | 0 | 0 | 0 | 7 | 13 | 79 | 110 | 46 | 46 | 301 | 1,434 |
| 85-89 | 0 | 0 | 0 | 0 | 4 | 17 | 37 | 21 | 13 | 10 | 102 | 1,199 |
| 90-94 | 0 | 0 | 0 | 0 | 1 | 2 | 7 | 2 | 3 | 3 | 18 | 1,103 |
| 95-99 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1,089 |
| 100 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 388 |
| **Total Count** | 0 | 0 | 0 | 1 | 32 | 125 | 418 | 1,039 | 1,803 | 2,810 | **6,228** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ 2,293 | $ 1,157 | $ 1,240 | $ 1,320 | $ 1,554 | $ 1,863 | $ 2,213 | | **$ 1,917** |

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, 2009 General Plan E

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 10 | 13 | $ 356 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 868 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 10 | 752 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 5 | 1,147 |
| 50-54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 13 | 663 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 8 | 567 | 580 | 620 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 501 | 752 | 1,262 | 1,021 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 304 | 475 | 1,107 | 1,891 | 1,727 |
| 70-74 | 0 | 0 | 0 | 0 | 0 | 1 | 119 | 263 | 671 | 414 | 1,468 | 1,569 |
| 75-79 | 0 | 0 | 0 | 0 | 1 | 46 | 121 | 337 | 237 | 135 | 877 | 1,214 |
| 80-84 | 0 | 0 | 0 | 0 | 4 | 32 | 133 | 124 | 71 | 59 | 423 | 1,089 |
| 85-89 | 0 | 0 | 0 | 0 | 4 | 44 | 53 | 31 | 22 | 11 | 165 | 717 |
| 90-94 | 0 | 0 | 0 | 0 | 3 | 3 | 10 | 5 | 1 | 3 | 25 | 745 |
| 95-99 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 239 |
| 100 & Over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 6 | 423 |
| **Total Count** | 0 | 0 | 0 | 0 | 12 | 127 | 443 | 1,078 | 1,997 | 3,084 | **6,741** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ - | $ 381 | $ 371 | $ 697 | $ 882 | $ 1,312 | $ 1,615 | | **$ 1,322** |

Milliman

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

# Los Angeles County Employees Retirement Association

## Exhibit C-5f: Distribution of Retired Members by Age and Retirement Year as of June 30, 2009 Safety Plan A

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 1 | 7 | $ 2,046 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 5 | 4,786 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 4 | 3,686 |
| 50-54 | 0 | 0 | 0 | 1 | 4 | 2 | 3 | 7 | 7 | 11 | 35 | 4,468 |
| 55-59 | 0 | 0 | 0 | 10 | 35 | 37 | 37 | 72 | 89 | 393 | 673 | 6,871 |
| 60-64 | 0 | 0 | 7 | 79 | 135 | 98 | 118 | 184 | 929 | 368 | 1,918 | 6,713 |
| 65-69 | 0 | 3 | 20 | 84 | 135 | 135 | 215 | 730 | 471 | 54 | 1,847 | 6,265 |
| 70-74 | 1 | 14 | 26 | 75 | 123 | 152 | 496 | 289 | 55 | 54 | 1,285 | 5,620 |
| 75-79 | 11 | 27 | 45 | 79 | 201 | 320 | 211 | 38 | 60 | 70 | 1,062 | 4,906 |
| 80-84 | 16 | 27 | 45 | 176 | 300 | 123 | 23 | 32 | 61 | 56 | 859 | 4,425 |
| 85-89 | 15 | 14 | 59 | 140 | 54 | 4 | 10 | 29 | 33 | 28 | 386 | 4,194 |
| 90-94 | 9 | 17 | 30 | 14 | 0 | 0 | 6 | 7 | 16 | 6 | 105 | 3,228 |
| 95-99 | 3 | 15 | 7 | 0 | 0 | 0 | 1 | 1 | 3 | 1 | 31 | 3,183 |
| 100 & Over | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1,042 |
| **Total Count** | 57 | 117 | 239 | 658 | 989 | 871 | 1,123 | 1,392 | 1,731 | 1,042 | **8,219** | |
| **Avg Monthly Benefit** | $ 1,545 | $ 2,091 | $ 3,014 | $ 3,487 | $ 3,832 | $ 4,865 | $ 5,856 | $ 6,480 | $ 7,376 | $ 7,517 | | **$ 5,788** |

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, 2009 Safety Plan B

| Age | Retirement Year | | | | | | | | | | Total Count | Average Monthly Benefit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-1964 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-04 | 2005-09 | | |
| Under 35 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 9 | 24 | 37 | $ 2,112 |
| 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 45 | 37 | 85 | 3,092 |
| 40-44 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 80 | 96 | 63 | 259 | 3,095 |
| 45-49 | 0 | 0 | 0 | 0 | 0 | 11 | 68 | 122 | 115 | 87 | 403 | 3,090 |
| 50-54 | 0 | 0 | 0 | 0 | 10 | 37 | 90 | 87 | 97 | 150 | 471 | 3,319 |
| 55-59 | 0 | 0 | 0 | 0 | 9 | 26 | 45 | 36 | 69 | 270 | 455 | 5,254 |
| 60-64 | 0 | 0 | 0 | 0 | 9 | 12 | 19 | 29 | 63 | 114 | 246 | 4,661 |
| 65-69 | 0 | 0 | 0 | 0 | 1 | 1 | 7 | 6 | 29 | 7 | 51 | 3,295 |
| 70-74 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 1 | 0 | 8 | 2,625 |
| 75-79 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 0 | 2 | 1 | 9 | 1,218 |
| 80-84 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1,068 |
| 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 | 0 | 31 | 89 | 258 | 368 | 526 | 753 | **2,025** | |
| **Avg Monthly Benefit** | $ - | $ - | $ - | $ - | $ 1,913 | $ 2,115 | $ 2,793 | $ 3,040 | $ 3,367 | $ 5,089 | | **$ 3,797** |



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# Los Angeles County Employees Retirement Association

## 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 A | Plan B |
| 16 | 2.41% | 4.82% | 4.08% | 4.08% | 3.59% | 7.17% |
| 17 | 2.46% | 4.92% | 4.16% | 4.16% | 3.59% | 7.17% |
| 18 | 2.51% | 5.02% | 4.25% | 4.25% | 3.59% | 7.17% |
| 19 | 2.56% | 5.12% | 4.34% | 4.34% | 3.65% | 7.31% |
| 20 | 2.62% | 5.23% | 4.43% | 4.43% | 3.72% | 7.44% |
| 21 | 2.67% | 5.34% | 4.52% | 4.52% | 3.79% | 7.58% |
| 22 | 2.72% | 5.45% | 4.62% | 4.62% | 3.86% | 7.72% |
| 23 | 2.78% | 5.56% | 4.71% | 4.71% | 3.93% | 7.87% |
| 24 | 2.84% | 5.68% | 4.81% | 4.81% | 4.01% | 8.01% |
| 25 | 2.90% | 5.79% | 4.91% | 4.91% | 4.08% | 8.16% |
| 26 | 2.96% | 5.91% | 5.01% | 5.01% | 4.16% | 8.32% |
| 27 | 3.02% | 6.03% | 5.11% | 5.11% | 4.24% | 8.47% |
| 28 | 3.08% | 6.16% | 5.22% | 5.22% | 4.32% | 8.63% |
| 29 | 3.14% | 6.29% | 5.33% | 5.33% | 4.40% | 8.80% |
| 30 | 3.21% | 6.42% | 5.44% | 5.44% | 4.48% | 8.97% |
| 31 | 3.28% | 6.55% | 5.55% | 5.55% | 4.57% | 9.14% |
| 32 | 3.34% | 6.69% | 5.66% | 5.66% | 4.66% | 9.32% |
| 33 | 3.41% | 6.83% | 5.78% | 5.78% | 4.75% | 9.51% |
| 34 | 3.49% | 6.97% | 5.90% | 5.90% | 4.85% | 9.70% |
| 35 | 3.56% | 7.12% | 6.02% | 6.02% | 4.95% | 9.89% |
| 36 | 3.64% | 7.28% | 6.15% | 6.15% | 5.04% | 10.09% |
| 37 | 3.72% | 7.43% | 6.28% | 6.28% | 5.14% | 10.28% |
| 38 | 3.79% | 7.59% | 6.41% | 6.41% | 5.23% | 10.46% |
| 39 | 3.87% | 7.75% | 6.55% | 6.55% | 5.32% | 10.64% |
| 40 | 3.95% | 7.90% | 6.69% | 6.69% | 5.41% | 10.82% |
| 41 | 4.03% | 8.06% | 6.83% | 6.83% | 5.50% | 10.99% |
| 42 | 4.10% | 8.21% | 6.97% | 6.97% | 5.58% | 11.15% |
| 43 | 4.18% | 8.36% | 7.12% | 7.12% | 5.65% | 11.31% |
| 44 | 4.25% | 8.50% | 7.27% | 7.27% | 5.72% | 11.44% |
| 45 | 4.32% | 8.64% | 7.42% | 7.42% | 5.77% | 11.54% |
| 46 | 4.39% | 8.78% | 7.56% | 7.56% | 5.80% | 11.59% |
| 47 | 4.45% | 8.91% | 7.70% | 7.70% | 5.80% | 11.59% |
| 48 | 4.52% | 9.03% | 7.84% | 7.84% | 5.80% | 11.59% |
| 49 | 4.57% | 9.14% | 7.98% | 7.98% | 5.80% | 11.59% |
| 50 | 4.61% | 9.21% | 8.11% | 8.11% | 5.80% | 11.59% |
| 51 | 4.63% | 9.26% | 8.24% | 8.24% | 5.80% | 11.59% |
| 52 | 4.63% | 9.26% | 8.36% | 8.36% | 5.80% | 11.59% |
| 53 | 4.63% | 9.26% | 8.47% | 8.47% | 5.80% | 11.59% |
| 54 | 4.63% | 9.26% | 8.57% | 8.57% | 5.80% | 11.59% |
| 55 | 4.63% | 9.26% | 8.65% | 8.65% | 5.80% | 11.59% |
| 56 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |
| 57 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |
| 58 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |
| 59 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |
| 60 | 4.63% | 9.26% | 8.69% | 8.69% | 5.80% | 11.59% |

*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.*

# 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 A | Plan B |
| 16 | 4.33% | 5.89% | 5.06% | 4.98% | 7.23% | 9.42% |
| 17 | 4.42% | 6.02% | 5.16% | 5.07% | 7.23% | 9.42% |
| 18 | 4.51% | 6.14% | 5.27% | 5.18% | 7.23% | 9.42% |
| 19 | 4.60% | 6.26% | 5.38% | 5.29% | 7.35% | 9.61% |
| 20 | 4.70% | 6.40% | 5.49% | 5.40% | 7.49% | 9.78% |
| 21 | 4.79% | 6.53% | 5.60% | 5.51% | 7.63% | 9.96% |
| 22 | 4.88% | 6.66% | 5.73% | 5.64% | 7.77% | 10.14% |
| 23 | 4.99% | 6.80% | 5.84% | 5.74% | 7.91% | 10.34% |
| 24 | 5.10% | 6.95% | 5.96% | 5.87% | 8.07% | 10.53% |
| 25 | 5.21% | 7.08% | 6.09% | 5.99% | 8.21% | 10.72% |
| 26 | 5.32% | 7.23% | 6.21% | 6.11% | 8.37% | 10.93% |
| 27 | 5.42% | 7.37% | 6.33% | 6.23% | 8.53% | 11.13% |
| 28 | 5.53% | 7.53% | 6.47% | 6.37% | 8.69% | 11.34% |
| 29 | 5.64% | 7.69% | 6.61% | 6.50% | 8.86% | 11.56% |
| 30 | 5.76% | 7.85% | 6.74% | 6.64% | 9.02% | 11.79% |
| 31 | 5.89% | 8.01% | 6.88% | 6.77% | 9.20% | 12.01% |
| 32 | 6.00% | 8.18% | 7.02% | 6.90% | 9.38% | 12.25% |
| 33 | 6.12% | 8.35% | 7.17% | 7.05% | 9.56% | 12.50% |
| 34 | 6.27% | 8.52% | 7.31% | 7.20% | 9.76% | 12.75% |
| 35 | 6.39% | 8.71% | 7.46% | 7.34% | 9.96% | 13.00% |
| 36 | 6.54% | 8.90% | 7.62% | 7.50% | 10.14% | 13.26% |
| 37 | 6.68% | 9.09% | 7.79% | 7.66% | 10.35% | 13.51% |
| 38 | 6.81% | 9.28% | 7.95% | 7.82% | 10.53% | 13.74% |
| 39 | 6.95% | 9.48% | 8.12% | 7.99% | 10.71% | 13.98% |
| 40 | 7.09% | 9.66% | 8.29% | 8.16% | 10.89% | 14.22% |
| 41 | 7.24% | 9.86% | 8.47% | 8.33% | 11.07% | 14.44% |
| 42 | 7.36% | 10.04% | 8.64% | 8.50% | 11.23% | 14.65% |
| 43 | 7.51% | 10.22% | 8.83% | 8.68% | 11.37% | 14.86% |
| 44 | 7.63% | 10.39% | 9.01% | 8.87% | 11.51% | 15.03% |
| 45 | 7.76% | 10.57% | 9.20% | 9.05% | 11.61% | 15.16% |
| 46 | 7.88% | 10.74% | 9.37% | 9.22% | 11.67% | 15.23% |
| 47 | 7.99% | 10.90% | 9.55% | 9.39% | 11.67% | 15.23% |
| 48 | 8.12% | 11.04% | 9.72% | 9.56% | 11.67% | 15.23% |
| 49 | 8.21% | 11.18% | 9.89% | 9.73% | 11.67% | 15.23% |
| 50 | 8.28% | 11.26% | 10.05% | 9.89% | 11.67% | 15.23% |
| 51 | 8.31% | 11.32% | 10.22% | 10.05% | 11.67% | 15.23% |
| 52 | 8.31% | 11.32% | 10.36% | 10.20% | 11.67% | 15.23% |
| 53 | 8.31% | 11.32% | 10.50% | 10.33% | 11.67% | 15.23% |
| 54 | 8.31% | 11.32% | 10.62% | 10.45% | 11.67% | 15.23% |
| 55 | 8.31% | 11.32% | 10.72% | 10.55% | 11.67% | 15.23% |
| 56 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |
| 57 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |
| 58 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |
| 59 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |
| 60 | 8.31% | 11.32% | 10.77% | 10.60% | 11.67% | 15.23% |

*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.*



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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 |


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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 |


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# Los Angeles County Employees Retirement Association

## Exhibit E-3: Contribution Rates

| | General Members | | | | | Safety Members | | | | | Total All Members | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Valuation Date (June 30) | Calculated Normal Cost | Member Contributions | Net County Normal Cost | UAAL Rate | Total Annual Contribution | Calculated Normal Cost | Member Contributions | Net County Normal Cost | UAAL Rate | Total Annual Contribution | Calculated Normal Cost | Member Contributions | Net County Normal Cost | UAAL Rate | Total Annual 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% |

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# Los Angeles County Employees Retirement Association

## 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 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. |
| **Member Reserve** | The accumulation of member contributions. Additions include member contributions and related earnings. Deductions include annuity payments to retirees and refunds to members. |


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| **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. |
| **Open Amortization Period** | As discussed in the Actuarial Cost Method section of Appendix C, LACERA uses an open (often referred to as "rolling") 30-year amortization period. That is, the amortization begins again or is recalculated at each valuation date. This is as opposed to a closed (or "fixed") amortization period which is a specific number of years that is counted from one date and declines to zero with the passage of time. |
| **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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