
**Los Angeles County Employees
Retirement Association**

**ACTUARIAL VALUATION OF RETIREMENT BENEFITS
June 30, 2011**



By

Mark C. Olleman

Fellow, Society of Actuaries
Member, American Academy of Actuaries

and

Nick J. Collier

Associate, Society of Actuaries
Member, American Academy of Actuaries



1301 Fifth Avenue
Suite 3800
Seattle, WA 98101-2605
USA

Tel +1 206 624 7940
Fax +1 206 623 3485

milliman.com

December 6, 2011

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

Dear Members of the Board:

As requested, we have performed an actuarial valuation of retirement benefits for the Los Angeles County Employees Retirement Association (LACERA) as of June 30, 2011 to be used in determining the contribution rates effective July 1, 2012. 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, 2011, and LACERA's 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 2011 Valuation Assets; however, the liability for any potential STAR benefits that may be granted in the future is not included in this valuation.

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

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Investments has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A of this report.

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.



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

Milliman's work is prepared solely for the internal business use of LACERA. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- (a) LACERA may provide a copy of Milliman's work, in its entirety, to LACERA's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit LACERA.
- (b) LACERA may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

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

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

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

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

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

Sincerely,

Mark C. Olleman, FSA, EA, MAAA
Consulting Actuary
MCO/NJC/nlo

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

For your convenience, the TABLE OF CONTENTS is linked.

**Los Angeles County Employees
Retirement Association**

Table of Contents

	Page
Section 1: Summary of the Findings	1
Exhibit 1: Summary of Significant Valuation Results.....	11
Section 2: Scope of the Report	13
Section 3: Assets.....	15
Exhibit 2: Statement of Plan Net Assets For Years Ended June 30, 2011 and 2010.....	19
Exhibit 3: Statement of Changes in Plan Net Assets For the Years Ended June 30, 2011 and 2010.....	20
Exhibit 4: Allocation of Assets by Accounting Reserve Amounts	21
Exhibit 5: Five-Year Smoothing of Gains and Losses on Market Value.....	22
Exhibit 6: Allocation of Valuation and Non-Valuation Assets	23
Section 4: Actuarial Liabilities.....	25
Exhibit 7: Actuarial Balance Sheet – June 30, 2011	26
Exhibit 8a: Analysis of Change in Unfunded Actuarial Accrued Liability	31
Exhibit 8b: History of Changes in Unfunded Actuarial Accrued Liability	32
Section 5: Member Contributions	33
Exhibit 9: Sample Member Contribution Rates	35
Section 6: Employer Contributions.....	37
Exhibit 10: Calculated Normal Cost Contribution Rates – June 30, 2011	39
Exhibit 11: Total Employer Contributions	40
Exhibit 12: Unfunded Actuarial Accrued Liability Detail.....	41
Section 7: Accounting Information	43
Exhibit 13: Schedule of Funding Progress	44
Exhibit 14: Schedule of Contributions from the Employer	45
Exhibit 15: Solvency Test.....	46
Section 8: Supplemental Information	47
Exhibit 16a: Cash Flow History and Projections – Dollars	48
Exhibit 16b: Cash Flow History and Projections – Charts	49

**Los Angeles County Employees
Retirement Association**

**Table of Contents
(continued)**

	Page
Appendices	
Appendix A: Actuarial Procedures and Assumptions	A-1
Appendix B: Summary of Plan Provisions.....	B-1
Appendix C: Valuation Data and Schedules	C-1
Appendix D: Member Contribution Rates	D-1
Appendix E: Historical Information	E-1
Appendix F: Glossary	F-1



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

Section 1: Summary of the Findings



Overview

2011 Valuation Results

	June 30, 2011	June 30, 2010
Required Employer Contribution Rate	17.54%	16.31%
Funded Ratio	80.6%	83.3%

This report presents the results of the June 30, 2011 actuarial valuation. This valuation determines the required contribution rates payable starting July, 2012. Several key points are summarized as follows:

- **Investment Returns:** For the fiscal year ending in 2011, the fund returned 20.4% on a market basis, a rate of return greater than the assumed rate. However, the strong investment return for the current year only partially offset large deferred asset losses from prior years that were recognized in the current valuation under the actuarial asset smoothing method. In total, there was a \$1.76 billion loss on actuarial assets as compared to the assumed return rate of return for the prior year of 7.75%.

Note that currently a \$607 million net investment loss is being deferred. This is mainly due to the fact that the asset-smoothing method has recognized only three-fifths of the very large asset loss that occurred in the fiscal year ending June 30, 2009. The remaining recognition of this deferred loss will be spread over the next two valuations under the asset-smoothing method.

- **Employer Contribution Rates:** The total required Employer contribution rate increased from the prior valuation by 1.23% (from 16.31% to 17.54% of payroll). The most significant factor causing this increase was the recognition of prior investment losses, which resulted in a 2.04% increase. This was somewhat offset by this year's investment gain which caused a 0.65% decrease and all other factors which resulted in an additional 0.16% decrease.
- **Member Contribution Rates:** New member contribution rates are being recommended based on the new investment return assumption of 7.70%, effective for the 2011 actuarial valuation. As shown in Section 5, we are recommending small increases in the member rates effective July 1, 2012. Based on these recommended rates, the average contribution rate for members of contributory plans (i.e., excluding Plan E) is projected to increase from 7.96% to 8.00%.

**Overview
(continued)**

- **Funding:** The Funded Ratio decreased from 83.3% to 80.6%. The recognition of deferred investment losses caused a 5.3% decrease in the Funded Ratio. This was somewhat offset by this year's investment gain, which caused a 1.7% increase, and other factors, which resulted in a 0.9% increase.
- **2011 Assumption Changes:** At the October Board of Investments meeting, the Board adopted a decrease in the investment return assumption, to be phased in over a period of three years. The investment return assumption in effect for the 2011 actuarial valuation is 7.70%. The assumptions that are scheduled to be in effect for the 2012 and 2013 actuarial valuation are 7.60% and 7.50% respectively. For each decrease in the investment return assumption, a corresponding decrease in the price and wage inflation assumptions will be made.

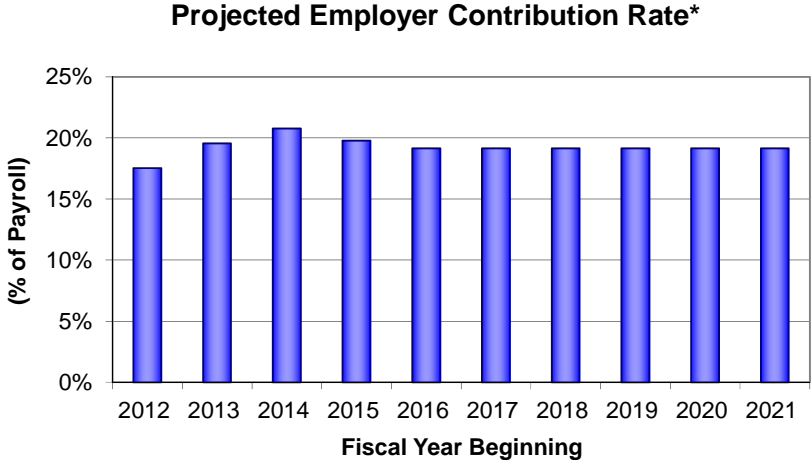
**Required
Contribution Rate**

In accordance with the LACERA's Funding Policy, the required Employer contribution rate is 17.54% of payroll. This is equal to the payment of the Employer Normal Cost rate plus a layered 30-year amortization of the UAAL. It should be noted that the 17.54% is a weighted average for all LACERA plans. The actual percent of payroll to be contributed by the Employer varies by plan as shown in Exhibit 11.

The new required rate is effective for the fiscal year beginning July 1, 2012. Based on asset losses that are currently being deferred, it is expected that the Employer contribution rate will increase over the next few years if all actuarial assumptions are met. To illustrate this impact, we have performed a 10-year projection of the Employer contribution rate, which assumes all actuarial assumptions are met and reflects the projected recognition of existing deferred asset losses through June 30, 2011. For future years, it is assumed that the investment return assumption will decrease over the next two years to 7.5% and that all future investment returns will be 7.5% per year on a net of fees basis.

**Required
Contribution Rate
(continued)**

This projection is shown in the chart below.



**Projections assume that actuarial assumptions are met after June 30, 2011, and reflect the scheduled recognition of asset gains and losses currently being deferred, as well as the scheduled change in the investment return assumption.*

Analysis of Change

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

Sources of Change	Employer Contribution Rate	Funded Ratio
June 30, 2010 Actuarial Valuation	16.31%	83.3%
Expected Year-to-Year Change	0.00%	0.1%
Recognized Asset (Gain)/Loss		
From Current Year	-0.65%	1.7%
From Prior Years	2.04%	-5.3%
Liability Gain/Loss		
Salary / Payroll Variation	-0.14%	1.0%
Retiree COLAs < Expected	-0.18%	0.3%
Assumption Changes	0.25%	-0.3%
Other	-0.09%	-0.1%
Combined Liability (Gain)/Loss	-0.16%	0.9%
Total Change	1.23%	-2.6%
June 30, 2011 Actuarial Valuation	17.54%	80.6%

**Summary of the Findings
(continued)**

Funding Progress

Based on the 2010 valuation, the expected UAAL amount (after reflecting the change in assumptions) as of June 30, 2011 was \$8.37 billion. The actual UAAL for the fiscal year ending June 30, 2011 is \$9.41 billion. The increase was primarily due to a net loss on Valuation Assets of \$1.76 billion.

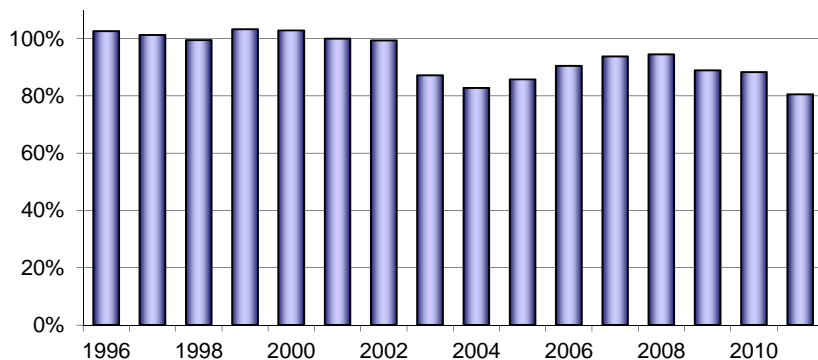
One measure of the funding adequacy of the Plan is the Funded Ratio, which compares the value of the Actuarial Value of Assets (net of certain non-valuation reserves) to the Actuarial Accrued Liability (AAL), for all LACERA plans combined. LACERA's Funded Ratio was 94.5% as of June 30, 2008. As shown in the graph below, the Funded Ratio has decreased over the last three years to 80.6% due to the recognition of significant deferred asset losses.

On June 30, 2011, the total Market Value of the fund was \$39.5 billion. The Actuarial Value was \$40.1 billion and was split between \$0.9 billion of Non-Valuation Assets and \$39.2 billion of Valuation Assets. The Valuation Assets are equal to 80.6% of the \$48.6 billion AAL. The Actuarial Value of Assets is 102% 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		
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
2010	33.4	0.8	38.8	46.6	83.3
2011	39.5	0.9	39.2	48.6	80.6

Historical Funded Ratios



Association Assets

Market Value: The market value of assets has increased over the past 10 years. The average return for the fund over that period is estimated to be 6.3%; however, due to benefit payments being greater than contributions, the total annual increase in the market value has averaged less. This is typical of a mature retirement system. The values shown in the market value column are total assets net of liabilities, and include all reserves.

Actuarial Assets: The market value of total assets is used in calculating the actuarial value of assets. Under the actuarial asset method, the market value returns are smoothed over a five-year period.

Valuation Reserves: The reserves represent the ownership of LACERA's assets. The reserves are established in compliance with the County Employees Retirement Law of 1937 as administered by the Board of Investments. These assets also reflect five-year smoothing. On a smoothed basis, the fund returned 3.3% for the prior year.

Non-Valuation Reserves: The non-valuation reserves are set aside for obligations or contingencies. They are not used to fund the retirement benefits unless explicitly stated. These assets may also reflect smoothing.

Valuation Assets: This is the combination of the valuation reserves and the portion of the non-valuation reserves that are recognized for funding purposes only as specified in LACERA's Funding Policy. It should be noted that under this policy the reserve value for STAR benefits is included in the Valuation Assets; however, the liability for any STAR benefits that may be granted in the future is not included in the valuation.

Future Impact of Recognition of Deferred Losses

The smoothing method is currently deferring \$607 million in asset losses. As these losses are recognized over upcoming valuations, it is expected there will be increases in the required Employer contribution rate (unless there are additional large offsetting asset gains in the near future).

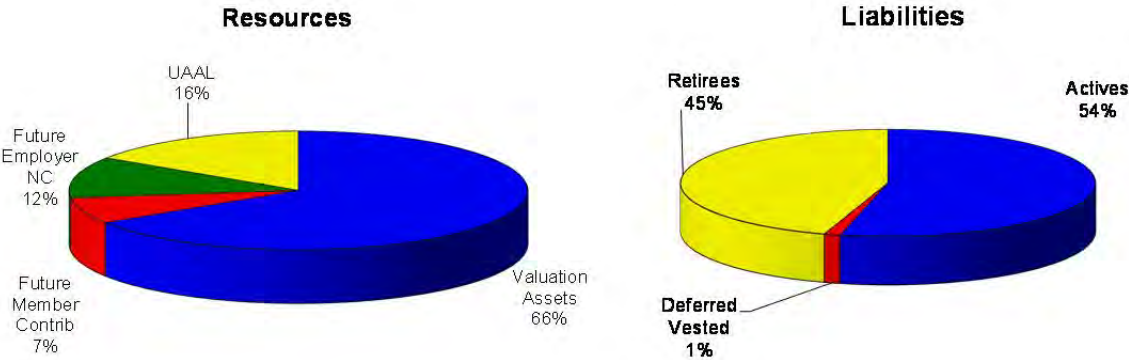
The potential future impact of the recognition of these deferred losses is illustrated in the chart on page 3.

Actuarial Balance Sheet

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

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

The 2011 actuarial valuation indicates that LACERA's Valuation Assets are less than its AAL. The difference between these two values is the UAAL. It is discussed, along with the effect of the experience gains and losses, in detail in Section 4, Actuarial Liabilities.



Funding Policy

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

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

Funding Policy
(continued)

- Amortization Period:** The new funding policy utilizes what is referred to as a “layered” amortization method. Under the policy, the 2009 UAAL amount is amortized over a closed 30-year period. Future gains and losses on the UAAL are amortized over new closed 30-year periods. The Employer contribution rate is not allowed to be less than the rate if LACERA amortized the total UAAL over a 30-year period. Exhibit 12 of this report illustrates in detail the calculation of the total UAAL rate for the fiscal year beginning in 2012.

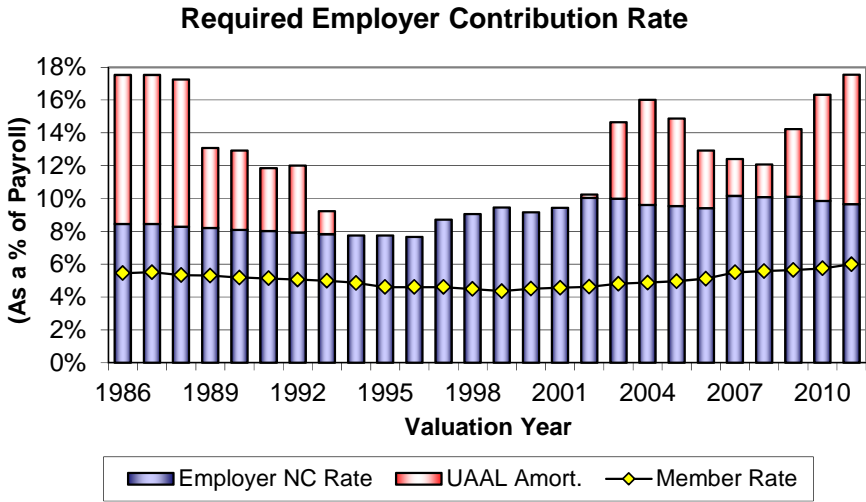
If LACERA moves to a negative UAAL position, the “surplus” amount will be amortized over an open 30-year period.

- 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 2011 Employer contribution rate would increase by 0.52% to 18.06% and the Funded Ratio would decrease by 1.2% to 79.4%.

Employer
Contribution Rates

Based on the results of the valuation, the required Employer contribution rate will increase for the fiscal year beginning in 2012 to a rate of 17.54% of pay. A historical perspective of the Employer contribution rates is shown in the following graph.



**Summary of the Findings
(continued)**

Member Rates

Since a change to the investment return assumption is effective for this valuation, we have recommended changes to the member contribution rates to reflect the new assumptions adopted by the Board. These new member rates would be effective July, 2012. Member rates for all plans are discussed in Section 5, and they are shown in detail in Appendix D.

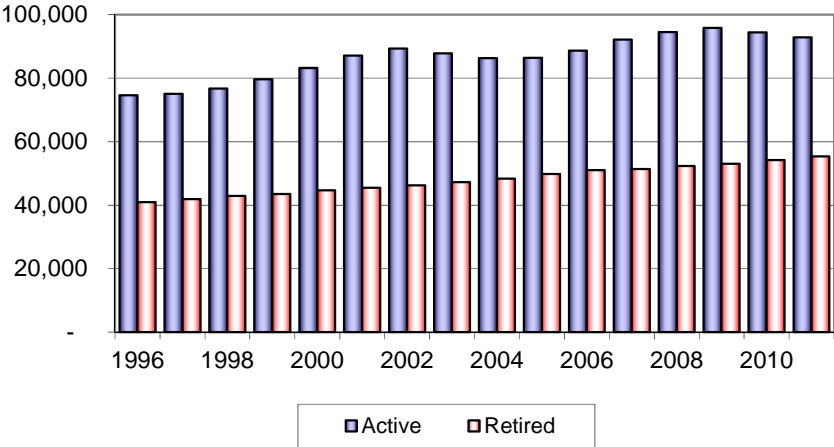
A comparison of these rates at sample ages is shown below:

Entry Age	Member Contribution Rates		
	Current	New	Increase / (Decrease)
General A			
25	5.21%	5.27%	0.06%
35	6.42%	6.48%	0.06%
45	7.78%	7.86%	0.08%
General B			
25	7.11%	7.15%	0.04%
35	8.74%	8.78%	0.04%
45	10.60%	10.66%	0.06%
General C			
25	6.11%	6.14%	0.03%
35	7.49%	7.54%	0.05%
45	9.22%	9.28%	0.06%
General D			
25	6.00%	6.04%	0.04%
35	7.36%	7.41%	0.05%
45	9.06%	9.12%	0.06%
Safety A			
25	7.98%	8.04%	0.06%
35	9.66%	9.73%	0.07%
45	11.27%	11.36%	0.09%
Safety B			
25	10.68%	10.74%	0.06%
35	12.95%	13.02%	0.07%
45	15.10%	15.19%	0.09%

Member Information

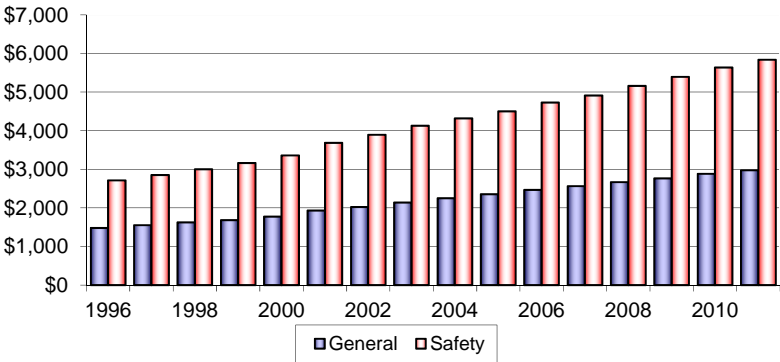
Payroll has decreased slightly since 2010, and active membership has declined. As of June 30, 2011, the annualized payroll is \$6.71 billion for 92,786 active members. This decrease is a result of a 1.2% increase in average pay and a 1.7% decrease in active members.

Membership Count



Retired member counts and average retirement benefit amounts continue to increase steadily. For 2011, there were 55,371 retired members and beneficiaries with an average benefit of \$3,526 per month. This represents a 2.2% increase in count and a 3.3% increase in the average monthly benefit.

Average Monthly Retirement Benefit



Summary of the Findings (continued)

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, 408 members transferred from Plan E to Plan D during the past year, and 135 members transferred from Plan D to Plan E.

	Active Contributing Members	Deferred Members*	Retirees, Disabilities, & Beneficiaries
June 30, 2010 Valuation	94,410	11,998	54,196
Termination without Refund	(824)	824	-
Termination with Refund	(587)	(326)	-
Active/Deferred Death with Annuity	(64)	(60)	124
Service Retirement	(2,032)	(375)	2,407
Disability Retirement	(115)	(9)	124
Retiree Death without Beneficiary	-	-	(1,479)
New Entrants	1,903	-	-
Rehires	95	(94)	(1)
Total Change	(1,624)	(40)	1,175
June 30, 2011 Valuation	92,786	11,958	55,371

* 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 7.70%	+0.5% 8.20%	-0.5% 7.20%
Employer Contribution Rate	17.54%	14.28%	20.85%
Change		-3.26%	3.31%
Funded Ratio	80.6%	85.5%	76.0%
Change		4.9%	-4.6%

Summary Valuation Results

The following Exhibit 1 presents a summary of key data elements on June 30, 2011 and June 30, 2010, 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, 2011	June 30, 2010	Percentage Change
I. Total Membership			
A. Active Members	92,786	94,410	(1.7)%
B. Retired Members & Beneficiaries	55,371	54,196	2.2%
C. Deferred Members	<u>11,958</u>	<u>11,998</u>	(0.3)%
D. Total	160,115	160,604	(0.3)%
II. Pay Rate as of June 30, 2011			
A. Annual Total (\$millions)	\$ 6,705	\$ 6,739	(0.5)%
B. Monthly Average	\$ 6,022	\$ 5,948	1.2%
III. Average Monthly Benefit Paid to Current Retirees and Beneficiaries			
A. Service Retirement	\$ 3,589	\$ 3,480	3.1%
B. Disability Retirement	\$ 4,331	\$ 4,176	3.7%
C. Surviving Spouse and Dependents	\$ 2,319	\$ 2,221	4.4%
D. Total	\$ 3,526	\$ 3,414	3.3%
IV. Actuarial Accrued Liability			
A. Active Members	\$ 21,040	\$ 20,426	3.0%
B. Retired Members	\$ 26,817	\$ 25,513	5.1%
C. Vested Terminated Members	<u>\$ 742</u>	<u>\$ 707</u>	5.0%
D. Total	\$ 48,599	\$ 46,646	4.2%
V. Assets			
A. Market Value of Fund (\$millions)	\$ 39,452	\$ 33,434	18.0%
B. Actuarial Value (\$millions)			
1. Valuation Reserves	\$ 39,194	\$ 38,839	0.9%
2. Non-valuation Reserves	\$ 865	\$ 805	7.5%
C. Annual Investment Return			
1. Market Basis	20.4%	11.8%	na
2. Valuation (Actuarial) Basis	3.3%	0.5%	na
VI. Unfunded Actuarial Accrued Liability or (Surplus Funding) in \$millions	\$ 9,405	\$ 7,807	20.5%
VII. Required Employer contribution rate for all plans combined as a percent of total payroll			
A. Gross Normal Cost	15.65%	15.59%	0.4%
B. Member Contributions	<u>(6.00)%</u> *	<u>(5.75)%</u>	4.3%
C. Employer Normal Cost	9.65%	9.84%	(1.9)%
D. UAAL Amortization	<u>7.89%</u>	<u>6.47%</u>	21.9%
E. Total Required Contribution Rate	17.54%	16.31%	7.5%
VIII. Funded Ratio	80.6%	83.3%	(3.1)%
IX. Results Based on Market Value (Informational Purposes Only)			
Total Required Contribution Rate	18.05%	20.90%	(13.6)%
Funded Ratio	79.4%	69.9%	13.5%

* Includes non-contributory members. The average member rate for contributory plans increased from 7.96% to 8.00%. The increase in the blended member rate this year (5.75% to 6.00%) was mainly due to a refinement in the contribution timing adjustment used in the valuation. This change does not affect the actual rates paid by members which is determined separately.

This page intentionally left blank.



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

Section 2: Scope of the Report



This report presents the actuarial valuation of the Los Angeles County Employees Retirement Association as of June 30, 2011. 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 2011 valuation meets this requirement. Under LACERA's Funding Policy, annual valuations determine the Employer contribution rates each year. Member contribution rates are set each triennial valuation, or in years in which relevant actuarial assumptions are altered, such as 2011.

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, 2011. Exhibit 6 develops the Valuation Assets used for funding benefits.

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

Section 5 discusses the Member contribution rates.

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

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

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

Scope of the Report (continued)

This report includes several appendices:

- | | |
|------------|--|
| Appendix A | A summary of the actuarial procedures and assumptions used to estimate liabilities and contributions. |
| Appendix B | A summary of the current benefit structure, as determined by the provisions of governing law on June 30, 2011. |
| 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. |

Los Angeles County Employees Retirement Association

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, 2011. On that date, the assets available for the payment of retirement benefits are appraised. These assets are compared with the actuarial liabilities (both accrued and future) for current members, which are generally in excess of the actuarial assets. The purpose of the valuation is to determine what future contributions by the members and employers are needed to pay all expected future benefits.

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

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

	All dollar amounts in billions			
	Market Value of Total Assets	Actuarial Value		Total Fund Return*
		Non- Valuation Reserves	Valuation Assets	
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
2010	33.4	0.8	38.8	11.8
2011	39.5	0.9	39.2	20.4

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

On June 30, 2011, the total market value of the fund, less current liabilities, was \$39.5 billion. The actuarial value of the fund was determined to be \$40.1 billion, including the non-valuation reserves. The average total fund return for the last 10 years is 6.3%.

Financial Exhibits

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

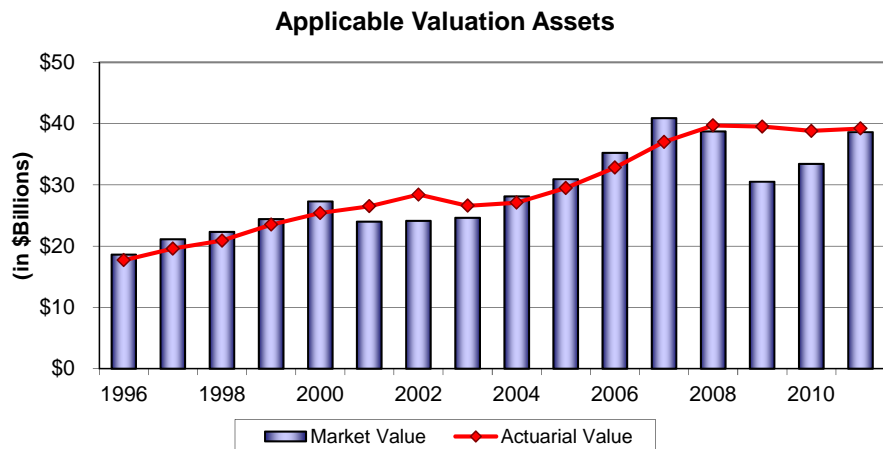
Exhibits 2-4 are taken directly from data furnished to us by LACERA in their annual financial report. We have accepted these tables for use in this report without audit, but we have reviewed them both for the prior year and the current year for reasonableness and consistency with previous reports.

Actuarial Asset Method

The actuarial asset method computes the expected market value of assets based on the prior year's market value of assets, the actual cash flow of contributions and benefit payments, and the assumed investment rate of return. For the previous year, the assumed rate of return was 7.75%, 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. Note that for the upcoming year, 7.70% will be the assumed net rate of return.

Actuarial Value of Assets

The development of the June 30, 2011 actuarial value of assets is shown in Exhibit 5. Note the smoothing process is deferring past investment losses and is currently in a net actuarial loss position. The result is an actuarial value of assets that is greater than the June 30, 2011 market value by \$0.6 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.

**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, 2011 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, 2012. Although the reserve value for STAR benefits is included in the 2011 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.

Los Angeles County Employees Retirement Association

**Exhibit 2: Statement of Plan Net Assets
For Years Ended June 30, 2011 and 2010
(Dollars in Thousands)**

	2011	2010
Assets		
Cash	\$ 161,985	\$ 117,360
Collateral on Loaned Securities	1,693,349	1,158,925
Receivables		
Contributions Receivable	55,260	49,841
Accounts Receivable – Sale of Investments	866,787	820,109
Accrued Interest and Dividends	134,088	97,083
Accounts Receivable – Other	47,559	47,359
Total Receivables	1,103,694	1,014,392
Investments at Fair Value		
Stocks	20,294,326	16,693,082
Bonds	11,179,207	10,142,133
Commodities	1,004,662	664,464
Real Estate	3,316,258	2,843,804
Alternative Assets	3,975,579	3,417,212
Total Investments	39,770,032	33,760,695
Capital Assets Net of Depreciation	-	-
Total Assets	42,729,060	36,051,372
Liabilities		
Accounts Payable – Purchase of Investments	1,523,681	1,403,918
Retiree Payroll and Other Payables	350	233
Accrued Expenses	26,866	26,886
Tax Withholding Payable	24,948	23,406
Obligations under Securities Lending Program	1,693,349	1,158,925
Accounts Payable – Other	7,855	4,116
Total Liabilities	3,277,049	2,617,484
Net Assets Held in Trust for Pension Benefits	39,452,011	33,433,888

Los Angeles County Employees Retirement Association

Exhibit 3: Statement of Changes in Plan Net Assets For the Years Ended June 30, 2011 and 2010 (Dollars in Thousands)

	2011	2010
Additions		
Contributions		
Employer	\$ 944,174	\$ 843,704
Member	463,743	429,612
Total Contributions	1,407,917	1,273,316
Investment Income		
<i>From Investing Activities</i>		
Net Appreciation/(Depreciation) in Fair Value of Investments	5,426,883	2,102,581
Investment Income	1,579,009	1,848,215
Total Investing Activity Income/(Loss)	7,005,892	3,950,796
Less Expenses From Investing Activities	(79,642)	(113,885)
Net Investing Activity Income/(Loss)	6,926,250	3,836,911
<i>From Securities Lending Activities</i>		
Securities Lending Income	6,468	5,867
Less Expenses From Securities Lending Activities		
Borrower Rebates	(1,550)	(1,899)
Management Fees	(810)	(478)
Total Expenses from Securities Lending Activities	(2,360)	(2,377)
Net Securities Lending Income	4,108	3,490
Total Net Investment Income/(Loss)	6,930,358	3,840,401
Miscellaneous	591	868
Total Additions/(Declines)	8,338,866	5,114,585
Deductions		
Retiree Payroll	2,245,005	2,109,660
Administrative Expense	50,605	48,892
Refunds	22,718	18,904
Lump Sum Death Benefits	2,068	2,174
Miscellaneous	347	48
Total Deductions	2,320,743	2,179,678
Transfer to OPEB Agency Fund	-	-
Net Increase/(Decrease)	6,018,123	2,934,907
Net Assets Held in Trust for Pension Benefits Beginning of Year	33,433,888	30,498,981
End of Year	39,452,011	33,433,888

Los Angeles County Employees Retirement Association

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

	June 30, 2011	June 30, 2010
1. Member Reserves		
a. Active Members	\$ 14,940,500	\$ 14,027,924
b. Unclaimed Deposits	<u>-</u>	<u>-</u>
c. Total Member Reserves	\$ 14,940,500	\$ 14,027,924
2. Employer Reserves		
a. Actual Employer Contributions	\$ 20,996,422	\$ 21,317,758
b. Advanced Employer Contributions	<u>-</u>	<u>-</u>
c. Total Employer Contributions	\$ 20,996,422	\$ 21,317,758
3. County Contribution Credit Reserve	\$ 470,710	\$ 470,710
4. STAR Reserve	614,011	614,011
5. Contingency Reserve	<u>-</u>	<u>-</u>
6. Total Reserves at Book Value	\$ 37,021,643	\$ 36,430,403
7. Unrealized Investment Portfolio Appreciation	<u>2,430,368</u>	<u>(2,996,515)</u>
8. Total Reserves at Fair Value	\$ 39,452,011	\$ 33,433,888

Note: These amounts were determined by LACERA for accounting purposes and are reported in the June 30, 2011 CAFR.

**Los Angeles County Employees
Retirement Association**

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

June 30, 2011 Valuation						
Plan Year Ending	Contributions	Benefit Payments	Expected Market Value	Actual Market Value	Phase-Out of Gain / (Loss)*	
6/30/2011	\$ 1,407,917	\$ 2,269,791	\$ 35,130,366	\$ 39,452,011	80.00% x	\$ 4,321,645 = \$ 3,457,316
6/30/2010	1,273,316	2,130,738	31,972,625	33,433,888	60.00% x	1,461,263 = 876,758
6/30/2009	1,247,216	2,016,364	40,927,437	30,498,981	40.00% x	(10,428,456) = (4,171,382)
6/30/2008	1,202,781	1,913,272	43,340,975	38,724,671	16.67% x	(4,616,304) = (769,538)
6/30/2007						= 0
						Total Phase-Out of Gain / (Loss) = \$ (606,846)
						Total Market Value of Assets = 39,452,011
						Total Actuarial Value of Assets = \$ 40,058,857
<p>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.</p>						



**Los Angeles County Employees
Retirement Association**

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

	June 30, 2011	June 30, 2010
1. Total Market Value of Assets	\$ 42,729,060	\$ 36,051,372
2. Current Liabilities	<u>3,277,049</u>	<u>2,617,484</u>
3. Net Assets Held in Trust for Pension Benefits	\$ 39,452,011	\$ 33,433,888
4. Market Stabilization Reserve ⁽¹⁾	<u>(606,846)</u>	<u>(6,210,553)</u>
5. Actuarial Value of Fund Assets	\$ 40,058,857	\$ 39,644,441
6. Non-Valuation Reserves ⁽²⁾		
a. Unclaimed Deposits	\$ -	\$ -
b. Contingency Reserve	394,520	334,339
c. Advanced Employer Contributions	-	-
d. County Contribution Credit Reserve	470,710	470,710
e. Reserve for STAR Program	<u>-</u>	<u>-</u>
f. Total	\$ 865,230	\$ 805,049
7. Valuation Assets ⁽²⁾		
a. Member Reserves	\$ 14,940,500	\$ 14,027,924
b. Employer Reserves for Funding Purposes	<u>\$ 24,253,127</u>	<u>\$ 24,811,468</u>
c. Total	\$ 39,193,627	\$ 38,839,392

(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.*

This page intentionally left blank.



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

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, 2011. 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 Valuation Assets to the actuarial liabilities. The difference is the amount that needs to be funded by the member and employer contributions in the future. Both the current and future assets (contributions) are compared to the actuarial liabilities in the Actuarial Balance Sheet.

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

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

The actuarial assumptions used to determine the liabilities are based on the results of the 2010 Investigation of Experience Report. New assumptions were adopted by the Board effective with the June 30, 2010 actuarial valuation. The investment return assumption was changed to 7.70% for the 2011 actuarial valuation and is scheduled to further decrease over the next two valuations. Corresponding reductions in the price and wage inflation assumptions were also made.

**Los Angeles County Employees
Retirement Association**

**Exhibit 7: Actuarial Balance Sheet – June 30, 2011
(Dollars in Millions)**

	General					Safety		
	Plan A	Plan B	Plan C	Plan D	Plan E	Plan A	Plan B	
LIABILITIES								
Present Value of Benefits - Inactives								
- Retirees and Beneficiaries	\$ 12,834	\$ 253	\$ 112	\$ 2,452	\$ 1,421	\$ 7,658	\$ 2,087	\$ 26,817
- Vested Terminated	36	7	2	308	319	1	69	742
- Inactive Total	12,870	260	114	2,760	1,740	7,659	2,156	27,559
Present Value of Benefits - Actives								
- Service Retirement	\$ 1,036	\$ 186	\$ 148	\$ 13,243	\$ 5,479	\$ 184	\$ 6,380	\$ 26,656
- Transfer Service (prior LACERA plan)	6	1	1	132	337	1	5	483
- Disability Retirement	19	3	3	844	N/A	40	2,975	3,884
- Death	9	2	2	393	N/A	*	73	479
- Termination (No Refund)	*	*	*	199	130	*	45	374
- Refund of Member Contributions	*	*	*	77	N/A	*	10	87
- Active Total	1,070	192	154	14,888	5,946	225	9,488	31,963
Total Actuarial Liabilities	\$ 13,940	\$ 452	\$ 268	\$ 17,648	\$ 7,686	\$ 7,884	\$ 11,644	\$ 59,522
ASSETS								
Valuation Assets	\$ 5,604	\$ 435	\$ 269	\$ 12,295	\$ 8,481	\$ 3,009	\$ 9,101	\$ 39,194
PV Future Member Contributions	13	5	4	2,980	N/A	*	1,233	4,235
PV Future County Normal Cost Contribs.	40	4	4	3,305	1,447	5	1,884	6,689
UAAL or (Surplus Funding)	8,283	8	(9)	(932)	(2,242)	4,870	(573)	9,405
Total Current and Future Assets	\$ 13,940	\$ 452	\$ 268	\$ 17,648	\$ 7,686	\$ 7,884	\$ 11,644	\$ 59,522

* Less than \$0.5 million



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. 26

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

All liabilities reflect the benefits effective through June 30, 2011. This includes permanent STAR COLAs that have been adopted through the valuation date, but does not include the value of any future STAR benefits that may be granted in the future.

Actuarial Balance Sheet – Assets

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

- (a) assets currently available to pay benefits and considered for funding purposes, the Valuation Assets;
- (b) the present value of future contributions expected to be made by current active Members; and
- (c) the present value of future contributions expected to be made by the Employer.

Actuarial Cost Method

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

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

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

Normal Cost

The Normal Cost is the theoretical contribution rate that will meet the ongoing costs of a group of average new employees. Suppose that a group of new employees was covered under a separate fund from which all benefits and to which all contributions and associated investment returns were paid.

Under the entry age actuarial cost method, the Normal Cost contribution rate maintains the funding of benefits as a level percentage of pay. If experience follows the actuarial assumptions precisely, the fund would be completely liquidated when the last payment to the last survivor of the group was made.

**Actuarial Liabilities
(continued)**

**Normal Cost
(continued)**

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

Actuarial Accrued Liability

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

(Dollars in millions)	<u>2011</u>	<u>2010</u>	<u>Percent Change</u>
A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors	\$ 59,522	\$ 57,766	3.0%
B. Actuarial present value of total future normal costs for current members	\$ 10,923	\$ 11,120	-1.8%
C. Actuarial accrued liability [A-B]	\$ 48,599	\$ 46,646	4.2%
D. Valuation Assets	\$ 39,194	\$ 38,839	0.9%
E. UAAL or (Surplus Funding) [C-D]	\$ 9,405	\$ 7,807	20.5%
F. Funded Ratio [D/C]	80.6%	83.3%	-3.1%

**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 employer had always contributed the current Normal Cost, and if there were no prior benefit or assumption changes, and if actual experience exactly matched the actuarial assumptions, then the present value of all future Normal Cost contributions would be sufficient to fund all benefits and there would be no UAAL.

**Unfunded Actuarial
Accrued Liability/
Surplus Funding
(continued)**

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

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

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

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

Funding Adequacy

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

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

**Analysis of Change
in Unfunded
Actuarial Accrued
Liability**

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

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

The 2011 actuarial valuation reflects an actuarial experience loss of \$1.03 billion for the fiscal year just ended. The loss was mainly due to a \$1.76 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 significantly less than the valuation assumption. This resulted in a gain.
- **Investment Return Assumption:** There was an increase in the UAAL due to the lower investment return assumption.
- **Actual CPI versus Assumption:** The actual CPI increase was less than assumed, although some members from contributory plans had positive COLA banks to make up for this. Most members received increases in their benefits less than the assumption (3.0% for Plan A, 2.0% for Plans B-D). The members who received COLA increases less than the assumption generated a gain due to CPI of \$215 million.
- **Mortality Experience:** An actuarial loss due to mortality generally indicates that retired members are living longer than the current assumption would predict. This year, there was a small gain due to mortality, indicating retirees are living slightly shorter lives than assumed.
- **Other:** Examples of this are gains and losses from termination, service retirement, disability retirement, death, service purchases, reciprocity, and transfers between plans.

**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.

Los Angeles County Employees Retirement Association

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

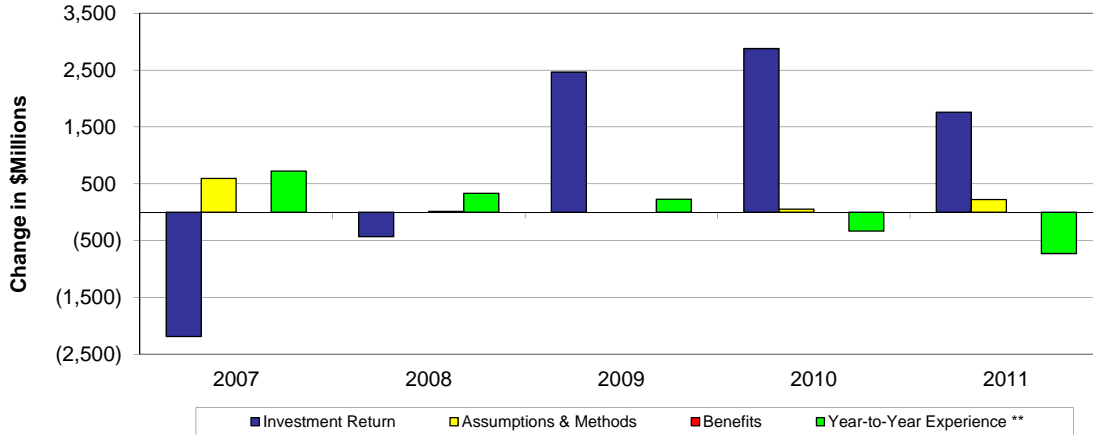
	Amount	As a Percent of June 30, 2011 Actuarial Accrued Liability
Unfunded Actuarial Accrued Liability - June 30, 2010	\$ 7,807	16.1%
Increase in UAAL due to New Assumptions	221	0.5%
Interest Accrued	605	1.2%
Benefits Accrued (Normal Cost) *	1,200	2.5%
Contributions (with Assumed Interest)		
Employer - Cash	\$ (980)	-2.0%
Employer - Contribution Credit	-	0.0%
Member **	(481)	-1.0%
Total	(1,461)	-3.0%
Expected Unfunded Actuarial Acc. Liability - June 30, 2011	\$ 8,372	17.2%
 Source of Change		
Asset (Gains) and Losses		
(Gain)/Loss due to Investment Income	1,761	3.6%
Actuarial (Gains) and Losses		
Salary Increases	\$ (579)	-1.2%
CPI Less than Expected	(215)	-0.4%
Transfers Between Plan D & Plan E	-	0.0%
Mortality Experience	(16)	0.0%
All Other Experience	82	0.2%
Total	(728)	-1.5%
Recognition of Liabilities due to Court Cases	-	0.0%
Total Changes	1,033	2.1%
Unfunded Actuarial Accrued Liability - June 30, 2011	\$ 9,405	19.4%

* Includes estimated increase in value of benefits due to service purchases.

** Includes service purchase contributions.

Los Angeles County Employees Retirement Association

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



	2007	2008	2009	2010	2011	2007-11
Prior Valuation UAAL / (Surplus)	\$ 3,439	\$ 2,461	\$ 2,313	\$ 4,927	\$ 7,807	\$ 3,439
Increase in UAAL due to:						
Expected Increase / (Decrease)	(109)	(68)	(78)	279	344	368
Asset (Gains) and Losses	(2,187)	(429)	2,465	2,879	1,761	4,489
Changes in Benefits*	-	15	-	-	-	15
Changes in Assumptions	515	-	-	54	221	790
Changes in Methods	81	-	-	-	-	81
Salary Increases	673	298	380	(353)	(579)	419
CPI Less than Expected	-	-	(4)	(29)	(215)	(248)
Transfers Between D & E	4	10	(3)	6	-	17
Mortality Experience	(22)	(51)	(63)	(32)	(16)	(184)
All Other Experience	67	77	(83)	76	82	219
Total Increase / (Decrease)	(978)	(148)	2,614	2,880	1,598	5,966
Valuation UAAL / (Surplus)	\$ 2,461	\$ 2,313	\$ 4,927	\$ 7,807	\$ 9,405	\$ 9,405
Funded Ratio	93.8%	94.5%	88.9%	83.3%	80.6%	80.6%

* Benefit changes are as follows:
2008: Benefits due to Fire Chief (FLSA) court case.

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

Los Angeles County Employees Retirement Association

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

Note: FAC = Final Average Compensation

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

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

Effective with the 2011 valuation, the assumed rate of investment return was lowered to 7.70% (with corresponding decreases in CPI and wage inflation), necessitating a change in the normal member contribution rates. Normal member contribution rates increased slightly at all entry ages.

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 Employer. Unlike the member normal contributions, these rates are based on the actuarial cost of the benefits and reflect all assumptions used in the valuation of liabilities.

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

As there is a change in the normal member contribution rates, we are recommending a change in the member cost-of-living contribution rates. The cost-of-living contributions, expressed as a percentage of the normal contribution rates, are based on the June 30, 2011 actuarial valuation and are as follows:

Plan	COLA %
General A	79.87%
General B	21.94%
General C	23.60%
General D	21.45%
General E	0.00%
Safety A	93.81%
Safety B	29.59%

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

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

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

**Member Rate
For Contributory
Plan Members Only**

The average member contribution rate for only those members in contributory plans at June 30, 2011 is 8.00% of payroll.

This number compares to 6.00% of payroll, which is the average member contribution rate among all members. This 6.00% offsets the gross normal cost to yield the Employer normal cost rate.

Los Angeles County Employees Retirement Association

Exhibit 9: Sample Member Contribution Rates

<u>Recommended Rates (Based on 2011 Valuation)</u>						
	Entry Age	Normal	Cost of Living	Total as a % of Pay	Current Rate (Total)	Ratio (New / Current)
General Members						
Plan A	25	2.93%	2.34%	5.27%	5.21%	101.2%
	35	3.60%	2.88%	6.48%	6.42%	100.9%
	45	4.37%	3.49%	7.86%	7.78%	101.0%
	55	4.68%	3.74%	8.42%	8.34%	101.0%
Plan B	25	5.86%	1.29%	7.15%	7.11%	100.6%
	35	7.20%	1.58%	8.78%	8.74%	100.5%
	45	8.74%	1.92%	10.66%	10.60%	100.6%
	55	9.36%	2.05%	11.41%	11.36%	100.4%
Plan C	25	4.97%	1.17%	6.14%	6.11%	100.5%
	35	6.10%	1.44%	7.54%	7.49%	100.7%
	45	7.51%	1.77%	9.28%	9.22%	100.7%
	55	8.75%	2.07%	10.82%	10.77%	100.5%
Plan D	25	4.97%	1.07%	6.04%	6.00%	100.7%
	35	6.10%	1.31%	7.41%	7.36%	100.7%
	45	7.51%	1.61%	9.12%	9.06%	100.7%
	55	8.75%	1.88%	10.63%	10.58%	100.5%
Safety Members						
Plan A	25	4.15%	3.89%	8.04%	7.98%	100.8%
	35	5.02%	4.71%	9.73%	9.66%	100.7%
	45	5.86%	5.50%	11.36%	11.27%	100.8%
	55	5.89%	5.53%	11.42%	11.33%	100.8%
Plan B	25	8.29%	2.45%	10.74%	10.68%	100.6%
	35	10.05%	2.97%	13.02%	12.95%	100.5%
	45	11.72%	3.47%	15.19%	15.10%	100.6%
	55	11.78%	3.49%	15.27%	15.18%	100.6%

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

This page intentionally left blank.



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

Section 6: Employer Contributions



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

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

Employer Contribution Rate

The total calculated Employer contribution rates for each plan, along with a comparison to the prior year's computed rates, can be found in Exhibit 11. These results are expressed as a percentage of payroll and annual contribution dollars. Note that LACERA's UAAL contribution rate is not determined separately for each plan, but is funded evenly as a percentage of pay over salaries for all members. The total Employer contribution rate was 16.31% for the fiscal year beginning in 2011.

For the fiscal year beginning in 2012, the required rate increased to 17.54%. This is equal to the net aggregate calculated Normal Cost contribution rate of 9.65% based on the 2011 Valuation, plus a 30-year layered amortization payment of the UAAL.

(All values as a % of Payroll)

Employer Normal Cost	9.65%
30-year Amortization of UAAL	<u>7.89</u>
Total Employer Contribution	17.54%

The 1.23% increase from last year in the total Employer contribution rate was primarily due to the recognition of deferred investment losses, which caused a 2.04% increase in the UAAL rate. This was somewhat offset by this year's investment gain, as well as COLA increases and salary increases that were smaller than assumed. The UAAL rate reflects a layered 30-year amortization from the valuation date with a July 1, 2012 implementation date for the new Employer contribution rate.

**Employer
Contribution Rate
(continued)**

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

1. **Change in Assumptions:** The new economic assumptions adopted in 2011 caused an increase in the normal cost rate. Additionally, in the 2011 valuation, a refinement was made in the adjustment for when contributions are paid by members, which caused a decrease in the normal cost rate.

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

3. **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 in the Employer's share of the Normal Cost contributions for the years in which the member has more than 30 years of service. The Employer'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, 2011

A. Normal Cost Contribution Rate	General						Safety			Grand Total
	Plan A	Plan B	Plan C	Plan D	Plan E	Total	Plan A	Plan B	Total	
Service Retirement	16.81%	13.32%	12.15%	12.79%	8.32%	11.47%	14.40%	14.43%	14.43%	12.05%
Disability Retirement	0.93%	0.74%	0.72%	1.20%	0.00%	0.82%	9.52%	9.63%	9.63%	2.53%
Death	0.34%	0.30%	0.29%	0.47%	0.00%	0.32%	0.35%	0.32%	0.32%	0.32%
Termination (No Refund)	0.32%	0.28%	0.23%	0.48%	0.56%	0.50%	0.37%	0.44%	0.44%	0.49%
Refund of Member Contributions	0.09%	0.13%	0.11%	0.38%	0.00%	0.25%	0.18%	0.27%	0.27%	0.26%
Total	18.49%	14.77%	13.50%	15.32%	8.88%	13.36%	24.82%	25.09%	25.09%	15.65%
B. Member Contributions	(4.28)%	(7.11)%	(6.04)%	(7.21)%	0.00%	(4.91)%	(1.16)%	(10.58)%	(10.50)%	(6.00)%
C. Net Employer Normal Cost as of June 30, 2011 (A) - (B)	14.21%	7.66%	7.46%	8.11%	8.88%	8.45%	23.66%	14.51%	14.59%	9.65%
D. Net Employer Normal Cost as of June 30, 2010	14.54%	8.53%	8.04%	8.33%	8.83%	8.64%	23.91%	14.67%	14.81%	9.84%
E. Increase (Decrease) as a Percentage of Payroll (C) - (D)	(0.33)%	(0.87)%	(0.58)%	(0.22)%	0.05%	(0.19)%	(0.25)%	(0.16)%	(0.22)%	(0.19)%

Los Angeles County Employees Retirement Association

Exhibit 11: Total Employer Contributions

	General						Safety			All Plans
	Plan A	Plan B	Plan C	Plan D	Plan E	Total	Plan A	Plan B	Total	
A. Net Employer Normal Cost										
1. Basic Benefits	11.26%	6.24%	6.13%	6.82%	7.46%	7.09%	18.08%	11.85%	11.89%	7.93%
2. Cost-of-Living Benefits	2.95%	1.42%	1.33%	1.29%	1.42%	1.36%	5.58%	2.66%	2.70%	1.72%
3. Total June 30, 2011	14.21%	7.66%	7.46%	8.11%	8.88%	8.45%	23.66%	14.51%	14.59%	9.65%
B. UAAL Contribution Rate	7.89%	7.89%	7.89%	7.89%	7.89%	7.89%	7.89%	7.89%	7.89%	7.89%
C. Total June 30, 2011 Contribution Rate (A) + (B)	22.10%	15.55%	15.35%	16.00%	16.77%	16.34%	31.55%	22.40%	22.48%	17.54%
D. Total June 30, 2010 Contribution Rate	21.01%	15.00%	14.51%	14.80%	15.30%	15.11%	30.38%	21.14%	21.28%	16.31%
E. Estimated Payroll for fiscal year beginning July 1, 2012*	\$ 103	\$ 22	\$ 19	\$ 3,716	\$ 1,749	\$ 5,609	\$ 17	\$ 1,344	\$ 1,361	\$ 6,970
F. Estimated Annual Contribution (C x E)	\$ 23	\$ 3	\$ 3	\$ 594	\$ 293	\$ 916	\$ 5	\$ 301	\$ 306	\$ 1,222
G. Last Year's Estimated Annual Contribution	\$ 29	\$ 4	\$ 3	\$ 541	\$ 275	\$ 852	\$ 7	\$ 285	\$ 292	\$ 1,144
H. Increase / (Decrease) in Annual Contribution	\$ (6)	\$ (1)	\$ -	\$ 53	\$ 18	\$ 64	\$ (2)	\$ 16	\$ 14	\$ 78

* Estimated Payroll based upon annualized salary rate as of June 30, 2011 increased by 3.95% wage inflation. Dollar figures in millions.



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. 40

**Los Angeles County Employees
Retirement Association**

Exhibit 12: Unfunded Actuarial Accrued Liability Detail

Unfunded Actuarial Accrued Liability - 30 Year Layered Amortization Detail							
Date Established	Description	Balance as of June 30, 2011	Interest on Balance	Amort. Payment on June 30, 2012 ¹	Balance as of June 30, 2012 ²	Remaining Period as of June 30, 2012	July 1, 2012 Amortization Payment
June 30, 2009	Initial UAAL	\$ 5,267.6	\$ 405.6	\$ 313.9	\$ 5,359.3	27 Years	\$ 308.8
June 30, 2010	(Gain) / Loss	\$ 2,832.9	\$ 218.1	\$ 165.4	\$ 2,885.6	28 Years	\$ 162.8
June 30, 2011	(Gain) / Loss	\$ 1,304.5	\$ 100.4	\$ (7.5) ³	\$ 1,412.4	29 Years	\$ 78.1
Total Amortization Payment July 1, 2012:							\$ 549.7
Projected Payroll July 1, 2012:							\$ 6,969.6
UAAL as of June 30, 2011:		\$ 9,405.0		UAAL Contribution Rate (as a % of Payroll) FYB July 1, 2012:			7.89%

Explanatory Notes:

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

² The assets and liabilities used in the calculation of the UAAL are as of June 30, 2011; whereas, the contribution rates are not effective until July 1, 2012. Therefore, the UAAL is adjusted to June 30, 2012 based on the actual contribution rate for the period.

³ The 30-year amortization of UAAL does not begin until July 1, 2012; however, the UAAL amount is adjusted based on the July 1, 2011 contribution rate.



This page intentionally left blank.



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

Section 7: Accounting Information



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

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

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

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

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

The comparability of the data from year to year can be affected by changes in actuarial assumptions, benefit provisions, accounting policies, etc. For example, assumptions were changed in 2010 based on the triennial Investigation of Experience, and the investment return assumption was changed in 2011.

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

**Los Angeles County Employees
Retirement Association**

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

Actuarial Valuation Date	(a) Actuarial Value of Valuation Assets	(b) Actuarial Accrued Liabilities	(b-a) Unfunded Actuarial Accrued Liabilities (UAAL)	(a/b) Funded Ratio	(c) Covered Payroll ⁽¹⁾	[(b-a)/c] UAAL as a Percentage of Covered Payroll
June 30, 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%
June 30, 2010 ⁽²⁾	38,839,392	46,646,838	7,807,446	83.3%	6,695,439	116.6%
June 30, 2011 ⁽²⁾	39,193,627	48,598,166	9,404,539	80.6%	6,650,674	141.4%

(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.

(3) Benefits were enhanced under MOU package.



**Los Angeles County Employees
Retirement Association**

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

<u>Fiscal Year Ending</u>	<u>Annual Required Contribution (ARC)</u>	<u>Actual Employer Contributions</u>			<u>Percentage of ARC Contributed</u>
		<u>Cash Payment</u>	<u>Transfer from Reserve Accounts</u>	<u>Total</u>	
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%
6/30/2010	843,704	843,703	0	843,703	100%
6/30/2011	944,174	944,174	0	944,174	100%

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

**Los Angeles County Employees
Retirement Association**

**Exhibit 15: Solvency Test
(Dollars in Millions)**

Actuarial Valuation Date	Actuarial Value of Valuation Assets	Actuarial Accrued Liabilities for			Portion of Actuarial Accrued Liabilities Covered by Assets		
		Active Member Contributions (A)	Retirees and Beneficiaries ⁽¹⁾ (B)	Active Members (Employer Financed Portion) (C)	(A)	(B)	(C)
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%
June 30, 2010	38,839	6,278	26,220	14,148	100%	100%	45%
June 30, 2011	39,194	6,529	27,559	14,511	100%	100%	35%

(1) Includes deferred vested members.



Los Angeles County Employees Retirement Association

Section 8: Supplemental Information



Cash Flow Projection

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

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

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

The projected cash flows include contributions, statutory benefits and administrative expenses only. They are based on the actuarial assumptions as stated in Appendix A of this valuation report. The total Employer contribution rate is assumed to be 16.31% for the first year and 17.54% for the second year; total Employer contributions for the remainder of the period reflect the expected recognition of asset losses currently being deferred. The aggregate member rate is assumed to stay at the calculated rate for June 30, 2011 of 6.00% of payroll. Expenses are based on the expenses for the year ended June 30, 2011, increased annually with the actuarial inflation assumption of 3.45%.

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 2011 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.

**Los Angeles County Employees
Retirement Association**

Exhibit 16a: Cash Flow History and Projections – Dollars

Cash Flow History			
Plan Year	Total	Benefits & Administrative	Net
<u>Ending</u>	<u>Contributions</u>	<u>Expenses⁽²⁾</u>	<u>Cash Flow</u>
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)
2010	1,273	2,177	(904)
2011	1,408	2,318	(910)

Cash Flow Projections⁽¹⁾			
Plan Year	Total	Benefits & Administrative	Net
<u>Ending</u>	<u>Contributions</u>	<u>Expenses⁽²⁾</u>	<u>Cash Flow</u>
2012	\$ 1,479	\$ 2,511	\$ (1,032)
2013	1,641	2,618	(978)
2014	1,855	2,764	(910)
2015	2,024	2,916	(892)
2016	2,027	3,076	(1,049)
2017	2,052	3,244	(1,191)
2018	2,135	3,418	(1,283)
2019	2,220	3,601	(1,381)
2020	2,308	3,793	(1,484)
2021	2,399	3,990	(1,591)

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

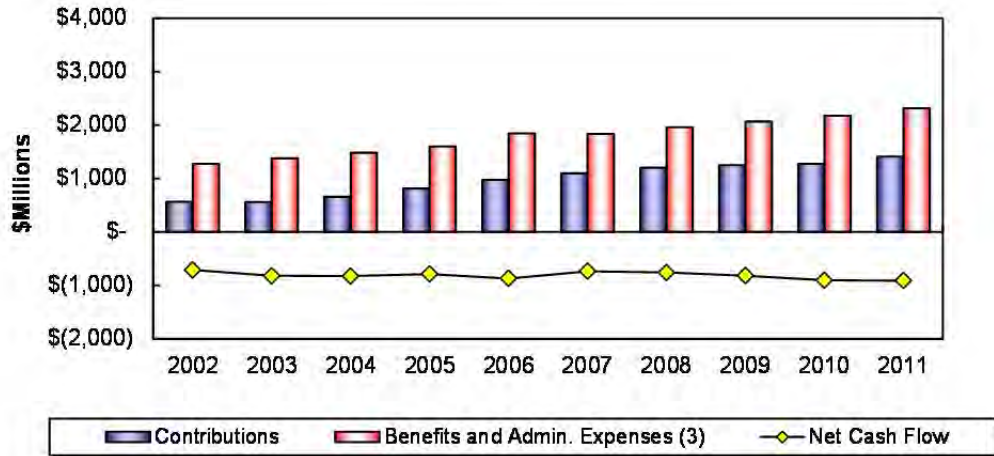
⁽²⁾ Investment expenses are assumed to be covered by investment return.

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

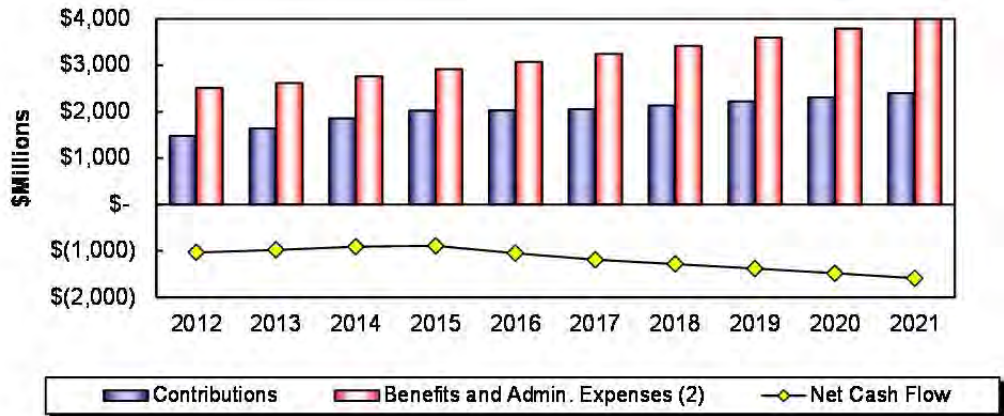
Los Angeles County Employees Retirement Association

Exhibit 16b: Cash Flow History and Projections – Charts

Cash Flow History



Cash Flow Projections⁽¹⁾



- (1) Future contributions reflect the expected impact of asset gains and losses currently being deferred.
- (2) Investment expenses are assumed to be covered by investment return.
- (3) Benefit payments for the Plan Year ending 2006 include approximately \$94 million in retroactive benefit payments pursuant to the Ventura settlement.

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 for the June 30, 2010 actuarial valuation as a result of the 2010 triennial Investigation of Experience Study.

Additionally, the investment return assumption was lowered by 0.05% in the 2011 actuarial valuation, to 7.70%; the wage inflation, CPI, and salary increase assumptions were also reduced correspondingly.

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 2010 Investigation of Experience Study. The rates are the probabilities a member will leave the system for various reasons.

Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (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 original UAAL as of June 30, 2009 is amortized as a level percentage of the projected salaries of present and future members of LACERA over a closed 30-year period. Future gains and losses are amortized over new closed 30-year periods. This is referred to as "layered" amortization.

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.

County Contributions	The County contribution rate is set by the Board of Investments based on actuarial valuations.
Member Contributions	<p>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.</p> <p>The individual member rates by entry age, plan and class are illustrated in Appendix D of the valuation report.</p>
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 7.70% compounded annually, net of both investment and administrative expenses. This rate was adopted June 30, 2011.
Post-Retirement Benefit Increases	Post-retirement increases are assumed for the valuation in accordance with the benefits provided as described in Appendix B. These adjustments are assumed payable each year in the future as they are less than the expected increase in the Consumer Price Index of 3.45% per year. This rate was adopted June 30, 2011.
Interest on Member Contributions	The annual credited interest rate on member contributions is assumed to be 7.70% compounded semi-annually for an annualized rate of 7.85%. This rate was adopted June 30, 2011.
Future Salaries	<p>The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-5. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 3.95% per annum rate of increase in the general wage level of the membership. These rates were adopted June 30, 2011.</p> <p>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.</p>

**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 included as pensionable earnings, actual annual pay is preferred over annualizing a single monthly payment amount.

**Social Security Wage
Base**

Plan E members have their benefits offset by an assumed Social Security Benefit. For valuation funding purposes, we need to project the Social Security Benefit. We assume the current Social Security provisions will continue and the annual Wage Base will increase at the rate of 3.95% 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, 2011.

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 10 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.

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

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

**Retirement
(continued)**

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, 2010.

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, 2010.

**Post-Retirement
Mortality – Other
Than Disabled
Members**

The same post-retirement mortality rates are used in the valuation for active members, members retired for service, and beneficiaries. These rates are illustrated in Table A-2. Current beneficiary mortality is assumed to be the same assumption as healthy members of the same sex. Future beneficiaries are assumed to be of the opposite sex, and have the same mortality as General members. Note that these assumptions include a margin for expected future mortality improvement. These rates were adopted June 30, 2010.

Males General members: RP-2000 Combined Mortality Table for Males, projected to 2020 using Projection Scale AA, with ages set back one year.
Safety members: RP-2000 Combined Mortality Table for Males, projected to 2020 using Projection Scale AA, with ages set back two years.

Females General members: RP-2000 Combined Mortality Table for Females, projected to 2020 using Projection Scale AA, with ages set back one year.
Safety members: RP-2000 Combined Mortality Table for Females, projected to 2020 using Projection Scale AA, with ages set back one year.

**Post-Retirement
Mortality – Disabled
Members**

For disabled members, the mortality rates used in the valuation rates are illustrated in Table A-3. Note that these assumptions include a margin for expected future mortality improvement. These rates were adopted June 30, 2010.

Males General members: Average of RP-2000 Combined and Disabled Mortality Tables for Males, projected to 2020 using Projection Scale AA, with ages set back one year.
Safety members: RP-2000 Combined Mortality Table for Males, projected to 2020 using Projection Scale AA, with no age adjustment.

Females General members: Average of RP-2000 Combined and Disabled Mortality Tables for Females, projected to 2020 using Projection Scale AA, with ages set back one year.
Safety members: RP-2000 Combined Mortality Table for Females, projected to 2020 using Projection Scale AA, with no age adjustment.

**Mortality while in
Active Status**

For active members, the mortality rates used in the valuation rates are illustrated in Tables A-6 through A-13. These rates were adopted June 30, 2010.

Class	Gender	Proposed Table	
General	Male	RP 2000 Employee Male, Proj. 2020*	+3
General	Female	RP 2000 Employee Female, Proj. 2020*	-1
Safety	Male	RP 2000 Employee Male, Proj. 2020*	-4
Safety	Female	RP 2000 Employee Female, Proj. 2020*	-1

* Projection using Scale AA.

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

**Other Employment
Terminations**

Tables A-6 to A-13 show, for all ages, the rates assumed in this valuation for future termination from active service other than for death, disability or retirement. These rates do not apply to members eligible for service retirement. These rates were adopted June 30, 2010.

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.

**Other Employment
Terminations
(continued)**

All terminating members are assumed not to be rehired. Table A-4 gives the assumed probabilities that vested members will withdraw their contributions and elect a refund immediately upon termination and the probability the remaining members will elect a deferred vested benefit. All non-vested members are assumed to elect a refund and withdraw their contributions. These rates were adopted June 30, 2010.

**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.

**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 7.70%.
- C. The Final Compensation is the average of the member's highest monthly pensionable earnings during any 12-consecutive-month period.
Example: For a Plan C Member who enters at age 59 or earlier, the Final Compensation (age 60) will be the monthly average of the annual salaries during age 59 (since salaries are assumed to increase, age 59 will be the highest one year).
- 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.

**Implementation
Schedule for Changes
in Assumptions**

LACERA implements changes in member and employer contribution rates, interest crediting rates and operating tables in the fiscal year following adoption of the valuation or investigation of experience that the rates and tables are based upon. For example, a change in the investment return assumption adopted for use in the June 30, 2011 actuarial valuation is used for crediting interest to reserves in the fiscal year beginning July 1, 2012.

Los Angeles County Employees Retirement Association

Table A-1: Summary of Valuation Assumptions as of June 30, 2011

I.	Economic assumptions	
	A. General wage increases	3.95%
	B. Investment earnings	7.70%
	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	3.45%
II.	Demographic assumptions	
	A. Salary increases due to service	Table A-5
	B. Retirement	Tables A-6 to A-13
	C. Disablement	Tables A-6 to A-13
	D. Mortality during active employment	Tables A-6 to A-13
	E. Mortality for active members after termination and service retired members	Table A-2
	Basis – RP-2000 Combined Mortality Table for respective genders projected to 2020 using Projection Scale AA:	
	<u>Class of Members</u>	<u>Age Adjustment</u>
	General – males	-1 year
	General – females	-1 year
	Safety – males	-2 years
	Safety – females	-1 year
	F. Mortality among disabled members	Table A-3
	Basis – Average of RP-2000 Combined and Disabled Mortality Tables, projected to 2020 using Projection Scale AA:	
	General – males	-1 year
	General – females	-1 year
	Basis –RP-2000 Combined Mortality Table, for respective genders projected to 2020 using Projection Scale AA	
	Safety – males	0 years
	Safety – females	0 years
	G. Mortality for beneficiaries	Table A-2
	Basis – Beneficiaries are assumed to have the same mortality as a general member of the opposite sex who has taken a service retirement.	
	H. Other terminations of employment	Tables A-6 to A-13
	I. Refund of contributions on vested termination	Table A-4

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	0.022%	0.014%	0.023%	0.014%
25	0.028%	0.015%	0.029%	0.015%
30	0.036%	0.019%	0.037%	0.019%
35	0.057%	0.036%	0.064%	0.036%
40	0.085%	0.048%	0.089%	0.048%
45	0.104%	0.076%	0.110%	0.076%
50	0.135%	0.108%	0.142%	0.108%
55	0.195%	0.198%	0.213%	0.198%
60	0.382%	0.402%	0.431%	0.402%
65	0.755%	0.780%	0.851%	0.780%
70	1.348%	1.344%	1.494%	1.344%
75	2.246%	2.212%	2.506%	2.212%
80	4.094%	3.607%	4.643%	3.607%
85	7.640%	6.041%	8.670%	6.041%
90	13.623%	11.220%	15.055%	11.220%

**Note that the mortality assumptions adopted by LACERA per the 2010 Investigation of Experience report contain a margin for expected future mortality improvement. See the Investigation of Experience report for details.*

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	0.024%	0.014%	0.011%	0.007%
25	0.031%	0.016%	0.883%	0.283%
30	0.040%	0.022%	1.040%	0.302%
35	0.070%	0.038%	1.053%	0.322%
40	0.092%	0.052%	1.025%	0.299%
45	0.116%	0.081%	0.941%	0.313%
50	0.149%	0.119%	1.053%	0.424%
55	0.247%	0.231%	1.247%	0.733%
60	0.489%	0.457%	1.688%	1.140%
65	0.961%	0.878%	2.247%	1.593%
70	1.641%	1.514%	2.995%	2.270%
75	2.854%	2.393%	4.117%	3.230%
80	5.265%	3.987%	6.465%	4.749%
85	9.624%	6.866%	10.197%	7.095%
90	16.928%	12.400%	15.182%	11.777%

**Note that the mortality assumptions adopted by LACERA per the 2010 Investigation of Experience report contain a margin for expected future mortality improvement. See the Investigation of Experience report for details.*

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	35%	40%
6	35%	40%
7	35%	40%
8	33%	39%
9	31%	38%
10	29%	36%
11	27%	35%
12	25%	34%
13	22%	33%
14	19%	32%
15	16%	30%
16	13%	29%
17	10%	28%
18	6%	26%
19	2%	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%

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%	10.19%	10.19%
1	5.25%	5.25%	9.41%	9.41%
2	4.50%	4.50%	8.63%	8.63%
3	3.75%	3.75%	7.85%	7.85%
4	3.00%	3.00%	7.07%	7.07%
5	2.50%	2.50%	6.55%	6.55%
6	2.00%	2.00%	6.03%	6.03%
7	1.75%	1.75%	5.77%	5.77%
8	1.50%	1.50%	5.51%	5.51%
9	1.30%	1.30%	5.30%	5.30%
10	1.15%	1.15%	5.15%	5.15%
11	1.00%	1.00%	4.99%	4.99%
12	0.85%	0.85%	4.83%	4.83%
13	0.70%	0.70%	4.68%	4.68%
14	0.60%	0.60%	4.57%	4.57%
15	0.50%	0.50%	4.47%	4.47%
16	0.40%	0.50%	4.37%	4.47%
17	0.35%	0.50%	4.31%	4.47%
18	0.30%	0.50%	4.26%	4.47%
19	0.25%	0.50%	4.21%	4.47%
20 or More	0.25%	0.50%	4.21%	4.47%

* The total expected increase in salary includes both merit (shown above) and the general wage increase assumption of 3.95% per annum. The total result is compounded rather than additive. For example, the total increase to service less than one year is 10.19%.

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

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	0.0002
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	0.0003
22	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
23	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
24	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
25	0.0000	0.0050	0.0002	0.0001	N/A	0.0004
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	0.0005
29	0.0000	0.0050	0.0002	0.0001	N/A	0.0005
30	0.0000	0.0050	0.0002	0.0001	N/A	0.0006
31	0.0000	0.0050	0.0002	0.0001	N/A	0.0006
32	0.0000	0.0050	0.0002	0.0001	N/A	0.0007
33	0.0000	0.0050	0.0002	0.0001	N/A	0.0008
34	0.0000	0.0050	0.0003	0.0001	N/A	0.0008
35	0.0000	0.0050	0.0003	0.0001	N/A	0.0009
36	0.0000	0.0050	0.0004	0.0001	N/A	0.0009
37	0.0000	0.0050	0.0005	0.0001	N/A	0.0009
38	0.0000	0.0050	0.0005	0.0001	N/A	0.0010
39	0.0000	0.0050	0.0006	0.0001	N/A	0.0010
40	0.0300	0.0050	0.0006	0.0002	N/A	0.0010
41	0.0300	0.0050	0.0007	0.0002	N/A	0.0011
42	0.0300	0.0050	0.0007	0.0002	N/A	0.0012
43	0.0300	0.0050	0.0008	0.0003	N/A	0.0012
44	0.0300	0.0050	0.0009	0.0003	N/A	0.0013
45	0.0300	0.0050	0.0010	0.0003	N/A	0.0013
46	0.0300	0.0050	0.0011	0.0004	N/A	0.0014
47	0.0300	0.0050	0.0012	0.0004	N/A	0.0015
48	0.0300	0.0050	0.0013	0.0004	N/A	0.0016
49	0.0300	0.0050	0.0014	0.0004	N/A	0.0016
50	0.0300	0.0050	0.0016	0.0004	N/A	0.0017
51	0.0300	0.0050	0.0017	0.0004	N/A	0.0019
52	0.0300	0.0050	0.0018	0.0004	N/A	0.0021
53	0.0300	0.0050	0.0020	0.0005	N/A	0.0023
54	0.0500	0.0050	0.0022	0.0006	N/A	0.0026
55	0.0800	0.0050	0.0025	0.0006	N/A	0.0029
56	0.1000	0.0050	0.0027	0.0007	N/A	0.0032
57	0.1400	0.0050	0.0029	0.0008	N/A	0.0035
58	0.1800	0.0050	0.0032	0.0009	N/A	0.0040
59	0.2000	0.0050	0.0036	0.0010	N/A	0.0044
60	0.2200	0.0050	0.0040	0.0010	N/A	0.0049
61	0.2800	0.0050	0.0043	0.0011	N/A	0.0053
62	0.3200	0.0050	0.0047	0.0012	N/A	0.0057
63	0.2400	0.0050	0.0047	0.0014	N/A	0.0062
64	0.2400	0.0050	0.0047	0.0015	N/A	0.0066
65	0.2500	0.0050	0.0047	0.0017	N/A	0.0068
66	0.2500	0.0050	0.0047	0.0018	N/A	0.0072
67	0.2500	0.0050	0.0047	0.0020	N/A	0.0073
68	0.2200	0.0050	0.0047	0.0022	N/A	0.0077
69	0.2200	0.0050	0.0047	0.0023	N/A	0.0083
70	0.2400	0.0050	0.0047	0.0025	N/A	0.0091
71	0.2400	0.0050	0.0047	0.0026	N/A	0.0101
72	0.2400	0.0050	0.0047	0.0028	N/A	0.0114
73	0.2400	0.0050	0.0047	0.0030	N/A	0.0127
74	0.2400	0.0050	0.0047	0.0031	N/A	0.0144
75	1.0000	0.0000	0.0047	0.0000	N/A	0.0164



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-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	0.0001
19	0.0000	0.0050	0.0002	0.0001	N/A	0.0001
20	0.0000	0.0050	0.0002	0.0001	N/A	0.0001
21	0.0000	0.0050	0.0002	0.0001	N/A	0.0001
22	0.0000	0.0050	0.0002	0.0001	N/A	0.0001
23	0.0000	0.0050	0.0002	0.0001	N/A	0.0001
24	0.0000	0.0050	0.0002	0.0001	N/A	0.0001
25	0.0000	0.0050	0.0002	0.0001	N/A	0.0001
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	0.0002
32	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
33	0.0000	0.0050	0.0002	0.0001	N/A	0.0003
34	0.0000	0.0050	0.0003	0.0001	N/A	0.0003
35	0.0000	0.0050	0.0003	0.0001	N/A	0.0004
36	0.0000	0.0050	0.0004	0.0001	N/A	0.0004
37	0.0000	0.0050	0.0004	0.0001	N/A	0.0004
38	0.0000	0.0050	0.0005	0.0001	N/A	0.0004
39	0.0000	0.0050	0.0005	0.0001	N/A	0.0005
40	0.0300	0.0050	0.0005	0.0002	N/A	0.0005
41	0.0300	0.0050	0.0006	0.0002	N/A	0.0005
42	0.0300	0.0050	0.0006	0.0002	N/A	0.0006
43	0.0300	0.0050	0.0007	0.0003	N/A	0.0006
44	0.0300	0.0050	0.0008	0.0003	N/A	0.0007
45	0.0300	0.0050	0.0009	0.0003	N/A	0.0008
46	0.0300	0.0050	0.0010	0.0004	N/A	0.0008
47	0.0300	0.0050	0.0010	0.0004	N/A	0.0009
48	0.0300	0.0050	0.0011	0.0004	N/A	0.0009
49	0.0300	0.0050	0.0012	0.0004	N/A	0.0010
50	0.0300	0.0050	0.0013	0.0004	N/A	0.0011
51	0.0300	0.0050	0.0014	0.0004	N/A	0.0012
52	0.0300	0.0050	0.0014	0.0004	N/A	0.0013
53	0.0300	0.0050	0.0015	0.0005	N/A	0.0015
54	0.0500	0.0050	0.0016	0.0006	N/A	0.0017
55	0.0800	0.0050	0.0017	0.0006	N/A	0.0019
56	0.1000	0.0050	0.0018	0.0007	N/A	0.0022
57	0.1400	0.0050	0.0019	0.0008	N/A	0.0024
58	0.1800	0.0050	0.0022	0.0009	N/A	0.0027
59	0.2000	0.0050	0.0024	0.0010	N/A	0.0030
60	0.2200	0.0050	0.0027	0.0010	N/A	0.0033
61	0.2800	0.0050	0.0029	0.0011	N/A	0.0036
62	0.3200	0.0050	0.0032	0.0012	N/A	0.0039
63	0.2400	0.0050	0.0034	0.0014	N/A	0.0042
64	0.2400	0.0050	0.0038	0.0015	N/A	0.0046
65	0.2500	0.0050	0.0041	0.0017	N/A	0.0049
66	0.2500	0.0050	0.0045	0.0018	N/A	0.0053
67	0.2500	0.0050	0.0049	0.0020	N/A	0.0056
68	0.2200	0.0050	0.0053	0.0022	N/A	0.0060
69	0.2200	0.0050	0.0058	0.0023	N/A	0.0063
70	0.2400	0.0050	0.0058	0.0025	N/A	0.0066
71	0.2400	0.0050	0.0058	0.0026	N/A	0.0069
72	0.2400	0.0050	0.0058	0.0028	N/A	0.0070
73	0.2400	0.0050	0.0058	0.0030	N/A	0.0075
74	0.2400	0.0050	0.0058	0.0031	N/A	0.0081
75	1.0000	0.0000	0.0000	0.0000	N/A	0.0089



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-8: Rate of Separation From Active Service For General Members
Plan D - Male**

<u>Age</u>	<u>Service Retirement</u>	<u>Service Disability</u>	<u>Ordinary Disability</u>	<u>Service Death</u>	<u>Ordinary Death</u>	<u>Years of Service</u>	<u>Other Terminations</u>
18	0.0000	0.0002	0.0001	N/A	0.0002	0	0.0800
19	0.0000	0.0002	0.0001	N/A	0.0003	1	0.0550
20	0.0000	0.0002	0.0001	N/A	0.0003	2	0.0375
21	0.0000	0.0002	0.0001	N/A	0.0003	3	0.0300
22	0.0000	0.0002	0.0001	N/A	0.0003	4	0.0250
23	0.0000	0.0002	0.0001	N/A	0.0003	5	0.0233
24	0.0000	0.0002	0.0001	N/A	0.0003	6	0.0217
25	0.0000	0.0002	0.0001	N/A	0.0004	7	0.0200
26	0.0000	0.0002	0.0001	N/A	0.0004	8	0.0190
27	0.0000	0.0002	0.0001	N/A	0.0004	9	0.0180
28	0.0000	0.0002	0.0001	N/A	0.0005	10	0.0170
29	0.0000	0.0002	0.0001	N/A	0.0005	11	0.0160
30	0.0000	0.0002	0.0001	N/A	0.0006	12	0.0150
31	0.0000	0.0002	0.0001	N/A	0.0006	13	0.0140
32	0.0000	0.0002	0.0001	N/A	0.0007	14	0.0130
33	0.0000	0.0002	0.0001	N/A	0.0008	15	0.0120
34	0.0000	0.0003	0.0001	N/A	0.0008	16	0.0110
35	0.0000	0.0003	0.0001	N/A	0.0009	17	0.0100
36	0.0000	0.0004	0.0001	N/A	0.0009	18	0.0092
37	0.0000	0.0005	0.0001	N/A	0.0009	19	0.0084
38	0.0000	0.0005	0.0001	N/A	0.0010	20	0.0076
39	0.0000	0.0006	0.0001	N/A	0.0010	21	0.0068
40	0.0200	0.0006	0.0002	N/A	0.0010	22	0.0060
41	0.0200	0.0007	0.0002	N/A	0.0011	23	0.0056
42	0.0200	0.0007	0.0002	N/A	0.0012	24	0.0052
43	0.0200	0.0008	0.0003	N/A	0.0012	25	0.0048
44	0.0200	0.0009	0.0003	N/A	0.0013	26	0.0044
45	0.0200	0.0010	0.0003	N/A	0.0013	27	0.0040
46	0.0200	0.0011	0.0004	N/A	0.0014	28	0.0040
47	0.0200	0.0012	0.0004	N/A	0.0015	29	0.0040
48	0.0200	0.0013	0.0004	N/A	0.0016	30 & Above	0.0000
49	0.0200	0.0014	0.0004	N/A	0.0016		
50	0.0200	0.0016	0.0004	N/A	0.0017		
51	0.0200	0.0017	0.0004	N/A	0.0019		
52	0.0200	0.0018	0.0004	N/A	0.0021		
53	0.0200	0.0020	0.0005	N/A	0.0023		
54	0.0200	0.0022	0.0006	N/A	0.0026		
55	0.0250	0.0025	0.0006	N/A	0.0029		
56	0.0250	0.0027	0.0007	N/A	0.0032		
57	0.0300	0.0029	0.0008	N/A	0.0035		
58	0.0350	0.0032	0.0009	N/A	0.0040		
59	0.0500	0.0036	0.0010	N/A	0.0044		
60	0.0600	0.0040	0.0010	N/A	0.0049		
61	0.0700	0.0043	0.0011	N/A	0.0053		
62	0.1000	0.0047	0.0012	N/A	0.0057		
63	0.0900	0.0047	0.0014	N/A	0.0062		
64	0.1200	0.0047	0.0015	N/A	0.0066		
65	0.2000	0.0047	0.0017	N/A	0.0068		
66	0.2000	0.0047	0.0018	N/A	0.0072		
67	0.1800	0.0047	0.0020	N/A	0.0073		
68	0.1600	0.0047	0.0022	N/A	0.0077		
69	0.1600	0.0047	0.0023	N/A	0.0083		
70	0.2000	0.0047	0.0025	N/A	0.0091		
71	0.2000	0.0047	0.0026	N/A	0.0101		
72	0.2000	0.0047	0.0028	N/A	0.0114		
73	0.2000	0.0047	0.0030	N/A	0.0127		
74	0.2000	0.0047	0.0031	N/A	0.0144		
75	1.0000	0.0047	0.0000	N/A	0.0164		

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	Years of Service	Other Terminations
18	0.0000	0.0002	0.0001	N/A	0.0001	0	0.0800
19	0.0000	0.0002	0.0001	N/A	0.0001	1	0.0550
20	0.0000	0.0002	0.0001	N/A	0.0001	2	0.0375
21	0.0000	0.0002	0.0001	N/A	0.0001	3	0.0300
22	0.0000	0.0002	0.0001	N/A	0.0001	4	0.0250
23	0.0000	0.0002	0.0001	N/A	0.0001	5	0.0233
24	0.0000	0.0002	0.0001	N/A	0.0001	6	0.0217
25	0.0000	0.0002	0.0001	N/A	0.0001	7	0.0200
26	0.0000	0.0002	0.0001	N/A	0.0002	8	0.0190
27	0.0000	0.0002	0.0001	N/A	0.0002	9	0.0180
28	0.0000	0.0002	0.0001	N/A	0.0002	10	0.0170
29	0.0000	0.0002	0.0001	N/A	0.0002	11	0.0160
30	0.0000	0.0002	0.0001	N/A	0.0002	12	0.0150
31	0.0000	0.0002	0.0001	N/A	0.0002	13	0.0140
32	0.0000	0.0002	0.0001	N/A	0.0003	14	0.0130
33	0.0000	0.0002	0.0001	N/A	0.0003	15	0.0120
34	0.0000	0.0003	0.0001	N/A	0.0003	16	0.0110
35	0.0000	0.0003	0.0001	N/A	0.0004	17	0.0100
36	0.0000	0.0004	0.0001	N/A	0.0004	18	0.0092
37	0.0000	0.0004	0.0001	N/A	0.0004	19	0.0084
38	0.0000	0.0005	0.0001	N/A	0.0004	20	0.0076
39	0.0000	0.0005	0.0001	N/A	0.0005	21	0.0068
40	0.0200	0.0005	0.0002	N/A	0.0005	22	0.0060
41	0.0200	0.0006	0.0002	N/A	0.0005	23	0.0056
42	0.0200	0.0006	0.0002	N/A	0.0006	24	0.0052
43	0.0200	0.0007	0.0003	N/A	0.0006	25	0.0048
44	0.0200	0.0008	0.0003	N/A	0.0007	26	0.0044
45	0.0200	0.0009	0.0003	N/A	0.0008	27	0.0040
46	0.0200	0.0010	0.0004	N/A	0.0008	28	0.0040
47	0.0200	0.0010	0.0004	N/A	0.0009	29	0.0040
48	0.0200	0.0011	0.0004	N/A	0.0009	30 & Above	0.0000
49	0.0200	0.0012	0.0004	N/A	0.0010		
50	0.0200	0.0013	0.0004	N/A	0.0011		
51	0.0200	0.0014	0.0004	N/A	0.0012		
52	0.0200	0.0014	0.0004	N/A	0.0013		
53	0.0200	0.0015	0.0005	N/A	0.0015		
54	0.0200	0.0016	0.0006	N/A	0.0017		
55	0.0250	0.0017	0.0006	N/A	0.0019		
56	0.0250	0.0018	0.0007	N/A	0.0022		
57	0.0300	0.0019	0.0008	N/A	0.0024		
58	0.0350	0.0022	0.0009	N/A	0.0027		
59	0.0500	0.0024	0.0010	N/A	0.0030		
60	0.0600	0.0027	0.0010	N/A	0.0033		
61	0.0700	0.0029	0.0011	N/A	0.0036		
62	0.1000	0.0032	0.0012	N/A	0.0039		
63	0.0900	0.0034	0.0014	N/A	0.0042		
64	0.1200	0.0038	0.0015	N/A	0.0046		
65	0.2000	0.0041	0.0017	N/A	0.0049		
66	0.2000	0.0045	0.0018	N/A	0.0053		
67	0.1800	0.0049	0.0020	N/A	0.0056		
68	0.1600	0.0053	0.0022	N/A	0.0060		
69	0.1600	0.0058	0.0023	N/A	0.0063		
70	0.2000	0.0058	0.0025	N/A	0.0066		
71	0.2000	0.0058	0.0026	N/A	0.0069		
72	0.2000	0.0058	0.0028	N/A	0.0070		
73	0.2000	0.0058	0.0030	N/A	0.0075		
74	0.2000	0.0058	0.0031	N/A	0.0081		
75	1.0000	0.0000	0.0000	N/A	0.0089		



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

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
18	0.0000	N/A	N/A	N/A	0.0002	0	0.1500
19	0.0000	N/A	N/A	N/A	0.0003	1	0.0750
20	0.0000	N/A	N/A	N/A	0.0003	2	0.0550
21	0.0000	N/A	N/A	N/A	0.0003	3	0.0450
22	0.0000	N/A	N/A	N/A	0.0003	4	0.0350
23	0.0000	N/A	N/A	N/A	0.0003	5	0.0325
24	0.0000	N/A	N/A	N/A	0.0003	6	0.0300
25	0.0000	N/A	N/A	N/A	0.0004	7	0.0275
26	0.0000	N/A	N/A	N/A	0.0004	8	0.0262
27	0.0000	N/A	N/A	N/A	0.0004	9	0.0249
28	0.0000	N/A	N/A	N/A	0.0005	10	0.0236
29	0.0000	N/A	N/A	N/A	0.0005	11	0.0223
30	0.0000	N/A	N/A	N/A	0.0006	12	0.0210
31	0.0000	N/A	N/A	N/A	0.0006	13	0.0200
32	0.0000	N/A	N/A	N/A	0.0007	14	0.0190
33	0.0000	N/A	N/A	N/A	0.0008	15	0.0180
34	0.0000	N/A	N/A	N/A	0.0008	16	0.0170
35	0.0000	N/A	N/A	N/A	0.0009	17	0.0160
36	0.0000	N/A	N/A	N/A	0.0009	18	0.0156
37	0.0000	N/A	N/A	N/A	0.0009	19	0.0152
38	0.0000	N/A	N/A	N/A	0.0010	20	0.0148
39	0.0000	N/A	N/A	N/A	0.0010	21	0.0144
40	0.0000	N/A	N/A	N/A	0.0010	22	0.0140
41	0.0000	N/A	N/A	N/A	0.0011	23	0.0136
42	0.0000	N/A	N/A	N/A	0.0012	24	0.0132
43	0.0000	N/A	N/A	N/A	0.0012	25	0.0128
44	0.0000	N/A	N/A	N/A	0.0013	26	0.0124
45	0.0000	N/A	N/A	N/A	0.0013	27	0.0120
46	0.0000	N/A	N/A	N/A	0.0014	28	0.0120
47	0.0000	N/A	N/A	N/A	0.0015	29	0.0120
48	0.0000	N/A	N/A	N/A	0.0016	30 & Above	0.0120
49	0.0000	N/A	N/A	N/A	0.0016		
50	0.0000	N/A	N/A	N/A	0.0017		
51	0.0000	N/A	N/A	N/A	0.0019		
52	0.0000	N/A	N/A	N/A	0.0021		
53	0.0000	N/A	N/A	N/A	0.0023		
54	0.0000	N/A	N/A	N/A	0.0026		
55	0.0300	N/A	N/A	N/A	0.0029		
56	0.0250	N/A	N/A	N/A	0.0032		
57	0.0250	N/A	N/A	N/A	0.0035		
58	0.0250	N/A	N/A	N/A	0.0040		
59	0.0300	N/A	N/A	N/A	0.0044		
60	0.0450	N/A	N/A	N/A	0.0049		
61	0.0600	N/A	N/A	N/A	0.0053		
62	0.0900	N/A	N/A	N/A	0.0057		
63	0.0900	N/A	N/A	N/A	0.0062		
64	0.1600	N/A	N/A	N/A	0.0066		
65	0.2500	N/A	N/A	N/A	0.0068		
66	0.1800	N/A	N/A	N/A	0.0072		
67	0.1700	N/A	N/A	N/A	0.0073		
68	0.1600	N/A	N/A	N/A	0.0077		
69	0.1600	N/A	N/A	N/A	0.0083		
70	0.2000	N/A	N/A	N/A	0.0091		
71	0.2000	N/A	N/A	N/A	0.0101		
72	0.2000	N/A	N/A	N/A	0.0114		
73	0.2000	N/A	N/A	N/A	0.0127		
74	0.2000	N/A	N/A	N/A	0.0144		
75	1.0000	N/A	N/A	N/A	0.0164		

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	Years of Service	Other Terminations
18	0.0000	N/A	N/A	N/A	0.0001	0	0.1500
19	0.0000	N/A	N/A	N/A	0.0001	1	0.0750
20	0.0000	N/A	N/A	N/A	0.0001	2	0.0550
21	0.0000	N/A	N/A	N/A	0.0001	3	0.0450
22	0.0000	N/A	N/A	N/A	0.0001	4	0.0350
23	0.0000	N/A	N/A	N/A	0.0001	5	0.0325
24	0.0000	N/A	N/A	N/A	0.0001	6	0.0300
25	0.0000	N/A	N/A	N/A	0.0001	7	0.0275
26	0.0000	N/A	N/A	N/A	0.0002	8	0.0262
27	0.0000	N/A	N/A	N/A	0.0002	9	0.0249
28	0.0000	N/A	N/A	N/A	0.0002	10	0.0236
29	0.0000	N/A	N/A	N/A	0.0002	11	0.0223
30	0.0000	N/A	N/A	N/A	0.0002	12	0.0210
31	0.0000	N/A	N/A	N/A	0.0002	13	0.0200
32	0.0000	N/A	N/A	N/A	0.0003	14	0.0190
33	0.0000	N/A	N/A	N/A	0.0003	15	0.0180
34	0.0000	N/A	N/A	N/A	0.0003	16	0.0170
35	0.0000	N/A	N/A	N/A	0.0004	17	0.0160
36	0.0000	N/A	N/A	N/A	0.0004	18	0.0156
37	0.0000	N/A	N/A	N/A	0.0004	19	0.0152
38	0.0000	N/A	N/A	N/A	0.0004	20	0.0148
39	0.0000	N/A	N/A	N/A	0.0005	21	0.0144
40	0.0000	N/A	N/A	N/A	0.0005	22	0.0140
41	0.0000	N/A	N/A	N/A	0.0005	23	0.0136
42	0.0000	N/A	N/A	N/A	0.0006	24	0.0132
43	0.0000	N/A	N/A	N/A	0.0006	25	0.0128
44	0.0000	N/A	N/A	N/A	0.0007	26	0.0124
45	0.0000	N/A	N/A	N/A	0.0008	27	0.0120
46	0.0000	N/A	N/A	N/A	0.0008	28	0.0120
47	0.0000	N/A	N/A	N/A	0.0009	29	0.0120
48	0.0000	N/A	N/A	N/A	0.0009	30 & Above	0.0120
49	0.0000	N/A	N/A	N/A	0.0010		
50	0.0000	N/A	N/A	N/A	0.0011		
51	0.0000	N/A	N/A	N/A	0.0012		
52	0.0000	N/A	N/A	N/A	0.0013		
53	0.0000	N/A	N/A	N/A	0.0015		
54	0.0000	N/A	N/A	N/A	0.0017		
55	0.0300	N/A	N/A	N/A	0.0019		
56	0.0250	N/A	N/A	N/A	0.0022		
57	0.0250	N/A	N/A	N/A	0.0024		
58	0.0250	N/A	N/A	N/A	0.0027		
59	0.0300	N/A	N/A	N/A	0.0030		
60	0.0450	N/A	N/A	N/A	0.0033		
61	0.0600	N/A	N/A	N/A	0.0036		
62	0.0900	N/A	N/A	N/A	0.0039		
63	0.0900	N/A	N/A	N/A	0.0042		
64	0.1600	N/A	N/A	N/A	0.0046		
65	0.2500	N/A	N/A	N/A	0.0049		
66	0.1800	N/A	N/A	N/A	0.0053		
67	0.1700	N/A	N/A	N/A	0.0056		
68	0.1600	N/A	N/A	N/A	0.0060		
69	0.1600	N/A	N/A	N/A	0.0063		
70	0.2000	N/A	N/A	N/A	0.0066		
71	0.2000	N/A	N/A	N/A	0.0069		
72	0.2000	N/A	N/A	N/A	0.0070		
73	0.2000	N/A	N/A	N/A	0.0075		
74	0.2000	N/A	N/A	N/A	0.0081		
75	1.0000	N/A	N/A	N/A	0.0089		

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	Years of Service	Other Terminations
18	0.0000	0.0030	0.0002	0.0001	0.0002	0	0.0400
19	0.0000	0.0030	0.0002	0.0001	0.0002	1	0.0300
20	0.0000	0.0030	0.0002	0.0001	0.0002	2	0.0250
21	0.0000	0.0030	0.0002	0.0001	0.0002	3	0.0200
22	0.0000	0.0030	0.0002	0.0001	0.0002	4	0.0150
23	0.0000	0.0030	0.0002	0.0001	0.0002	5	0.0133
24	0.0000	0.0030	0.0002	0.0001	0.0002	6	0.0117
25	0.0000	0.0030	0.0002	0.0001	0.0002	7	0.0100
26	0.0000	0.0030	0.0002	0.0001	0.0003	8	0.0092
27	0.0000	0.0030	0.0002	0.0001	0.0003	9	0.0084
28	0.0000	0.0030	0.0002	0.0001	0.0003	10	0.0076
29	0.0000	0.0030	0.0002	0.0001	0.0003	11	0.0068
30	0.0000	0.0030	0.0002	0.0001	0.0003	12	0.0060
31	0.0000	0.0030	0.0002	0.0001	0.0003	13	0.0054
32	0.0000	0.0030	0.0002	0.0001	0.0004	14	0.0048
33	0.0000	0.0032	0.0002	0.0001	0.0004	15	0.0042
34	0.0000	0.0034	0.0002	0.0001	0.0004	16	0.0036
35	0.0000	0.0036	0.0002	0.0001	0.0005	17	0.0030
36	0.0000	0.0038	0.0002	0.0001	0.0005	18	0.0024
37	0.0000	0.0040	0.0002	0.0001	0.0006	19	0.0018
38	0.0000	0.0042	0.0003	0.0001	0.0006	20 & Above	0.0000
39	0.0000	0.0044	0.0003	0.0001	0.0007		
40	0.0100	0.0046	0.0003	0.0001	0.0008		
41	0.0100	0.0048	0.0003	0.0001	0.0008		
42	0.0100	0.0050	0.0003	0.0001	0.0009		
43	0.0100	0.0054	0.0003	0.0001	0.0009		
44	0.0100	0.0058	0.0004	0.0001	0.0009		
45	0.0100	0.0062	0.0004	0.0001	0.0010		
46	0.0100	0.0066	0.0004	0.0001	0.0010		
47	0.0100	0.0070	0.0004	0.0001	0.0010		
48	0.0100	0.0080	0.0004	0.0001	0.0011		
49	0.0100	0.0090	0.0005	0.0001	0.0012		
50	0.0100	0.0100	0.0005	0.0001	0.0012		
51	0.0200	0.0120	0.0006	0.0001	0.0013		
52	0.0250	0.0140	0.0006	0.0001	0.0013		
53	0.0300	0.0200	0.0007	0.0001	0.0014		
54	0.1000	0.0300	0.0008	0.0001	0.0015		
55	0.2400	0.1000	0.0016	0.0001	0.0016		
56	0.1800	0.0800	0.0018	0.0001	0.0016		
57	0.2000	0.1200	0.0019	0.0001	0.0017		
58	0.2400	0.1400	0.0019	0.0001	0.0019		
59	0.4000	0.2000	0.0019	0.0001	0.0021		
60	1.0000	0.0000	0.0000	0.0000	0.0023		

Los Angeles County Employees Retirement Association

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

<u>Age</u>	<u>Service Retirement</u>	<u>Service Disability</u>	<u>Ordinary Disability</u>	<u>Service Death</u>	<u>Ordinary Death</u>	<u>Years of Service</u>	<u>Other Terminations</u>
18	0.0000	0.0037	0.0005	0.0001	0.0001	0	0.0400
19	0.0000	0.0037	0.0005	0.0001	0.0001	1	0.0300
20	0.0000	0.0037	0.0005	0.0001	0.0001	2	0.0250
21	0.0000	0.0037	0.0005	0.0001	0.0001	3	0.0200
22	0.0000	0.0037	0.0005	0.0001	0.0001	4	0.0150
23	0.0000	0.0037	0.0005	0.0001	0.0001	5	0.0133
24	0.0000	0.0037	0.0005	0.0001	0.0001	6	0.0117
25	0.0000	0.0037	0.0005	0.0001	0.0001	7	0.0100
26	0.0000	0.0037	0.0005	0.0001	0.0002	8	0.0092
27	0.0000	0.0037	0.0005	0.0001	0.0002	9	0.0084
28	0.0000	0.0042	0.0005	0.0001	0.0002	10	0.0076
29	0.0000	0.0047	0.0005	0.0001	0.0002	11	0.0068
30	0.0000	0.0051	0.0005	0.0001	0.0002	12	0.0060
31	0.0000	0.0056	0.0005	0.0001	0.0002	13	0.0054
32	0.0000	0.0060	0.0005	0.0001	0.0003	14	0.0048
33	0.0000	0.0067	0.0005	0.0001	0.0003	15	0.0042
34	0.0000	0.0074	0.0005	0.0001	0.0003	16	0.0036
35	0.0000	0.0080	0.0006	0.0001	0.0004	17	0.0030
36	0.0000	0.0087	0.0006	0.0001	0.0004	18	0.0024
37	0.0000	0.0094	0.0006	0.0001	0.0004	19	0.0018
38	0.0000	0.0098	0.0007	0.0001	0.0004	20 & Above	0.0000
39	0.0000	0.0101	0.0007	0.0001	0.0005		
40	0.0100	0.0105	0.0007	0.0001	0.0005		
41	0.0100	0.0109	0.0008	0.0001	0.0005		
42	0.0100	0.0112	0.0008	0.0001	0.0006		
43	0.0100	0.0116	0.0009	0.0001	0.0006		
44	0.0100	0.0120	0.0009	0.0001	0.0007		
45	0.0100	0.0124	0.0010	0.0001	0.0008		
46	0.0100	0.0128	0.0011	0.0001	0.0008		
47	0.0100	0.0131	0.0011	0.0001	0.0009		
48	0.0100	0.0135	0.0013	0.0001	0.0009		
49	0.0100	0.0150	0.0016	0.0001	0.0010		
50	0.0100	0.0225	0.0018	0.0001	0.0011		
51	0.0200	0.0263	0.0020	0.0001	0.0012		
52	0.0250	0.0300	0.0022	0.0001	0.0013		
53	0.0300	0.0375	0.0028	0.0001	0.0015		
54	0.1000	0.0450	0.0033	0.0001	0.0017		
55	0.2400	0.0525	0.0038	0.0001	0.0019		
56	0.1800	0.0900	0.0043	0.0001	0.0022		
57	0.2000	0.0900	0.0048	0.0001	0.0024		
58	0.2400	0.0900	0.0051	0.0001	0.0027		
59	0.4000	0.0900	0.0054	0.0001	0.0030		
60	1.0000	0.0000	0.0000	0.0000	0.0033		

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, 2011. 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 $\frac{3}{4}$ 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 valuation and recommendation of the actuary and the Board of Investments.	(31453, 31454 31581)
---	-------------------------



SERVICE RETIREMENT ALLOWANCE

<u>Eligibility:</u>		(31672)
Plans A-D:	General members: Age 50 with 10 years of County service; Any age with 30 years of service; or Age 70 regardless of service.	
	Safety members: Age 50 with 10 years of County service; Any age with 20 years of service; or Age 60 regardless of service.	(31662.4, 31662.6, 31663.25)
Plan E:	Age 65 with 10 years of service. A reduced benefit is also payable at age 55 with 10 years of service.	(31491.3)
<u>Final Compensation:</u>		(31462.3, 31461.45)
Plans A-D:	Average of the member's highest monthly pensionable earnings during any 12-consecutive-month period.	
PLAN E:	Average of the member's highest monthly pensionable earnings during any three 12-consecutive month periods.	(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)
<u>Monthly Allowance:</u>		(31664)
	Safety members: 1/50 x Final Compensation x Safety age factor x Years of service. (The Safety Plan A and Safety Plan B age factors are the same.)	
Plans A-D:	General members: 1/60 x Final Compensation x a Plan specific age factor x years of service.	(31676.1) (31676.11) (31676.14)

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	(31491,
	(b) 1 % x Final Compensation x Years of Service in excess of 35 (up to 10)	31491.3 (b)&(c))
	(c) Estimated Primary Insurance Amount (PIA) x Years of Covered Service (up to 35) divided by 35.	

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:	(31808)
	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.	

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)

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)

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)

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)



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)

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

NONSERVICE-CONNECTED DEATH BENEFITS (Continued)

Fourth Optional Death Benefit:

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

DEFERRED VESTED BENEFITS

<u>Eligibility:</u>		(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)
<u>Monthly Allowance:</u>		
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)

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. (31835)

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.

TRANSFER FROM CALPERS

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

COST-OF-LIVING INCREASES

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

Plan A: Members (and their beneficiaries) are limited to a maximum 3% cost-of-living increase.

Plans B-D: Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. (31870, 31870.1)

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.

Plan E: Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. The 2% is pro-rated based on service earned after June 4, 2002. “Elective COLA” increases for service earned prior to June 4, 2002 may be purchased by the member. (31495.5)

STAR PROGRAM

Contributory plan members who have a COLA Accumulation of more than 20% resulting from CPI increases that exceeded the maximum cost-of-living increases that could be granted are eligible for a supplemental cost-of-living increase effective January 1 known as the Supplemental Targeted Adjustment for Retirees Cost-of-Living Adjustment (STAR COLA). These benefits are not evaluated in this report, or as part of the actuarially required funding amount, unless they have been vested by the Board of Retirement. (318874.3(b))

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, 2011 for active members. Similar information is shown in Exhibit C-2Ret for retired members and C-2Def for deferred vested members.

The number of total active members decreased by 1.7% and the total salary decreased by 0.5% since the last valuation. The total number of retired members and their beneficiaries increased by 2.2%, while the average retirement benefit amount increased by 3.3%.

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 2011 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, 2011 was supplied to us by the system staff. Based on our review of this data and discussions with LACERA staff, all retiree and beneficiary records were included in our valuation.

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

Los Angeles County Employees Retirement Association

Exhibit C-1: LACERA Membership – Active Members as of June 30, 2011

	Sex	Vested	NonVested	Total Number	Annual Salary	Average Age	Average Monthly Salary	Average Credited Service
General Members								
Plan A	M	349	-	349	\$ 35,175,324	63.1	\$ 8,399	34.8
	F	793	2	795	60,221,232	60.9	6,312	34.9
Plan B	M	71	-	71	7,024,344	60.8	8,245	33.6
	F	165	-	165	13,284,888	58.8	6,710	32.4
Plan C	M	58	-	58	5,866,116	59.9	8,428	33.2
	F	151	-	151	12,128,220	58.8	6,693	31.7
Plan D	M	12,790	4,540	17,330	1,235,471,136	45.6	5,941	11.7
	F	25,784	8,754	34,538	2,244,091,920	45.0	5,415	11.9
Plan E	M	6,037	2,619	8,656	613,274,856	50.2	5,904	16.6
	F	12,847	5,185	18,032	1,068,816,492	49.5	4,939	17.3
Total		59,045	21,100	80,145	\$ 5,295,354,528	47.0	\$ 5,506	14.0
Safety Members								
Plan A	M	101	-	101	\$ 14,333,676	57.6	\$ 11,826	34.2
	F	8	-	8	1,136,916	56.8	11,843	35.5
Plan B	M	8,696	2,168	10,864	1,067,396,136	42.1	8,188	15.3
	F	1,247	421	1,668	156,686,388	39.3	7,828	12.6
Total		10,052	2,589	12,641	\$ 1,239,553,116	41.9	\$ 8,172	15.1
Grand Total		69,097	23,689	92,786	\$ 6,534,907,644	46.3	\$ 5,869	14.2

**Los Angeles County Employees
Retirement Association**

Exhibit C-2Ret: LACERA Membership – Retired Members as of June 30, 2011

	Sex	Number	Annual Allowance	Average Age	Average Monthly Benefit
General Members					
Plan A	M	11,010	\$ 594,964,112	75.3	\$ 4,503
	F	16,877	617,611,936	76.0	3,050
Plan B	M	193	8,500,986	70.6	3,671
	F	442	14,226,314	71.3	2,682
Plan C	M	124	3,833,412	69.9	2,576
	F	263	6,365,634	71.6	2,017
Plan D	M	2,836	85,034,825	66.4	2,499
	F	4,902	120,582,327	66.4	2,050
Plan E	M	2,755	58,353,046	69.7	1,765
	F	5,324	87,706,716	69.3	1,373
Total		44,726	\$ 1,597,179,308	72.9	\$ 2,976
Safety Members					
Plan A	M	6,125	\$ 501,222,435	70.5	\$ 6,819
	F	1,979	103,713,958	73.4	4,367
Plan B	M	1,953	114,850,096	54.7	4,901
	F	588	25,659,634	50.0	3,637
Total		10,645	\$ 745,446,123	67.0	\$ 5,836
Grand Total		55,371	\$ 2,342,625,431	71.7	\$ 3,526

**Los Angeles County Employees
Retirement Association**

**Exhibit C-2Def: LACERA Membership – Deferred Members as of June 30, 2011
Subtotaled by Plan and Retirement Type**

	<u>Sex</u>	<u>Number</u>	<u>Average Age</u>
<i>General Members</i>			
Plan A	M	72	63.9
	F	145	62.3
Plan B	M	8	61.0
	F	30	60.7
Plan C	M	7	58.7
	F	20	57.0
Plan D	M	2,273	44.8
	F	4,572	43.7
Plan E	M	1,256	53.7
	F	2,859	53.7
Total		11,242	48.0
 <i>Safety Members</i>			
Plan A	M	7	61.4
	F	-	-
Plan B	M	538	39.5
	F	171	41.1
Total		716	40.1
 <i>Grand Total</i>		11,958	47.6

Los Angeles County Employees Retirement Association

Exhibit C-2a: LACERA Membership – Retired Members as of June 30, 2011 Subtotaled by Plan and Retirement Type

<u>Plan</u>	<u>Retirement Type</u>	<u>Number</u>	<u>Annual Benefits in Thousands</u>	<u>Average Monthly Benefit</u>
General Plans:				
Plan A				
	Healthy	20,576	\$ 1,009,666	\$ 4,089
	Disabled	2,254	72,480	2,680
	Beneficiaries	<u>5,057</u>	<u>130,429</u>	<u>2,149</u>
	Total	27,887	\$ 1,212,575	\$ 3,623
Plan B				
	Healthy	518	\$ 20,022	\$ 3,221
	Disabled	70	1,646	1,960
	Beneficiaries	<u>47</u>	<u>1,059</u>	<u>1,878</u>
	Total	635	\$ 22,727	\$ 2,983
Plan C				
	Healthy	293	\$ 8,408	\$ 2,391
	Disabled	53	1,227	1,929
	Beneficiaries	<u>41</u>	<u>564</u>	<u>1,146</u>
	Total	387	\$ 10,199	\$ 2,196
Plan D				
	Healthy	5,733	\$ 160,048	\$ 2,326
	Disabled	1,331	35,772	2,240
	Beneficiaries	<u>674</u>	<u>9,797</u>	<u>1,211</u>
	Total	7,738	\$ 205,617	\$ 2,214
Plan E				
	Healthy	7,536	\$ 141,224	\$ 1,562
	Disabled	0	0	N/A
	Beneficiaries	<u>543</u>	<u>4,836</u>	<u>742</u>
	Total	8,079	\$ 146,060	\$ 1,507
Safety Plans:				
Plan A				
	Healthy	2,914	\$ 251,170	\$ 7,183
	Disabled	3,733	284,112	6,342
	Beneficiaries	<u>1,457</u>	<u>69,654</u>	<u>3,984</u>
	Total	8,104	\$ 604,935	\$ 6,221
Plan B				
	Healthy	879	\$ 65,248	\$ 6,186
	Disabled	1,506	69,712	3,857
	Beneficiaries	<u>156</u>	<u>5,550</u>	<u>2,965</u>
	Total	2,541	\$ 140,510	\$ 4,608
Grand Totals		55,371	2,342,623	3,526

**Los Angeles County Employees
Retirement Association**

**Exhibit C-2b: LACERA Membership – Retired Members as of June 30, 2011
Subtotaled by Retirement Type and Plan**

<u>Type</u>	<u>Plan</u>	<u>Number</u>	<u>Annual Benefits in Thousands</u>	<u>Average Monthly Benefit</u>
Healthy Retirees				
	General A	20,576	\$ 1,009,666	\$ 4,089
	General B	518	20,022	3,221
	General C	293	8,408	2,391
	General D	5,733	160,048	2,326
	General E	7,536	141,224	1,562
	Safety A	2,914	251,169	7,183
	Safety B	879	65,248	6,186
	Total	38,449	\$ 1,655,785	\$ 3,589
Disabled Retirees				
	General A	2,254	\$ 72,480	\$ 2,680
	General B	70	1,646	1,960
	General C	53	1,227	1,929
	General D	1,331	35,772	2,240
	Safety A	3,733	284,112	6,342
	Safety B	1,506	69,712	3,857
	Total	8,947	\$ 464,949	\$ 4,331
Beneficiaries				
	General A	5,057	\$ 130,429	\$ 2,149
	General B	47	1,059	1,878
	General C	41	564	1,146
	General D	674	9,797	1,211
	General E	543	4,836	742
	Safety A	1,457	69,654	3,984
	Safety B	156	5,550	2,965
	Total	7,975	\$ 221,889	\$ 2,319
Grand Totals		55,371	\$ 2,342,623	\$ 3,526

Los Angeles County Employees Retirement Association

Exhibit C-3: Age Distribution of Active Members as of June 30, 2011

	Age Groups						Total
	0-29	30-39	40-49	50-59	60-69	70+	
General Plans:							
Plan A							
Male	-	-	-	88	218	43	349
Female	-	-	-	370	377	48	795
Plan B							
Male	-	-	-	29	39	3	71
Female	-	-	-	107	54	4	165
Plan C							
Male	-	-	-	25	31	2	58
Female	-	-	-	91	56	4	151
Plan D							
Male	1,302	4,228	5,263	4,449	1,880	208	17,330
Female	2,456	9,160	10,753	8,757	3,123	289	34,538
Plan E							
Male	387	1,328	2,171	2,764	1,760	246	8,656
Female	796	2,720	4,963	6,161	3,103	289	18,032
Safety Plans:							
Plan A							
Male	-	-	-	74	26	1	101
Female	-	-	-	7	1	-	8
Plan B							
Male	1,068	2,950	4,340	2,429	75	2	10,864
Female	230	627	604	199	8	-	1,668
Grand Totals:	6,239	21,013	28,094	25,550	10,751	1,139	92,786

Los Angeles County Employees Retirement Association

Exhibit C-4: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2011 All Plans

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	179	217	182	200	60	12	0	0	0	0	0	0	850
25-29	477	678	1,011	1,357	1,136	982	10	0	0	0	0	0	5,651
30-34	349	500	934	1,436	1,505	3,780	1,167	15	0	0	0	0	9,686
35-39	267	339	641	1,021	1,075	3,510	4,116	623	41	0	0	0	11,633
40-44	182	231	463	748	812	2,677	4,059	2,917	1,777	82	0	0	13,948
45-49	129	162	376	508	609	2,076	2,737	2,592	4,099	1,144	97	0	14,529
50-54	106	129	264	421	496	1,658	2,267	1,828	2,978	2,272	1,308	78	13,805
55-59	63	51	147	234	286	1,187	1,658	1,390	2,188	1,515	1,759	1,178	11,656
60-64	32	37	87	113	164	617	1,044	999	1,394	769	989	1,311	7,556
65 & Over	7	13	27	34	67	332	519	541	753	342	366	471	3,472
Total Count	1,791	2,357	4,132	6,072	6,210	16,831	17,577	10,905	13,230	6,124	4,519	3,038	92,786

Average Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	33,086	38,180	43,321	46,438	46,577	43,359	-	-	-	-	-	-	40,817
25-29	45,650	46,589	52,352	56,896	57,863	54,152	58,224	-	-	-	-	-	53,617
30-34	55,625	55,440	55,921	58,366	61,629	61,548	63,959	79,453	-	-	-	-	60,336
35-39	59,453	60,666	57,898	59,767	62,078	65,153	70,777	75,293	75,112	-	-	-	66,303
40-44	62,029	59,806	58,383	58,092	60,814	66,875	73,866	79,704	79,636	79,188	-	-	72,004
45-49	51,119	58,941	52,324	54,252	55,836	62,888	69,672	78,996	85,022	87,878	82,110	-	74,361
50-54	62,765	57,398	59,681	54,105	54,837	61,817	66,515	75,015	84,087	96,113	82,375	81,941	76,285
55-59	69,298	77,329	60,890	58,149	58,166	66,085	67,492	72,174	78,823	91,817	82,732	74,766	75,784
60-64	73,677	78,506	64,470	55,308	56,260	67,820	65,962	70,403	74,709	85,745	84,554	77,903	74,540
65 & Over	48,043	108,007	95,524	79,218	77,921	72,450	67,264	67,634	68,324	84,966	80,751	77,987	73,323
Avg. Annual Compensation	52,809	53,958	55,604	57,258	59,530	63,659	69,609	76,087	80,995	91,361	82,854	76,803	70,402



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, 2011
General Plan A**

Count														
Age	Years of Service												Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over		
Under 25	0	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	0
30-34	0	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	0
40-44	0	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	0
50-54	0	0	0	0	0	0	0	0	0	0	3	11	14	
55-59	0	0	0	0	1	1	4	8	7	20	53	350	444	
60-64	0	0	0	0	1	3	15	13	32	24	49	300	437	
65 & Over	0	0	0	0	0	3	9	13	23	16	17	168	249	
Total Count	0	0	0	0	2	7	28	34	62	60	122	829	1,144	

Compensation														
Age	Years of Service												Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over		
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	76,464	67,081	69,092	
55-59	-	-	-	-	92,856	53,820	89,937	68,578	69,753	83,028	88,961	71,244	73,996	
60-64	-	-	-	-	32,652	71,292	95,121	115,935	83,041	97,212	107,863	81,400	86,673	
65 & Over	-	-	-	-	-	68,156	99,007	101,210	92,450	115,189	136,763	89,246	95,177	
Avg. Annual Compensation	-	-	-	-	62,754	67,452	95,629	99,162	85,031	97,278	102,906	78,512	83,389	



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-4b: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2011
General Plan B**

Count														
Age	Years of Service												Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over		
Under 25	0	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	0
30-34	0	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	0
40-44	0	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	0
50-54	0	0	0	0	0	0	0	1	0	1	23	1	26	
55-59	0	0	0	0	0	0	1	2	3	3	81	20	110	
60-64	0	0	0	0	0	0	4	1	3	2	50	15	75	
65 & Over	0	0	0	0	0	0	0	0	1	2	20	2	25	
Total Count	0	0	0	0	0	0	5	4	7	8	174	38	236	

Compensation														
Age	Years of Service												Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over		
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	48,156	-	62,712	71,967	100,476	71,792	
55-59	-	-	-	-	-	-	108,240	118,254	76,636	74,728	81,572	100,471	85,596	
60-64	-	-	-	-	-	-	106,017	62,064	92,988	161,616	88,246	89,362	91,214	
65 & Over	-	-	-	-	-	-	-	-	70,308	155,658	82,166	80,532	87,440	
Avg. Annual	-	-	-	-	-	-	106,462	86,682	82,740	115,180	82,288	95,037	86,056	



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, 2011
General Plan C**

Count														
Age	Years of Service												Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over		
Under 25	0	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	0
30-34	0	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	0
40-44	0	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	0
50-54	0	0	0	0	0	0	0	3	0	5	28	2	38	
55-59	0	0	0	0	0	0	1	1	0	3	62	11	78	
60-64	0	0	0	0	0	0	0	0	1	6	55	6	68	
65 & Over	0	0	0	0	0	0	1	0	1	2	19	2	25	
Total Count	0	0	0	0	0	0	2	4	2	16	164	21	209	

Compensation														
Age	Years of Service												Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over		
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	83,500	-	80,486	65,169	63,630	68,550	
55-59	-	-	-	-	-	-	108,240	131,460	-	132,120	86,459	112,244	92,707	
60-64	-	-	-	-	-	-	-	-	107,040	84,046	77,036	148,824	84,430	
65 & Over	-	-	-	-	-	-	43,608	-	83,208	171,372	86,030	156,450	96,681	
Avg. Annual	-	-	-	-	-	-	75,924	95,490	95,124	102,863	79,614	122,275	86,097	



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, 2011
General Plan D**

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	111	126	85	118	37	6	0	0	0	0	0	0	483
25-29	320	389	597	751	613	599	6	0	0	0	0	0	3,275
30-34	271	289	611	893	917	2,530	626	9	0	0	0	0	6,146
35-39	201	196	416	682	724	2,309	2,422	275	17	0	0	0	7,242
40-44	130	127	328	489	595	1,779	2,546	1,315	685	45	0	0	8,039
45-49	91	86	255	338	445	1,440	1,823	1,299	1,712	436	52	0	7,977
50-54	85	75	183	283	357	1,127	1,573	1,020	1,418	711	437	34	7,303
55-59	55	38	113	190	240	858	1,161	776	1,172	569	553	178	5,903
60-64	23	25	70	93	138	498	771	588	753	324	269	160	3,712
65 & Over	7	8	17	19	44	255	417	329	418	148	106	20	1,788
Total Count	1,294	1,359	2,675	3,856	4,110	11,401	11,345	5,611	6,175	2,233	1,417	392	51,868

Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	32,810	35,341	41,473	41,461	39,792	36,504	-	-	-	-	-	-	37,689
25-29	46,603	43,642	51,988	50,724	49,013	48,154	55,606	-	-	-	-	-	48,929
30-34	54,298	55,215	55,735	55,458	56,498	59,031	57,490	84,844	-	-	-	-	57,299
35-39	62,072	63,377	58,493	58,559	59,407	63,647	66,985	70,744	76,142	-	-	-	63,812
40-44	62,793	60,427	60,506	58,450	59,267	67,111	71,675	75,960	69,988	77,598	-	-	68,755
45-49	54,536	66,762	55,095	57,372	55,693	63,949	69,548	77,102	78,034	79,782	80,921	-	70,270
50-54	63,783	61,886	60,066	55,342	55,985	63,911	68,658	76,201	81,597	87,037	76,611	83,192	72,347
55-59	69,336	76,107	62,183	57,484	56,856	67,517	70,155	75,248	80,201	92,754	81,714	87,492	75,149
60-64	71,069	73,188	63,214	55,914	55,173	66,547	65,914	73,120	76,904	92,841	88,580	90,674	73,810
65 & Over	48,043	109,788	99,836	59,172	70,427	72,005	65,746	66,873	69,720	86,678	85,490	83,942	71,379
Avg. Annual Compensation	54,156	54,059	56,443	55,324	56,138	63,004	68,357	75,098	77,665	87,705	81,697	88,237	67,085



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, 2011
General Plan E**

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	53	64	62	46	12	4	0	0	0	0	0	0	241
25-29	114	207	287	231	175	187	3	0	0	0	0	0	1,204
30-34	57	158	232	270	225	680	255	3	0	0	0	0	1,880
35-39	56	119	183	200	182	764	786	170	14	0	0	0	2,474
40-44	47	92	109	182	133	620	778	868	521	24	0	0	3,374
45-49	37	73	113	151	136	519	651	847	1,232	353	31	0	4,143
50-54	21	53	74	130	132	484	611	651	1,049	715	516	20	4,456
55-59	7	13	32	38	40	310	469	567	880	648	798	578	4,380
60-64	9	12	17	19	24	113	242	390	596	390	547	809	3,168
65 & Over	0	5	10	14	21	72	88	196	308	174	203	277	1,368
Total Count	401	796	1,119	1,281	1,080	3,753	3,883	3,692	4,600	2,304	2,095	1,684	26,688

Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	29,861	38,249	35,616	35,686	37,979	35,769	-	-	-	-	-	-	35,183
25-29	39,761	44,852	44,894	42,871	44,165	45,490	53,372	-	-	-	-	-	44,020
30-34	60,200	51,784	49,866	47,164	50,578	51,784	52,106	44,316	-	-	-	-	51,027
35-39	48,935	55,224	53,118	50,589	54,399	56,335	58,437	57,949	58,773	-	-	-	56,062
40-44	59,339	57,686	49,123	48,214	54,464	55,038	61,704	65,781	60,985	63,506	-	-	59,868
45-49	41,647	50,288	44,282	43,947	49,808	53,178	59,780	68,968	71,676	66,946	64,801	-	63,361
50-54	58,646	50,698	55,591	49,203	49,618	53,824	57,005	66,558	75,402	76,571	63,595	69,758	65,809
55-59	68,520	80,901	54,140	56,426	59,030	60,284	59,250	65,729	72,994	80,819	70,123	67,120	69,149
60-64	80,340	89,585	69,645	49,367	61,122	71,120	61,610	64,325	70,855	77,361	79,223	70,923	71,506
65 & Over	-	105,158	88,193	104,002	89,313	73,907	68,268	65,869	64,474	78,925	72,622	68,534	70,392
Avg. Annual Compensation	47,509	51,261	48,841	47,418	51,608	55,082	59,190	66,114	70,939	76,466	71,055	69,211	62,933



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-4f: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2011
Safety Plan A**

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	4	7	3	14
55-59	0	0	0	0	0	0	0	0	1	7	28	31	67
60-64	0	0	0	0	0	0	0	1	1	0	5	19	26
65 & Over	0	0	0	0	0	0	0	0	0	0	0	2	2
Total Count	0	0	0	0	0	0	0	1	2	11	40	55	109

Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	132,192	121,471	128,052	125,944
55-59	-	-	-	-	-	-	-	-	119,772	117,943	126,453	141,604	132,474
60-64	-	-	-	-	-	-	-	93,264	91,404	-	146,357	174,395	162,690
65 & Over	-	-	-	-	-	-	-	-	-	-	-	300,816	300,816
Avg. Annual Compensation	-	-	-	-	-	-	-	93,264	105,588	123,124	128,069	157,982	141,932



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-4g: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2011 Safety Plan B

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	15	27	35	36	11	2	0	0	0	0	0	0	126
25-29	43	82	127	375	348	196	1	0	0	0	0	0	1,172
30-34	21	53	91	273	363	570	286	3	0	0	0	0	1,660
35-39	10	24	42	139	169	437	908	178	10	0	0	0	1,917
40-44	5	12	26	77	84	278	735	734	571	13	0	0	2,535
45-49	1	3	8	19	28	117	263	446	1,155	355	14	0	2,409
50-54	0	1	7	8	7	47	83	153	511	836	294	7	1,954
55-59	1	0	2	6	5	18	22	36	125	265	184	10	674
60-64	0	0	0	1	1	3	12	6	8	23	14	2	70
65 & Over	0	0	0	1	2	2	4	3	2	0	1	0	15
Total Count	96	202	338	935	1,018	1,670	2,314	1,559	2,382	1,492	507	19	12,532

Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	46,525	51,263	61,459	76,489	78,780	79,104	-	-	-	-	-	-	63,583
25-29	54,170	64,956	70,915	77,894	80,343	80,748	88,488	-	-	-	-	-	76,576
30-34	60,325	67,564	72,610	78,958	81,438	84,365	88,689	98,416	-	-	-	-	82,121
35-39	65,699	65,506	72,834	78,897	81,791	88,525	91,573	98,886	96,236	-	-	-	88,928
40-44	67,426	69,481	70,412	79,165	81,822	91,765	94,332	102,874	108,227	113,640	-	-	98,461
45-49	90,600	45,316	77,631	80,633	87,383	92,911	95,021	103,558	109,617	118,636	124,856	-	106,827
50-54	-	75,948	92,875	90,015	94,707	93,911	95,911	103,109	108,827	120,506	125,484	116,841	114,802
55-59	72,612	-	95,868	90,124	107,194	98,391	94,894	104,034	107,164	116,405	131,283	113,651	116,440
60-64	-	-	-	111,840	113,112	151,384	106,985	98,154	109,054	109,839	128,192	139,704	114,638
65 & Over	-	-	-	113,112	123,168	83,208	137,880	120,864	83,460	-	147,696	-	116,973
Avg. Annual Compensation	56,785	63,907	71,353	78,716	81,619	87,392	92,830	102,672	108,906	119,108	127,690	117,568	97,677



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-5: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011
All Plans**

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	7	17	60	17	101	\$ 1,462
35-39	0	0	0	1	0	0	2	26	47	10	86	2,766
40-44	0	0	0	0	0	11	48	107	101	35	302	2,818
45-49	0	0	0	0	3	65	133	167	166	50	584	2,817
50-54	0	0	0	6	39	106	151	177	337	219	1,035	2,709
55-59	0	0	11	51	80	121	190	384	1,549	1,011	3,397	3,663
60-64	0	9	97	168	155	212	528	1,817	3,570	1,365	7,921	4,121
65-69	4	23	171	250	235	619	1,800	3,574	3,415	1,125	11,216	4,116
70-74	14	50	172	222	497	1,469	2,256	2,577	1,806	420	9,483	3,677
75-79	42	89	197	508	1,049	2,061	1,719	1,197	771	194	7,827	3,329
80-84	65	97	409	971	1,279	1,579	833	518	502	195	6,448	3,015
85-89	71	151	680	993	932	583	314	319	325	113	4,481	2,712
90-94	42	165	483	471	213	138	128	153	121	40	1,954	2,393
95-99	39	78	159	73	14	21	31	25	21	9	470	2,092
100 & Over	14	24	15	0	0	3	5	3	2	0	66	1,642
Total Count	291	686	2,394	3,714	4,496	6,988	8,145	11,061	12,793	4,803	55,371	
Avg Monthly Benefit	\$ 1,536	\$ 2,027	\$ 2,461	\$ 2,613	\$ 3,040	\$ 3,693	\$ 3,495	\$ 4,048	\$ 3,603	\$ 3,952		\$ 3,526



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-5a: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011
General Plan A**

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	1	4	15	3	23	\$ 1,538
35-39	0	0	0	0	0	0	0	1	4	0	5	1,990
40-44	0	0	0	0	0	0	3	3	7	1	14	1,774
45-49	0	0	0	0	1	1	3	1	5	2	13	1,364
50-54	0	0	0	1	3	2	6	8	17	9	46	2,155
55-59	0	0	5	16	13	13	29	103	243	179	601	3,621
60-64	0	3	53	53	42	57	256	630	1,335	463	2,892	4,597
65-69	2	14	78	101	92	367	873	1,785	1,202	175	4,689	4,613
70-74	6	32	97	103	334	968	1,284	1,358	461	87	4,730	4,085
75-79	17	50	126	357	758	1,510	1,082	431	279	90	4,700	3,533
80-84	31	52	296	716	1,001	1,267	437	254	265	111	4,430	3,048
85-89	45	103	528	842	837	424	200	220	239	83	3,521	2,641
90-94	23	134	448	459	195	104	103	122	101	36	1,725	2,344
95-99	27	73	158	73	12	15	27	23	19	8	435	2,043
100 & Over	11	24	15	0	0	3	5	3	2	0	63	1,617
Total Count	162	485	1,804	2,721	3,288	4,731	4,309	4,946	4,194	1,247	27,887	
Avg Monthly Benefit	\$ 1,208	\$ 1,585	\$ 2,078	\$ 2,198	\$ 2,749	\$ 3,678	\$ 3,569	\$ 4,673	\$ 4,601	\$ 4,914		\$ 3,623



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-5b: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011
General Plan B**

Age	Retirement Year										Total Count	Average Monthly Benefit	
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14			
Under 35	0	0	0	0	0	0	0	0	0	0	0	0	\$ -
35-39	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	-
45-49	0	0	0	0	0	0	0	0	0	0	0	0	-
50-54	0	0	0	0	0	0	0	0	0	5	1	6	1,741
55-59	0	0	0	0	1	1	2	5	21	11	11	41	2,177
60-64	0	0	0	2	5	5	5	19	57	30	30	123	3,923
65-69	0	0	0	2	3	4	18	47	45	17	136	136	3,587
70-74	0	0	0	1	3	6	21	52	23	7	113	113	3,281
75-79	0	0	0	1	8	13	31	17	14	2	86	86	2,706
80-84	0	0	0	4	8	32	20	8	5	1	78	78	1,788
85-89	0	0	0	1	16	15	7	4	2	0	45	45	1,611
90-94	0	0	0	2	1	1	1	2	0	0	7	7	1,208
95-99	0	0	0	0	0	0	0	0	0	0	0	0	-
100 & Over	0	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	13	45	77	105	154	172	69	635		
Avg Monthly Benefit	\$ -	\$ -	\$ -	\$ 1,135	\$ 1,090	\$ 1,569	\$ 2,084	\$ 2,988	\$ 3,950	\$ 5,088			\$ 2,983



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-5c: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011
General Plan C**

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	0	0	0	1	1	\$ 1,392
35-39	0	0	0	0	0	0	0	0	0	1	1	1,392
40-44	0	0	0	0	0	0	0	0	0	0	0	-
45-49	0	0	0	0	0	0	0	1	0	0	1	3,804
50-54	0	0	0	0	0	0	1	0	2	0	3	971
55-59	0	0	1	1	5	2	3	4	14	6	36	2,275
60-64	0	0	0	4	1	1	2	20	23	8	59	2,901
65-69	0	0	0	1	2	8	9	15	29	8	72	2,387
70-74	0	0	0	0	7	10	10	23	17	3	70	2,257
75-79	0	0	0	0	4	11	19	24	11	1	70	2,149
80-84	0	0	0	3	7	13	9	6	4	0	42	1,557
85-89	0	0	0	3	6	10	1	1	2	0	23	1,045
90-94	0	0	0	0	2	3	1	2	1	0	9	1,963
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	1	12	34	58	55	96	103	28	387	
Avg Monthly Benefit	\$ -	\$ -	\$ 1,545	\$ 938	\$ 839	\$ 1,209	\$ 1,661	\$ 2,452	\$ 2,757	\$ 4,562		\$ 2,196



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-5d: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011
General Plan D**

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	1	6	15	4	26	\$ 1,072
35-39	0	0	0	0	0	0	2	7	12	1	22	1,818
40-44	0	0	0	0	0	3	5	19	20	12	59	1,695
45-49	0	0	0	0	0	10	19	46	59	15	149	1,820
50-54	0	0	0	0	5	17	41	58	185	128	434	1,676
55-59	0	0	0	4	9	22	56	151	493	224	959	1,923
60-64	0	0	1	2	18	41	115	292	631	392	1,492	2,479
65-69	0	0	0	4	12	48	176	369	832	370	1,811	2,659
70-74	0	0	0	6	18	53	174	397	547	170	1,365	2,252
75-79	0	0	0	2	20	58	195	301	192	38	806	1,958
80-84	0	0	0	6	16	75	160	87	67	23	434	1,673
85-89	0	0	0	6	15	45	37	22	18	5	148	1,313
90-94	0	0	0	1	3	11	3	6	6	1	31	1,073
95-99	0	0	0	0	0	1	0	0	1	0	2	1,637
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	1	31	116	384	984	1,761	3,078	1,383	7,738	
Avg Monthly Benefit	\$ -	\$ -	\$ 2,407	\$ 1,225	\$ 1,258	\$ 1,385	\$ 1,632	\$ 1,944	\$ 2,349	\$ 3,006		\$ 2,214



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-5e: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011
General Plan E**

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	2	1	10	1	14	\$ 645
35-39	0	0	0	0	0	0	0	0	0	3	3	2,146
40-44	0	0	0	0	0	0	0	2	7	4	13	772
45-49	0	0	0	0	0	0	0	1	5	7	13	747
50-54	0	0	0	0	0	0	0	2	7	6	15	670
55-59	0	0	0	0	0	0	2	6	325	230	563	648
60-64	0	0	0	0	0	1	6	268	799	365	1,439	1,171
65-69	0	0	0	0	0	2	169	488	1,148	525	2,332	1,957
70-74	0	0	0	0	1	61	266	624	701	132	1,785	1,770
75-79	0	0	0	1	24	114	316	368	205	38	1,066	1,394
80-84	0	0	0	2	34	135	176	100	93	23	563	1,108
85-89	0	0	0	6	36	71	46	36	19	7	221	923
90-94	0	0	0	2	12	15	9	3	5	1	47	751
95-99	0	0	0	0	2	2	1	0	0	0	5	646
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	11	109	401	993	1,899	3,324	1,342	8,079	
Avg Monthly Benefit	\$ -	\$ -	\$ -	\$ 332	\$ 356	\$ 698	\$ 880	\$ 1,319	\$ 1,651	\$ 2,224		\$ 1,507



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, 2011
Safety Plan A**

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	1	0	3	2	6	\$ 3,300
35-39	0	0	0	1	0	0	0	0	0	0	1	613
40-44	0	0	0	0	0	1	0	3	0	1	5	5,096
45-49	0	0	0	0	0	1	1	1	0	0	3	2,894
50-54	0	0	0	0	0	2	1	4	3	5	15	6,333
55-59	0	0	5	17	20	16	36	34	180	100	408	7,649
60-64	0	6	43	100	70	84	119	520	529	45	1,516	7,239
65-69	2	9	93	138	125	180	538	833	131	22	2,071	6,799
70-74	8	18	75	112	132	368	498	117	54	20	1,402	6,228
75-79	25	39	71	147	234	351	75	56	70	25	1,093	5,476
80-84	34	45	113	239	213	54	31	62	67	37	895	4,895
85-89	26	48	152	135	22	18	23	36	45	18	523	4,510
90-94	19	31	35	7	0	4	11	18	8	2	135	3,975
95-99	12	5	1	0	0	3	3	2	1	1	28	3,139
100 & Over	3	0	0	0	0	0	0	0	0	0	3	2,158
Total Count	129	201	588	896	816	1,082	1,337	1,686	1,091	278	8,104	
Avg Monthly Benefit	\$ 1,950	\$ 3,094	\$ 3,635	\$ 4,014	\$ 5,114	\$ 6,158	\$ 6,835	\$ 7,827	\$ 7,936	\$ 7,107		\$ 6,221



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-5g: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011
Safety Plan B**

Age	Retirement Year										Total Count	Average Monthly Benefit
	Pre-1969	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14		
Under 35	0	0	0	0	0	0	2	6	17	6	31	\$ 1,749
35-39	0	0	0	0	0	0	0	18	31	5	54	3,324
40-44	0	0	0	0	0	7	40	80	67	17	211	3,274
45-49	0	0	0	0	2	53	110	117	97	26	405	3,294
50-54	0	0	0	5	31	85	102	105	118	70	516	3,602
55-59	0	0	0	13	32	67	62	81	273	261	789	6,039
60-64	0	0	0	7	19	23	25	68	196	62	400	5,835
65-69	0	0	0	4	1	10	17	37	28	8	105	3,925
70-74	0	0	0	0	2	3	3	6	3	1	18	3,189
75-79	0	0	0	0	1	4	1	0	0	0	6	3,068
80-84	0	0	0	1	0	3	0	1	1	0	6	820
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	30	88	255	362	519	831	456	2,541	
Avg Monthly Benefit	\$ -	\$ -	\$ -	\$2,020	\$2,202	\$2,914	\$3,196	\$3,538	\$5,366	\$7,147		\$ 4,608



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

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.

Los Angeles County Employees Retirement Association

Exhibit D-1: Normal Member Contribution Rates

Entry Age	General				Safety	
	Plan A	Plan B	Plan C	Plan D	Plan A	Plan B
16	2.44%	4.87%	4.13%	4.13%	3.64%	7.28%
17	2.49%	4.97%	4.21%	4.21%	3.64%	7.28%
18	2.54%	5.08%	4.30%	4.30%	3.64%	7.28%
19	2.59%	5.18%	4.39%	4.39%	3.71%	7.42%
20	2.64%	5.29%	4.48%	4.48%	3.78%	7.56%
21	2.70%	5.40%	4.58%	4.58%	3.85%	7.70%
22	2.75%	5.51%	4.67%	4.67%	3.92%	7.84%
23	2.81%	5.62%	4.77%	4.77%	3.99%	7.99%
24	2.87%	5.74%	4.87%	4.87%	4.07%	8.14%
25	2.93%	5.86%	4.97%	4.97%	4.15%	8.29%
26	2.99%	5.98%	5.07%	5.07%	4.22%	8.45%
27	3.05%	6.10%	5.18%	5.18%	4.30%	8.61%
28	3.11%	6.23%	5.28%	5.28%	4.38%	8.77%
29	3.18%	6.36%	5.39%	5.39%	4.47%	8.94%
30	3.24%	6.49%	5.50%	5.50%	4.55%	9.11%
31	3.31%	6.62%	5.62%	5.62%	4.64%	9.28%
32	3.38%	6.76%	5.73%	5.73%	4.73%	9.47%
33	3.45%	6.91%	5.85%	5.85%	4.83%	9.65%
34	3.53%	7.05%	5.97%	5.97%	4.92%	9.85%
35	3.60%	7.20%	6.10%	6.10%	5.02%	10.05%
36	3.68%	7.36%	6.22%	6.22%	5.12%	10.25%
37	3.76%	7.51%	6.35%	6.35%	5.22%	10.44%
38	3.84%	7.67%	6.49%	6.49%	5.31%	10.63%
39	3.92%	7.83%	6.63%	6.63%	5.41%	10.81%
40	3.99%	7.99%	6.77%	6.77%	5.50%	10.99%
41	4.07%	8.15%	6.91%	6.91%	5.58%	11.17%
42	4.15%	8.30%	7.06%	7.06%	5.67%	11.33%
43	4.23%	8.45%	7.21%	7.21%	5.74%	11.48%
44	4.30%	8.60%	7.36%	7.36%	5.81%	11.62%
45	4.37%	8.74%	7.51%	7.51%	5.86%	11.72%
46	4.44%	8.88%	7.65%	7.65%	5.89%	11.78%
47	4.50%	9.01%	7.80%	7.80%	5.89%	11.78%
48	4.57%	9.13%	7.94%	7.94%	5.89%	11.78%
49	4.62%	9.24%	8.08%	8.08%	5.89%	11.78%
50	4.66%	9.32%	8.21%	8.21%	5.89%	11.78%
51	4.68%	9.36%	8.34%	8.34%	5.89%	11.78%
52	4.68%	9.36%	8.46%	8.46%	5.89%	11.78%
53	4.68%	9.36%	8.58%	8.58%	5.89%	11.78%
54	4.68%	9.36%	8.68%	8.68%	5.89%	11.78%
55	4.68%	9.36%	8.75%	8.75%	5.89%	11.78%
56	4.68%	9.36%	8.80%	8.80%	5.89%	11.78%
57	4.68%	9.36%	8.80%	8.80%	5.89%	11.78%
58	4.68%	9.36%	8.80%	8.80%	5.89%	11.78%
59	4.68%	9.36%	8.80%	8.80%	5.89%	11.78%
60	4.68%	9.36%	8.80%	8.80%	5.89%	11.78%

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.



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

Entry Age	General				Safety	
	Plan A	Plan B	Plan C	Plan D	Plan A	Plan B
16	4.39%	5.94%	5.10%	5.02%	7.05%	9.43%
17	4.48%	6.06%	5.20%	5.11%	7.05%	9.43%
18	4.57%	6.19%	5.31%	5.22%	7.05%	9.43%
19	4.66%	6.32%	5.43%	5.33%	7.19%	9.62%
20	4.75%	6.45%	5.54%	5.44%	7.33%	9.80%
21	4.86%	6.58%	5.66%	5.56%	7.46%	9.98%
22	4.95%	6.72%	5.77%	5.67%	7.60%	10.16%
23	5.05%	6.85%	5.90%	5.79%	7.73%	10.35%
24	5.16%	7.00%	6.02%	5.91%	7.89%	10.55%
25	5.27%	7.15%	6.14%	6.04%	8.04%	10.74%
26	5.38%	7.29%	6.27%	6.16%	8.18%	10.95%
27	5.49%	7.44%	6.40%	6.29%	8.33%	11.16%
28	5.59%	7.60%	6.53%	6.41%	8.49%	11.37%
29	5.72%	7.76%	6.66%	6.55%	8.66%	11.59%
30	5.83%	7.91%	6.80%	6.68%	8.82%	11.81%
31	5.95%	8.07%	6.95%	6.83%	8.99%	12.03%
32	6.08%	8.24%	7.08%	6.96%	9.17%	12.27%
33	6.21%	8.43%	7.23%	7.10%	9.36%	12.51%
34	6.35%	8.60%	7.38%	7.25%	9.54%	12.76%
35	6.48%	8.78%	7.54%	7.41%	9.73%	13.02%
36	6.62%	8.97%	7.69%	7.55%	9.92%	13.28%
37	6.76%	9.16%	7.85%	7.71%	10.12%	13.53%
38	6.91%	9.35%	8.02%	7.88%	10.29%	13.78%
39	7.05%	9.55%	8.19%	8.05%	10.49%	14.01%
40	7.18%	9.74%	8.37%	8.22%	10.66%	14.24%
41	7.32%	9.94%	8.54%	8.39%	10.81%	14.48%
42	7.46%	10.12%	8.73%	8.57%	10.99%	14.68%
43	7.61%	10.30%	8.91%	8.76%	11.12%	14.88%
44	7.73%	10.49%	9.10%	8.94%	11.26%	15.06%
45	7.86%	10.66%	9.28%	9.12%	11.36%	15.19%
46	7.99%	10.83%	9.46%	9.29%	11.42%	15.27%
47	8.09%	10.99%	9.64%	9.47%	11.42%	15.27%
48	8.22%	11.13%	9.81%	9.64%	11.42%	15.27%
49	8.31%	11.27%	9.99%	9.81%	11.42%	15.27%
50	8.38%	11.36%	10.15%	9.97%	11.42%	15.27%
51	8.42%	11.41%	10.31%	10.13%	11.42%	15.27%
52	8.42%	11.41%	10.46%	10.27%	11.42%	15.27%
53	8.42%	11.41%	10.60%	10.42%	11.42%	15.27%
54	8.42%	11.41%	10.73%	10.54%	11.42%	15.27%
55	8.42%	11.41%	10.82%	10.63%	11.42%	15.27%
56	8.42%	11.41%	10.88%	10.69%	11.42%	15.27%
57	8.42%	11.41%	10.88%	10.69%	11.42%	15.27%
58	8.42%	11.41%	10.88%	10.69%	11.42%	15.27%
59	8.42%	11.41%	10.88%	10.69%	11.42%	15.27%
60	8.42%	11.41%	10.88%	10.69%	11.42%	15.27%

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.



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

Appendix E: Historical Information



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

Los Angeles County Employees Retirement Association

Exhibit E-1: Active Membership Data

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



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 E-2: Retired Membership Data

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



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 E-3: Contribution Rates

Valuation Date (June 30)	General Members					Safety Members					Total All Members				
	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%
2010	13.32%	4.68%	8.64%	6.47%	15.11%	25.00%	10.19%	14.81%	6.47%	21.28%	15.59%	5.75%	9.84%	6.47%	16.31%
2011	13.36%	4.91%	8.45%	7.89%	16.34%	25.09%	10.50%	14.59%	7.89%	22.48%	15.65%	6.00%	9.65%	7.89%	17.54%



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

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.

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

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 for the June 30, 2010 actuarial valuation as a result of the 2010 triennial Investigation of Experience Study.

Additionally, the investment return assumption was lowered by 0.05% in the 2011 actuarial valuation, to 7.70%; the wage inflation, CPI, and salary increase assumptions were also reduced correspondingly.

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 2010 Investigation of Experience Study. The rates are the probabilities a member will leave the system for various reasons.

Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (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 original UAAL as of June 30, 2009 is amortized as a level percentage of the projected salaries of present and future members of LACERA over a closed 30-year period. Future gains and losses are amortized over new closed 30-year periods. This is referred to as "layered" amortization.

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.

County Contributions	The County contribution rate is set by the Board of Investments based on actuarial valuations.
Member Contributions	<p>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.</p> <p>The individual member rates by entry age, plan and class are illustrated in Appendix D of the valuation report.</p>
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 7.70% compounded annually, net of both investment and administrative expenses. This rate was adopted June 30, 2011.
Post-Retirement Benefit Increases	Post-retirement increases are assumed for the valuation in accordance with the benefits provided as described in Appendix B. These adjustments are assumed payable each year in the future as they are less than the expected increase in the Consumer Price Index of 3.45% per year. This rate was adopted June 30, 2011.
Interest on Member Contributions	The annual credited interest rate on member contributions is assumed to be 7.70% compounded semi-annually for an annualized rate of 7.85%. This rate was adopted June 30, 2011.
Future Salaries	<p>The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-5. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 3.95% per annum rate of increase in the general wage level of the membership. These rates were adopted June 30, 2011.</p> <p>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.</p>

**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 included as pensionable earnings, actual annual pay is preferred over annualizing a single monthly payment amount.

**Social Security Wage
Base**

Plan E members have their benefits offset by an assumed Social Security Benefit. For valuation funding purposes, we need to project the Social Security Benefit. We assume the current Social Security provisions will continue and the annual Wage Base will increase at the rate of 3.95% 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, 2011.

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 10 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.

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

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

**Retirement
(continued)**

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, 2010.

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, 2010.

**Post-Retirement
Mortality – Other
Than Disabled
Members**

The same post-retirement mortality rates are used in the valuation for active members, members retired for service, and beneficiaries. These rates are illustrated in Table A-2. Current beneficiary mortality is assumed to be the same assumption as healthy members of the same sex. Future beneficiaries are assumed to be of the opposite sex, and have the same mortality as General members. Note that these assumptions include a margin for expected future mortality improvement. These rates were adopted June 30, 2010.

Males General members: RP-2000 Combined Mortality Table for Males, projected to 2020 using Projection Scale AA, with ages set back one year.
Safety members: RP-2000 Combined Mortality Table for Males, projected to 2020 using Projection Scale AA, with ages set back two years.

Females General members: RP-2000 Combined Mortality Table for Females, projected to 2020 using Projection Scale AA, with ages set back one year.
Safety members: RP-2000 Combined Mortality Table for Females, projected to 2020 using Projection Scale AA, with ages set back one year.

**Post-Retirement
Mortality – Disabled
Members**

For disabled members, the mortality rates used in the valuation rates are illustrated in Table A-3. Note that these assumptions include a margin for expected future mortality improvement. These rates were adopted June 30, 2010.

Males General members: Average of RP-2000 Combined and Disabled Mortality Tables for Males, projected to 2020 using Projection Scale AA, with ages set back one year.
Safety members: RP-2000 Combined Mortality Table for Males, projected to 2020 using Projection Scale AA, with no age adjustment.

Females General members: Average of RP-2000 Combined and Disabled Mortality Tables for Females, projected to 2020 using Projection Scale AA, with ages set back one year.
Safety members: RP-2000 Combined Mortality Table for Females, projected to 2020 using Projection Scale AA, with no age adjustment.

**Mortality while in
Active Status**

For active members, the mortality rates used in the valuation rates are illustrated in Tables A-6 through A-13. These rates were adopted June 30, 2010.

Class	Gender	Proposed Table	
General	Male	RP 2000 Employee Male, Proj. 2020*	+3
General	Female	RP 2000 Employee Female, Proj. 2020*	-1
Safety	Male	RP 2000 Employee Male, Proj. 2020*	-4
Safety	Female	RP 2000 Employee Female, Proj. 2020*	-1

* Projection using Scale AA.

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

**Other Employment
Terminations**

Tables A-6 to A-13 show, for all ages, the rates assumed in this valuation for future termination from active service other than for death, disability or retirement. These rates do not apply to members eligible for service retirement. These rates were adopted June 30, 2010.

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.

**Other Employment
Terminations
(continued)**

All terminating members are assumed not to be rehired. Table A-4 gives the assumed probabilities that vested members will withdraw their contributions and elect a refund immediately upon termination and the probability the remaining members will elect a deferred vested benefit. All non-vested members are assumed to elect a refund and withdraw their contributions. These rates were adopted June 30, 2010.

**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.

**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 7.70%.
- C. The Final Compensation is the average of the member's highest monthly pensionable earnings during any 12-consecutive-month period.
Example: For a Plan C Member who enters at age 59 or earlier, the Final Compensation (age 60) will be the monthly average of the annual salaries during age 59 (since salaries are assumed to increase, age 59 will be the highest one year).
- 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.

**Implementation
Schedule for Changes
in Assumptions**

LACERA implements changes in member and employer contribution rates, interest crediting rates and operating tables in the fiscal year following adoption of the valuation or investigation of experience that the rates and tables are based upon. For example, a change in the investment return assumption adopted for use in the June 30, 2011 actuarial valuation is used for crediting interest to reserves in the fiscal year beginning July 1, 2012.