## ACTUARIAL VALUATION June 30, 2002



By

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March 18, 2003

Board of Investments Los Angeles County Employees Retirement Association 300 North Lake Avenue, Suite 820 Pasadena, CA 91101-4199

#### Dear Members of the Board:

As requested, we have made an actuarial valuation of the Los Angeles County Employees Retirement Association (LACERA). 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, 2002, and both the Interim Funding Policy and the Retirement Benefit Enhancement Agreement. In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the 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. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

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

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for LACERA. Actuarial computations under GASB Statement No. 25 are for purposes of fulfilling financial accounting requirements. The computations prepared for this purpose may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of LACERA's funding requirements as stated under their Interim Funding Policy, the Retirement Benefit Enhancement Agreement, and of GASB Statement No. 25.

**Board of Investments** Los Angeles County Employees Retirement Association March 18, 2003 Page Two

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. Any distribution of the enclosed report must be in its entirety including this cover letter, unless prior written consent is obtained from Milliman USA.

We would like to express our appreciation to Ms. Marsha Richter, Chief Executive Officer of LACERA, and to members of her staff, who gave substantial assistance in supplying the data on which this report is based.

I, Karen I. Steffen, am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I, Nick J. Collier, am a member of the American Academy of Actuaries and an Associate of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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

Sincerely,

Karen I. Steffen, F.S.A., M.A.A.A. Consulting Actuary

Nick J. Collier, A.S.A. M.A.A.A. Associate Actuary

KIS/NJC/mla

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# Los Angeles County Employees Retirement Association

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## **Section 1: Summary of the Findings**



#### Overview

#### 2002 Valuation Results

We are pleased to present the results of the June 30, 2002 actuarial valuation. Several key points are summarized as follows:

- MOU Benefits: As of June 4, 2002, the County adopted enhanced benefits under the Fringe Benefit MOU. The impact of these changes was to increase accrued liabilities by about \$400 million and increase the County's normal cost contribution by about three-quarters of 1% (from 9.44% to 10.17% of payroll). These new benefits are reflected in this valuation.
- Investment Returns: LACERA, like almost every other retirement system, has been impacted by poor investment markets. However, the immediate impact of this is not felt in the valuation results since the valuation assets actually increased at a rate greater than our actuarial assumption. There are two reasons for this: 1) Some asset losses are not reflected in the valuation assets due to the smoothing method; and 2) A portion of the non-valuation reserves were recognized as valuation assets in accordance with the new Retirement Benefits Enhancement Agreement. The Agreement modified the 1994 Funding Agreement. Note that deferred asset losses of \$4.2 billion will be reflected over the next two years.
- **Funding:** The funding ratio decreased very slightly from 100.0% to 99.4%.
- Contribution Rates: The normal cost rate (10.03%) increased from the prior valuation due to the MOU benefits, but slightly decreased due to experience. Additionally, there is now an Unfunded Actuarial Accrued Liability (UAAL) of \$175 million. We are recommending the County contribute 0.21% of payroll, the amount necessary to finance the UAAL over 30 years. The result is an increase in the recommended total contribution rate from the prior valuation of 0.80% (from 9.44% to 10.24% of payroll).

## **Recommended Change**

We recommend that the Board of Investments change the County contribution rate to reflect this valuation. County contributions for the fiscal year ending June 30, 2004, would be equal to the total contribution rate of 10.24%. The recommended contribution rate of 10.24%, is currently adequate to maintain the funding of the retirement system benefits based on the methods and assumptions used.

However, the asset smoothing method has delayed recognition of \$4.2 billion of investment return losses. In addition, it appears unlikely the 2003 fiscal year will achieve the 8.0% assumed investment return rate. Therefore, future increases in the UAAL and the total contribution rate should be expected for the next few years.

### **Funding Progress**

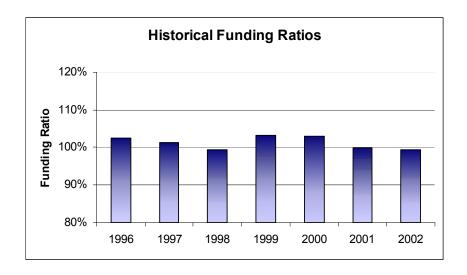
Based on the 2001 valuation, the expected funding status as of June 30, 2002 was a Surplus Funding amount of \$26 million. The enhanced MOU benefits increased the liability by \$441 million (note that this is the \$408 million reported as of June 30, 2001 increased with interest). The total net experience gain in assets and liabilities was \$240 million, primarily due to the recognition for funding purposes only, of a portion of both the Contingency Reserve and the STAR Reserve as valuation assets. Thus, there was a net change in the UAAL from \$0 to \$175 million for the fiscal year ending June 30, 2002.

# Funding Progress (continued)

One measure of the funding adequacy of the plan is the funding ratio which compares the value of the Actuarial Value of Assets (net of certain reserves) to the Actuarial Accrued Liability, for all LACERA plans combined. LACERA has maintained a funding ratio of approximately 100% for the past seven years, as shown below.

All dollar amounts in billions

	Market	Actuaria	ıl Value		
	Value	Non-		Actuarial	
	of Total	Valuation	Valuation	Accrued	Funding
	<u>Assets</u>	Reserves	<u>Reserves</u>	<u>Liability</u>	<u>Ratio</u>
1996	\$20.2	\$1.6	\$17.7	\$17.3	102.6%
1997	22.9	1.8	Ψ17.7 19.6	19.3	101.3
1998	25.5	3.5	20.9	21.0	99.5
1999	28.0	3.7	23.5	22.8	103.3
2000	31.6	4.3	25.4	24.7	102.9
2000	28.4	4.4	26.5	26.5	102.9
2002	26.0	2.0	28.3	28.4	99.4



#### **Association Assets**

<u>Market Value:</u> The market value of assets has increased over the past five years, as a result of contributions and investment earnings, offset by benefit payments. The average return for the fund over that period has been 6.2%. The values shown in the market value column are total assets net of liabilities, and include all reserves.

<u>Actuarial Assets:</u> The market value of total assets is used to determine the gross actuarial value of assets. This value reflects some smoothing of the fluctuations found in the market value.

<u>Valuation Reserves</u>: 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 smoothing.

<u>Non-Valuation Reserves:</u> 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 also reflect smoothing.

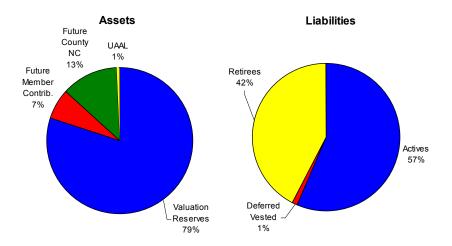
<u>Valuation Assets.</u> This is the combination of the valuation reserves and the portion of the non-valuation reserves that are recognized for funding purposes only as allowed under the new Retirement Benefits Enhancement Agreement.

## Actuarial Balance Sheet

The first step in the valuation process is to compare the total actuarial assets of LACERA with its total liabilities for all plans. In this analysis, assets equal those currently on hand, at the actuarial value, and also expected future contributions by both the County and members. Liabilities reflect benefits already earned in the past and those expected to be earned in the future by current members. This relationship is shown in the following chart. The Actuarial Accrued Liability (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 2002 actuarial valuation indicates that LACERA's valuation reserves 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 Agreement**

In 1994, the County and LACERA entered into a Funding Agreement that determined how the excess earnings were to be allocated for 1994-1998 and how County contributions were to be computed if a UAAL existed. Since LACERA met the funding requirements of the funding agreement in 1994-1998, County contributions consisted of the Normal Cost contribution only during that period.

#### **Funding Policy**

The 1994 Funding Agreement indicated the funding policy to be followed in 1994 through 1998. It only describes the amortization of any UAAL amounts for 1999-2008. During 2000, the Board discussed a long-term funding policy and established a method of allocating earnings on the various reserve funds under their Interim Funding Policy. In 2002. along with adopting the new MOU benefit enhancements, a Retirement Benefits Agreement set up a new funding policy for the 2002- 2008 valuations. Under the new 2002 Retirement Benefits Agreement, all of the funds in the Contingency Reserve in excess of 1% of the actuarial value of assets of the entire fund is considered as part of the valuation assets. In addition, in any year in which the funding ratio is less than 100% prior to its inclusion, a portion of the STAR Reserve is also to be considered as part of the valuation assets. The portion that is not available for treatment as valuation assets is the amount determined to be sufficient to fund the STAR benefits until July 1, 2009.

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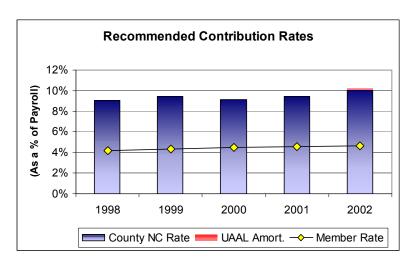
# Funding Policy (continued)

Note that, if the entire STAR reserve of \$657 million was excluded from the valuation assets, the UAAL would increase by \$557 million. Under this hypothetical scenario, the recommended County contribution rate would increase by 0.65% to 10.89%, and the Funding ratio would decrease to 97.4%.

The Retirement Benefits Agreement was adopted as a short term funding policy, applicable through the 2008 actuarial valuation.

#### **Contribution Rates**

Based on the results of the valuation, the Interim Funding Policy, and the Retirement Benefits Agreement, it is expected that the County contributions will increase for fiscal year 2004 to a rate of 10.24%. Member contribution rates are discussed in Section 5 and the rates are shown in detail in Appendix D. Since this is not a triennial valuation, we have not recommended any changes in the member rates. A historical perspective of contribution rates is shown in the following graph.

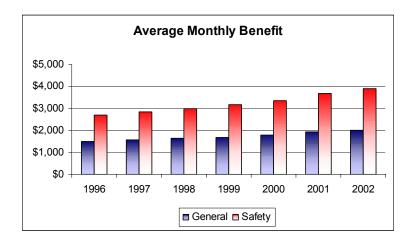


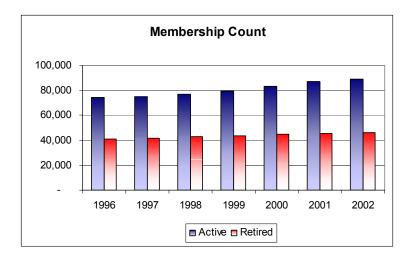
#### **Member Information**

Payroll and active member counts have increased since 2001. For 2002, payroll is \$4.73 billion for 89,252 active members. This represents a 2.5% increase in active members and a 5.8% increase in payroll.

Retired member counts and average benefit amounts continue to increase steadily. For 2002, there were 46,242 retired members with an average benefit of \$2,374 per month. This represents a 1.9% increase in count and a 5.4% increase in average monthly benefit.

# Member Information (continued)





## Summary Valuation Results

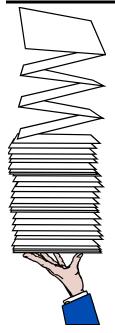
The following Exhibit 0 presents a summary of key data elements on June 30, 2002 and June 30, 2001, and how they changed over the past year.

More detail on each of these elements can be found in the following Sections and Exhibits of this report.

## **Exhibit 0:** Summary of Significant Valuation Results

		June 30, 2002	June 30, 2001	Percent Change
I.	Total Membership A. Active Members B. Retired Members C. Vested Terminated Members	89,252 46,242 6,002	87,069 45,396 <u>5,498</u>	2.5% 1.9 9.2
	D. Total	141,496	137,963	2.6%
II.	Annual Salary A. Total (\$millions) B. Average (Monthly)	\$4,730 4,416	\$4,469 4,277	5.8% 3.2%
III.	Average Monthly Benefit to Current Retirees and Beneficiaries A. Service Retirement B. Disability Retirement C. Surviving Spouse and Dependents	\$2,449 2,850 <u>1,430</u>	\$2,332 2,676 <u>1,357</u>	5.0% 6.5 5.4
	D. Total	\$2,374	\$2,252	5.4%
IV.	Assets A. Market Value of Fund (\$millions) B. Actuarial Value (\$millions) i. Valuation Reserves ii. Non-Valuation Reserves	\$ 26,047 \$ 28,262 \$ 1,962	\$ 28,353 \$ 26,490 \$ 4,437	(8.1)% 6.7% (55.8)%
V.	Unfunded Actuarial Accrued Liability or Surplus Funding (\$millions)	\$175	\$0	-
VI.	County contribution rate for all plans combined as a percent of total Association payroll  A. Normal Cost  B. UAAL Amortization  C. Total Contribution	10.03% <u>0.21</u> 10.24%	9.44% <u>0.00</u> 9.44%	6.3%  8.5%
VII.	Funded Ratio	99.4%	100.0%	(0.6)%

## Section 2: Scope of the Report



This report presents the actuarial valuation of the Los Angeles County Employees Retirement Association as of June 30, 2002. This valuation was requested by the Board. 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 2001 valuation met this requirement. However, under the Retirement Benefit Enhancement Agreement, annual valuations redetermine the County Contribution rates each year through 2008.

Your particular attention is called for in reading our cover letter, where we refer 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 1-5. Exhibit 4 develops the Actuarial Value of Assets as of June 30, 2002. Exhibit 5 develops the valuation reserves used for funding benefits.

Section 4 describes the benefit obligations of LACERA. Exhibit 6 is the Actuarial Balance Sheet and Exhibit 7 analyzes the change in UAAL (Surplus Funding).

Section 5 discusses the Member contribution rates and Section 6 discusses the County contributions needed to fund the benefits under the actuarial cost method in use.

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

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

This report includes several appendices:

- Appendix A A summary of the actuarial procedures, and assumptions used to estimate liabilities and contributions.
- Appendix B A summary of the current benefit structure, as determined by the provisions of governing law on June 30, 2002.
- Appendix C Schedules of valuation data classified by various categories of plan members.
- Appendix D Member contribution rates by plan.
- Appendix E A glossary of actuarial terms used in this report.

#### Section 3: Assets



In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is June 30, 2002. On that date, the assets available for the payment of retirement benefits are appraised. These assets are compared with the actuarial liabilities, which are generally well in excess of the actuarial assets. The purpose of the valuation is to determine what future contributions by the members and County are needed to pay all expected future benefits.

This section of the report deals with the determination of assets used for funding purposes. In the next section, the actuarial liabilities will be discussed. Sections 5 and 6 deal with 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:

ΔΙΙ	dollar	amounts	in billions

All dollar amounts in billions									
Market	Non-								
Value of	Valuation	Valuation	Total Fund						
Total Assets	Reserves	Reserves	Return*						
\$20.2	NA	\$17.7	N/A						
22.9	NA	19.6	17.7%						
25.5	NA	20.9	15.5						
28.0	3.7	23.5	12.9						
31.6	4.3	25.4	15.2						
28.4	4.4	26.5	-5.2						
26.1	2.0	28.3	-5.6						
	Market Value of Total Assets \$20.2 22.9 25.5 28.0 31.6 28.4	Market         Non-Valuation           Value of         Valuation           Total Assets         Reserves           \$20.2         NA           22.9         NA           25.5         NA           28.0         3.7           31.6         4.3           28.4         4.4	Actuarial Value           Market Value of Value of Total Assets         Non-Valuation Reserves         Valuation Reserves           \$20.2         NA         \$17.7           22.9         NA         19.6           25.5         NA         20.9           28.0         3.7         23.5           31.6         4.3         25.4           28.4         4.4         26.5						

<sup>\*</sup>As reported in the Investment Section of the CAFR.

On June 30, 2002, the total market value of the fund, less current liabilities, was \$26.1 billion. The actuarial value of the fund was determined to be \$30.2 billion, including the non-valuation reserves. The System's market value of assets grew considerably in the years prior to 2001. These positive returns combined with the past two years of negative returns resulted in an average total fund return for the last five years of 6.2%.

#### **Financial Exhibits**

Exhibit 1 presents a Statement of Plan Net Assets and Exhibit 2 presents a Statement of Changes in Plan Net Assets. Exhibit 3 describes the allocation of LACERA's assets by the various reserve values determined for accounting purposes as disclosed in the annual report.

Exhibits 1-3 are derived 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 for reasonableness and consistency with previous reports.

#### **Actuarial Asset Method**

The current actuarial asset method was adopted for the June 30, 1999 valuation but applied only to the valuation reserves; all reserves set aside for other purposes were held at book value. For the June 30, 2000 valuation the method was applied to all reserve values and continues so through this valuation.

The actuarial asset method computes the expected market value of assets based on the prior year's market value of assets, the actual cash flow of contributions and benefit payments, and the assumed investment rate of return. The current assumed rate of return is 8.00%, net of all expenses. The difference between the actual market value and the computed expected market value is smoothed, or recognized over a three year period.

# Actuarial Value of Assets

The development of the June 30, 2002 actuarial value of assets is shown in Exhibit 4. Note, the smoothing process is deferring significant investment losses from 2001 and 2002. The result is an actuarial value of assets greater than the June 30, 2002 market value by \$4.2 billion.

# Interim Actuarial Funding Policy

At the February 14, 2001 Board meeting, the following Interim Actuarial Funding Policy was adopted:

Earnings for a Plan Year, together with the prior balances in the Contingency Reserve will be allocated as of the Valuation Date in the following order of priority:

- Priority 1: Allocate to the Member Reserve an amount equal to one year's interest at the assumed interest rate used in the actuarial valuation as of the preceding Valuation Date.
- Priority 2: Allocate to the Employer Reserve an amount equal to one year's interest at the assumed interest rate used in the actuarial valuation as of the preceding Valuation Date.
- Priority 3: Allocate to the Contingency Reserve an amount equal to 1% of Actuarial Value of Assets.
- Priority 4: Allocate to the Contribution Credit Reserve an amount equal to one year's interest at the assumed interest rate used in the actuarial valuation as of the preceding Valuation Date.
- Priority 5: Allocate to the Employer Reserve an amount, if necessary, when combined with other valuation Reserves, to provide 100% funding of the Actuarial Accrued Liability as of the Valuation Date.
- Priority 6: Allocate any remaining Earnings as directed by the Board of Investments.

There were enough earnings for the year and assets in the contingency reserve to satisfy Priorities 1-4. The remainder was credited to the Employer Reserve (Priority 5); however, this was not enough to provide 100% funding of the AAL.

### **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.

# Valuation Assets (continued)

The Retirement Benefits Enhancement Agreement allows a portion of the STAR Reserve to also be allocated to the valuation assets if needed. All but \$100 million of the June 30, 2002 accounting value of the \$657.055 million Star Reserve was used to determine the contribution rates for fiscal year commencing July 1, 2003. The \$100 million represents the approximate value of the future STAR benefit payments between July 1, 2002 and July 1, 2009. Thus the non-valuation reserve allocations for funding purposes shown in Exhibit 5 are not the same as those shown in the annual report and in Exhibit 3.

Note that the County Contribution Credit Reserve is credited with interest under the Interim Funding Policy as shown in Exhibit 5, the allocation of Valuation Assets, and is greater than the accounting value shown in Exhibit 3.

Exhibit 1: Statement of Plan Net Assets
For Years Ended June 30, 2001 and 2002
(Dollars in Thousands)

	2002	2001
Assets	6 26 261	6 52 620
Cash	\$ 26,361	\$ 52,620
Collateral on Loaned Securities	1,775,499	1,403,546
Receivables		
Accounts Receivable - Sale of Investments	220,075	324,573
Accrued Interest and Dividends	115,530	122,805
Accounts Receivable - Other	104,721	70,031
Total Receivables	440,326	517,409
Investments at Fair Value - Note M		
Stocks	13,047,752	14,266,086
Bonds	7,705,426	7,766,774
Short Term Investments	1,345,595	1,638,688
Real Estate	3,099,180	3,494,232
Alternative Assets	1,277,040	1,485,588
Mortgages	268,386	201,826
Total Investments	26,743,379	28,853,194
Fixed Assets Net of Depreciation	135	330
Total Assets	28,985,700	30,827,099
Liabilities		
Accounts Payable - Purchase of Investments	1,097,055	1,013,021
Retiree Payroll and Other Payables	79	51
Accrued Expenses	24,313	20,191
Tax Withholding Payable	12,170	11,848
Obligations under Securities Lending Program	1,775,499	1,403,546
Accounts Payable - Other	29,344	25,180
Total Liabilities	2,938,460	2,473,837
Net Assets Held in Trust for Pension Benefits	\$26,047,240	\$28,353,262

(A Schedule of Funding Progress is presented in the Required Supplementary Information in this Section.)

The accompanying notes are an integral part of these financial statements.

#### **Statement of Changes in Plan Net Assets** Exhibit 2: For the Years Ended June 30, 2001 and 2002 (Dollars in Thousands)

	2002	2001
Additions		
Contributions		
Employer	\$ 297,928	\$ 193,650
Member	265,573	216,297
Total Contributions	563,501	409,947
•		
Investment Income		
From Investing Activities		(0.010.000)
Net (Depreciation) in Fair Value of Investments	(2,214,241)	(3,948,686)
Investment Income	734,949	1,644,455
Total Investing Activity (Loss)	(1,479,292)	(2,304,231)
Less Expenses From Investing Activities	(60,282)	(85,296)
Net Investing Activity (Loss)	(1,539,574)	(2,389,527)
From Securities Lending Activities		
Securities Lending Income	39,159	88,546
Less Expenses From Securities Lending Activities	(33,210)	(81,567)
Net Securities Lending Income	5,949	6,979
Total Net Investment (Loss)	(1,533,625)	(2,382,548)
Miscellaneous	133	2,972
Total Additions/(Declines)	(969,991)	(1,969,629)
Deductions		
Retiree Payroll	1,222,657	1,136,296
Administrative Expense - Note B	37,402	33,417
Refunds	16,259	17,640
Lump Sum Death Benefits	1,455	1,734
Retiree Healthcare Program	57,654	52,717
Miscellaneous	604	653
Total Deductions	1,336,031	1,242,457
Net (Decrease)	(2,306,022)	(3,212,086
Net Assets Held in Trust for Pension Benefits Beginning of Year	28,353,262	31,565,348
End of Year	\$26,047,240	\$28,353,262

The accompanying notes are an integral part of these financial statements.

Exhibit 3: Allocation of Assets by Accounting Reserve Amounts (Dollars in Thousands)

	June 30, 2002	June 30, 2001
1, Member Reserves		
<ul><li>a. Active Members</li><li>b. Unclaimed Deposits</li><li>c. Total Member Reserves</li></ul>	\$ 8,819,576 0 \$ 8,819,576	\$ 8,210,126 0 \$ 8,210,126
2. Employer Reserves		
a. Actual Employer Contributions	\$ 13,543,051	\$12,935,367
b. Advanced Employer Contributions	216,775	<u>164,716</u>
c. Total Employer Reserves	\$13,759,826	\$13,100,083
3. County Contribution Credit Reserve	\$ 1,221,256	\$ 1,486,792
4. STAR Reserve	657,055	669,775
5. Contingency Reserve	242,593	1,325,312
6. Total Reserves at Book Value:	\$24,700,306	\$24,792,088
7. Unrealized Investment Portfolio Appreciation	<u>1,346,934</u>	3,561,174
8. Total Reserves at Fair Value	\$ 26,047,240	\$ 28,353,262

Note: These amounts were determined for accounting purposes and were reported in the June 30, 2002 CAFR.

Exhibit 4: 3-Year Smoothing of Gains and Losses on Market Value (Dollars in Thousands)

	June 30, 2002 Valuation												
Plan Year Ending	Benefits + Contributions Expenses		M	Expected larket Value	N	Actual larket Value			Phase-Out of C	Sair	n / (Loss)		
6/30/2002	\$	563,501	\$	1,298,025	\$	29,858,183	\$	26,047,240	67%	х	\$ (3,810,943)	=	\$ (2,540,629
6/30/2001		409,947		1,208,387		33,260,813		28,353,262	33%	x	(4,907,551)	=	(1,635,850
6/30/2000		328,937		1,113,876		29,471,039		31,565,348	0%	x	2,094,309	=	0
6/30/1999								28,043,307				=	0
								Total	Phase-C	out (	of Gain / (Loss)	=	\$ (4,176,479
Total Market Value of Assets =								26,047,240					
								Tota	al Actuar	ial \	Value of Assets	=	\$ 30,223,719
		Total Actua	arial Va	lue of Assets				ssets less the T I be recognized					

# Exhibit 5: Allocation of Valuation and Non-Valuation Assets (Dollars in Thousands)

	June 30, 2002	June 30, 2001
Total Market Value of Assets	\$ 28,985,700	\$ 30,827,099
2. Current Liabilities	2,938,460	2,473,837
3. Net Assets Held in Trust for Pension Benefits	\$ 26,047,240	\$ 28,353,262
4. Market Stabilization Reserve <sup>(1)</sup>	(4,176,479)	(2,573,598)
5. Actuarial Value of Fund Assets	\$ 30,223,719	\$ 30,926,860
<ul> <li>6. Non-Valuation Reserves<sup>(2)</sup></li> <li>a. Unclaimed Deposits</li> <li>b. Contingency Reserve</li> <li>c. Advanced Employer Contributions</li> <li>d. County Contribution Credit Reserve</li> <li>e. Reserve for STAR Program</li> <li>f. Total</li> </ul>	\$ 0 302,237 216,775 1,342,578 100,000 \$ 1,961,590	\$ 0 2,115,577 164,716 1,486,792 669,775 \$ 4,436,860
<ul> <li>7. Valuation Reserves<sup>(2)</sup></li> <li>a. Member Reserves</li> <li>b. Employer Reserves for Funding Purposes</li> <li>c. Total</li> </ul>	\$ 8,819,576 19,442,553 \$ 28,262,129	\$ 8,210,126 18,279,874 \$ 26,490,000

<sup>(1)</sup> 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 4.

<sup>(2)</sup> The values used for funding purposes for all reserves are based on the Board's Interim Funding Policy. Amounts used for funding purposes may differ from those reported in the financial report as shown in Exhibit 3.

#### 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, 2002. 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, there will almost always be a difference between the actuarial assets and liabilities. 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 made up out of future contributions and investment returns. An actuarial valuation method sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion. The determination of the level of future contributions needed is discussed in the next section.

#### Actuarial Balance Sheet – Liabilities

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

Exhibit 6 contains an analysis of the actuarial present value of all future benefits for inactive members, (both retired and vested terminated members), and active members. The analysis is given by class of membership, by plan and by type of benefit.

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 benefits yet to be earned and payable for 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 2001 Investigation of Experience Report. New assumptions were adopted by the Board effective June 30, 2001.

All liabilities reflect the benefits effective through June 30, 2002. This includes the vested STAR COLA adopted for 2002 and the enhanced benefits for the Fringe Benefit MOU. No further benefit increases are considered in determining the liabilities shown.

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Exhibit 6: Actuarial Balance Sheet – June 30, 2002 (Dollars in millions)

				Ge	eneral					Sa	fety			
LIABILITIES	Plan A	P	an B	P	lan C	F	Plan D	 Plan E	F	Plan A	F	Plan B	A	II Plans
Present Value of Benefits - Inactives - Retirees - Vested Terminated	\$ 8,814 75	\$	72 15	\$	41 7	\$	501 159	\$ 306 101	\$	4,845 2	\$	447 39	\$	15,026 398
<ul> <li>Inactive Total</li> <li>Present Value of Benefits - Actives</li> </ul>	8,889		87		48		660	407		4,847		486		15,424
<ul> <li>Service Retirement</li> <li>Transfer Service (prior LACERA plan)</li> <li>Disability Retirement</li> <li>Death</li> <li>Termination (No Refund)</li> </ul>	\$ 3,636 83 140 52	\$	198 4 8 3 *	\$	119 1 5 2 *	\$	4,647 9 504 176 266	\$ 3,677 12 N/A N/A 230	\$	1,051 9 475 6 *	\$	2,449 6 1,961 40 47	\$	15,777 124 3,093 279 544
- Refund of Member Contributions	 0		*		*		120	N/A		*		3		123
- Active Total	 3,912	_	213		127		5,722	 3,919		1,541		4,506		19,940
Total Actuarial Liabilities	\$ 12,801	\$	300	\$	175	\$	6,382	\$ 4,326	\$	6,388	\$	4,992	\$	35,364
ASSETS														
Valuation Reserves PV Future Member Contributions PV Future County Normal Cost Contribs. UAAL or (Funding Surplus)	\$ 10,974 51 286 1,490	\$	312 14 14 (40)	\$	180 9 10 (24)	\$	3,792 1,429 1,551 (390)	\$ 4,051 0 1,277 (1,002)	\$	5,466 26 102 794	\$	3,487 887 1,270 (653)	\$	28,262 2,416 4,510 175
<b>Total Current and Future Assets</b>	\$ 12,801	\$	300	\$	175	\$	6,382	\$ 4,326	\$	6,388	\$	4,992	\$	35,364

<sup>\*</sup> Less than \$0.5 million

### Actuarial Balance Sheet – Assets

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

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

## Actuarial Cost Method

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

- A normal cost amount; and
- Whatever amount is left over, which is used to amortize what is called the UAAL.

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 was paid.

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

# Normal Cost (continued)

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

# Actuarial Accrued Liability

The difference between the present value of all future obligations and the present value of the future normal cost contributions is referred to as the "actuarial accrued liability". The Actuarial Accrued Liability 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 is summarized below:

(Dollars in millions)	2002	2001	Percent Change
<ul> <li>A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors</li> </ul>	\$35,364	\$32,707	8.1%
<ul> <li>B. Actuarial present value of total future normal costs for current members</li> </ul>	\$6,927	\$6,217	11.4%
C. Actuarial accrued liability [A-B]	\$28,437	\$26,490	7.4%
<ul><li>D. Valuation Reserves available for benefits</li></ul>	\$28,262	\$26,490	6.7%
E. UAAL or Surplus Funding [C-D]	\$ 175	\$ 0	-
F. Funded Ratio [D/C]	99.4%	100.0%	(0.6)%

# Actuarial Accrued Liability (continued)

It is interesting to note the maturity of LACERA's fund. Nearly one half, 44% of the total actuarial obligations are for retired and deferred vested members. Of the \$19.94 billion in obligations for the active members, the cost method allocates almost 70% to service already rendered. Of course, Plans A-C for general members and Plan A for safety members are no longer open for new employees. To the extent those older plans represent more costly plan benefits, this adds to the weighting for accrued obligations.

# Unfunded Actuarial Accrued Liability/ Surplus Funding

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

The term "fully funded" is often applied to a system in which contributions for everyone at the normal cost rate are sufficient to pay for the benefits of existing employees. More often than not, systems are not fully funded, either because of past benefit improvements that have not been completely paid for or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated. Under these circumstances, a UAAL exists, implying that past experience has varied from what is 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 Actuarial Accrued Liability and the difference can be referred to as the Surplus Funding.

Exhibit 6 shows how the UAAL, or Surplus Funding, was derived for each level of plan benefits. In the Actuarial Balance sheet, the total actuarial accrued liability for all future benefits must be equal to the current and future assets.

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

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 6. The allocation is based on the relative value of each plan's employer and member reserves as reported to us by LACERA. Note that only the older, closed off, Plan A for both General and Safety members have a positive UAAL amount, based on this allocation of the assets. These allocations are shown for illustrative purposes only, as the UAAL contribution rates are assumed paid by the County based on the valuation results in aggregate.

#### **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 actuarial accrued liability to be funded is greater than the valuation assets, then the UAAL is amortized. Under the new Retirement Benefits Enhancement Agreement with the County, any positive amount as of June 30, 2002 through 2008 must be amortized over a rolling 30 years.

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

#### **Funding Policy**

The 1994 Funding Agreement applied to valuations in 1994 through 1998. In 2000, an Interim Funding Policy was adopted as described more fully in Section 3, Assets, and has been applied since then. The current Retirement Benefits Enhancement Agreement applies to the 2002 – 2008 valuations. This valuation reflects the combined funding policy as directed by those three agreements.

## 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.

The funded status of LACERA has remained at approximately 100% for the last seven years. This funding level was the result of asset returns in excess of the assumed rate, positive actuarial experience and the infusion of approximately \$2 billion into the fund, due to the issuance of Pension Obligation Bonds by the County in 1994.

The 2002 actuarial valuation indicates that an actuarial gain of \$240 million occurred during the fiscal year just ended. The gain was primarily due to a recognition of non-valuation reserves as valuation assets. The effect of the experience gains and losses on the UAAL or Surplus Funding is shown in Exhibit 7. In addition to the experience gains and losses, the Fringe Benefit MOU enhanced benefits and increased the UAAL by \$441 million.

# Exhibit 7: Analysis of Change in Unfunded Actuarial Accrued Liability (Dollars in millions)

(Dentale in Imment)		Amount	As a Percentage of June 30, 2002 Actuarial Accrued Liability
UAAL – June 30, 2001	\$	0	0.0%
Interest Accrued		0	0.0%
Benefits Accrued (Normal Cost)		722	2.5%
Contributions (with Assumed Interest) Employer - Cash Employer – Contribution Credits from Reserves Member Total	\$ 	(310) (162) (276) (748)	(1.1)% (0.6)% <u>(1.0)%</u> (2.7)%
Expected UAAL – June 30, 2002	\$	(26)	(0.1)%
Sources of Change:			
Valuation Asset (Gains) and Losses (Gain)/Loss due to investment income (Gain)/Loss due to recognition of other reserves Total	\$	304 (498) (194)	1.1% (1.8%) (0.7%)
Actuarial Accrued Liability (Gains) and Losses (Gain) / Loss due to Salary Increases CPI Less than Expected New Member Liability (Gain)/Loss All Other (Gains) and Losses Total	\$ <del></del>	(20) (39) 30 (17) (46)	(0.1)% (0.1) 0.1 (0.1) (0.2)%
Total Experience (Gains) and Losses	\$	(240)	(0.8)%
Change in Actuarial Methodology Changes in Actuarial Assumptions Change in Benefits (MOU)*		0 0 441	0.0% 0.0% 1.6%
Total Changes	\$	201	0.7%
Actual UAAL – June 30, 2002	\$	175	0.6%

<sup>\*</sup> MOU benefits at June 30, 2001 increased with one year's interest. Note that the 2002 vested STAR COLA cost of \$12.7 million is not included in this amount, since it is offset by a transfer from the STAR reserves to the valuation reserve, and therefore there is no actuarial gain or loss.

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#### **Section 5: Member Contributions**

## Normal Contributions

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

Normal contributions for each plan are defined in the following sections of the County Employees' Retirement Law:

	General	Safety
Plan A	31621.3	31639.5
Plan B	31621.1	31639.25
Plans C and D	31621	N/A

There are no member contributions under Plan E.

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
- 3. Mortality for members on service retirement

Effective with the 2001 valuation, the individual salary increase assumption was changed, necessitating a change in the member normal rates. In general, member rates decreased at younger entry ages under the new assumptions, and increased at older entry ages. These changes to the normal rates were small, with most changes less than 0.20%.

## Cost-of-Living Contributions

The determination of the member cost-of-living contributions is based on Section 31873 of the County Employees' Retirement Law. This section requires that the cost of this benefit be shared equally between members and the County. Unlike the member normal contributions, these rates are based on the actuarial cost of the benefits, and reflect all assumptions used in the valuation of liabilities. As this is not a triennial valuation, we are not recommending a change in the member cost-of-living contribution rates. The cost-of-living contributions, expressed as a percentage of the normal rates, are based on the June 30, 2001 MOU Valuation and are as follows:

General Plan A:	75.92%
General Plan B:	21.72%
General Plan C:	23.24%
General Plan D:	21.27%
Safety Plan A	103.60%
Safety Plan B	32.90%

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# Cost-of-Living Contributions (continued)

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 8.

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.

**Exhibit 8: Sample Member Contribution Rates** 

	Current Rates (Based on 2001 MOU Valuation)					
	Entry			Total as a %		
	Age	Normal	Living	of Pay		
General Members						
Plan A	25	2.85%	2.16%	5.01%		
	35	3.42%	2.60%	6.02%		
	45	4.13%	3.14%	7.27%		
	55	4.46%	3.39%	7.85%		
Plan B	25	5.70%	1.24%	6.94%		
	35	6.84%	1.49%	8.33%		
	45	8.26%	1.79%	10.05%		
	55	8.92%	1.94%	10.86%		
Plan C	25	4.88%	1.13%	6.01%		
	35	5.86%	1.36%	7.22%		
	45	7.06%	1.64%	8.70%		
	55	8.31%	1.93%	10.24%		
Plan D	25	4.88%	1.04%	5.92%		
	35	5.86%	1.25%	7.11%		
	45	7.06%	1.50%	8.56%		
	55	8.31%	1.77%	10.08%		
Safety Members						
Plan A	25	3.85%	3.99%	7.84%		
	35	4.64%	4.81%	9.45%		
	45	5.47%	5.67%	11.14%		
	55	5.51%	5.71%	11.22%		
Plan B	25	7.71%	2.54%	10.25%		
	35	9.28%	3.05%	12.33%		
	45	10.93%	3.60%	14.53%		
	55	11.01%	3.62%	14.63%		

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

## **Section 6: County Contributions**



Contributions to LACERA are determined using the Entry Age Normal Cost Funding 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 9 illustrates the Normal Cost Rates by type of benefit and for each plan based on this valuation.

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

Under the 1994 Funding Agreement, the County's contribution rate is set equal to the County's portion of the Normal Cost contribution not payable by the member contributions and some payment towards the UAAL, but only under certain conditions. From 1995 to 2001, no UAAL contributions were required and the County contributed only their portion of the Normal Cost contribution. Under the new 2002 Retirement Benefits Enhancement Agreement, the County must also pay their portion of the Normal Cost contribution adjusted for either a positive UAAL or a positive Funding Surplus.

The calculated County Normal Cost contribution rates for each plan, along with a comparison to the prior year's computed rates, can be found in Exhibit 10. The County Contribution rate was 10.17% for the fiscal year beginning in 2002 for Normal Cost contributions only.

For the fiscal year beginning in 2003, we are recommending this rate be increased to 10.24%. This is equal to the aggregate calculated normal cost contribution rate, of 10.03% based on the 2002 valuation, plus a 30-year amortization of the UAAL calculated as follows.

## **County Contribution Rate**

(all values as a % of Payroll)

County Normal Cost	10.03%
30-year Amortization of UAAL	0.21
Total County Contribution	10.24%

The increase in the calculated normal cost contribution rates from the 2001 valuation to the 2002 valuation is attributable to the following. Note that item (3) had the most significant impact.

- (1) Normal experience from year-to-year, reflecting differences in both the weighting between membership groups and in their characteristics, as well as on what was assumed to occur during the past fiscal year and what actually occurred, particularly with respect to salary increases. Based on current plan provisions, the aggregate normal cost rate is expected to decrease as a greater number of members are covered by General Plans D and E and Safety B.
- (2) For members hired prior to April 1973, 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 County's share of the normal cost contributions for the years when the member has more than 30 years of service. The County's share of the normal cost rates for those groups can be expected to increase rather than remain level, as otherwise expected under the entry age cost method. This statement applies only to Plan A members.
- (3) Enhanced benefits under the Fringe Benefit MOU were adopted effective June 4, 2002 This resulted in a 0.73% increase in the total normal cost rate.

Note the MOU benefit study calculated an expected total normal cost rate of 10.17%. The 2002 rate is 10.03% indicating that the experience under item (1) generated a greater gain than the loss realized under item (2).

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Exhibit 9: Calculated Normal Cost Contribution Rates – June 30, 2002

	General					
	Plan A	Plan B	Plan C	Plan D	Plan E	Total
Service Retirement	14.58%	13.41%	12.21%	11.17%	6.78%	9.72%
Disability Retirement	1.39	1.31	1.27	1.70	0.00	0.95
Death	0.45	0.42	0.39	0.50	0.00	0.28
Termination (No Refund)	0.32	0.22	0.21	0.98	0.71	0.79
Refund of EEC*	0.11	0.13	0.12	0.63	0.00	0.30
Total	16.85%	15.49%	14.20%	14.98%	7.49%	12.04%
Less Member Contributions	2.46	7.11	6.20	6.88	0.00	3.53
Net County Contributions	14.39%	8.38%	8.00%	8.10%	7.49%	8.51%

		Safety					
	Plan A	Plan B	Total	Grand Total			
Service Retirement	11.30%	11.26%	11.26%	10.00%			
Disability Retirement	14.04	13.69	13.75	3.37			
Death	0.30	0.29	0.29	0.29			
Termination (No Refund)	0.54	0.52	0.52	0.74			
Refund of EEC*	0.08	0.10	0.10	0.26			
Total	26.26%	25.86%	25.92%	14.66%			
Less Member Contributions	4.39	10.30	9.37	4.63			
Net County Contributions	21.87%	15.56%	16.55%	10.03%			

<sup>\*</sup>EEC = (Employee) Member Contributions

# **Exhibit 10:** County Normal Cost Contributions

			General		
	Plan A	Plan B	Plan C	Plan D	Plan E
A. Basic Benefits	9.69%	6.78%	6.57%	6.67%	7.49%
B. Cost-Of-Living Benefit	4.70	1.60	1.43	1.43	
C. Total June 30, 2002	14.39%	8.38%	8.00%	8.10%	7.49%
D. Total June 30, 2001 (MOU)	14.14%	8.22%	7.88%	7.94%	7.64%
E. Increase (Decrease) as a Percent of Payroll (C) - (D)	0.25%	0.16%	0.12%	0.16%	(0.15)%
F. Ratio of 2002 Rate to 2001 Rate	102%	102%	102%	102%	98%
		Sa	fety		All Plans
		Plan A	Plan B		
A. Basic Benefits		14.93%	13.15%		7.90%
B. Cost-Of-Living Benefit		6.94	2.41		2.13
C. Total June 30, 2002		21.87%	15.56%		10.03%
D. Total June 30, 2001 (MOU)		21.62%	15.81%		10.17%
E. Increase (Decrease) as a Percent of Payroll (C) - (D)		0.25%	(0.25)%		(0.14)%
F. Ratio of 2002 Rate to 2001 Rate		101%	98%		99%

## **Section 7: Accounting Information**



For fiscal years beginning after June 15, 1996, revised GASB reporting standards are required for defined benefit pension plan reporting and disclosures (Statement No. 25). The System adopted the revised reporting standards beginning in 1996. The new 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 11, compares actuarial assets and liabilities of the System, based on the actuarial funding method used. The required Schedule of Employer Contributions, Exhibit 12, compares the employer contributions required based on the actuarial valuation (the actuarial required contribution, or ARC) with the employer contributions actually made. 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 new GASB reporting requirements.

For fiscal years beginning after June 15, 1997, 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, between June 30, 2000 and June 30, 2001, many actuarial assumptions were changed based on the 2001 triennial Investigation of Experience Study. Between the 2001 and 2002 valuations, benefits were enhanced under the MOU package.

Exhibit 13 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).

Exhibit 11: 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 <sup>(1)</sup>	[(b-a)/c] UAAL as a Percentage of Covered Payroll
June 30, 1993	\$ 12,721,364	\$ 15,048,857	\$ 2,327,493	84.5%	\$ 3,337,583	69.7%
June 30, 1994	15,542,200	15,573,829	31,629	99.8%	3,391,441	0.9%
June 30, 1995	16,503,672	16,391,833	(111,839)	100.7%	3,442,231	-3.2%
June 30, 1996	17,724,744	17,277,651	(447,093)	102.6%	3,355,551	-13.3%
June 30, 1997	19,642,355	19,383,641	(258,714)	101.3%	3,373,314	-7.7%
June 30, 1998	20,851,133	20,959,946	108,813	99.5%	3,562,416	3.1%
June 30, 1999	23,536,116	22,784,706	(751,409)	103.3%	3,858,090	-19.5%
June 30, 2000	25,426,507	24,720,380	(706,127)	102.9%	4,107,964	-17.0%
June 30, 2001	26,490,000	26,489,976	(24)	100.0%	4,398,443	0.0%
June 30, 2002	28,262,129	28,437,493	175,364	99.4	4,744,340	3.7%

<sup>(1)</sup> Covered Payroll includes compensation paid to all active employees on which contributions are calculated. 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. For years prior to 1999, Covered Payroll is estimated.

# Exhibit 12: Schedule of Contributions from the Employer (All Dollars In Thousands)

	Annual	Actu	ions	_	
Fiscal Year Ending	Required Contribution (ARC)	Cash Payment	Transfer from Reserve Accounts	Total	Percentage of ARC Contributed
6/30/1996	\$287,548	\$132,452	\$146,309	\$278,761	97%
6/30/1997	277,929	1,168	277,151	278,319	100%
6/30/1998	243,489	9,420	239,777	249,197	102%
6/30/1999	317,285	84,226	248,403	332,629	105%
6/30/2000	342,060	130,319	211,832	342,151	100%
6/30/2001	390,679	193,650	197,029	390,679	100%
6/30/2002	414,708	258,884	155,824	414,708	100%

Exhibit 13: Solvency Test (Dollars In Millions)

### **Actuarial Accrued Liabilities for**

			710100110171001000 =100111100 101								
	٧	ctuarial alue of		tive Member		etirees and	(	ive Members Employer Financed		of Actuari oilities Cov Assets	•
Actuarial Valuation  Date		Assets	———	ontributions (A)	Bei	neficiaries <sup>(1)</sup> (B)		Portion) (C)	(A)	(B)	(C)
July 1, 1998	\$	20,851	\$	2,643	\$	11,268	\$	7,049	100%	100%	98%
July 1, 1999		23,536		2,710		11,863		8,211	100	100	109
July 1, 2000		25,427		3,190		12,922		8,609	100	100	108
July 1, 2001		26,490		3,320		14,368		8,802	100	100	100
July 1, 2002		28,262		3,596		15,424		9,417	100	100	98

(1) Includes deferred vested members.

## **Section 8: Supplemental Information**

# Cash Flow Projection



Exhibits 14a and 14b 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 decreased over the last 10 years, except for 1995 when the Pension Obligation Bond funds were received. It has leveled off somewhat for the past five years, but it is expected to begin to significantly decrease for the next 10 years. This is a typical pattern for a mature retirement system where it is expected that contributions will be less than benefits and that the system will begin drawing on the fund that has been built up over prior years. The projection shows that the negative projected cash flow is expected to more than double in size from 2003 to 2012.

Note that the actual cash contributions since 1996 do not reflect the transfers made between reserve funds, but only cash coming into the System. Starting in 2003, we assumed no further transfers, only full cash contributions. Thus, the actual contributions in 2002 are significantly less than those in the projections for 2003 and later.

The projected cash flows include contributions, statutory benefits and administrative expenses only. They are based on the actuarial assumptions as stated in Appendix A of this valuation report. The total County contribution rate is assumed to be 10.24% for the entire 10-year projection. This rate is equal to the County normal cost rate plus a contribution to finance the UAAL, as calculated and recommended in the 2002 valuation. The aggregate Member rate is assumed to stay at the calculated rate for June 30, 2002 of 4.63% of payroll. Expenses are based on the expenses for the year ended June 30, 2002, increased annually with the actuarial inflation assumption of 4.00%.

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

- Projected STAR benefits. STAR benefits that were vested as of March 2002 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.

Exhibit 14A: Cash Flow History and Projections - Dollars

## Cash Flow History<sup>(1)</sup>

Plan				nefits &		
Year				inistrative	Г	Net
Ending	Contri	butions	Exp	enses <sup>(3)</sup>	Cas	h Flow
1993	\$	539	\$	685	\$	(145)
1994		546		749		(203)
1995		2,212		798		1,414
1996		316		857		(541)
1997		172		910		(737)
1998		189		968		(779)
1999		288		1,024		(736)
2000		329		1,094		(765)
2001		410		1,187		(777)
2002		564		1,276		(713)

### Cash Flow Projections<sup>(2)</sup>

Plan		Benefits &						
Year			Admir	nistrative	1	Net		
Ending	Contri	butions	Expe	enses <sup>(3)</sup>	Casl	h Flow		
2003	\$	705	\$	1,361	\$	(656)		
2004		733		1,459		(726)		
2005		763		1,561		(799)		
2006		793		1,667		(874)		
2007		825		1,780		(955)		
2008		858		1,898		(1,040)		
2009		892		2,018		(1,126)		
2010		928		2,143		(1,215)		
2011		965		2,273		(1,308)		
2012		1,004		2,408		(1,405)		

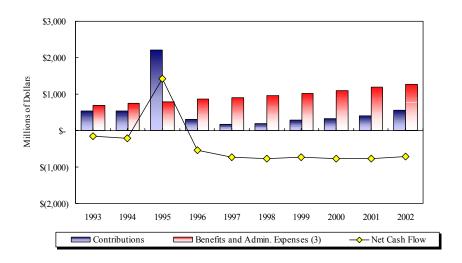
<sup>(1) 1995</sup> Contributions reflect income from Pension Obligation Bond.

<sup>(2)</sup> Future contributions are assumed to be at the 10.03% normal cost rate plus a UAAL payment of 0.21%.

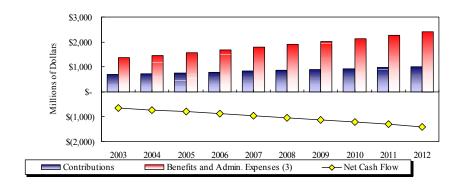
<sup>(3)</sup> Investment expenses are assumed to be covered by investment return.

## Exhibit 14B: Cash Flow History and Projections - Charts

Cash Flow History<sup>(1)</sup>



# Cash Flow Projections (2)



<sup>&</sup>lt;sup>(1)</sup> 1995 Contributions reflect income from Pension Obligation Bond.

<sup>(2)</sup> Future contributions are assumed to be at the 10.03% normal cost rate plus a UAAL payment of 0.21%.

<sup>(3)</sup> Investment expenses are assumed to be covered by investment return.

### Appendix A: Actuarial Procedures and Assumptions



The actuarial procedures and assumptions used in this valuation are described in this section. The assumptions were reviewed and changed June 30, 2001 as a result of the 2001 triennial Investigation of Experience Study.

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

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

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

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

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

Tables A-6 to A-17 were developed from the experience as measured by the 2001 Investigation of Experience Study. The rates are the probabilities a member will leave the system for various reasons.

### Actuarial Cost Method

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

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

The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Accrued Liability (UAAL). The UAAL, if any, is amortized as a level percentage of the projected salaries of present and future members of LACERA during various amortization periods.

### **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. For Plans which no longer have new members entering (Plan A for safety members, Plans A, B & C for general members), the increasing normal cost rate reflects the maturing of the group.

### 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.

### County Contributions

The County contribution rate is set by the Retirement Board based on actuarial valuations.

### Member Contributions

The member contribution rates vary by entry age and are described in the law. Code references are shown in Appendix B of this report. The methods and assumptions used are detailed later in this section.

The individual member rates by entry age, plan and class are illustrated in Appendix D.

### **Valuation of Assets**

The assets are valued using a three-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 expected market-value, with three year smoothing valuation basis for all assets was adopted effective June 30, 2000.

## Investment Earnings and Expenses

The future investment earnings of the assets of LACERA are assumed to accrue at an annual rate of 8.00%, compounded annually, net of both investment and administrative expenses.

### Post-retirement Benefit Increases

Post-retirement increases of either 3% or 2% per year 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 4.0% per year.

# Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 8.0% compounded semi-annually.

#### **Future Salaries**

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-5. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 4.0% per annum rate of increase in the general wage level of the membership. These rates were adopted June 30, 2001.

Effective June 30, 2000, increases are assumed to occur mid-year (i.e., January 1) 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.

# Future Salaries (Continued)

For Plan A, actual prior year annual compensation is used. For other plans, annual information was not available. Due to irregular compensation payments now included as pensionable earnings, actual annual pay is preferred over annualizing a single monthly payment amount.

# Social Security Wage Base

Plan E members have their benefits offset by an assumed Social Security Benefit. For valuation funding purposes, we need to project the Social Security Benefit. We assume the current Social Security provisions will continue and the annual Wage Base will increase at the rate of 4% 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.

#### Retirement

After members attain age 50 (55 for Plan E members) and have ten years of service, they may retire with a benefit commencing immediately. All members except Plan E members, may also retire regardless of age after 20 years of service for safety members and after 30 years of service for general members. The retirement rates vary by age and are shown by plan in Tables A-6 through A-17.

All general members who attain or who have attained age 75 in active service and all safety members who have attained age 60 in active service are assumed to retire immediately.

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

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

The retirement probabilities were revised June 30, 2001.

#### Disablement

The rates of disablement used in the valuation are also illustrated in Tables A-6 through A-17. These rates were revised June 30, 2001.

### 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. Beneficiary mortality is assumed to be the same assumption as healthy members. Beneficiaries are assumed to be of the opposite sex, and have the same mortality as General members.

Males General members: 1983 Group Annuity

Mortality Table for males, multiplied by 85%. Safety members: 1983 Group Annuity Mortality

Table for males, multiplied by 80%.

Females General members: 1983 Group Annuity

Mortality Table for females, multiplied by 95%. Safety members: 1983 Group Annuity Mortality

Table for males, multiplied by 95%.

# Mortality – Disabled Members

For disabled members, the mortality rates used in the valuation rates are illustrated in Table A-3. These rates were adopted June 30, 2001.

Males General members: RP-2000 Combined

Mortality Table for Males, with ages set forward

three years.

Safety members: RP-2000 Combined Mortality

Table for Males, with no age adjustment.

Females General members: RP-2000 Combined Table

for Females with ages set forward one year.

Safety members: RP-2000 Combined Mortality
Table for Females with ages set forward three

years.

# Other Employment Terminations

Tables A-6 to A-17 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 revised June 30, 2001.

# Other Employment Terminations (Continued)

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

All terminating members are assumed to not be rehired. Table A-4 gives the assumed probabilities that vested members will withdraw their contributions and elect a refund immediately upon termination and the probability the remaining members will elect a deferred vested benefit. All non-vested members are assumed to elect a refund and withdraw their contributions. These rates were adopted June 30, 1998.

### Probability of Marriage and Dependent Children

For members not currently in pay status, 85% of all males and 60% of all females are assumed to have eligible spouses. The spouse is assumed to be four years younger than the male members and four years older than the female members. There is no explicit assumption for children's benefits. We believe the survivor benefits based on this marriage assumption are sufficient to cover children's benefits as they occur.

### Valuation of Vested Terminated Members

Complete Final Compensation data is not available to estimate the amount of vested benefit for these members. For valuation purposes, we assume the value of their deferred benefit is equal to three times their accumulated normal contributions plus one times their accumulated COLA contributions as of the valuation date.

Since Plan E is non-contributory, the value of the deferred benefit cannot be estimated under this method. Therefore, for Plan E members who are missing compensation data, Final Compensation is estimated as the average amount for all Plan E members who terminated during the same year and had a valid compensation amount. The retirement benefit is then calculated. The value of the deferred benefit is the value of this benefit deferred to age 65.

# Valuation of Annuity Purchases

Over 20 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.

### Valuation of Annuity Purchases (continued)

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 50% / 50% blend of the male and female annuity factors using current valuation assumptions. For Safety members it is based on the male annuity factor, as 90% of all Safety members are male.
- 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 8%.
- C. The Final Compensation period is based on the salary paid in the one (or three, depending on the plan) year(s) prior to attaining the retirement age.

Example: For a Plan C Member who enters at age 57 or earlier, the Final Compensation at retirement (age 60) will be the average of the salaries during age 57, 58, and 59.

D. The Final Compensation period used is the lesser of the period specified for that Plan, and the difference between the retirement age and the entry age.

Example: For a Plan C Member who enters at age 59, the Final Compensation at retirement (age 60) will be equal to his age 59 salary.

E. 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.

### Table A-1: Summary of Valuation Assumptions as of June 30, 2001

			4.5
1	<b>Economic</b>	assumi	ntions
		accarri	

II.

A.	General wage increases	4.00%
B.	Investment earnings	8.00
C.	Growth in membership	0.00
D.	Post-retirement benefit increases (varies by plan)	0.00/2.00/3.00

E. CPI inflation assumption 4.00

Demographic assumptions

A. Salary increases due to service

Table A-5

B. RetirementC. DisablementTables A-6 to A-17Tables A-6 to A-17

D. Mortality for active members after termination and service retired members.
 Tai

Table A-2

Basis – 1983 Group Annuity Mortality Table for respective sexes for general members, as adjusted:

Class of Members	Age <u>Adjustment</u>	Percentage Rate Adjustment
General – males	0 years	85%
General – females	0 years	95%
Safety – males	0 years	80%
Safety – females	0 years	95%

### E. Mortality among disabled members

Table A-3

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

General - males	+3 years	None
General - females	+1 year	None
Safety - males	0 years	None
Safety - females	+3 years	None

### F. 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.

G. Other terminations of employment

Tables A-6 to A-17

H. Refund of contributions on vested termination

Table A-4



Table A-2: Mortality for Members Retired for Service and Beneficiaries

	Safety	Safety	General	General
Age	Male	Female	Male	Female
20	0.030%	0.018%	0.032%	0.018%
25	0.037%	0.024%	0.039%	0.024%
30	0.049%	0.033%	0.052%	0.033%
35	0.069%	0.045%	0.073%	0.045%
40	0.099%	0.063%	0.105%	0.063%
45	0.175%	0.096%	0.186%	0.096%
50	0.313%	0.157%	0.332%	0.157%
55	0.490%	0.241%	0.521%	0.241%
60	0.733%	0.403%	0.778%	0.403%
65	1.247%	0.671%	1.325%	0.671%
70	2.202%	1.177%	2.340%	1.177%
75	3.568%	2.279%	3.791%	2.279%
80	5.926%	4.080%	6.296%	4.080%
85	9.187%	6.642%	9.761%	6.642%
90	13.305%	10.616%	14.136%	10.616%

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

	Safety	Safety	General	General
Age	Male	Female	Male	Female
20	0.035%	0.020%	0.037%	0.019%
25	0.038%	0.023%	0.039%	0.021%
30	0.044%	0.039%	0.063%	0.031%
35	0.077%	0.060%	0.096%	0.051%
40	0.108%	0.094%	0.130%	0.077%
45	0.151%	0.143%	0.186%	0.122%
50	0.214%	0.221%	0.292%	0.185%
55	0.362%	0.392%	0.527%	0.309%
60	0.675%	0.765%	1.001%	0.581%
65	1.274%	1.345%	1.787%	1.095%
70	2.221%	2.297%	3.039%	1.858%
75	3.783%	3.760%	5.212%	3.097%
80	6.437%	6.251%	8.972%	5.078%
85	11.076%	10.730%	15.059%	8.638%
90	18.341%	17.043%	23.366%	14.460%

Immediate Refund of Contributions Upon Termination of Employment Table A-4: **While Vested** 

	Safety	Safety	General	General
Age	Male	Female	Male	Female
25	0%	0%	35%	35%
30	0%	0%	35%	35%
35	0%	0%	35%	35%
40	0%	0%	35%	35%
45	0%	0%	35%	35%
50	0%	0%	35%	35%
55	0%	0%	35%	35%

Table A-5a: Annual Increase in Salary Due to Promotions and Longevity Years of

Service	Safety	Plan A	Plan B&C	Plan D	Plan E
<1	6.00%	6.00%	6.00%	6.00%	6.00%
1	5.25%	5.25%	5.25%	5.25%	5.25%
2	4.50%	4.50%	4.50%	4.50%	4.50%
3	3.75%	3.75%	3.75%	3.75%	3.75%
4	3.00%	3.00%	3.00%	3.00%	3.00%
5	2.50%	2.50%	2.50%	2.50%	2.50%
6	2.00%	2.00%	2.00%	2.00%	2.00%
7	1.75%	1.75%	1.75%	1.75%	1.75%
8	1.50%	1.50%	1.50%	1.50%	1.50%
9	1.30%	1.30%	1.30%	1.30%	1.30%
10	1.10%	1.10%	1.10%	1.10%	1.10%
11	1.00%	1.00%	1.00%	1.00%	1.00%
12	0.90%	0.90%	0.90%	0.90%	0.90%
13	0.85%	0.85%	0.85%	0.85%	0.85%
14	0.80%	0.80%	0.80%	0.80%	0.80%
15 or more	0.75%	0.75%	0.75%	0.75%	0.75%

Table A-5b: Total Annual Increase in Salary\*

Years of Service	Safety	Plan A	Plan B&C	Plan D	Plan E
<1	10.24%	10.24%	10.24%	10.24%	10.24%
1	9.46%	9.46%	9.46%	9.46%	9.46%
2	8.68%	8.68%	8.68%	8.68%	8.68%
3	7.90%	7.90%	7.90%	7.90%	7.90%
4	7.12%	7.12%	7.12%	7.12%	7.12%
5	6.60%	6.60%	6.60%	6.60%	6.60%
6	6.08%	6.08%	6.08%	6.08%	6.08%
7	5.82%	5.82%	5.82%	5.82%	5.82%
8	5.56%	5.56%	5.56%	5.56%	5.56%
9	5.35%	5.35%	5.35%	5.35%	5.35%
10	5.14%	5.14%	5.14%	5.14%	5.14%
11	5.04%	5.04%	5.04%	5.04%	5.04%
12	4.94%	4.94%	4.94%	4.94%	4.94%
13	4.88%	4.88%	4.88%	4.88%	4.88%
14	4.83%	4.83%	4.83%	4.83%	4.83%
15 or more	4.78%	4.78%	4.78%	4.78%	4.78%

<sup>\*</sup> The total expected increase in salary is the increase due to promotions and longevity, shown in Table A-5a, adjusted for an assumed 4.00% per annum increase in the general wage level of the membership. The total result is compounded rather than additive.



# Appendix A: Rates of Separation From Active Service Tables A-6 to A-17

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

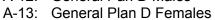
service related.

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 Males A-14: General Plan E Males General Plan A Females A-15: General Plan E Females A-7: A-8: General Plan B Males A-16: Safety Plan A Males A-9: General Plan B Females A-17: Safety Plan A Females A-10: General Plan C Males A-18: Safety Plan B Males A-11: General Plan C Females A-17: Safety Plan B Females

A-12: General Pan D Males



Tables A-6: Rate of Separation From Active Service for General Members Plan A – Male

Age	Service Retirement	Withdrawal	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	0.0050	0.0003	0.0002	N/A	0.0003
19	0.0000	0.0050	0.0003	0.0002	N/A	0.0004
20	0.0000	0.0050	0.0003	0.0002	N/A	0.0004
21	0.0000	0.0050	0.0003	0.0002	N/A	0.0004
22	0.0000	0.0050	0.0003	0.0002	N/A	0.0004
23	0.0000	0.0050	0.0003	0.0002	N/A	0.0004
24	0.0000	0.0050	0.0003	0.0002	N/A	0.0004
25	0.0000	0.0050	0.0003	0.0002	N/A	0.0004
26 27	0.0000 0.0000	0.0050 0.0050	0.0003 0.0003	0.0002 0.0002	N/A N/A	0.0004 0.0004
28	0.0000	0.0050	0.0003	0.0002	N/A N/A	0.0004
29	0.0000	0.0050	0.0003	0.0002	N/A	0.0005
30	0.0000	0.0050	0.0004	0.0002	N/A	0.0006
31	0.0000	0.0050	0.0004	0.0002	N/A	0.0006
32	0.0000	0.0050	0.0004	0.0002	N/A	0.0007
33	0.0000	0.0050	0.0005	0.0002	N/A	0.0008
34	0.0000	0.0050	0.0005	0.0002	N/A	0.0008
35	0.0000	0.0050	0.0007	0.0002	N/A	0.0009
36	0.0000	0.0050	0.0007	0.0002	N/A	0.0010
37	0.0000	0.0050	0.0008	0.0002	N/A	0.0010
38 39	0.0000	0.0050	0.0009	0.0002	N/A	0.0011 0.0011
39 40	0.0000 0.0300	0.0050 0.0050	0.0011 0.0011	0.0002 0.0003	N/A N/A	0.0011
41	0.0300	0.0050	0.0011	0.0003	N/A	0.0012
42	0.0300	0.0050	0.0012	0.0003	N/A	0.0013
43	0.0300	0.0050	0.0015	0.0004	N/A	0.0015
44	0.0300	0.0050	0.0016	0.0004	N/A	0.0016
45	0.0300	0.0050	0.0019	0.0005	N/A	0.0017
46	0.0300	0.0050	0.0020	0.0005	N/A	0.0019
47	0.0300	0.0050	0.0022	0.0005	N/A	0.0020
48	0.0300	0.0050	0.0023	0.0007	N/A	0.0021
49 50	0.0300	0.0050	0.0024	0.0008	N/A	0.0023
50 51	0.0300 0.0300	0.0050 0.0050	0.0027 0.0028	0.0009 0.0010	N/A N/A	0.0024 0.0026
52	0.0300	0.0050	0.0028	0.0010	N/A	0.0028
53	0.0300	0.0050	0.0032	0.0012	N/A	0.0030
54	0.0450	0.0050	0.0034	0.0015	N/A	0.0033
55	0.0600	0.0050	0.0036	0.0016	N/A	0.0036
56	0.0900	0.0050	0.0038	0.0018	N/A	0.0040
57	0.1200	0.0050	0.0041	0.0019	N/A	0.0044
58	0.1200	0.0050	0.0046	0.0022	N/A	0.0049
59	0.1500	0.0050	0.0051	0.0024	N/A	0.0054
60 61	0.1800 0.2100	0.0050 0.0050	0.0057 0.0062	0.0026	N/A N/A	0.0059 0.0065
62	0.3000	0.0050	0.0062	0.0028 0.0031	N/A N/A	0.0003
63	0.2100	0.0050	0.0066	0.0031	N/A	0.0076
64	0.2800	0.0050	0.0067	0.0033	N/A	0.0081
65	0.3500	0.0050	0.0068	0.0034	N/A	0.0086
66	0.2500	0.0050	0.0069	0.0035	N/A	0.0091
67	0.2500	0.0050	0.0070	0.0036	N/A	0.0095
68	0.2500	0.0050	0.0071	0.0037	N/A	0.0099
69	0.2500	0.0050	0.0071	0.0038	N/A	0.0104
70 71	0.2500	0.0050	0.0071	0.0039	N/A	0.0112
71 72	0.2500	0.0050 0.0050	0.0071	0.0040 0.0041	N/A N/A	0.0123 0.0137
72 73	0.2500 0.2500	0.0050	0.0071 0.0071	0.0041	N/A N/A	0.0157
73 74	0.2500	0.0050	0.0071	0.0042	N/A	0.0169
7 <del>5</del>	1.0000	0.0000	0.0000	0.0000	N/A	0.0000
-						



Tables A-7: Rate of Separation From Active Service for General Members Plan A – Female

	i iaii A – i	Ciliale				
Age	Service Retirement	Withdrawal	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
19	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
20	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
21	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
22	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
23	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
24	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
25	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
26	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
27	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
28	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
29	0.0000	0.0050	0.0001	0.0001	N/A	0.0002
30	0.0000	0.0050	0.0004	0.0001	N/A	0.0003
31	0.0000	0.0050	0.0004	0.0001	N/A	0.0003
32	0.0000	0.0050	0.0004	0.0001	N/A	0.0003
33	0.0000	0.0050	0.0005	0.0001	N/A	0.0004
34	0.0000	0.0050	0.0007	0.0001	N/A	0.0004
35 36	0.0000 0.0000	0.0050 0.0050	0.0007 0.0007	0.0001 0.0001	N/A	0.0005 0.0005
37	0.0000	0.0050	0.0007	0.0001	N/A N/A	0.0005
38	0.0000	0.0050	0.0007	0.0001	N/A	0.0006
39	0.0000	0.0050	0.0007	0.0002	N/A	0.0006
40	0.0300	0.0050	0.0008	0.0002	N/A	0.0007
41	0.0300	0.0050	0.0009	0.0002	N/A	0.0008
42	0.0300	0.0050	0.0010	0.0003	N/A	0.0009
43	0.0300	0.0050	0.0010	0.0003	N/A	0.0009
44	0.0300	0.0050	0.0011	0.0004	N/A	0.0010
45	0.0300	0.0050	0.0011	0.0004	N/A	0.0011
46	0.0300	0.0050	0.0012	0.0005	N/A	0.0012
47	0.0300	0.0050	0.0012	0.0005	N/A	0.0013
48	0.0300	0.0050	0.0014	0.0006	N/A	0.0014
49 50	0.0300 0.0300	0.0050 0.0050	0.0015 0.0017	0.0006 0.0008	N/A	0.0016 0.0017
50 51	0.0300	0.0050	0.0017	0.0008	N/A N/A	0.0017
52	0.0300	0.0050	0.0017	0.0009	N/A	0.0010
53	0.0400	0.0050	0.0019	0.0010	N/A	0.0020
54	0.0700	0.0050	0.0020	0.0012	N/A	0.0023
55	0.0800	0.0050	0.0021	0.0013	N/A	0.0025
56	0.0900	0.0050	0.0023	0.0015	N/A	0.0028
57	0.1100	0.0050	0.0026	0.0015	N/A	0.0030
58	0.1200	0.0050	0.0027	0.0019	N/A	0.0033
59	0.1400	0.0050	0.0030	0.0021	N/A	0.0036
60	0.1600	0.0050	0.0033	0.0024	N/A	0.0039
61	0.1600	0.0050	0.0037	0.0027	N/A	0.0043
62	0.2400	0.0050	0.0042	0.0030	N/A	0.0047
63 64	0.2200 0.2200	0.0050 0.0050	0.0047 0.0053	0.0031 0.0032	N/A N/A	0.0050 0.0054
65	0.3000	0.0050	0.0059	0.0032	N/A N/A	0.0054
66	0.2400	0.0050	0.0066	0.0033	N/A	0.0062
67	0.2400	0.0050	0.0073	0.0035	N/A	0.0066
68	0.2400	0.0050	0.0082	0.0036	N/A	0.0069
69	0.2400	0.0050	0.0094	0.0037	N/A	0.0073
70	0.2400	0.0050	0.0094	0.0038	N/A	0.0076
71	0.2400	0.0050	0.0094	0.0039	N/A	0.0079
72	0.2400	0.0050	0.0094	0.0040	N/A	0.0085
73	0.2400	0.0050	0.0094	0.0041	N/A	0.0093
74 75	0.2400	0.0050	0.0094	0.0042	N/A	0.0103
75	1.0000	0.0000	0.0000	0.0000	N/A	0.0000



Tables A-8: Rate of Separation From Active Service for General Members Plan B – Male

Age	Service Retirement	Withdrawal	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 45 46 47 48 49 50 51 52 53 54 55 55 56	0.0000 0.0000	0.0050 0.0050	0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0004 0.0004 0.0004 0.0005 0.0005 0.0005 0.0005 0.0007 0.0008 0.0009 0.0011 0.0011 0.0011 0.0012 0.0014 0.0015 0.0015 0.0015 0.0016 0.0015 0.0016 0.0019 0.0020 0.0022 0.0023 0.0024 0.0027 0.0028 0.0027 0.0028 0.0030 0.0032 0.0034 0.0036 0.0038	0.0002 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0005	Death  N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	Death  0.0003 0.0004 0.0004 0.0004 0.0004 0.0004 0.0004 0.0004 0.0004 0.0005 0.0006 0.0006 0.0006 0.0007 0.0008 0.0008 0.0009 0.0011 0.0011 0.0011 0.0011 0.0011 0.0015 0.0016 0.0015 0.0016 0.0017 0.0018 0.0017 0.0019 0.0010 0.0011 0.0015 0.0016 0.0017 0.0019 0.0020 0.0021 0.0023 0.0024 0.0026 0.0028 0.0030 0.0033 0.0036 0.0036
56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 75	0.0900 0.1200 0.1200 0.1500 0.1800 0.2100 0.3000 0.2100 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500	0.0050 0.0050	0.0038 0.0041 0.0046 0.0051 0.0057 0.0062 0.0065 0.0066 0.0067 0.0068 0.0070 0.0071 0.0071 0.0071 0.0071 0.0071 0.0071	0.0018 0.0019 0.0022 0.0024 0.0026 0.0028 0.0031 0.0032 0.0035 0.0035 0.0036 0.0037 0.0038 0.0039 0.0040 0.0041 0.0042 0.0043 0.0000	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	0.0040 0.0044 0.0049 0.0059 0.0055 0.0070 0.0076 0.0081 0.0086 0.0091 0.0095 0.0099 0.0104 0.0112 0.0123 0.0137 0.0151 0.0169 0.0000

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Tables A-9: Rate of Separation From Active Service for General Members Plan B – Female

Service Retirement	Withdrawal	Service Disability	Ordinary Disability	Service Death	Ordinary Death
Retirement  0.0000 0.0300	0.0050 0.0050	0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0004 0.0004 0.0004 0.0004 0.0005 0.0007 0.0007 0.0007 0.0007 0.0007 0.0007 0.0007 0.0001 0.0011 0.0011 0.0011 0.0012 0.0011 0.0012 0.0014 0.0015 0.0017 0.0017 0.0018 0.0017 0.0017 0.0018 0.0019 0.0019 0.0020 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0023 0.0026 0.0027 0.0030 0.0023 0.0026 0.0027 0.0030 0.0033 0.0037 0.0042 0.0047 0.0053 0.0059	0.0001 0.0015 0.0006 0.0008 0.0009 0.0010 0.0015	Death  N/A	
0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 1.0000	0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050	0.0066 0.0073 0.0082 0.0094 0.0094 0.0094 0.0094 0.0094 0.0094	0.0034 0.0035 0.0036 0.0037 0.0038 0.0039 0.0040 0.0041 0.0042 0.0000	N/A N/A N/A N/A N/A N/A N/A N/A N/A	0.0062 0.0066 0.0069 0.0073 0.0076 0.0079 0.0085 0.0093 0.0103 0.0000
	Retirement  0.0000 0.0300 0.0400 0.0400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400	Retirement           0.0000         0.0050           0.0300         0.0050           0.0300         0.0050           0.0300         0.0050 <td>Retirement         Disability           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0007           0.0000         0.0050         0.0007           0.0000         0.0050         0.0007           0.0000         0.0050</td> <td>  Retirement</td> <td>  Retirement</td>	Retirement         Disability           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0007           0.0000         0.0050         0.0007           0.0000         0.0050         0.0007           0.0000         0.0050	Retirement	Retirement



Tables A-10: Rate of Separation From Active Service for General Members Plan C – Male

Age	Service Retirement	Withdrawal	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18 19 20 21 22 23 24 25 26 27 28 30 31 33 33 34 40 41 42 43 44 45 51 51 55 55 55 55 56 60 61 61 61 61 61 61 61 61 61 61 61 61 61	Retirement  0.0000 0.0300	0.0050 0.0050	0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0004 0.0004 0.0004 0.0005 0.0005 0.0005 0.0007 0.0008 0.0009 0.0011 0.0011 0.0012 0.0014 0.0015 0.0015 0.0015 0.0015 0.0016 0.0019 0.0020 0.0022 0.0023 0.0024 0.0027 0.0028 0.0020 0.0022 0.0023 0.0024 0.0027 0.0028 0.0030 0.0032 0.0034 0.0036 0.0038 0.0038 0.0041 0.0046 0.0057 0.0065 0.0065 0.0066	Disability  0.0002 0.0003 0.0003 0.0003 0.0003 0.0004 0.0005	Death  N/A	Death  0.0003 0.0004 0.0004 0.0004 0.0004 0.0004 0.0004 0.0004 0.0004 0.0005 0.0006 0.0006 0.0007 0.0008 0.0011 0.0011 0.0011 0.0011 0.0011 0.0011 0.0015 0.0016 0.0017 0.0018 0.0019 0.0010 0.0010 0.0010 0.0010 0.0011
65 66 67 68 69 70 71 72 73	0.3500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500 0.2500	0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050	0.0068 0.0069 0.0070 0.0071 0.0071 0.0071 0.0071 0.0071	0.0034 0.0035 0.0036 0.0037 0.0038 0.0039 0.0040 0.0041 0.0042	N/A N/A N/A N/A N/A N/A N/A N/A	0.0086 0.0091 0.0095 0.0099 0.0104 0.0112 0.0123 0.0137 0.0151
74 75	0.2500 1.0000	0.0050 0.0000	0.0071 0.0000	0.0043 0.0000	N/A N/A	0.0169 0.0000

Tables A-11: Rate of Separation From Active Service for General Members Plan C – Female

Service Retirement	Withdrawal	Service Disability	Ordinary Disability	Service Death	Ordinary Death
Retirement  0.0000 0.0300	0.0050 0.0050	0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0004 0.0004 0.0004 0.0004 0.0005 0.0007 0.0007 0.0007 0.0007 0.0007 0.0007 0.0007 0.0001 0.0011 0.0011 0.0011 0.0012 0.0011 0.0012 0.0014 0.0015 0.0017 0.0017 0.0018 0.0017 0.0017 0.0018 0.0019 0.0019 0.0020 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0021 0.0023 0.0026 0.0027 0.0030 0.0023 0.0026 0.0027 0.0030 0.0033 0.0037 0.0042 0.0047 0.0053 0.0059	0.0001 0.0015 0.0006 0.0008 0.0009 0.0010 0.0015	Death  N/A	
0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 1.0000	0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050	0.0066 0.0073 0.0082 0.0094 0.0094 0.0094 0.0094 0.0094 0.0094	0.0034 0.0035 0.0036 0.0037 0.0038 0.0039 0.0040 0.0041 0.0042 0.0000	N/A N/A N/A N/A N/A N/A N/A N/A N/A	0.0062 0.0066 0.0069 0.0073 0.0076 0.0079 0.0085 0.0093 0.0103 0.0000
	Retirement  0.0000 0.0300 0.0400 0.0400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400 0.2400	Retirement           0.0000         0.0050           0.0300         0.0050           0.0300         0.0050           0.0300         0.0050 <td>Retirement         Disability           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0007           0.0000         0.0050         0.0007           0.0000         0.0050         0.0007           0.0000         0.0050</td> <td>  Retirement</td> <td>  Retirement</td>	Retirement         Disability           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0001           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0004           0.0000         0.0050         0.0007           0.0000         0.0050         0.0007           0.0000         0.0050         0.0007           0.0000         0.0050	Retirement	Retirement

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Tables A-12: Rate of Separation From Active Service for General Members Plan D – Male

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Withdrawal
18	0.0000	0.0003	0.0002	N/A	0.0003	1	0.0600
19	0.0000	0.0003	0.0002	N/A	0.0004	2	0.0520
20	0.0000	0.0003	0.0002	N/A	0.0004	3	0.0460
21	0.0000	0.0003	0.0002	N/A	0.0004	2 3 4	0.0400
22	0.0000	0.0003	0.0002	N/A	0.0004	5	0.0340
23	0.0000	0.0003	0.0002	N/A	0.0004	5 6 7	0.0327
24	0.0000	0.0003	0.0002	N/A	0.0004	7	0.0313
25	0.0000	0.0003	0.0002	N/A	0.0004	8	0.0300
26	0.0000	0.0003	0.0002	N/A	0.0004	9	0.0296
27	0.0000	0.0003	0.0002	N/A	0.0004	10	0.0292
28	0.0000	0.0003	0.0002	N/A	0.0004	11	0.0288
29	0.0000	0.0003	0.0002	N/A	0.0005	12	0.0284
30	0.0000	0.0004	0.0002	N/A	0.0006	13	0.0280
31	0.0000	0.0004	0.0002	N/A	0.0006	14	0.0280
32	0.0000	0.0004	0.0002	N/A	0.0007	15	0.0280
33	0.0000	0.0005	0.0002	N/A	0.0007	16	0.0280
34	0.0000	0.0005	0.0002	N/A	0.0008	17	0.0280
35	0.0000	0.0007	0.0002	N/A	0.0009	18	0.0280
36	0.0000	0.0007	0.0002	N/A	0.0009	19	0.0280
37	0.0000	0.0007	0.0002	N/A N/A	0.0010	20 & Up	0.0280
						20 α υρ	0.0200
38	0.0000	0.0009	0.0002	N/A	0.0011		
39	0.0000	0.0011	0.0002	N/A	0.0011		
40	0.0300	0.0011	0.0003	N/A	0.0012		
41	0.0300	0.0012	0.0003	N/A	0.0013		
42	0.0300	0.0014	0.0003	N/A	0.0014		
43	0.0300	0.0015	0.0004	N/A	0.0015		
44	0.0300	0.0016	0.0004	N/A	0.0016		
45	0.0300	0.0019	0.0005	N/A	0.0017		
46	0.0300	0.0020	0.0005	N/A	0.0019		
47	0.0300	0.0022	0.0005	N/A	0.0020		
48	0.0300	0.0023	0.0007	N/A	0.0021		
49	0.0300	0.0024	0.0008	N/A	0.0023		
50	0.0300	0.0027	0.0009	N/A	0.0024		
51	0.0300	0.0028	0.0010	N/A	0.0026		
52	0.0300	0.0030	0.0012	N/A	0.0028		
53	0.0300	0.0032	0.0013	N/A	0.0030		
54	0.0300	0.0034	0.0015	N/A	0.0033		
55	0.0300	0.0036	0.0016	N/A	0.0036		
56	0.0300	0.0038	0.0018	N/A	0.0040		
57	0.0300	0.0041	0.0019	N/A	0.0044		
58	0.0300	0.0046	0.0022	N/A	0.0049		
59	0.0300	0.0051	0.0024	N/A	0.0054		
60	0.0700	0.0057	0.0026	N/A	0.0059		
61	0.1000	0.0062	0.0028	N/A	0.0065		
62	0.1200	0.0065	0.0031	N/A	0.0070		
63	0.1000	0.0066	0.0032	N/A	0.0076		
64	0.1000	0.0067	0.0033	N/A	0.0081		
65	0.2500	0.0068	0.0034	N/A	0.0086		
66	0.1700	0.0069	0.0035	N/A	0.0091		
67	0.1700	0.0070	0.0036	N/A	0.0095		
68	0.1700	0.0071	0.0037	N/A	0.0099		
69	0.1700	0.0071	0.0038	N/A	0.0104		
70	0.2500	0.0071	0.0039	N/A	0.0112		
71	0.2500	0.0071	0.0040	N/A	0.0123		
72	0.2500	0.0071	0.0041	N/A	0.0137		
73	0.2500	0.0071	0.0042	N/A	0.0151		
74	0.2500	0.0071	0.0043	N/A	0.0169		
75	1.0000	0.0000	0.0000	N/A	0.0000		

Tables A-13: Rate of Separation From Active Service for General Members Plan D – Female

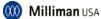
Age Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Withdrawal
18 0.0000	0.0001	0.0001	N/A	0.0002	1	0.0600
19 0.0000	0.0001	0.0001	N/A	0.0002	2 3	0.0520
20 0.0000	0.0001	0.0001	N/A	0.0002	3	0.0460
21 0.0000	0.0001	0.0001	N/A	0.0002	4	0.0400
22 0.0000	0.0001	0.0001	N/A	0.0002	5	0.0340
23 0.0000	0.0001	0.0001	N/A	0.0002	5 6	0.0327
24 0.0000	0.0001	0.0001	N/A	0.0002	7	0.0313
25 0.0000	0.0001	0.0001	N/A	0.0002	8	0.0300
26 0.0000	0.0001	0.0001	N/A	0.0002	9	0.0296
27 0.0000	0.0001	0.0001	N/A	0.0002	10	0.0292
28 0.0000	0.0001	0.0001	N/A	0.0002	11	0.0288
29 0.0000	0.0001	0.0001	N/A	0.0002	12	0.0284
30 0.0000	0.0004	0.0001	N/A	0.0003	13	0.0280
31 0.0000	0.0004	0.0001	N/A	0.0003	14	0.0280
32 0.0000	0.0004	0.0001	N/A	0.0003	15	0.0280
33 0.0000	0.0005	0.0001	N/A	0.0004	16	0.0280
34 0.0000	0.0007	0.0001	N/A	0.0004	17	0.0280
35 0.0000	0.0007	0.0001	N/A	0.0005	18	0.0280
36 0.0000	0.0007	0.0001	N/A	0.0005	19	0.0280
37 0.0000	0.0007	0.0001	N/A	0.0006	20 & Up	0.0280
38 0.0000	0.0007	0.0002	N/A	0.0006		
39 0.0000	0.0007	0.0002	N/A	0.0006		
40 0.0200	0.0008	0.0002	N/A	0.0007		
41 0.0200	0.0009	0.0002	N/A	0.0008		
42 0.0200 43 0.0200	0.0010	0.0003	N/A	0.0009		
43 0.0200 44 0.0200	0.0010 0.0011	0.0003 0.0004	N/A N/A	0.0009 0.0010		
45 0.0200	0.0011	0.0004	N/A N/A	0.0010		
46 0.0200	0.0011	0.0004	N/A N/A	0.0011		
47 0.0200	0.0012	0.0005	N/A	0.0012		
48 0.0200	0.0014	0.0006	N/A	0.0014		
49 0.0200	0.0015	0.0006	N/A	0.0016		
50 0.0200	0.0017	0.0008	N/A	0.0017		
51 0.0200	0.0017	0.0009	N/A	0.0018		
52 0.0200	0.0018	0.0010	N/A	0.0020		
53 0.0200	0.0019	0.0011	N/A	0.0021		
54 0.0200	0.0020	0.0012	N/A	0.0023		
55 0.0400	0.0021	0.0013	N/A	0.0025		
56 0.0400	0.0023	0.0015	N/A	0.0028		
57 0.0400	0.0026	0.0015	N/A	0.0030		
58 0.0400	0.0027	0.0019	N/A	0.0033		
59 0.0500	0.0030	0.0021	N/A	0.0036		
60 0.0500	0.0033	0.0024	N/A	0.0039		
61 0.0800	0.0037	0.0027	N/A	0.0043		
62 0.1000	0.0042	0.0030	N/A	0.0047		
63 0.1100	0.0047	0.0031	N/A	0.0050		
64 0.1200	0.0053	0.0032	N/A	0.0054		
65 0.2300 66 0.1800	0.0059 0.0066	0.0033 0.0034	N/A N/A	0.0058 0.0062		
67 0.1300	0.0073	0.0034	N/A	0.0062		
68 0.2500	0.0073	0.0036	N/A N/A	0.0069		
69 0.2500	0.0082	0.0037	N/A	0.0003		
70 0.2500	0.0094	0.0037	N/A	0.0075		
71 0.2500	0.0094	0.0039	N/A	0.0079		
72 0.2500	0.0094	0.0040	N/A	0.0085		
73 0.2500	0.0094	0.0041	N/A	0.0093		
74 0.2500	0.0094	0.0042	N/A	0.0103		
75 1.0000	0.0000	0.0000	N/A	0.0000		

Tables A-14: 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	Withdrawal
18	0.0000	N/A	N/A	N/A	0.0004	1	0.1300
19	0.0000	N/A	N/A	N/A	0.0004	2 3	0.0700
20	0.0000	N/A	N/A	N/A	0.0004	3	0.0600
21	0.0000	N/A	N/A	N/A	0.0004	4	0.0500
22	0.0000	N/A	N/A	N/A	0.0004	5 6	0.0400
23	0.0000	N/A	N/A	N/A	0.0004	<u>6</u>	0.0373
24	0.0000	N/A	N/A	N/A	0.0004	7	0.0347
25	0.0000	N/A	N/A	N/A	0.0004	8	0.0320
26	0.0000	N/A	N/A	N/A	0.0004	9	0.0306
27 28	0.0000 0.0000	N/A	N/A N/A	N/A N/A	0.0005	10 11	0.0292
20 29	0.0000	N/A N/A	N/A N/A	N/A N/A	0.0006 0.0006	12	0.0278 0.0264
30	0.0000	N/A	N/A	N/A	0.0007	13	0.0250
31	0.0000	N/A	N/A	N/A	0.0008	14	0.0250
32	0.0000	N/A	N/A	N/A	0.0008	15	0.0250
33	0.0000	N/A	N/A	N/A	0.0009	16	0.0250
34	0.0000	N/A	N/A	N/A	0.0010	17	0.0250
35	0.0000	N/A	N/A	N/A	0.0010	18	0.0250
36	0.0000	N/A	N/A	N/A	0.0011	19	0.0250
37	0.0000	N/A	N/A	N/A	0.0011	20 & Up	0.0250
38	0.0000	N/A	N/A	N/A	0.0012		
39	0.0000	N/A	N/A	N/A	0.0013		
40	0.0000	N/A	N/A	N/A	0.0014		
41	0.0000	N/A	N/A	N/A	0.0015		
42 43	0.0000 0.0000	N/A N/A	N/A N/A	N/A N/A	0.0016 0.0017		
43 44	0.0000	N/A N/A	N/A N/A	N/A N/A	0.0017		
4 <del>4</del> 45	0.0000	N/A N/A	N/A	N/A N/A	0.0019		
46	0.0000	N/A	N/A	N/A	0.0020		
47	0.0000	N/A	N/A	N/A	0.0021		
48	0.0000	N/A	N/A	N/A	0.0024		
49	0.0000	N/A	N/A	N/A	0.0026		
50	0.0000	N/A	N/A	N/A	0.0028		
51	0.0000	N/A	N/A	N/A	0.0030		
52	0.0000	N/A	N/A	N/A	0.0033		
53	0.0000	N/A	N/A	N/A	0.0036		
54 55	0.0000	N/A	N/A	N/A	0.0040		
55 56	0.0300 0.0300	N/A N/A	N/A N/A	N/A N/A	0.0044		
50 57	0.0300	N/A N/A	N/A N/A	N/A N/A	0.0049 0.0054		
58	0.0300	N/A	N/A	N/A	0.0059		
59	0.0300	N/A	N/A	N/A	0.0065		
60	0.0300	N/A	N/A	N/A	0.0070		
61	0.0600	N/A	N/A	N/A	0.0076		
62	0.1100	N/A	N/A	N/A	0.0081		
63	0.0700	N/A	N/A	N/A	0.0086		
64	0.1400	N/A	N/A	N/A	0.0091		
65	0.2600	N/A	N/A	N/A	0.0095		
66	0.1700	N/A	N/A	N/A	0.0099		
67 68	0.1700 0.1700	N/A N/A	N/A N/A	N/A N/A	0.0104 0.0112		
69	0.1700	N/A N/A	N/A N/A	N/A N/A	0.0112		
70	0.2500	N/A N/A	N/A	N/A	0.0123		
71	0.2500	N/A	N/A	N/A	0.0151		
72	0.2500	N/A	N/A	N/A	0.0169		
73	0.2500	N/A	N/A	N/A	0.0188		
74	0.2500	N/A	N/A	N/A	0.0208		
75	1.0000	N/A	N/A	N/A	0.0000		

Tables A-15: 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	Withdrawal
18	0.0000	N/A	N/A	N/A	0.0002	1	0.1300
19	0.0000	N/A	N/A	N/A	0.0002	2 3	0.0700
20	0.0000	N/A	N/A	N/A	0.0002	3	0.0600
21	0.0000	N/A	N/A	N/A	0.0002	4	0.0500
22	0.0000	N/A	N/A	N/A	0.0002	5	0.0400
23	0.0000	N/A	N/A	N/A	0.0002	4 5 6 7	0.0373
24	0.0000	N/A	N/A	N/A	0.0002	7	0.0347
25	0.0000	N/A	N/A	N/A	0.0002	8	0.0320
26	0.0000	N/A	N/A	N/A	0.0002	9	0.0306
27	0.0000	N/A	N/A	N/A	0.0002	10	0.0292
28	0.0000	N/A	N/A	N/A	0.0003	11	0.0278
29	0.0000	N/A	N/A	N/A	0.0003	12	0.0264
30	0.0000	N/A	N/A	N/A	0.0003	13	0.0250
31	0.0000	N/A	N/A	N/A	0.0004	14	0.0250
32	0.0000	N/A	N/A	N/A	0.0004	15	0.0250
33	0.0000	N/A	N/A	N/A	0.0005	16	0.0250
34	0.0000	N/A	N/A	N/A	0.0005	17	0.0250
35	0.0000	N/A	N/A	N/A	0.0006	18	0.0250
36	0.0000	N/A	N/A	N/A	0.0006	19	0.0250
37	0.0000	N/A	N/A	N/A	0.0006	20 & Up	0.0250
38	0.0000	N/A	N/A	N/A	0.0007		
39	0.0000	N/A	N/A	N/A	0.0008		
40	0.0000	N/A	N/A	N/A	0.0009		
41	0.0000	N/A	N/A	N/A	0.0009		
42	0.0000	N/A	N/A	N/A	0.0010		
43	0.0000	N/A	N/A	N/A	0.0011		
44	0.0000	N/A	N/A	N/A	0.0012		
45	0.0000	N/A	N/A	N/A	0.0013		
46	0.0000	N/A	N/A	N/A	0.0014		
47	0.0000	N/A	N/A	N/A	0.0016		
48	0.0000	N/A	N/A	N/A	0.0017		
49	0.0000	N/A	N/A	N/A	0.0018		
50	0.0000	N/A	N/A	N/A	0.0020		
51 52	0.0000	N/A	N/A N/A	N/A	0.0021		
52 53	0.0000 0.0000	N/A N/A	IN/A N/A	N/A N/A	0.0023		
53 54	0.0000	N/A N/A	N/A N/A	N/A N/A	0.0025		
5 <del>4</del> 55	0.0400	N/A N/A	N/A N/A	N/A N/A	0.0028 0.0030		
56	0.0400	N/A N/A	N/A N/A	N/A	0.0030		
57	0.0400	N/A	N/A	N/A	0.0036		
58	0.0400	N/A	N/A	N/A	0.0039		
59	0.0400	N/A	N/A	N/A	0.0043		
60	0.0400	N/A	N/A	N/A	0.0047		
61	0.0600	N/A	N/A	N/A	0.0050		
62	0.0900	N/A	N/A	N/A	0.0054		
63	0.0600	N/A	N/A	N/A	0.0058		
64	0.1500	N/A	N/A	N/A	0.0062		
65	0.2500	N/A	N/A	N/A	0.0066		
66	0.1500	N/A	N/A	N/A	0.0069		
67	0.1500	N/A	N/A	N/A	0.0073		
68	0.1500	N/A	N/A	N/A	0.0076		
69	0.1500	N/A	N/A	N/A	0.0079		
70	0.2500	N/A	N/A	N/A	0.0085		
71	0.2500	N/A	N/A	N/A	0.0093		
72	0.2500	N/A	N/A	N/A	0.0103		
73	0.2500	N/A	N/A	N/A	0.0112		
74	0.2500	N/A	N/A	N/A	0.0124		
75	1.0000	N/A	N/A	N/A	0.0000		



Tables A-16: Rate of Separation From Active Service for Safety Members Plan A & B – Male

18         0.0000         0.015         0.0050         0.0003         0.000           19         0.0000         0.015         0.0050         0.0003         0.000           20         0.0000         0.015         0.0050         0.0003         0.000           21         0.0000         0.015         0.0050         0.0003         0.000           22         0.0000         0.015         0.0050         0.0003         0.000           23         0.0000         0.015         0.0050         0.0003         0.000           24         0.0000         0.015         0.0050         0.0003         0.000           25         0.0000         0.015         0.0050         0.0003         0.000	ce Ordinary th Death
26         0.0000         0.015         0.0050         0.0003         0.000           27         0.0000         0.015         0.0050         0.0003         0.000           28         0.0000         0.015         0.0050         0.0003         0.000           29         0.0000         0.015         0.0050         0.0003         0.000           30         0.0000         0.014         0.0060         0.0003         0.000           31         0.0000         0.013         0.0070         0.0003         0.000           32         0.0000         0.011         0.0080         0.0003         0.000           34         0.0000         0.010         0.0100         0.0003         0.000           34         0.0000         0.011         0.0100         0.0003         0.000           35         0.0000         0.009         0.0110         0.0004         0.000           36         0.0000         0.008         0.0120         0.0004         0.000           37         0.0000         0.006         0.0130         0.0004         0.000           38         0.0000         0.005         0.0135         0.0004         0.000	01
54     0.1300     0.005     0.0430     0.0020     0.0000       55     0.2300     0.005     0.0700     0.0024     0.000       56     0.1500     0.005     0.1200     0.0027     0.000       57     0.1500     0.005     0.1200     0.0030     0.000       58     0.1500     0.005     0.1200     0.0033     0.000       59     0.1500     0.005     0.1200     0.0036     0.000       60     1.0000     0.000     0.0000     0.0000     0.0000	0.0016 0.0017 0.0017 0.0019 0.0020 0.0021

Tables A-17: Rate of Separation From Active Service for Safety Members Plan A & B – Female

Age	Service Retirement	Withdrawal	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18 19 20 21 22 23 24 25 27 28 29 31 32 33 34 53 37 38 40 41 42 44 45 47 48 49 50 51 51 52 53 54	0.0000 0.0100 0.0100	0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.019 0.018 0.017 0.016 0.015 0.015 0.011 0.010 0.009 0.008 0.007 0.006 0.005 0.005 0.005 0.005 0.005 0.005 0.005 0.005 0.005 0.005 0.005	0.0050 0.00155 0.0160 0.0175 0.0180 0.0175 0.0180 0.0175 0.0180 0.0185 0.0190 0.0350 0.0350 0.0350 0.0350 0.0400 0.0450	0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0004 0.0004 0.0004 0.0004 0.0004 0.0005 0.0005 0.0005 0.0005 0.0005 0.0005 0.0005 0.0006 0.0007 0.0007 0.0007 0.0007 0.0007 0.00011 0.0011 0.0011 0.0011 0.0017 0.0020	0.0001 0.0001	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0003 0.0003 0.0003 0.0003 0.0004 0.0004 0.0005 0.0006 0.0006 0.0006 0.0006 0.0006 0.0006 0.0007 0.0008 0.0009 0.0009 0.0009 0.0010 0.0011 0.0012 0.0013 0.0014 0.0016 0.0017 0.0018 0.00017 0.0018 0.0020 0.0021 0.0023
55 56 57 58 59 60	0.2000 0.0800 0.1600 0.2200 0.2900 1.0000	0.005 0.005 0.005 0.005 0.005 0.005	0.0700 0.1200 0.1200 0.1200 0.1200 0.1200 0.0000	0.0024 0.0027 0.0030 0.0033 0.0036 0.0000	0.0001 0.0001 0.0001 0.0001 0.0001 0.0000	0.0025 0.0028 0.0030 0.0033 0.0036 0.0000

### **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, 2002. 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. Only those benefits in effect through July 1, 2002 are considered in this valuation.

Government Code Sections or Board of Investments Bylaws

#### **MEMBERSHIP**

Permanent employees of Los Angeles County (County) and participating districts who work ¾ time or more are eligible for membership in LACERA.

(31551, 31552, Bylaws)

Employees eligible for safety membership (law enforcement, fire fighting and lifeguards) become safety members on the first day of the month after date of hire

(31558)

All other employees become general members on the first day of the month after date of hire, or the first day of the month after they make an election of either Plan D or Plan E, depending on the law in effect at that time.

(31493, 31493.5, 31493.6, Bylaws)

Elective officers become members on the first day of the month after filing a declaration with the Board of Retirement (Board).

(31553, 31562)

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

### **RETIREMENT PLANS**

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

(31494.1, 31494.3)

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

Plan B: General members – September 1977 through September

1978. Safety members – September 1977 to present.

**Plan C:** General members – October 1978 through May 1979.

B-1

(31487, 31496)

(31510)

(31489)

(31625.2,

31836.1)

(31591, 31700)

## **RETIREMENT PLANS** (Continued)

**Plan D:** General members – June 1979 through January 3, 1982;

and those hired on or after January 4, 1982 who elect Plan

D instead of Plan E.

**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 prior to 1993.

**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.

#### **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.

Contributions cease when 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.

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.

### **EMPLOYER CONTRIBUTIONS**

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

(31453, 31454

31581)

B-2

## SERVICE RETIREMENT ALLOWANCE

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: (31662.4,

31662.6, Age 50 with 10 years of County service; 31663.25) Any age with 20 years of service; or Age 60 regardless of service (Mandatory

retirement age for members hired before April 1, 1997). No mandatory retirement for members

hired on or after April 1, 1997.

Plan E: Age 65 with 10 years of service. A reduced benefit (31491).

is also payable at age 55 with 10 years of service.

**Final Compensation:** 

(31462.3,Plans A-D: Monthly average of a member's compensation 31461.45)

during the last year of service.

(31676.11)Plan E: Monthly average of a member's compensation for

the last three years of service.

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, (31671)shall not exceed the dollar limitations in Section 401(a)(17) of Title 26 of the US

**Monthly Allowance:** 

Code.

(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.)

(31676.1)Plans A-D: General members:

1/60 x Final Compensation x a Plan specific

age factor x years of service.

(31676.11)(31676.14)

B-3

## **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, 31491.3 (b)&(c))

(b) 1 % x Final Compensation x Years of Service in excess of 35 (up to 10)

(c) Estimated Primary Insurance Amount (PIA) x Years of Covered Service (up to 35)

divided by 35.

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)

(31491)

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	(31676.15)
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.

## SERVICE RETIREMENT ALLOWANCE (Continued)

Plans A-D: Life Annuity payable to retired member with 65%

continuance to an eligible surviving spouse (or

eligible children).

Plan E: Life Annuity payable to retired member with 55%

continuance to an eligible surviving spouse (or

eligible children).

(31491,31492.1)

(31760.12,

31785.4)

## **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.

(31760.1, 31785) (31492)

(31761)

(31762)

(31764)

(31782)

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.

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.

Option 3: 50% of member's reduced allowance is payable to (31763)

a surviving spouse or beneficiary having an insurable interest in the life of the member.

Other % of member's reduced allowance is Option 4:

payable to a surviving spouse or beneficiary(ies) having an insurable interest in the life of the

member.

A member may not revoke and name another beneficiary if the member elects

Option 2, 3 or 4.

(31810, 31811)

(31600)

## SERVICE RETIREMENT ALLOWANCE (Continued)

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 60% 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.

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 as in the month of

death or the month of retirement.

SERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

(31720, Eligibility: 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.

Normal Form Of Payment: Life Annuity with 100% continuance to a surviving (3176

spouse (or eligible children).

(31760, 31786)

(31727.4)

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(31720, 31836)

(31727(a))

# NONSERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

**Eligibility:** 

Plans A-D: Any age with 5 years of service, and permanently

incapacitated for the performance of duty.

(31487)Plan E: Not available under Plan E.

**Monthly Allowance:** The monthly allowance is equal to a service

(31726,31726.5) retirement allowance if the member is eligible to

retire, otherwise allowance equals (a) or (b) where:

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.

(b) 90% 1/60 of Final Compensation x years of (31727(b))service projected to age 65, not to exceed 1/3 of

Final Compensation.

(31727.2)Safety members: 1/60 is replaced by 1/50 and age 65 is replaced

by age 55 in (a) and (b) above.

**Normal Form Of Payment:** Life Annuity with 65% continuance to a surviving

spouse (or eligible children)

31760.1, 31760.12, 31785. 31785.4)

(31787)

(31760,

#### 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.

(31487)Plan E: Not available under Plan E.

Monthly Allowance: An annual death allowance is payable monthly to

(31787)an eligible surviving spouse (or eligible children)

egual to 50% of the member's Final Compensation.

## 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 normal contributions and 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.

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## NONSERVICE-CONNECTED DEATH BENEFITS (Continued)

## **Death Benefit (Lump Sum):**

(31498)

The member's normal contributions and 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:**

(31781)

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

### **First Optional Death Benefit:**

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

(31781.1, 31781.12)

## **Second Optional Death Benefit:**

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

(31781.2, 31765.2)

### **Third Optional Death Benefit:**

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

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

(31781.3)

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

(31781.1, 31781.12)

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## NONSERVICE-CONNECTED DEATH BENEFITS (Continued)

## **Fourth Optional Death Benefit:**

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

(31765.1, 31765.2)

## Fifth Optional Death Benefit:

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

**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.

#### POST-RETIREMENT DEATH BENEFIT

Plans A-D: A one-time lump-sum benefit of \$5,000 is (31789.1)

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.

Plan E: The only death benefits payable after (31492)

retirement are the continuance allowances described above under Unmodified and Optional Retirement Allowances. There is no \$5,000 lump-sum payment under Plan

E.

## **DEFERRED VESTED BENEFITS**

Eligibility: (31700)

**Plans A-D:** 5 years of county or reciprocal service.

member contributions must be left on

deposit.

Plan E: Age 55 with 10 years of service.

(31491)

31705)

(31491)

Monthly Allowance: (31703, 31704,

**Plans A-D:** Same as service retirement allowance;

payable anytime after the member would have been eligible for service retirement.

If a terminated member dies before the effective date of the deferred retirement (31702)

allowance, the member's accumulated contributions are paid to the estate or to the

named beneficiary.

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.

### 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

(31830, 31840.4, 31840.8)

Benefit Plan.

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)

(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

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.

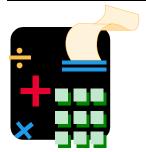
#### **STAR PROGRAM**

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

(318874.3(b))

(31495.5)

## Appendix C: Valuation Data and Schedules



Data on LACERA membership as of June 30, 2002 was supplied to us by staff. On the following table, Exhibit C-1, we present a summary of LACERA membership at June 30, 2002 for active members. Similar information is shown in Exhibit C-2 for retired members.

The number of total active Members increased by 2.5% and the payroll increased by 5.8% since the last valuation. The total number of retired Members and their beneficiaries increased by 1.9%, while the average retirement benefit amount increased by 5.4 %.

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.

Exhibit C-1: LACERA Membership – Active Members as of June 30, 2003

				Total			<b>A</b>		verage	Average	
	Cov	Vastad	Now\/ootod	Total		Ammusal Colomi	Average		onthly	Credited	
	Sex	Vested	NonVested	Number		Annual Salary	Age		Salary	Service	
General Members											
Plan A	М	2,481	2	2,483	\$	187,228,932	56.8	\$	6,284	30.3	
	F	3,607	7	3,614		211,956,600	55.5		4,887	29.7	
Plan B	M	166	-	166		12,020,652	54.9		6,034	24.7	
	F	346	1	347		19,902,120	54.2		4,780	24.2	
Plan C	M	121	-	121		8,361,768	54.5		5,759	23.7	
	F	257	-	257		13,675,800	54.1		4,434	23.4	
Plan D	M	6,952	5,775	12,727		663,187,308	42.8		4,342	7.8	
	F	12,871	11,591	24,462		1,105,892,700	41.5		3,767	7.7	
Plan E	M	6,780	7,939	14,719		749,057,436	43.9		4,241	11.0	
	F	14,182	3,984	18,166		861,882,132	46.7		3,954	16.3	
Total		47,763	29,299	77,062	\$	3,833,165,448	44.7	\$	4,145	12.3	
Safety M	embers										
Plan A	М	1,351	-	1,351	\$	127,375,656	53.4	\$	7,857	31.1	
	F	130	-	130		11,351,112	52.3		7,276	28.8	
Plan B	М	7,084	2,372	9,456		672,584,304	38.0		5,927	11.7	
	F	835	418	1,253		83,238,720	35.9		5,536	9.3	
Total		9,400	2,790	12,190	\$	894,549,792	39.6	\$	6,115	13.8	
Grand Total		57,163	32,089	89,252	\$	4,727,715,240	44.0	\$	4,414	12.5	

Exhibit C-2: LACERA Membership – Retired Members as of June 30, 2002

				A	•		Average
	_			Annual	Average		Monthly
_	Sex	Number		Allowance	Age		Benefit
_							
General Memb	ers						
Plan A	М	12,816	\$	440,372,956	71.8	\$	2,863
	F	18,364	Ψ.	388,141,377	73.9	Ψ	1,761
Plan B	M	111		2,542,144	67.7		1,909
=	F	251		4,043,965	68.6		1,343
Plan C	M	85		1,373,649	66.9		1,347
	F	185		2,376,901	67.9		1,071
Plan D	M	1,004		18,448,544	63.1		1,531
	F	1,650		23,506,483	63.3		1,187
Plan E	M	1,185		15,375,047	68.5		1,081
	F	1,967		18,144,082	67.7		769
Total		37,618	\$	914,325,148	71.8	\$	2,025
Safety Membe	rs						
Plan A	М	6,467	\$	340,601,033	65.3	\$	4,389
TIGHTA	F	1,177	Ψ	33,151,118	71.3	Ψ	2,347
Plan B	M	927		27,926,927	44.4		2,511
TIGHT	F	53		1,140,988	42.4		1,794
Total	•	8,624	\$	402,820,066	63.7	\$	3,892
iotai		3,324	Ψ	.02,020,000	00.1	Ψ	0,002
Grand Total		46,242	\$	1,317,145,214	70.3	\$	2,374

Exhibit C-2a: LACERA Membership – Retired Members as of June 30, 2002 Subtotaled by Plan and Retirement Type

	Retirement			Annual Benefits		Average Monthly
Plan	Туре	Number		in Thousands		Benefit
General Plans:			•		-	
Plan A						
	Healthy	22,849	\$	681,039	\$	2,484
	Disabled	3,177		68,139		1,787
	Beneficiaries	5,154		79,336		1,283
	Total	31,180	\$	828,514	\$	2,214
Plan B						
	Healthy	274	\$	5,263	\$	1,601
	Disabled	67		1,083		1,347
	Beneficiaries	21		239		948
	Total	362	\$	6,585	\$	1,516
Plan C						
	Healthy	188	\$	2,589	\$	1,148
	Disabled	58		971		1,395
	Beneficiaries	24		191		663
	Total	270	\$	3,751	\$	1,158
Plan D						
	Healthy	1,641	\$	24,340	\$	1,236
	Disabled	784		15,497		1,647
	Beneficiaries	229		2,118		771
	Total	2,654	\$	41,955	\$	1,317
Plan E						
	Healthy	2,980	\$	32,501	\$	909
	Disabled	0		0	·	N/A
	Beneficiaries	172		1,018		493
	Total	3,152	\$	33,519	\$	886
Safety Plans:						
Plan A						
	Healthy	2,792	\$	157,591	\$	4,704
	Disabled	3,675		183,010		4,150
	Beneficiaries	1,177	_	33,151	_	2,347
	Total	7,644	\$	373,752	\$	4,075
Plan B						
	Healthy	55	\$	1,390	\$	2,106
	Disabled	872		26,537		2,536
	Beneficiaries	53	_	1,141	_	1,794
	Total	980	\$	29,068	\$	2,472
Grand Totals		46,242		1,317,144		2,374

Exhibit C-2b: LACERA Membership – Retired Members as of June 30, 2002 Subtotaled by Retirement Type and Plan

Туре	Plan	Number	Annual Benefits in Thousands	_	Average Monthly Benefit
Healthy Retirees					
-	General A	22,849	\$ 681,039	\$	2,484
	General B	274	5,263		1,601
	General C	188	2,589		1,148
	General D	1,641	24,340		1,236
	General E	2,980	32,501		909
	Safety A	2,792	157,591		4,704
	Safety B	55	1,390		2,106
	Total	30,779	\$ 904,713	\$	2,449
Disabled Retirees					
	General A	3,177	\$ 68,139	\$	1,787
	General B	67	1,083		1,347
	General C	58	971		1,395
	General D	784	15,497		1,647
	Safety A	3,675	183,010		4,150
	Safety B	872	26,537	_	2,536
	Total	8,633	\$ 295,237	\$	2,850
Beneficiaries					
	General A	5,154	\$ 79,336	\$	1,283
	General B	21	239		948
	General C	24	191		663
	General D	229	2,118		771
	General E	172	1,018		493
	Safety A	1,177	33,151		2,347
	Safety B	53	1,141	_	1,794
	Total	6,830	\$ 117,194	\$	1,430
Grand Totals		46,242	\$ 1,317,144	\$	2,374

Exhibit C-3: Age Distribution of Active Members as of June 30, 2002

**Age Groups** 0-29 30-39 40-49 60-69 70+ 50-59 Total General Plans: 105 1,761 39 2,483 578 Female 404 2,481 674 55 3,614 26 104 35 1 166 Female 106 161 73 7 347 77 23 16 5 121 Female 80 117 52 8 257 1,440 3,896 3,778 2,644 860 109 12,727 Female 3,355 8,032 7,204 4,479 24,462 1,273 119

3,595

5,615

1,179

1,537

139

148

14,719

18,166

Safety Plans:							
Plan A							
Male	-	-	128	1,214	9	-	1,351
Female	-	-	26	104	-	-	130
Plan B							
Male	1,290	4,154	3,438	556	18	-	9,456
Female	259	608	341	45	-	-	1,253
Grand Totals:	8,655	24,284	26,426	22,953	6,304	630	89,252

4,282

6,485

Plan A

Plan B

Plan C

Plan D

Plan E

Male

Male

Male

Male

Male Female 1,635

676

3,889

3,705

Exhibit C-4: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2002

All Plans

Count	

	Years of Service											Total	
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	749	540	332	140	22	9	0	0	0	0	0	0	1,792
25-29	1,263	1,642	1,591	1,083	626	636	22	0	0	0	0	0	6,863
30-34	973	1,389	1,542	1,388	1,036	2,842	1,952	51	6	0	0	0	11,179
35-39	744	985	999	864	707	2,547	4,862	1,323	59	12	3	0	13,105
40-44	560	841	769	707	546	1,768	3,803	2,792	1,332	32	18	26	13,194
45-49	442	628	572	521	435	1,490	2,789	2,341	2,733	1,139	103	39	13,232
50-54	309	447	410	425	275	1,216	2,069	1,554	2,225	2,603	1,638	110	13,281
55-59	173	241	235	228	174	779	1,383	1,008	1,276	1,561	1,965	649	9,672
60-64	65	95	106	110	86	478	745	620	691	632	661	451	4,740
65 & Over	24	36	33	37	38	258	454	300	430	278	181	125	2,194
Total Count	5.302	6.844	6.589	5.503	3.945	12.023	18.079	9.989	8.752	6.257	4.569	1.400	89.252

#### Average Compensation

	Years of Service												Average
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	30,555	31,499	34,696	32,415	37,633	38,004	-	-	-	-	_	-	31,876
25-29	36,002	36,824	39,195	40,233	43,341	47,932	45,177	-	-	-	-	-	39,411
30-34	39,801	40,326	42,988	44,742	47,803	52,998	52,595	55,278	78,182	-	-	-	47,341
35-39	39,692	39,360	41,641	42,497	48,981	53,854	58,116	53,581	67,697	77,567	77,368	-	51,661
40-44	39,973	39,642	42,104	43,545	47,935	52,467	59,923	64,282	57,490	76,452	85,608	84,899	55,173
45-49	44,067	39,444	41,978	41,717	49,619	51,942	56,231	64,177	61,457	57,237	61,459	85,217	55,838
50-54	40,708	41,558	44,389	43,599	47,988	50,751	54,099	60,186	61,501	66,013	62,388	79,438	57,816
55-59	52,595	42,501	46,890	43,860	48,058	49,667	52,928	58,640	58,786	65,003	70,293	67,695	59,787
60-64	52,793	46,192	47,707	42,534	54,754	50,180	50,689	56,818	55,393	55,410	63,288	67,639	55,881
65 & Over	48,273	58,904	47,561	58,612	52,730	46,895	50,018	53,648	51,966	56,091	57,897	61,849	52,904
Avg. Annual	38,616	38.821	41.585	42.673	47.691	52.005	56.228	60.805	59,583	62.728	65.820	68,885	52,970



Exhibit C-4a: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2002
General Plan A

Count

	Years of Service												
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	1	0	0	0	1
45-49	0	0	0	0	0	1	4	15	15	425	48	0	508
50-54	0	0	0	0	1	6	17	34	69	1,054	769	26	1,976
55-59	0	0	2	2	0	10	23	37	54	769	1,024	345	2,266
60-64	0	2	0	0	2	6	8	29	30	322	377	234	1,010
65 & Over	0	0	0	0	0	2	3	6	10	144	105	66	336
Total Count	0	2	2	2	3	25	55	121	179	2.714	2.323	671	6.097

#### Compensation

						Years of	Service						Average
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	_	_	_	_	_	_	_	_	_	_	_	_	_
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	34,968	-	-	-	34,968
45-49	-	-	-	-	-	71,376	45,648	58,486	55,238	54,371	57,330	-	54,763
50-54	-	-	-	-	62,532	72,164	72,416	67,803	62,741	62,964	61,896	68,092	62,800
55-59	-	-	74,076	29,634	-	53,507	80,678	69,779	64,742	66,827	71,364	66,272	68,846
60-64	-	102,918	-	-	51,186	79,134	65,250	82,452	77,109	59,318	71,453	72,358	68,296
65 & Over	-	-	-	-	-	54,918	85,688	75,372	80,930	63,553	64,724	70,851	66,227
Avg. Annual	-	102,918	74,076	29,634	54,968	64,963	73,606	71,138	65,985	62,311	67,654	68,915	65,472



Exhibit C-4b: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2002

General Plan B

Count

						Years of	Service						Total
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	1	1	13	0	0	0	15
45-49	0	0	0	0	0	1	1	1	98	16	0	0	117
50-54	0	0	0	1	0	0	0	2	125	28	1	0	157
55-59	0	0	0	0	0	0	1	5	85	16	1	0	108
60-64	0	0	0	0	0	0	1	0	64	14	1	0	80
65 & Over	0	0	0	0	0	0	0	0	32	4	0	0	36
Total Count	0	0	0	1	0	1	4	9	417	78	3	0	513

Compensation

						Years of	Service						Average
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	_	_	_	_	_	_	_	_	_	_	_	_	_
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	73,896	35,340	48,238	-	-	-	49,089
45-49	-	-	-	-	-	135,756	65,460	71,844	55,729	65,653	-	-	57,991
50-54	-	-	-	79,536	-	-	-	76,992	67,766	69,434	81,204	-	68,342
55-59	-	-	-	-	-	-	28,056	60,454	65,605	69,259	57,900	-	65,489
60-64	-	-	-	-	-	-	37,344	-	55,657	59,965	36,216	-	55,939
65 & Over	-	-	-	-	-	-	-	-	60,409	47,712	-	-	58,998
Avg. Annual	-	-	-	79,536	-	135,756	51,189	62,604	61,465	65,809	58,440	-	62,228



Exhibit C-4c: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2002 General Plan C

Count

						Years of	Service						Total
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	1	21	0	0	0	22
45-49	0	0	0	0	0	0	0	1	77	3	0	0	81
50-54	0	0	0	0	0	0	1	2	112	8	0	0	123
55-59	0	0	0	0	0	0	0	3	62	5	1	0	71
60-64	0	0	0	0	0	0	0	0	37	6	0	0	43
65 & Over	0	0	0	0	0	0	0	2	30	6	0	0	38
Total Count	0	0	0	0	0	0	1	9	339	28	1	0	378

#### Compensation

						Years o	f Service						Average
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	-	_	-	-	-	-	-	-	-	_	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	39,792	46,560	-	-	-	46,252
45-49	-	-	-	-	-	-	-	42,408	59,774	87,068	-	-	60,571
50-54	-	-	-	-	-	-	64,656	81,696	60,523	123,205	-	-	64,978
55-59	-	-	-	-	-	-	-	62,224	54,549	75,398	188,880	-	58,233
60-64	-	-	-	-	-	-	-	-	50,480	38,960	-	-	48,872
65 & Over	-	-	-	-	-	-	-	62,154	49,402	46,506	-	-	49,616
Avg. Annual	-	-	-	-	-	-	64,656	61,841	56,315	76,308	188,880	-	58,300



Exhibit C-4d: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2002 General Plan D

Count

	Years of Service													
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count	
Under 25	396	271	139	77	10	5	0	0	0	0	0	0	898	
25-29	795	971	873	647	367	235	9	0	0	0	0	0	3,897	
30-34	590	803	943	828	637	1,311	665	7	0	0	0	0	5,784	
35-39	513	621	630	556	447	1,319	1,726	327	5	0	0	0	6,144	
40-44	386	562	494	445	353	1,035	1,626	632	245	1	0	0	5,779	
45-49	296	428	381	328	274	889	1,388	689	507	23	0	0	5,203	
50-54	211	308	282	286	184	799	1,118	560	466	69	27	1	4,311	
55-59	122	145	158	152	113	476	837	406	310	49	43	1	2,812	
60-64	40	50	55	62	53	307	466	292	200	20	6	7	1,558	
65 & Over	12	15	14	19	24	150	284	134	139	9	1	2	803	
Total Count	3,361	4,174	3,969	3,400	2,462	6,526	8,119	3,047	1,872	171	77	11	37,189	

#### Compensation

	Years of Service A													
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.	
Under 25	27,288	29,033	30,395	29,926	30,509	35,189	_	_	_	_	_	_	28,601	
25-29	34,194	34,855	37,197	38,639	41,963	38,502	41,879	-	-	-	-	-	36,779	
30-34	38,317	38,582	41,614	43,033	47,087	48,578	43,943	42,115	-	-	-	-	43,509	
35-39	39,738	39,093	40,904	41,920	47,749	51,208	51,019	48,280	66,554	-	-	-	46,681	
40-44	38,326	40,286	41,931	43,684	47,603	51,417	56,178	57,483	50,778	41,952	-	-	49,795	
45-49	41,516	40,424	43,470	43,750	50,118	52,029	55,681	62,013	56,959	60,517	-	-	52,041	
50-54	39,492	42,488	45,215	45,567	47,630	51,948	55,519	61,232	59,426	76,861	70,761	86,016	53,079	
55-59	46,751	41,845	48,892	43,106	48,279	50,914	52,360	61,583	61,135	68,398	88,446	59,160	53,603	
60-64	54,234	46,620	45,585	43,060	55,184	50,813	51,319	57,875	56,709	69,771	67,802	66,427	53,032	
65 & Over	49,182	62,234	42,968	59,685	57,010	45,276	49,039	54,699	53,312	69,824	41,580	66,204	50,920	
Avg. Annual	37,150	38,172	40,960	42,183	47,154	50,269	52,965	58,635	57,184	70,834	80,028	67,507	47,570	



Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2002 General Plan E Exhibit C-4e:

	Years of Service													
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count	
Under 25	213	190	118	44	7	2	0	0	0	0	0	0	574	
25-29	276	413	447	275	162	155	9	0	0	0	0	0	1,737	
30-34	250	346	385	368	284	814	669	26	0	0	0	0	3,142	
35-39	169	272	292	240	199	854	1,710	698	18	0	0	0	4,452	
40-44	156	240	245	232	160	586	1,489	1,279	697	5	0	0	5,089	
45-49	140	193	186	186	143	547	1,182	1,188	1,359	517	37	0	5,678	
50-54	97	129	127	138	82	392	906	870	1,138	926	628	17	5,450	
55-59	50	91	73	71	53	287	511	536	704	536	635	213	3,760	
60-64	24	43	51	47	27	163	268	297	356	267	275	205	2,023	
65 & Over	12	21	19	18	13	106	167	158	219	115	75	57	980	
Total Count	1,387	1,938	1,943	1,619	1,130	3,906	6,911	5,052	4,491	2,366	1,650	492	32,885	

## Compensation

	Years of Service													
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.	
Under 25	27,974	28,353	30,136	29,177	37,493	33,552	_	_	_	_	_	_	28,772	
25-29	33,967	33,228	35,223	35,788	40,016	37,751	39,897	-	-	-	-	-	35,335	
30-34	38,605	35,549	39,303	39,848	45,622	47,905	42,696	44,116	-	-	-	-	42,460	
35-39	36,026	34,829	39,351	38,229	47,966	50,969	51,513	45,595	49,211	-	-	-	47,192	
40-44	42,800	35,602	40,450	40,523	45,663	49,776	56,510	55,502	47,248	57,679	-	-	50,965	
45-49	48,844	36,664	38,464	37,462	46,135	49,719	53,408	58,905	51,840	49,292	55,543	-	51,590	
50-54	42,862	37,894	42,357	39,259	46,755	47,038	51,395	57,134	55,381	53,574	51,904	53,448	52,206	
55-59	66,585	41,454	41,155	44,736	42,139	46,893	51,883	55,044	55,188	53,353	54,959	57,260	53,068	
60-64	49,907	43,056	49,995	41,356	46,586	47,746	49,100	53,194	53,094	49,476	51,537	61,026	51,574	
65 & Over	47,365	56,526	50,946	57,478	44,161	49,036	51,044	51,824	48,906	46,464	48,556	51,272	49,858	
Avg. Annual	38,819	35,193	38,543	38,855	45,176	48,562	51,952	54,857	52,495	51,789	52,948	58,004	48,987	



Exhibit C-4f: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2002

Safety Plan A

Count

						Years of	Service						Total
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	3	13	121	5	12	154
50-54	0	0	0	0	0	0	0	0	18	499	208	58	783
55-59	0	0	0	0	0	0	0	1	5	184	261	84	535
60-64	0	0	0	0	0	0	0	0	1	2	2	4	9
65 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	0	0	0	0	0	0	0	4	37	806	476	158	1.481

### Compensation

						Years o	f Service						Average
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	_	-	-	-	-	-	-	-	-	_	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	82,440	86,484	90,918	88,882	87,374	90,036
50-54	-	-	-	-	-	-	-	-	83,449	92,408	94,128	92,067	92,634
55-59	-	-	-	-	-	-	-	93,276	71,371	89,387	100,000	98,499	95,834
60-64	-	-	-	-	-	-	-	-	72,696	86,118	139,932	133,218	117,519
65 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Avg. Annual	-	-	-	-	-	-	-	85,149	82,592	91,479	97,485	96,172	93,671



Exhibit C-4g: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2002 Safety Plan B

	Years of Service											Total	
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	140	79	75	19	5	2	0	0	0	0	0	0	320
25-29	192	258	271	161	97	246	4	0	0	0	0	0	1,229
30-34	133	240	214	192	115	717	618	18	6	0	0	0	2,253
35-39	62	92	77	68	61	374	1,426	298	36	12	3	0	2,509
40-44	18	39	30	30	33	147	687	879	355	26	18	26	2,288
45-49	6	7	5	7	18	52	214	444	664	34	13	27	1,491
50-54	1	10	1	0	8	19	27	86	297	19	5	8	481
55-59	1	5	2	3	8	6	11	20	56	2	0	6	120
60-64	1	0	0	1	4	2	2	2	3	1	0	1	17
65 & Over	0	0	0	0	1	0	0	0	0	0	0	0	1
Total Count	554	730	675	481	350	1,565	2,989	1,747	1,417	94	39	68	10,709

#### Compensation

	Years of Service												Average
Age	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	43,723	47,528	49,842	50,001	52,078	49,494	_	-	-	_	-	-	46,636
25-29	46,416	49,989	52,185	54,231	54,106	63,354	64,476	-	-	-	-	-	53,518
30-34	48,629	53,047	55,675	61,490	57,154	66,863	72,622	76,520	78,182	-	-	-	63,985
35-39	49,300	54,559	56,355	62,277	61,317	69,773	74,624	78,102	77,099	77,567	77,368	-	71,786
40-44	50,803	55,222	58,460	64,852	62,501	70,585	76,167	82,008	83,277	81,389	85,608	84,899	78,254
45-49	58,462	56,172	58,966	59,566	69,707	71,846	75,546	81,741	85,264	85,193	82,992	84,258	81,672
50-54	88,332	60,198	69,432	-	67,039	70,243	74,117	80,352	84,317	79,692	85,591	79,165	81,413
55-59	66,132	80,604	70,872	70,800	84,151	77,074	88,907	71,951	78,499	99,810	-	90,160	79,271
60-64	64,440	-	-	65,292	105,969	64,644	65,172	69,096	72,596	68,076	-	65,292	76,623
65 & Over	-	-	-	-	61,416	-	-	-	-	-	-	-	61,416
Avg. Annual	47,006	51,992	53,917	58,965	59,525	67,577	74,659	81,006	84,036	82,184	84,100	84,146	70,578



Exhibit C-5: Distribution of Retired Members by Age and Retirement Year as of June 30, 2002 All Plans

	Retirement Year											Average Monthly
Age	Pre-1960	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-02	Total Count	Benefit
Under 35	0	0	0	0	1	3	0	19	58	57	138	\$1,545
35-39	0	0	0	0	1	0	2	54	117	71	245	2,374
40-44	0	0	0	0	0	4	35	108	162	70	379	2,269
45-49	0	0	0	0	8	42	75	120	171	82	498	2,048
50-54	0	0	0	5	66	139	142	197	390	416	1,355	2,028
55-59	0	0	2	20	185	283	248	508	1,609	1,713	4,568	3,043
60-64	0	1	16	67	212	266	440	1,462	2,633	1,571	6,668	3,097
65-69	1	7	44	113	256	493	1,180	2,426	2,245	1,014	7,779	2,653
70-74	4	29	75	131	491	1,340	1,728	2,341	1,318	439	7,896	2,377
75-79	6	41	98	256	1,212	1,771	1,742	1,261	650	268	7,305	2,085
80-84	7	31	82	469	1,336	1,463	707	413	371	199	5,078	1,796
85-89	13	37	176	526	1,046	506	106	144	171	104	2,829	1,497
90-94	20	52	191	425	280	10	3	56	68	30	1,135	1,229
95-99	30	35	86	116	3	1	0	13	15	3	302	1,099
100 & Over	18	19	20	4	1	0	1	3	0	1	67	925
Total Count	99	252	790	2,132	5,098	6,321	6,409	9,125	9,978	6,038	46,242	
Avg Monthly	\$ 906	\$1,028	\$1,230	\$1,446	\$1,814	\$1,917	\$ 2,277	\$2,695	\$2,577	\$3,161		\$ 2,374

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Exhibit C-5a: Distribution of Retired Members by Age and Retirement Year as of June 30, 2002 General Plan A

	Retirement Year											Average Monthly
Age	Pre-1960	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-02	Total Count	Benefit
Under 35	0	0	0	0	1	1	0	8	13	16	39	\$ 985
35-39	0	0	0	0	1	0	1	1	0	0	3	720
40-44	0	0	0	0	0	1	2	2	5	2	12	1,597
45-49	0	0	0	0	4	10	11	12	25	11	73	1,318
50-54	0	0	0	2	36	52	36	43	162	210	541	1,713
55-59	0	0	1	10	97	100	88	265	793	725	2,079	2,564
60-64	0	1	7	41	118	131	267	977	1,366	991	3,899	2,964
65-69	0	1	15	67	165	323	882	1,695	1,410	442	5,000	2,700
70-74	2	13	31	80	352	992	1,269	1,871	658	193	5,461	2,387
75-79	2	17	62	168	908	1,444	1,560	907	387	181	5,636	2,026
80-84	2	18	53	368	1,191	1,421	623	301	291	162	4,430	1,745
85-89	4	29	114	471	1,039	503	90	121	146	88	2,605	1,458
90-94	10	46	158	414	279	9	2	53	62	25	1,058	1,162
95-99	20	29	84	116	3	1	0	10	15	3	281	1,089
100 & Over	15	19	20	4	1	0	1	3	0	0	63	896
Total Count	55	173	545	1,741	4,195	4,988	4,832	6,269	5,333	3,049	31,180	
Avg Monthly	\$ 749	\$ 867	\$ 971	\$1,205	\$1,580	\$1,662	\$2,091	\$2,707	\$2,617	\$3,370		\$ 2,214

Exhibit C-5b: Distribution of Retired Members by Age and Retirement Year as of June 30, 2002 General Plan B

					Retirem	ent Year					Total	Average Monthly
Age	Pre-1960	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-02	Count	Benefit
Under 35	0	0	0	0	0	0	0	0	0	0	0	\$ -
35-39	0	0	0	0	0	0	0	0	0	0	0	-
40-44	0	0	0	0	0	0	0	1	0	0	1	2,339
45-49	0	0	0	0	0	0	1	1	1	0	3	1,044
50-54	0	0	0	0	0	3	4	5	5	6	23	1,479
55-59	0	0	0	0	0	1	4	4	23	12	44	1,353
60-64	0	0	0	0	0	3	2	7	16	14	42	2,090
65-69	0	0	0	0	0	1	9	12	28	13	63	1,741
70-74	0	0	0	0	0	5	12	33	35	9	94	1,517
75-79	0	0	0	0	0	2	18	27	11	5	63	1,239
80-84	0	0	0	0	0	5	10	8	3	1	27	1,039
85-89	0	0	0	0	0	0	1	0	0	0	1	700
90-94	0	0	0	0	0	0	0	0	1	0	1	2,892
95-99	0	0	0	0	0	0	0	0	0	0	0	-
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	0	0	20	61	98	123	60	362	
Avg Monthly	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 773	\$ 776	\$1,307	\$1,749	\$2,381		\$ 1,516

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Exhibit C-5c: Distribution of Retired Members by Age and Retirement Year as of June 30, 2002 General Plan C

					Patirom	ent Year					Total	Average Monthly
Age	Pre-1960	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-02	Count	Benefit
Under 35	0	0	0	0	0	0	0	0	1	0	1	\$1,181
35-39	0	0	0	0	0	0	0	0	0	0	0	-
40-44	0	0	0	0	0	0	0	0	0	1	1	1,038
45-49	0	0	0	0	1	1	4	1	3	0	10	790
50-54	0	0	0	0	0	3	2	3	2	8	18	1,404
55-59	0	0	0	0	0	2	3	6	10	6	27	1,244
60-64	0	0	0	0	0	0	7	8	11	10	36	1,180
65-69	0	0	0	0	0	0	3	12	16	15	46	1,359
70-74	0	0	0	0	0	4	8	25	21	4	62	1,333
75-79	0	0	0	0	0	3	12	21	2	1	39	846
80-84	0	0	0	0	0	2	13	7	2	2	26	644
85-89	0	0	0	0	0	0	2	0	2	0	4	1,539
90-94	0	0	0	0	0	0	0	0	0	0	0	-
95-99	0	0	0	0	0	0	0	0	0	0	0	-
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	0	1	15	54	83	70	47	270	
Avg Monthly	\$ -	\$ -	\$ -	\$ -	\$1,140	\$ 678	\$ 701	\$ 972	\$1,464	\$1,706		\$ 1,158

Exhibit C-5d: Distribution of Retired Members by Age and Retirement Year as of June 30, 2002 General Plan D

	Retirement Year											Average Monthly
Age	Pre-1960	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-02	Total Count	Benefit
Under 35	0	0	0	0	0	0	0	3	9	15	27	\$ 912
35-39	0	0	0	0	0	0	0	10	14	10	34	1,408
40-44	0	0	0	0	0	0	5	15	39	14	73	1,511
45-49	0	0	0	0	0	3	7	26	49	21	106	1,541
50-54	0	0	0	0	0	3	20	39	84	104	250	1,298
55-59	0	0	0	0	0	4	12	46	204	127	393	1,401
60-64	0	0	0	0	0	5	22	72	203	149	451	1,463
65-69	0	0	0	0	0	3	20	68	239	209	539	1,336
70-74	0	0	0	0	0	6	23	106	225	84	444	1,219
75-79	0	0	0	0	0	11	28	98	91	19	247	1,090
80-84	0	0	0	0	1	2	11	38	17	8	77	984
85-89	0	0	0	0	0	0	2	6	1	3	12	757
90-94	0	0	0	0	0	0	0	0	0	1	1	408
95-99	0	0	0	0	0	0	0	0	0	0	0	-
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	0	1	37	150	527	1,175	764	2,654	
Avg Monthly	\$ -	\$ -	\$ -	\$ -	\$6,484	\$1,033	\$1,023	\$1,134	\$1,335	\$1,482		\$1,317

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Exhibit C-5e: Distribution of Retired Members by Age and Retirement Year as of June 30, 2002 General Plan E

Retirement Year												Average Monthly
Age	Pre-1960	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-02	Count	Benefit
Under 35	0	0	0	0	0	0	0	0	2	1	3	\$ 425
35-39	0	0	0	0	0	0	0	0	0	0	0	-
40-44	0	0	0	0	0	0	0	0	0	1	1	741
45-49	0	0	0	0	0	0	0	0	0	3	3	734
50-54	0	0	0	0	0	0	0	0	7	0	7	443
55-59	0	0	0	0	0	0	0	2	120	231	353	469
60-64	0	0	0	0	0	0	0	49	345	224	618	712
65-69	0	0	0	0	0	0	22	153	415	313	903	1,125
70-74	0	0	0	0	0	5	52	192	329	114	692	1,034
75-79	0	0	0	0	0	11	67	185	109	33	405	844
80-84	0	0	0	0	0	10	50	40	25	11	136	651
85-89	0	0	0	0	0	3	11	6	6	1	27	625
90-94	0	0	0	0	0	1	1	1	0	1	4	615
95-99	0	0	0	0	0	0	0	0	0	0	0	-
100 & Over	0	0	0	0	0	0	0	0	0	0	0	-
Total Count	0	0	0	0	0	30	203	628	1,358	933	3,152	
Avg Monthly	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 295	\$ 391	\$ 707	\$ 873	\$1,153		\$ 886

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Exhibit C-5f: Distribution of Retired Members by Age and Retirement Year as of June 30, 2002 Safety Plan A

	Retirement Year											Average Monthly
Age	Pre-1960	1960-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-99	2000-02	Total Count	Benefit
Under 35	0	0	0	0	0	2	0	2	6	3	13	\$1,031
35-39	0	0	0	0	0	0	0	0	1	1	2	3,360
40-44	0	0	0	0	0	0	1	3	2	0	6	3,247
45-49	0	0	0	0	3	13	17	8	20	10	71	2,578
50-54	0	0	0	3	30	72	60	72	101	71	409	2,878
55-59	0	0	1	10	88	171	136	172	433	597	1,608	4,720
60-64	0	0	9	26	94	127	140	346	688	178	1,608	4,868
65-69	1	6	29	46	91	166	243	481	135	22	1,220	4,273
70-74	2	16	44	51	139	327	362	111	50	34	1,136	3,740
75-79	4	24	36	88	304	299	57	23	50	29	914	3,380
80-84	5	13	29	101	144	23	0	19	33	15	382	3,100
85-89	9	8	62	55	7	0	0	11	16	12	180	2,247
90-94	10	6	33	11	1	0	0	2	5	3	71	2,237
95-99	10	6	2	0	0	0	0	3	0	0	21	1,220
100 & Over	3	0	0	0	0	0	0	0	0	0	3	1,346
Total Count	44	79	245	391	901	1,200	1,016	1,253	1,540	975	7,644	
Avg Monthly	\$1,102	\$1,381	\$1,807	\$2,520	\$2,899	\$3,088	\$3,948	\$4,583	\$4,998	\$5,942		\$4,075

Exhibit C-5g: Distribution of Retired Members by Age and Retirement Year as of June 30, 2002 Safety Plan B

					Datimana	4 V					Tatal	Average
Age	Pre-1960	1960-64	1965-69	1970-74	1975-79	ent Year 1980-84	1985-89	1990-94	1995-99	2000-02	Total Count	Monthly Benefit
Under 35	0	0	0	0	0	0	0	6	27	22	55	\$2,442
35-39	0	0	0	0	0	0	1	43	102	60	206	2,548
40-44	0	0	0	0	0	3	27	87	116	52	285	2,480
45-49	0	0	0	0	0	15	35	72	73	37	232	2,432
50-54	0	0	0	0	0	6	20	35	29	17	107	2,402
55-59	0	0	0	0	0	5	5	13	26	15	64	2,671
60-64	0	0	0	0	0	0	2	3	4	5	14	2,627
65-69	0	0	0	0	0	0	1	5	2	0	8	2,547
70-74	0	0	0	0	0	1	2	3	0	1	7	677
75-79	0	0	0	0	0	1	0	0	0	0	1	819
80-84	0	0	0	0	0	0	0	0	0	0	0	-
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	1	1	1,459
Total Count	0	0	0	0	0	31	93	267	379	210	980	
Avg Monthly	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,463	\$1,716	\$2,374	\$2,623	\$2,808		\$ 2,472

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# **Appendix D: Member Contribution Rates**

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



**Exhibit D-1: Normal Member Contribution Rates** 

		Gene		Safety*			
Entry Age	Plan A	Plan B	Plan C	Plan D	Plan A	Plan B	
16	2.42%	4.84%	4.13%	4.13%	3.39%	6.79%	
17	2.46%	4.93%	4.21%	4.21%	3.39%	6.79%	
18	2.51%	5.02%	4.29%	4.29%	3.39%	6.79%	
19	2.56%	5.11%	4.37%	4.37%	3.45%	6.91%	
20	2.60%	5.20%	4.45%	4.45%	3.52%	7.04%	
21	2.65%	5.30%	4.54%	4.54%	3.58%	7.17%	
22	2.70%	5.40%	4.62%	4.62%	3.65%	7.30%	
23	2.75%	5.50%	4.71%	4.71%	3.72%	7.43%	
24	2.80%	5.60%	4.80%	4.80%	3.78%	7.57%	
25	2.85%	5.70%	4.88%	4.88%	3.85%	7.71%	
26	2.90%	5.81%	4.97%	4.97%	3.92%	7.85%	
27	2.96%	5.91%	5.07%	5.07%	4.00%	7.99%	
28	3.01%	6.02%	5.16%	5.16%	4.07%	8.14%	
29	3.07%	6.13%	5.25%	5.25%	4.14%	8.29%	
30	3.12%	6.24%	5.35%	5.35%	4.22%	8.44%	
31	3.18%	6.36%	5.45%	5.45%	4.30%	8.60%	
32	3.24%	6.48%	5.55%	5.55%	4.38%	8.77%	
33	3.30%	6.59%	5.65%	5.65%	4.47%	8.93%	
34	3.36%	6.72%	5.75%	5.75%	4.55%	9.11%	
35	3.42%	6.84%	5.86%	5.86%	4.64%	9.28%	
36	3.49%	6.97%	5.97%	5.97%	4.73%	9.46%	
37	3.55%	7.10%	6.08%	6.08%	4.82%	9.64%	
38	3.62%	7.24%	6.19%	6.19%	4.91%	9.83%	
39	3.69%	7.38%	6.30%	6.30%	5.01%	10.01%	
40	3.76%	7.52%	6.42%	6.42%	5.10%	10.19%	
41	3.83%	7.67%	6.54%	6.54%	5.18%	10.37%	
42	3.91%	7.81%	6.66%	6.66%	5.27%	10.53%	
43	3.98%	7.96%	6.79%	6.79%	5.34%	10.69%	
44	4.06%	8.11%	6.92%	6.92%	5.41%	10.83%	
45	4.13%	8.26%	7.06%	7.06%	5.47%	10.93%	
46	4.20%	8.40%	7.19%	7.19%	5.50%	11.00%	
47	4.27%	8.53%	7.33%	7.33%	5.51%	11.01%	
48	4.33%	8.66%	7.47%	7.47%	5.51%	11.01%	
49	4.39%	8.77%	7.61%	7.61%	5.51%	11.01%	
50	4.43%	8.86%	7.75%	7.75%	5.51%	11.01%	
51	4.46%	8.91%	7.88%	7.88%	5.51%	11.01%	
52	4.46%	8.92%	8.01%	8.01%	5.51%	11.01%	
53	4.46%	8.92%	8.13%	8.13%	5.51%	11.01%	
54	4.46%	8.92%	8.23%	8.23%	5.51%	11.01%	
55	4.46%	8.92%	8.31%	8.31%	5.51%	11.01%	
56	4.46%	8.92%	8.36%	8.36%	5.51%	11.01%	
57	4.46%	8.92%	8.37%	8.37%	5.51%	11.01%	
58	4.46%	8.92%	8.37%	8.37%	5.51%	11.01%	
59	4.46%	8.92%	8.37%	8.37%	5.51%	11.01%	
60	4.46%	8.92%	8.37%	8.37%	5.51%	11.01%	

<sup>\*</sup>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



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

		Gen		Safety*			
Entry Age	Plan A	Plan B	Plan C	Plan D	Plan A	Plan B	
16	4.26%	5.89%	5.09%	5.01%	6.90%	9.02%	
17	4.33%	6.00%	5.19%	5.11%	6.90%	9.02%	
18	4.42%	6.11%	5.29%	5.20%	6.90%	9.02%	
19	4.50%	6.22%	5.39%	5.30%	7.02%	9.18%	
20	4.57%	6.33%	5.48%	5.40%	7.17%	9.36%	
21	4.66%	6.45%	5.60%	5.51%	7.29%	9.53%	
22	4.75%	6.57%	5.69%	5.60%	7.43%	9.70%	
23	4.84%	6.69%	5.80%	5.71%	7.57%	9.87%	
24	4.93%	6.82%	5.92%	5.82%	7.70%	10.06%	
25	5.01%	6.94%	6.01%	5.92%	7.84%	10.25%	
26	5.10%	7.07%	6.13%	6.03%	7.98%	10.43%	
27	5.21%	7.19%	6.25%	6.15%	8.14%	10.62%	
28	5.30%	7.33%	6.36%	6.26%	8.29%	10.82%	
29	5.40%	7.46%	6.47%	6.37%	8.43%	11.02%	
30	5.49%	7.60%	6.59%	6.49%	8.59%	11.22%	
31	5.59%	7.74%	6.72%	6.61%	8.75%	11.43%	
32	5.70%	7.89%	6.84%	6.73%	8.92%	11.66%	
33	5.81%	8.02%	6.96%	6.85%	9.10%	11.87%	
34	5.91%	8.18%	7.09%	6.97%	9.26%	12.11%	
35	6.02%	8.33%	7.22%	7.11%	9.45%	12.33%	
36	6.14%	8.48%	7.36%	7.24%	9.63%	12.57%	
37	6.25%	8.64%	7.49%	7.37%	9.81%	12.81%	
38	6.37%	8.81%	7.63%	7.51%	10.00%	13.06%	
39	6.49%	8.98%	7.76%	7.64%	10.20%	13.30%	
40	6.61%	9.15%	7.91%	7.79%	10.38%	13.54%	
41	6.74%	9.34%	8.06%	7.93%	10.55%	13.78%	
42	6.88%	9.51%	8.21%	8.08%	10.73%	13.99%	
43	7.00%	9.69%	8.37%	8.23%	10.87%	14.21%	
44	7.14%	9.87%	8.53%	8.39%	11.01%	14.39%	
45	7.27%	10.05%	8.70%	8.56%	11.14%	14.53%	
46	7.39%	10.22%	8.86%	8.72%	11.20%	14.62%	
47	7.51%	10.38%	9.03%	8.89%	11.22%	14.63%	
48	7.62%	10.54%	9.21%	9.06%	11.22%	14.63%	
49	7.72%	10.67%	9.38%	9.23%	11.22%	14.63%	
50	7.79%	10.78%	9.55%	9.40%	11.22%	14.63%	
51	7.85%	10.85%	9.71%	9.56%	11.22%	14.63%	
52	7.85%	10.86%	9.87%	9.71%	11.22%	14.63%	
53	7.85%	10.86%	10.02%	9.86%	11.22%	14.63%	
54	7.85%	10.86%	10.14%	9.98%	11.22%	14.63%	
55	7.85%	10.86%	10.24%	10.08%	11.22%	14.63%	
56	7.85%	10.86%	10.30%	10.14%	11.22%	14.63%	
57	7.85%	10.86%	10.32%	10.15%	11.22%	14.63%	
58	7.85%	10.86%	10.32%	10.15%	11.22%	14.63%	
59	7.85%	10.86%	10.32%	10.15%	11.22%	14.63%	
60	7.85%	10.86%	10.32%	10.15%	11.22%	14.63%	

<sup>\*</sup>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.



### Appendix E: 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 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.

## **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.