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October 2009

**SAFETY PLAN OF THE CITY OF LA HABRA (EMPLOYER # 405)
Annual Valuation Report as of June 30, 2008**

Dear Employer,

Enclosed please find a copy of the June 30, 2008 actuarial valuation report of your pension plan. Since your plan had less than 100 active members in at least one valuation since June 30, 2003, it is required to participate in a risk pool. The following valuation report has been separated into two Sections:

- Section 1 contains specific information for your plan, including the development of your pooled employer contribution rate, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to your plan, as of June 30, 2008.

This report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary is available to discuss the actuarial report with you.

Changes Since the Prior Valuation

There may be changes specific to your plan such as contract amendments and funding changes.

Future Contribution Rates

The exhibit below displays the required employer contribution rate and Superfunded status for 2010/2011 along with an estimate of the contribution rate and Superfunded status for 2011/2012. The estimated rate for 2011/2012 is based on a projection of the most recent information we have available, including an estimate of the investment return for fiscal 2008/2009, namely -28.0%. Please disregard any projections that we may have provided to you in the past.

Fiscal Year	Employer Contribution Rate	Superfunded?
2010/2011	27.060%	No
2011/2012	29.8% (projected)	No

Member contributions (whether paid by the employer or the employee) are in addition to the above rates.

The estimate for 2011/2012 assumes that there are no amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.). **This is a very important assumption because these gains and losses do occur and can have a significant effect on your contribution rate.** Even for the largest plans, such gains and losses can impact the employer's contribution rate by one or two percent or even more in some less common instances. These gains and losses cannot be predicted in advance so the projected employer contribution rate for 2011/2012 is just an estimate. Your actual rate for 2011/2012 will be provided in next year's report.

If you have questions, please call (888) CalPERS (225-7377). In the interest of allowing us to give every public agency their result, we ask that, if at all possible, you wait until after October 31 to contact us with questions.

Sincerely,

Ronald L. Seeling, Ph.D., FCA, ASA, MAAA
Enrolled Actuary
Chief Actuary, CalPERS

**Actuarial Valuation
as of June 30, 2008**

**The SAFETY PLAN
of the CITY OF LA HABRA
(Employer# 405)**

**Required Contributions
For Fiscal Year
July 1, 2010 - June 30, 2011**



CalPERS

California Public Employees' Retirement System

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Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

**Plan Specific Information for
The SAFETY PLAN
of the CITY OF LA HABRA
(Employer # 405)
(Rate Plan # 413)**

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Actuarial Certification

Section 1 of this report is based on the member and financial data as of June 30, 2008 provided by your agency and contained in our records, and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2008 provided by employers participating in the risk pool and contained in our records, and benefit provisions under the CalPERS contracts for those agencies participating in the risk pool.

As set forth in Section 2 of this report, the Pool Actuaries have certified that, in their opinion, the valuation of the Risk Pool containing your SAFETY PLAN has been performed in accordance with generally accepted actuarial principles consistent with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for the Risk Pool, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for your plan, it is my opinion as your Plan Actuary that the Side Fund as of June 30, 2008 and employer contribution rate as of July 1, 2010, have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary for CalPERS and a member of both the American Academy of Actuaries and Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Richard Santos, CFA, ASA, MAAA
Senior Pension Actuary, CalPERS
Plan Actuary

SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE SAFETY PLAN OF THE CITY OF LA HABRA

Purpose of Section 1

Section 1 of this report was prepared by the Plan Actuary in order to:

- Certify that the actuarially required employer contribution rate of the SAFETY PLAN of the CITY OF LA HABRA for the fiscal year July 1, 2010 through June 30, 2011 is 27.060%;
- Set forth the plan's Employer Side Fund as of June 30, 2008;
- Provide pension information as of June 30, 2008 to be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 27.

This section was prepared in order to provide actuarial information as of June 30, 2008 to the CalPERS Board of Administration and other interested parties

Use of this report for other purposes may be inappropriate.

Required Employer Contributions

	Fiscal Year 2009/2010	Fiscal Year 2010/2011
Employer Contribution Required (in Projected Dollars)		
Risk Pool's Net Employer Normal Cost	\$ 855,732	\$ 959,018
Risk Pool's Payment on Amortization Bases	94,496	150,810
Surcharge for Class 1 Benefits		
a) FAC 1	50,102	55,989
b) PRSA	97,514	109,047
Phase out of Normal Cost Difference	(28,151)	(20,881)
Amortization of Side Fund	385,648	398,182
Total Employer Contribution	\$ 1,455,341	\$ 1,652,165
Annual Lump Sum Prepayment Option*	\$ 1,402,026	\$ 1,591,640
Projected Payroll for the Contribution Fiscal Year	\$ 5,487,571	\$ 6,105,674
Employer Contribution Required (Percentage of Payroll)		
Risk Pool's Net Employer Normal Cost	15.594%	15.707%
Risk Pool's Payment on Amortization Bases	1.722%	2.470%
Surcharge for Class 1 Benefits		
a) FAC 1	0.913%	0.917%
b) PRSA	1.777%	1.786%
Phase out of Normal Cost Difference	(0.513%)	(0.342%)
Amortization of Side Fund	7.028%	6.522%
Total Employer Contribution	26.521%	27.060%

Appendix C of Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

Risk pooling was implemented as of June 30, 2003. The normal cost difference was scheduled to be phased out over a five year period. The phase out of normal cost difference began at 100% for the first year, and was incrementally reduced by 20% of the original normal cost difference for each subsequent year.

*Payment must be received by CalPERS between July 1 and July 15.

Projected Contributions

The rate shown below is an estimate for the employer contribution for Fiscal Year 2011/2012. The estimated rate is based on a projection of the most recent information we have available, including an estimate of the investment return for fiscal year 2008/2009, namely -28.0%:

Projected Employer Contribution Rate: 29.8%

The estimate also assumes that there are no liability gains or losses among the plans in your risk pool, that your plan has no new amendments in the next year, and that your plan's and your risk pool's payrolls both increase exactly 3.25% in the 2008/2009 fiscal year. Therefore, the projected employer contribution rate for 2011/2012 is just an estimate. Your actual rate for 2011/2012 will be provided in next year's report.

Rate Volatility

Your plan's employer contribution rate will inevitably fluctuate, for many reasons. However, the biggest fluctuations are generally due to changes in the side fund rate resulting from unexpected changes in payroll. The following figure shows how much **your** 2011/2012 rate would change for each 1% deviation between our 3.25% payroll growth assumption and your actual 2008/2009 payroll growth.

POTENTIAL 2011/2012 RATE IMPACT FROM 2008/2009 PAYROLL DEVIATION

% Rate Change per 1% Deviation from Assumed 3.25% Payroll Growth: (0.063%)

Examples: To see how your employer contribution rate might be affected by unexpected payroll change, suppose the following:

- The **% Rate Change per 1% Deviation** figure given above is -0.400%
- Your plan's payroll increased 10% in 2008/2009 (6.75% more than our 3.25% assumption).

Then your 2011/2012 rate would decrease $-0.400\% \times (10 - 3.25) = -2.70\%$ from that cause alone.

*Or conversely, using the same **% Rate Change per 1% Deviation** figure given above, suppose your plan's payroll remained the same in 2008/2009 (3.25% less than our 3.25% assumption).*

*Then your 2011/2012 rate would **increase** $-0.400\% \times (0 - 3.25) = 1.3\%$ from that cause alone.*

Note that if your plan had a negative side fund, an unexpected payroll increase would spread the payback of the negative side fund over a bigger payroll, which would decrease your plan's side fund percentage rate and the total employer contribution rate. On the other hand, if your plan had a positive side fund, an unexpected payroll increase would spread the payback of the positive side fund over a smaller payroll, which would increase your plan's side fund percentage rate and the total employer contribution rate. In either case, the Side Fund dollar amount would not change.

Employer Side Fund

At the time of joining a risk pool, a side fund was created to account for the difference between the funded status of the pool and the funded status of your plan. The side fund for your plan as of the June 30, 2008 valuation is shown in the following table.

Your side fund will be credited, on an annual basis, with the actuarial investment return assumption. This assumption is currently 7.75%. A positive side fund will cause your required employer contribution rate to

SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE SAFETY PLAN OF THE CITY OF LA HABRA

be reduced by the Amortization of Side Fund shown above in Required Employer Contributions. A negative side fund will cause your required employer contribution rate to be increased by the Amortization of Side Fund. In the absence of subsequent contract amendments or funding changes, the side fund will disappear at the end of the amortization period shown below.

Employer Side Fund Reconciliation

	June 30, 2007	June 30, 2008
Side Fund as of valuation date*	\$ (5,922,947)	\$ (6,006,467)
Adjustments	0	0
Side Fund Payment	361,752	373,509
Side Fund one year later	\$ (6,006,467)	\$ (6,084,256)
Adjustments	0	0
Side Fund Payment	373,509	385,648
Side Fund two years later	\$ (6,084,256)	\$ (6,155,473)
Amortization Period	27	26
Side Fund Payment during last year	\$ 385,648	\$ 398,182

* If your agency employed vouchers in fiscal year 2007/2008 to pay employee contributions, the June 30, 2008 Side Fund amount has been adjusted by a like amount without any further adjustment to the Side Fund's amortization period. Similarly, the Side Fund has been adjusted for the increase in liability from any recently adopted Class 1 or Class 2 contract amendments. Also, the Side Fund may be adjusted or eliminated due to recent lump sum payments. Contract amendments and lump sum payments may result in an adjustment to the Side Fund amortization period.

Superfunded Status

	June 30, 2007	June 30, 2008
Is the plan Superfunded?	No	No
[Yes if Assets exceed PVB, No otherwise]		

Summary of Participant Data

Below is a table showing a summary of the active member data for your plan upon which this valuation is based:

	June 30, 2007	June 30, 2008
Projected Payroll for Contribution Purposes	\$ 5,487,571	\$ 6,105,674
Number of Members		
Active	64	68
Transferred	78	80
Separated	15	15
Retired	138	144

List of Class 1 Benefit Provisions

- One Year Final Compensation
- Post-Retirement Survivor Allowance

Information for Compliance with GASB Statement No. 27 for Cost-Sharing Multiple-Employer Defined Benefit Plan

Your plan is part of the Safety 3.0% at 50 Risk Pool, a cost-sharing multiple-employer defined benefit plan. Under GASB 27, an employer should recognize annual pension expenditures/expense equal to its contractually required contributions to the plan. Pension liabilities and assets result from the difference between contributions required and contributions made. The contractually required contribution for the period July 1, 2010 to June 30, 2011 has been determined by an actuarial valuation of the plan as of June 30, 2008. Your contribution rate for the indicated period is 27.060% of payroll. In order to calculate the dollar value of the contractually required contributions for inclusion in financial statements prepared as of June 30, 2011, this contribution rate, as modified by any subsequent financing changes or contract amendments for the year, would be multiplied by the payroll of covered employees that was actually paid during the period July 1, 2010 to June 30, 2011. However, if this contribution is fully prepaid in a lump sum, then the dollar value of contractually required contributions is equal to the lump sum prepayment. The employer and the employer's auditor are responsible for determining the contractually required contributions. Further, the required contributions in dollars and the percentage of that amount contributed for the current year and each of the two preceding years is to be disclosed under GASB 27.

A summary of principal assumptions and methods used to determine the contractually required contributions is shown below for the cost-sharing multiple-employer defined benefit plan.

Valuation Date	June 30, 2008
Actuarial Cost Method	Entry Age Actuarial Cost Method
Amortization Method	Level Percent of Payroll
Average Remaining Period	16 Years as of the Valuation Date
Asset Valuation Method	15 Year Smoothed Market
Actuarial Assumptions	
Investment Rate of Return	7.75% (net of administrative expenses)
Projected Salary Increases	3.25% to 14.45% depending on Age, Service, and type of employment
Inflation	3.00%
Payroll Growth	3.25%
Individual Salary Growth	A merit scale varying by duration of employment coupled with an assumed annual inflation growth of 3.00% and an annual production growth of 0.25%.

Complete information on assumptions and methods is provided in Appendix A of Section 2 of the report. Appendix B of Section 2 of the report contains a description of benefits included in the Risk Pool Actuarial Valuation.

A Schedule of Funding for the Risk Pool's actuarial value of assets, accrued liability, their relationship, and the relationship of the unfunded liability (UL) to payroll for the risk pool(s) to which your plan belongs can be found in Section 2 of the report.

SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE SAFETY PLAN OF THE CITY OF LA HABRA

Summary of Major Benefit Options

Shown below is a summary of the major optional benefits for which your agency has contracted. A description of principal standard and optional plan provisions is in Appendix B within Section 2 of this report.

Benefit Provision	Coverage Group	
	75001	74001*
Benefit Formula	3.0% @ 50	3.0% @ 50
Social Security Coverage Full/Modified	no full	no full
Final Average Compensation Period	12 mos.	12 mos.
Sick Leave Credit	yes	yes
Non-Industrial Disability	standard	standard
Industrial Disability	yes	yes
Pre-Retirement Death Benefits	yes	yes
Optional Settlement 2W	level 4	level 4
1959 Survivor Benefit Level	yes	yes
Special Alternate (firefighters)	no	no
Post-Retirement Death Benefits Lump Sum	\$500	\$500
Survivor Allowance (PRSA)	yes	yes
COLA	2%	2%
Employee Contributions	no	no
Contractual employer paid	0%	0%
Contractual Employee Cost sharing		

*Inactive Coverage Group

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

**Safety 3.0% at 50 Risk Pool
as of June 30, 2008**

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ACTUARIAL CERTIFICATION

Actuarial Certification

To the best of our knowledge, **Section 2** of this report is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the Safety 3.0% at 50 Risk Pool. This valuation is based on the member and financial data as of June 30, 2008 provided by the various CalPERS databases and the benefits under this Risk Pool with CalPERS as of the date this report was produced. It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles, in accordance with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for this risk pool, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

The undersigned are actuaries for CalPERS. Both are members of the American Academy of Actuaries and Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Fritzie Archuleta, ASA, MAAA
Associate Pension Actuary, CalPERS
Pool Actuary



May Shuang Yu, ASA, MAAA
Senior Pension Actuary, CalPERS
Pool Actuary

HIGHLIGHTS AND EXECUTIVE SUMMARY

- **PURPOSE OF SECTION 2**
- **RISK POOL'S REQUIRED EMPLOYER CONTRIBUTION**
- **RISK POOL'S REQUIRED BASE EMPLOYER RATE**
- **FUNDED STATUS OF THE RISK POOL**
- **COST AND VOLATILITY**
- **CHANGES SINCE THE PRIOR VALUATION**
- **SUBSEQUENT EVENTS**

HIGHLIGHTS AND EXECUTIVE SUMMARY

Purpose of Section 2

This Actuarial Valuation for the Safety 3.0% at 50 Risk Pool of the California Public Employees' Retirement System (CalPERS) was performed by CalPERS' staff actuaries using data as of June 30, 2008 in order to:

- set forth the actuarial assets and accrued liabilities of this risk pool as of June 30, 2008
- establish the actuarially required contribution rate of the pool for the period July 1, 2010 through June 30, 2011
- provide actuarial information as of June 30, 2008 to the CalPERS Board and other interested parties

Use of this report for other purposes may be inappropriate.

Risk Pool's Required Employer Contribution

(figures net of employee contributions)

	Fiscal Year 2009/2010	Fiscal Year 2010/2011
Contribution in Projected Dollars		
1. Pool's Gross Employer Normal Cost	\$ 158,813,764	\$ 176,038,121
2. Payment on Pool's Amortization Base	15,761,688	24,876,730
3. Payment on Employer Side Funds	<u>86,567,945</u>	<u>85,809,979</u>
4. Total Required Employer Contribution*	\$ 261,141,088	\$ 286,724,028
* Total may not add up due to rounding		
Contribution as a % of Projected Pay		
5. Pool's Gross Employer Normal Cost	17.350%	17.482%
6. Payment on Pool's Amortization Base	1.722%	2.470%
7. Payment on Employer Side Funds	<u>9.457%</u>	<u>8.522%</u>
8. Total Required Employer Contribution	28.529%	28.474%

These rates are the total required employer contributions by the pool for fiscal years 2009/2010 and 2010/2011. The Pool's Gross Employer Normal Cost includes the Class 1 surcharges for all employers that actually contract for the Class 1 type benefits. The payment on the pool's amortization base is the payment on the ongoing cumulative gains and losses experienced by the pool since its June 30, 2003 inception. The payment on employer side funds is the combination of all expected individual amortization payments on every side fund in the pool.

Risk Pool's Required Base Employer Rate

	Fiscal Year 2009/2010	Fiscal Year 2010/2011
1. Pool's Gross Employer Normal Cost	17.350%	17.482%
Less: Surcharges for Class 1 Benefits	<u>1.756%</u>	<u>1.775%</u>
2. Pool's Net Employer Normal Cost	15.594%	15.707%
3. Payment on Pool's Amortization Base	<u>1.722%</u>	<u>2.470%</u>
4. Pool's Base Employer Rate	17.316%	18.177%

The base employer contribution rate is the rate that each plan within the pool starts with and pays before any adjustments are made. It represents the pool funding for basic benefits (no Class 1 surcharges) for the fiscal year shown. To arrive at a plan's total contribution rate, several components must be added to this base rate.

HIGHLIGHTS AND EXECUTIVE SUMMARY

These components are Class 1 benefit surcharges, normal cost phase-out and any side-fund payment. More information about those additional components can be found in Section 1 of this report.

Funded Status of the Risk Pool

	June 30, 2007	June 30, 2008
1. Entry Age Normal Accrued Liability	\$ 7,986,055,176	\$ 8,700,467,733
2. Market Value of Assets Including Side Funds (MVA) Including Receivables	\$ 7,903,684,460	\$ 7,596,723,149
3. Funded Ratio (MVA) [(2) / (1)]	99.0%	87.3%

Cost and Volatility

Actuarial Cost Estimates in General

What will this pension plan cost? Unfortunately, there is no simple answer. There are two major reasons for the complexity of the answer:

First, all actuarial calculations, including those in this report, are based on a number of assumptions about the future.

- There are demographic assumptions about the percentage of employees that will terminate, die, become disabled, and retire in each future year.
- There are economic assumptions about future salary increases for each active employee, and the assumption with the greatest impact, future asset returns at CalPERS for each year into the future until the last dollar is paid to current members of your plan.

While CalPERS has set these assumptions as our best estimate of the real future of your plan, it must be understood that these assumptions are very long term predictors and will surely not be realized in each year as we go forward. For example, while the asset earnings at CalPERS have averaged the assumed return of 7.75% for the past twenty year period ending June 30, 2009 returns for each fiscal year ranged from -24% to +20.1%

Second, the very nature of actuarial funding produces the answer to the question of plan or pool cost as the sum of two separate pieces:

- The Normal Cost (i.e., the future annual premiums in the absence of surplus or unfunded liability) expressed as a percentage of total active payroll, and
- The Past Service Cost (i.e., Accrued Liability – representing the current value of the benefit for all credited past service of current members) which is expressed as a lump sum dollar amount.

The cost is the sum of a percent of future pay and a lump sum dollar amount (the sum of an apple and an orange if you will). To communicate the total cost, either the Normal Cost (i.e., future percent of payroll) must be converted to a lump sum dollar amount (in which case the total cost is the present value of benefits), or the Past Service Cost (i.e., the lump sum) must be converted to a percent of payroll (in which case the total cost is expressed as the employer's rate part of which is permanent and part temporary). Converting the Past Service Cost lump sum to a percent of payroll requires a specific amortization period. So, the plan or pool rate can be computed in many different ways depending on how long one will take to pay for it. And as the first point above states; all of these results depend on all assumptions being exactly realized.

Rate Volatility

As is stated above, the actuarial calculations supplied in this communication are based on a number of assumptions about very long term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year to year basis. The year to year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise the plan or pool's rates from year to year. Therefore, the rates will inevitably fluctuate, especially due to the ups and downs of investment returns. Plans or pools that have higher asset to payroll ratio produce more volatile employer rates.

HIGHLIGHTS AND EXECUTIVE SUMMARY

In the table below we have shown the pool's volatility index, based on the retirement formula, a measure of the pool's potential future rate volatility. It should be noted that this ratio increases over time but generally tends to stabilize as the plan or pool matures.

Beginning with the June 30, 2004 actuarial valuation, rate stabilization methodologies were implemented. Although there is no method that can provide perfectly stable rates, the new methods have been shown to be very effective in mitigating rate volatility. It continues to be true that a plan that has a volatility index that is three times the index of a second plan will have three times the volatility in rates as compared to the second plan. However, the amount of change has been dramatically reduced through the rate stabilization process. In most situations, the new rate stabilization policies will reduce rate volatility due to actual gains and losses by about 50%.

As of June 30, 2008	
Market Value of Assets without Receivables	\$ 7,587,532,141
Payroll	914,840,596
Volatility Index	8.3

Changes since the Prior Valuation

Actuarial Assumptions

There were no changes in actuarial assumptions since the prior year's actuarial valuation with the possible exception of changes due to reflect a change in benefits.

Actuarial Methods

There were no material changes in actuarial methods since the prior year's actuarial valuation.

Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation whose valuation date follows the effective date of the legislation. Voluntary benefit changes by employers within the risk pool are generally included in the first valuation whose report is dated after the amendment becomes effective. These voluntary changes are included in the liabilities reported in this valuation.

The valuation generally reflects plan changes by amendments effective prior to August 1, 2009. Please refer to Appendix B for a summary of the plan provisions used in this valuation report. The provisions in Appendix B do not indicate the class of benefits voluntarily contracted for by individual employers within the risk pool. Refer to Section 1 of the valuation report for a list of your specific contracted benefits. The increase in the pool's unfunded liabilities due to Class 1 or 2 amendments by individual employers within the pool is embedded in the Liability (Gain) / Loss shown in the Gain / Loss section of this report. This amount, however, is offset by additional contributions through a surcharge for employers who voluntarily contract for those benefits.

Subsequent Events

The current financial market volatility has impacted the CalPERS trust fund and will continue to impact future employer rates. In response to this, the CalPERS Board has adopted a new smoothing policy which will be implemented in the June 30, 2009 valuation.

CalPERS will implement a 3-year phase-in of the 2008 – 2009 investment loss under the idea that 3 years will be a sufficient length of time for the economy to recover. This phased-in approach will be achieved by temporarily relaxing the constraints on the smoothed value of assets around the actual market value. This corridor which constrains the smoothed value of assets will be allowed to expand and then contract with the following conditions:

HIGHLIGHTS AND EXECUTIVE SUMMARY

- Increase the corridor limits for the actuarial value of assets from 80%-120% of market value to 60%-140% of market value on June 30, 2009 which impacts the 2011 – 2012 contribution rate
- Reduce the corridor limits for the actuarial value of assets to 70%-130% of market value on June 30, 2010 which impacts the 2012 – 2013 contribution rate
- Return to the 80%-120% of market value corridor limits for the actuarial value of assets on June 30, 2011 and thereafter which impacts the 2013 – 2014 and fiscal years beyond contribution rates

We will isolate the asset loss outside of the 80% - 120% corridor and pay for it with a disciplined fixed and certain 30 year amortization schedule. It is prudent for 2008-2009 Fiscal Year investment losses to be subject to a more stringent funding schedule and that they should be paid for in full at the end of the 30 years. In this way we will not rely on future investment returns to pay for 2008-2009 investment losses.

This methodology has the dual benefit of providing short-term relief to local government employers and strengthening the long-term financial health of the pension fund.

SUMMARY OF LIABILITIES AND RATES

- **DEVELOPMENT OF ACCRUED AND UNFUNDED LIABILITIES**
- **(GAIN)/LOSS ANALYSIS 06/30/07 - 06/30/08**
- **SCHEDULE OF AMORTIZATION BASES FOR THE RISK POOL**
- **DEVELOPMENT OF RISK POOL'S ANNUAL REQUIRED BASE CONTRIBUTION**
- **POOL'S EMPLOYER CONTRIBUTION RATE HISTORY**
- **FUNDING HISTORY**

SUMMARY OF LIABILITY AND RATES

Development of Accrued and Unfunded Liabilities

	June 30, 2007	June 30, 2008
1. Present Value of Projected Benefits		
a) Active Members	\$ 4,947,025,428	\$ 5,414,459,627
b) Transferred Members	594,223,923	639,857,226
c) Separated Members	96,097,848	99,346,011
d) Members and Beneficiaries Receiving Payments	<u>4,337,142,282</u>	<u>4,736,254,223</u>
e) Total	\$ 9,974,489,481	\$ 10,889,917,087
2. Present Value of Future Employer Normal Costs	\$ 1,289,883,636	\$ 1,423,378,551
3. Present Value of Future Employee Contributions	\$ 698,550,669	\$ 766,070,803
4. Entry Age Normal Accrued Liability		
a) Active Members [(1a) - (2) - (3)]	\$ 2,958,591,123	\$ 3,225,010,273
b) Transferred Members (1b)	594,223,923	639,857,226
c) Separated Members (1c)	96,097,848	99,346,011
d) Members and Beneficiaries Receiving Payments (1d)	<u>4,337,142,282</u>	<u>4,736,254,223</u>
e) Total	\$ 7,986,055,176	\$ 8,700,467,733
5. Actuarial Value of Assets (AVA) Including Receivables	\$ 6,826,599,459	\$ 7,464,927,716
6. Unfunded Accrued Liability [(4e) - (5)]	1,159,455,717	1,235,540,017
7. Side Funds (AVA)	\$ (902,869,157)	\$ (847,683,840)
8. Actuarial Value of Assets excluding Side Funds [(5) - (7)] Including Receivables	7,729,468,616	8,312,611,556
9. Unfunded Liability excluding Side Funds [(4e) - (8)]	256,586,560	387,856,177
10. Market Value of Assets (MVA) Including Receivables	\$ 7,903,684,460	\$ 7,596,723,149
11. Funded Ratio (MVA) [(10) / (4e)]	99.0%	87.3%

SUMMARY OF LIABILITY AND RATES

(Gain)/Loss Analysis 06/30/07 - 06/30/08

We introduced the concepts of Actuarial Gains and Losses in the Cost and Volatility Section of this report. To reiterate, when we calculate the cost requirements of your plan, we use assumptions about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is contrasted against the expected experience based on the actuarial assumptions. The differences are reflected below as your pool's actuarial gains or losses.

1. Total (Gain)/Loss		
a) Unfunded Liability/(Surplus) as of June 30, 2007	\$	256,586,560
b) Expected payment on the unfunded liability		21,980,495
c) Interest accumulation $ [.0775 \times (1a) - ((1.0775)^{.5} - 1) \times (1b)]$		19,049,606
d) Expected Unfunded Liability before other changes $ [(1a) - (1b) + (1c)]$		253,655,671
e) Change due to change in actuarial methods		0
f) Expected Unfunded Liability after changes $ [(1d) + (1e)]$		253,655,671
g) Actual Unfunded Liability/(Surplus) as of June 30, 2008		<u>387,856,177</u>
h) Total (Gain)/Loss $ [(1g) - (1f)]$	\$	134,200,506
2. Contribution (Gain)/Loss		
a) Expected contribution	\$	385,594,509
b) Expected interest on contributions		14,662,993
c) Total expected contributions with interest $ [(2a) + (2b)]$		400,257,502
d) Actual contributions		393,775,792
e) Expected interest on actual contributions		14,974,102
f) Total actual contributions with interest $ [(2d) + (2e)]$		<u>408,749,894</u>
g) Contribution (Gain)/Loss $ [(2c) - (2f)]$	\$	(8,492,392)
3. Asset (Gain)/Loss		
a) Actuarial Value of Assets as of 06/30/07 Including Receivables	\$	6,826,599,459
b) Receivables as of 06/30/07		<u>8,903,246</u>
c) Actuarial Value of Assets as of 06/30/07		6,817,696,213
d) Contributions received		393,775,792
e) Benefits, refunds and lump sums paid		(349,324,515)
f) Transfers and miscellaneous adjustments		5,479,232
g) Expected interest		530,270,163
h) Transfers into the pool (AVA Basis)		69,229,209
i) Transfers out of the pool (AVA Basis)		<u>(20,709,665)</u>
j) Expected Assets as of 06/30/08 $ [\text{Sum } (3c) \text{ through } (3i)]$		7,446,416,429
k) Receivables as of 06/30/08		<u>9,191,008</u>
l) Expected Assets Including Receivables		7,455,607,437
m) Actual Actuarial Value of Assets as of 06/30/08 Including Receivables		<u>7,464,927,716</u>
n) Asset (Gain)/Loss $ [(3l) - (3m)]$	\$	(9,320,279)
4. Liability (Gain)/Loss		
a) Total (Gain)/Loss (1h)	\$	134,200,506
b) Contribution (Gain)/Loss (2g)		(8,492,392)
c) Asset (Gain)/Loss excluding side fund (3n)		<u>(9,320,279)</u>
d) Liability (Gain)/Loss $ [(4a) - (4b) - (4c)]^*$	\$	152,013,177

* Includes (Gain)/Loss on plans transferring into the pool.

SUMMARY OF LIABILITY AND RATES

Schedule of Amortization Bases for the Risk Pool

The schedule below shows the development of the payment on the Pool's amortization bases used to determine the Total Required Employer Contributions. Each row of the schedule gives a brief description of a base (or portion of the Unfunded Actuarial Liability), the balance of the base on the valuation date, and the number of years remaining in the amortization period. In addition, we show the expected payments for the two years immediately following the valuation date, the balances on the dates a year and two years after the valuation date, and the scheduled payment for fiscal year 2010-2011. Please refer to Appendix A for an explanation of how amortization periods are determined.

Reason for Base	Amortization Period	Balance on June 30, 2008	Expected Payment 08-09	Balance June 30, 2009	Expected Payment 09-10	Balance June 30, 2010	Scheduled Payment for 2010-2011	Payment as a percentage of payroll
(GAIN)/LOSS	30	\$301,285,345	\$8,042,741	\$316,286,377	\$10,309,872	\$330,096,647	\$19,822,626	1.968%
PAYMENT (GAIN)/LOSS	30	\$(20,235,257)	\$6,440,663	\$(28,489,072)	\$2,934,481	\$(33,743,045)	\$(2,026,303)	(0.201%)
FRESH START	26	\$106,806,089	\$6,641,683	\$108,189,315	\$6,857,538	\$109,455,677	\$7,080,407	0.703%
Total		\$387,856,177	\$21,125,087	\$395,986,620	\$20,101,891	\$405,809,279	\$24,876,730	2.470%

SUMMARY OF LIABILITY AND RATES

Development of Risk Pool's Annual Required Base Contribution

	Fiscal Year 2009/2010	Fiscal Year 2010/2011
1. Contribution in Projected Dollars		
a) Total Normal Cost	\$ 241,744,756	\$ 267,138,504
b) Employee Contribution	82,930,992	91,100,382
c) Pool's Gross Employer Normal Cost [(1a) - (1b)]	158,813,764	176,038,121
d) Total Surcharges for Class 1 Benefits	16,073,601	17,873,680
e) Net Employer Normal Cost [(1c) - (1a)]	142,740,164	158,164,442
f) Payment on Pool's Amortization Base	\$ <u>15,761,688</u>	\$ <u>24,876,730</u>
g) Total Required Employer Contributions [(1e) + (1f)]	158,501,852	183,041,172
2. Annual Covered Payroll as of Valuation Date	\$ 831,607,658	\$ 914,840,596
3. Projected Payroll for Contribution Fiscal Year	\$ 915,353,109	\$ 1,006,967,860
4. Contribution as a % of Projected Pay		
a) Total Normal Cost [(1a) / (3)]	26.410%	26.529%
b) Employee Contribution [(1b) / (3)]	9.060%	9.047%
c) Pool's Gross Employer Normal Cost [(1c) / (3)]	17.350%	17.482%
d) Total Surcharges for Class 1 Benefits [(1d) / (3)]	1.756%	1.775%
e) Net Employer Normal Cost [(1e) / (3)]	15.594%	15.707%
f) Payment on Pool's Amortization Base [(1f) / (3)]	1.722%	2.470%
g) Total Required Employer Contributions [(1g) / (3)]	17.316%	18.177%

SUMMARY OF LIABILITY AND RATES

Pool's Employer Contribution Rate History

Valuation Date	Net Employer Normal Cost	Total Surcharges for Class 1 Benefits	Gross Employer Normal Cost	Payment on Pool's Amortization Bases	Total Payment On Employer Side Funds	Total Employer Contribution
06/30/2004	15.362%	1.756%	17.118%	0.984%	12.618%	30.720%
06/30/2005	15.407%	1.712%	17.119%	1.306%	11.519%	29.944%
06/30/2006	15.515%	1.733%	17.248%	1.675%	10.107%	29.030%
06/30/2007	15.594%	1.756%	17.350%	1.722%	9.457%	28.529%
06/30/2008	15.707%	1.775%	17.482%	2.470%	8.522%	28.474%

Funding History

Valuation Date	Accrued Liabilities (AL)	Market Value of Assets (MVA)	Funded Ratio (MVA/AL)
06/30/2004	\$5,383,921,942	\$4,367,765,127	81.1%
06/30/2005	\$6,367,049,264	\$5,449,784,537	85.6%
06/30/2006	\$7,278,049,834	\$6,469,775,316	88.9%
06/30/2007	\$7,986,055,176	\$7,903,684,460	99.0%
06/30/2008	\$8,700,467,733	\$7,596,723,149	87.3%

Valuation Date	Accrued Liabilities (AL)	Actuarial Value of Assets (AVA)	Unfunded Liabilities (UL)	Funded Ratio (AVA/AL)	Annual Covered Payroll	UL As a % of Payroll
06/30/2004	\$5,383,921,942	\$4,424,586,846	\$959,335,096	82.2%	\$575,296,434	166.8%
06/30/2005	\$6,367,049,264	\$5,295,150,375	\$1,071,898,889	83.2%	\$664,147,796	161.4%
06/30/2006	\$7,278,049,834	\$6,102,615,567	\$1,175,434,267	83.9%	\$754,730,438	155.7%
06/30/2007	\$7,986,055,176	\$6,826,599,459	\$1,159,455,717	85.5%	\$831,607,658	139.4%
06/30/2008	\$8,700,467,733	\$7,464,927,716	\$1,235,540,017	85.8%	\$914,840,596	135.1%

Information shown here is for compliance with GASB No. 27 for a cost-sharing multiple-employer defined benefit plan.

SUMMARY OF ASSETS

- **RECONCILIATION OF THE MARKET VALUE OF ASSETS**
- **DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**
- **ASSET ALLOCATION**

SUMMARY OF ASSETS

Reconciliation of the Market Value of Assets

1. Market Value of Assets as of June 30, 2007 Including Receivables	\$ 7,903,684,460
2. Receivables for Service Buybacks as of June 30, 2007	8,903,246
3. Market Value of Assets as of June 30, 2007	7,894,781,214
4. Employer Contributions	303,324,627
5. Employee Contributions	90,451,165
6. Benefit Payments to Retirees and Beneficiaries	(346,251,546)
7. Refunds	(2,920,335)
8. Lump Sum Payments	(152,634)
9. Transfers and Miscellaneous Adjustments	5,479,232
10. Investment Return	<u>(406,365,647)</u>
11. Market Value of Assets as of June 30, 2008 (w/o Pool Transfers)	\$ 7,538,154,915
12. Transfers into and out of the Risk Pool	<u>49,377,226</u>
13. Market Value of Assets as of June 30, 2008	\$ 7,587,532,141
14. Receivables for Service Buybacks as of June 30, 2008	9,191,008
15. Market Value of Assets as of June 30, 2008 Including Receivables	7,596,723,149

Development of the Actuarial Value of Assets

1. Actuarial Value of Assets as of June 30, 2007 Used for Rate Setting Purposes	6,826,599,459
2. Receivables for Service Buyback as of June 30, 2007	8,903,246
3. Actuarial Value of Assets as of June 30, 2007	6,817,696,213
4. Employer Contributions	303,324,627
5. Employee Contributions	90,451,165
6. Benefit Payments to Retirees and Beneficiaries	(346,251,546)
7. Refunds	(2,920,335)
8. Lump Sum Payments	(152,634)
9. Transfers and Miscellaneous Adjustments	5,479,232
10. Expected Investment Income at 7.75%	<u>530,270,163</u>
11. Expected Actuarial Value of Assets (w/o Pool Transfers)	\$ 7,397,896,885
12. Market Value of Assets June 30, 2008 (w/o Pool Transfers)	7,538,154,915
13. Preliminary Actuarial Value of Assets (w/o Pool Transfers) $[(11) + ((12) - (11)) / 15]$	7,407,247,420
14. Preliminary Actuarial Value to Market Value Ratio	98.26%
15. Final Actuarial Value to Market Value Ratio (minimum 80%, maximum 120%)	98.26%
16. Market Value of Assets June 30, 2008	7,587,532,141
17. Actuarial Value of Assets as of June 30, 2008	7,455,736,708
18. Receivables for Service Buybacks as of June 30, 2008	9,191,008
19. Actuarial Value of Assets as of June 30, 2008 Used for Rate Setting Purposes	7,464,927,716

SUMMARY OF ASSETS

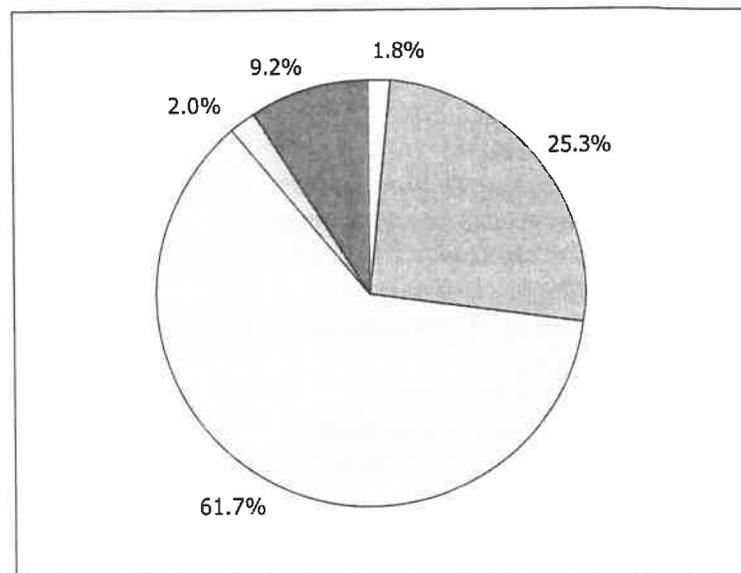
Asset Allocation

The starting point and most important element of CalPERS' successful return on investment is the asset allocation or diversification among stocks, bonds, cash and other investments. Asset allocation is not an asset-only or liability-only decision. All factors, including liabilities, benefit payments, operating expenses, and employer and member contributions are taken into account in determining the appropriate asset allocation mix. The goal is to maximize returns at a prudent level of risk which presents an ever-changing balancing act between market volatility and long-term goals.

CalPERS follows a strategic asset allocation policy that identifies the percentage of funds to be invested in each asset class.

The asset allocation and market value of assets shown below reflect the values of the Public Employees Retirement Fund (PERF) in its entirety as of June 30, 2008. The assets for Safety 3.0% at 50 Risk Pool are part of the Public Employees Retirement Fund (PERF) and are invested accordingly.

(A) Asset Class	(B) Market Value (\$ Billion)	(C) Current Allocation	(D) Target
1) Total Cash Equivalents	4.3	1.8%	0.0%
2) Total Global Fixed Income	59.9	25.3%	19.0%
3) Total Equities	146.4	61.7%	66.0%
4) Inflation Linked (ILAC)	4.7	2.0%	5.0%
5) Total Real Estate	<u>21.8</u>	<u>9.2%</u>	<u>10.0%</u>
Total Fund	237.1	100.0%	100.0%



SUMMARY OF PARTICIPANT DATA

- **SOURCE OF THE PARTICIPANT DATA**
- **DATA VALIDATION TESTS AND ADJUSTMENTS**
- **SUMMARY OF VALUATION DATA**
- **ACTIVE MEMBERS**
- **TRANSFERRED AND TERMINATED MEMBERS**
- **RETIRED MEMBERS AND BENEFICIARIES**

SUMMARY OF PARTICIPANT DATA

Source of the Participant Data

The data was extracted from various databases within CalPERS and placed in a database by a series of extract programs. Included in this data are:

- individual member and beneficiary information,
- employment and payroll information,
- accumulated contributions with interest,
- service information,
- benefit payment information,
- information about the various organizations which contract with CalPERS, and
- detailed information about the plan provisions applicable to each group of members.

Data Validation Tests and Adjustments

Once the information is extracted from the various computer systems into the database, update queries are then run against this data to correct for flaws found in the data. This part of the process is intended to validate the participant data for all CalPERS plans. The data is then checked for reasonableness and consistency with data from the prior valuation.

Checks on the data include:

- a reconciliation of the membership of the plans,
- comparisons of various member statistics (average attained age, average entry age, average salary, etc.) for each plan with those from the prior valuation,
- comparisons of pension amounts for each retiree and beneficiary receiving payments with those from the prior valuation,
- checks for invalid ages and dates, and
- reasonableness checks on various key data elements such as service and salary.

As a result of the tests on the data, a number of adjustments were determined to be necessary. These included:

- dates of hire and dates of entry were adjusted where necessary to be consistent with the service fields, the date of birth and each other.

SUMMARY OF PARTICIPANT DATA

Summary of Valuation Data

	June 30, 2007	June 30, 2008
1. Number of Plans in the Risk Pool	253	259
2. Active Members		
a) Counts	10,257	10,679
b) Average Attained Age	39.13	39.20
c) Average Entry Age to Rate Plan	29.11	29.28
d) Average Years of Service	10.02	9.92
e) Average Annual Covered Pay	\$ 81,077	\$ 85,667
f) Annual Covered Payroll	831,607,658	914,840,596
g) Projected Annual Payroll for Contribution Year	915,353,109	1,006,967,860
h) Present Value of Future Payroll	7,706,207,732	8,462,511,547
3. Transferred Members		
a) Counts	5,289	5,486
b) Average Attained Age	42.49	42.54
c) Average Years of Service	4.56	4.51
d) Average Annual Covered Pay	\$ 85,238	\$ 89,308
4. Terminated Members		
a) Counts	1,665	1,764
b) Average Attained Age	40.33	40.29
c) Average Years of Service	3.54	3.42
d) Average Annual Covered Pay	\$ 51,288	\$ 52,338
5. Retired Members and Beneficiaries		
a) Counts*	11,891	12,433
b) Average Attained Age	62.97	63.31
c) Average Annual Benefits*	\$ 27,752	\$ 29,097
6. Active to Retired Ratio [(2a) / (5a)]	0.86	0.86

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

* Values may not match those on pages 27 and 28 due to inclusion of community property settlements.

SUMMARY OF PARTICIPANT DATA

Active Members

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

**Distribution of Active Members by Age and Service
Years of Service at Valuation Date**

Attained Age	0-4	5-9	10-14	15-19	20-25	25+	Total
15-24	494	4	0	0	0	0	498
25-29	1265	238	0	0	0	0	1,503
30-34	960	717	125	0	0	0	1,802
35-39	684	744	518	135	1	0	2,082
40-44	338	372	351	477	194	3	1,735
45-49	181	208	200	354	472	219	1,634
50-54	77	91	93	135	223	331	950
55-59	38	40	30	44	65	153	370
60-64	15	12	12	12	12	32	95
65 and over	1	1	3	3	1	1	10
All Ages	4053	2427	1332	1160	968	739	10,679

**Distribution of Average Annual Salaries by Age and Service
Years of Service at Valuation Date**

Attained Age	0-4	5-9	10-14	15-19	20-25	25+	Average
15-24	\$56,905	\$76,279	\$0	\$0	\$0	\$0	\$57,061
25-29	66,339	79,017	0	0	0	0	68,347
30-34	71,059	83,219	91,086	0	0	0	77,287
35-39	72,878	84,907	93,014	102,832	76,567	0	84,130
40-44	78,233	85,520	93,609	100,765	107,922	87,731	92,437
45-49	88,712	88,524	92,770	98,943	106,767	114,402	100,060
50-54	86,747	100,058	93,336	97,930	101,965	116,047	104,037
55-59	99,001	96,650	84,415	95,891	98,849	105,405	99,816
60-64	95,236	100,124	90,391	78,561	90,171	101,195	94,503
65 and over	42,349	58,933	71,049	56,666	74,026	90,411	64,886
Average	70,197	85,047	92,709	99,591	105,090	112,563	85,667

SUMMARY OF PARTICIPANT DATA**Transferred and Terminated Members****Distribution of Transfers to Other CalPERS Plans by Age and Service Years of Service at Valuation Date**

Attained Age	0-4	5-9	10-14	15-19	20-25	25+	Total	Average Salary
15-24	43	0	0	0	0	0	43	\$56,205
25-29	342	18	0	0	0	0	360	71,527
30-34	579	105	10	0	0	0	694	78,402
35-39	800	255	63	3	0	0	1,121	83,911
40-44	648	262	108	35	6	0	1,059	91,174
45-49	637	277	120	51	17	2	1,104	98,156
50-54	427	163	65	36	23	10	724	101,038
55-59	175	52	24	22	4	6	283	96,292
60-64	47	17	7	6	3	2	82	84,392
65 and over	12	3	0	1	0	0	16	66,484
All Ages	3710	1152	397	154	53	20	5,486	89,308

Distribution of Terminated Participants with Funds on Deposit by Age and Service Years of Service at Valuation Date

Attained Age	0-4	5-9	10-14	15-19	20-25	25+	Total	Average Salary
15-24	53	0	0	0	0	0	53	\$47,429
25-29	194	8	0	0	0	0	202	50,755
30-34	251	24	2	0	0	0	277	50,546
35-39	277	71	13	2	0	0	363	52,407
40-44	206	70	26	14	2	0	318	55,285
45-49	177	77	34	25	4	2	319	54,248
50-54	97	34	11	6	1	0	149	54,294
55-59	37	6	2	3	0	0	48	44,362
60-64	15	4	2	1	0	1	23	46,489
65 and over	10	1	1	0	0	0	12	29,943
All Ages	1317	295	91	51	7	3	1,764	52,338

SUMMARY OF PARTICIPANT DATA

Retired Members and Beneficiaries

Distribution of Retirees and Beneficiaries by Age and Retirement Type*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	3	0	2	10	15
30-34	0	1	27	0	0	3	31
35-39	0	3	123	0	6	6	138
40-44	0	5	250	1	13	7	276
45-49	0	12	401	0	8	35	456
50-54	829	23	624	1	27	66	1,570
55-59	1266	34	870	7	19	93	2,289
60-64	1383	27	1067	2	11	132	2,622
65-69	1054	15	654	6	13	199	1,941
70-74	705	21	380	0	15	216	1,337
75-79	443	16	210	1	18	193	881
80-84	262	6	105	2	5	159	539
85 and Over	108	2	32	2	2	154	300
All Ages	6050	165	4746	22	139	1273	12,395

Distribution of Average Annual Amounts for Retirees and Beneficiaries by Age and Retirement Type*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 30	\$0	\$0	\$25,082	\$0	\$15,797	\$9,127	\$13,207
30-34	0	10,430	24,368	0	0	10,027	22,530
35-39	0	12,020	26,457	0	38,550	13,177	26,092
40-44	0	7,136	26,536	29,203	34,499	21,120	26,432
45-49	0	11,226	24,791	0	30,645	24,709	24,530
50-54	44,451	8,205	27,613	23,599	30,421	20,091	35,949
55-59	40,070	11,132	29,701	15,340	22,681	21,642	34,731
60-64	36,989	13,150	29,032	14,845	30,968	18,310	32,523
65-69	29,845	17,092	23,481	31,366	18,537	19,766	26,498
70-74	27,225	8,291	21,613	0	18,624	18,610	23,845
75-79	22,461	6,904	21,862	1,007	20,586	16,235	20,609
80-84	21,139	10,701	19,365	1,845	23,569	14,148	18,566
85 and Over	23,697	10,586	23,329	1,609	19,792	14,054	18,447
All Ages	34,286	10,700	26,454	17,545	25,884	17,651	29,141

SUMMARY OF PARTICIPANT DATA

Retired Members and Beneficiaries (continued)

Distribution of Retirees and Beneficiaries by Years Retired and Retirement Type*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	2202	18	940	2	27	475	3,664
5-9	1481	33	991	4	16	302	2,827
10-14	935	37	803	11	19	212	2,017
15-19	662	29	652	1	16	32	1,392
20-24	430	23	531	1	19	54	1,058
25-29	250	15	486	3	16	58	828
30 and Over	90	10	343	0	26	138	607
All Years	6050	165	4746	22	139	1271	12,393

Distribution of Average Annual Amounts for Retirees and Beneficiaries by Years Retired and Retirement Type*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 5 Yrs	\$41,983	\$16,587	\$36,941	\$15,227	\$37,753	\$19,564	\$37,613
5-9	34,754	13,281	31,914	8,731	29,882	18,858	31,745
10-14	30,030	8,310	24,534	25,693	23,261	16,765	25,962
15-19	27,733	11,470	21,727	33,434	25,372	14,376	24,251
20-24	23,869	7,955	19,124	1,007	24,221	19,198	20,888
25-29	19,365	8,918	17,798	1,183	19,327	12,614	17,717
30 and Over	21,916	7,181	19,031	0	18,578	12,235	17,699
All Years	34,286	10,700	26,454	17,545	25,884	17,670	29,145

* Counts of members do not include alternate payees receiving benefits while the member is still working. Therefore, the total counts may not match information on page 24 of the report. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

APPENDIX A

- **STATEMENT OF ACTUARIAL DATA, METHODS AND ASSUMPTIONS**

APPENDIX A

Data

As stated in the Actuarial Certification, the data which serves as the basis of this valuation has been obtained from the various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate. We are unaware of any potential data issues that would have a material effect on the results of this valuation, except that data does not always contain the latest salary information for former members now in reciprocal systems and does not recognize the potential for usually large salary deviation in certain cases such as elected officials. Therefore, salary information in these cases may not be accurate. These situations are relatively infrequent, however, and when they do occur, they generally do not have a material impact on the employer contribution rates.

Actuarial Methods

Funding Method

The actuarial funding method used for the Retirement Program is the Entry Age Normal Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percent of pay in each year from the age of hire (entry age) to the assumed retirement age. The cost allocated to the current fiscal year is called the normal cost.

The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits, for active members beyond the assumed retirement age, and for members entitled to deferred benefits, is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

The excess of the total actuarial accrued liability over the actuarial value of plan assets is called the unfunded actuarial accrued liability. Funding requirements are determined by adding the normal cost and an amortization of the unfunded liability as a level percentage of assumed future payrolls. All changes in liability due to plan amendments, changes in actuarial assumptions, or changes in actuarial methodology are amortized separately over a 20-year period. In addition, all gains or losses are tracked and amortized over a rolling 30 year period. Finally, if a pool's accrued liability exceeds the actuarial value of assets, the annual contribution with respect to the total unfunded liability may not be less than the amount produced by a 30-year amortization of the unfunded liability.

An exception to the funding rules above is used whenever the application of such rules results in inconsistencies. In these cases a "fresh start" approach is used. This simply means that the current unfunded actuarial liability is projected and amortized over a set number of years. For instance, if the annual contribution on the total unfunded liability was less than the amount produced by a 30-year amortization of the unfunded liability, the plan actuary would implement a 30-year fresh start. In addition, a fresh start is needed in the following situations:

- 1) when a positive payment would be required on a negative unfunded actuarial liability (or conversely a negative payment on a positive unfunded actuarial liability); or
- 2) when there are excess assets, rather than an unfunded liability. In this situation a 30-year fresh start is used, unless a larger fresh start is needed to avoid a negative total rate.

It should be noted that the actuary may choose to use a fresh start under other circumstances. In all cases, the period of the fresh start is chosen by the actuary according to his or her best judgement, and will not be less than five years nor greater than 30 years.

APPENDIX A

Asset Valuation Method

In order to dampen the effect of short term market value fluctuations on employer contribution rates, the following asset smoothing technique is used. First an Expected Value of Assets is computed by bringing forward the prior year's Actuarial Value of Assets and the contributions received and benefits paid during the year at the assumed actuarial rate of return. The Actuarial Value of Assets is then computed as the Expected Value of Assets plus one-fifteenth of the difference between the actual Market Value of Assets and the Expected Value of Assets as of the valuation date. However in no case will the Actuarial Value of Assets be less than 80% nor greater than 120% of the actual Market Value of Assets.

Accounts Receivable

In preparing valuations on and after June 30, 2007, and setting employer contribution rates, the asset figures used include accounts receivable. The CalPERS Actuarial Office assumes that all assets are accruing interest at the actuarially-assumed rate. Therefore, the rates depicted assume that all payments have been made and are accruing interest.

This change generally had minimal impact on the employer rates and no special amortization base has been created.

Miscellaneous

Superfunded Status

If a rate plan is superfunded (actuarial value of assets exceeds the present value of benefits), as of the most recently completed annual valuation, the employer may cover their employees' member contributions (both taxed and tax-deferred) using their employer assets during the fiscal year for which this valuation applies. This would entail transferring assets within the Public Employees' Retirement Fund (PERF) from the employer account to the member accumulated contribution accounts. This change was implemented effective January 1, 1999 pursuant to Chapter 231 (Assembly Bill 2099) which added Government Code Section 20816.

Superfunded status applies only to individual plans, not risk pools. For rate plans within a risk pool, actuarial value of assets is the sum of the rate plan's side fund plus the rate plan's pro-rata share of non-side fund assets. Superfunded status is determined only on annual valuation dates.

Internal Revenue Code Section 415

The limitations on benefits imposed by Internal Revenue Code Section 415 were not taken into account in this valuation. The effect of these limitations has been deemed immaterial on the overall results of this valuation.

Internal Revenue Code Section 401(a)(17)

The limitations on compensation imposed by Internal Revenue Code Section 401(a)(17) were taken into account in this valuation. It was determined that this change generally had minimal impact on the employer rates and no special amortization base has been created.

APPENDIX A

ACTUARIAL ASSUMPTIONS

Economic Assumptions

Investment Return

7.75% compounded annually (net of expenses). This assumption is used for all plans.

Salary Growth

Annual increases vary by category, entry age, and duration of service. The assumed increases are shown below.

Public Agency Miscellaneous

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1445	0.1265	0.1005
1	0.1215	0.1075	0.0875
2	0.1035	0.0935	0.0775
3	0.0905	0.0825	0.0695
4	0.0805	0.0735	0.0635
5	0.0725	0.0675	0.0585
10	0.0505	0.0485	0.0435
15	0.0455	0.0435	0.0385
20	0.0415	0.0395	0.0355
25	0.0365	0.0365	0.0345
30	0.0325	0.0325	0.0325

Public Agency Fire

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1075	0.1075	0.1045
1	0.0975	0.0965	0.0875
2	0.0895	0.0855	0.0725
3	0.0825	0.0775	0.0625
4	0.0765	0.0705	0.0535
5	0.0715	0.0645	0.0475
10	0.0535	0.0485	0.0375
15	0.0435	0.0415	0.0365
20	0.0395	0.0385	0.0345
25	0.0355	0.0355	0.0335
30	0.0325	0.0325	0.0325

Public Agency Police

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1115	0.1115	0.1115
1	0.0955	0.0955	0.0955
2	0.0835	0.0835	0.0805
3	0.0745	0.0725	0.0665
4	0.0675	0.0635	0.0575
5	0.0615	0.0575	0.0505
10	0.0475	0.0445	0.0365
15	0.0435	0.0415	0.0355
20	0.0395	0.0385	0.0345
25	0.0365	0.0355	0.0335
30	0.0325	0.0325	0.0325

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Public Agency County Peace Officers

Duration of Service	Entry Age 20	Entry Age 30	Entry Age 40
0	0.1315	0.1315	0.1315
1	0.1115	0.1085	0.1055
2	0.0965	0.0915	0.0865
3	0.0845	0.0795	0.0735
4	0.0755	0.0695	0.0635
5	0.0685	0.0625	0.0555
10	0.0485	0.0445	0.0405
15	0.0435	0.0405	0.0385
20	0.0395	0.0385	0.0365
25	0.0365	0.0355	0.0345
30	0.0325	0.0325	0.0325

Schools

Duration of Service	Entry Age 20	Entry Age 30	Entry Age 40
0	0.1105	0.0985	0.0845
3	0.0775	0.0725	0.0645
5	0.0655	0.0625	0.0555
10	0.0475	0.0465	0.0435
15	0.0415	0.0405	0.0375
20	0.0385	0.0375	0.0345
25	0.0355	0.0355	0.0335
30	0.0325	0.0325	0.0325

- The Miscellaneous salary scale is used for Local Prosecutors.
- The Police salary scale is used for Other Safety, Local Sheriff, and School Police.

Overall Payroll Growth

3.25% compounded annually (used in projecting the payroll over which the unfunded liability is amortized). This assumption is used for all plans.

Inflation

3.00% compounded annually. This assumption is used for all plans.

Non-valued Potential Additional Liabilities

The potential liability loss for a cost-of-living increase exceeding the 3% inflation assumption, and any potential liability loss from future member service purchases are not reflected in the valuation.

Miscellaneous Loading Factors

Credit for Unused Sick Leave

Final Average Salary is increased by 1% for those agencies that have accepted the provision providing Credit for Unused Sick Leave.

Conversion of Employer Paid Member Contributions (EPMC)

Final Average Salary is increased by the Employee Contribution Rate for those agencies that have contracted for the provision providing for the Conversion of Employer Paid Member Contributions (EPMC) during the final compensation period.

APPENDIX A

Norris Decision (Best Factors)

Employees hired prior to July 1, 1982 have projected benefit amounts increased in order to reflect the use of "Best Factors" for these employees in the calculation of optional benefit forms. This is due to a 1983 Supreme Court decision, known as the Norris decision, which required males and females to be treated equally in the determination of benefit amounts. Consequently, anyone already employed at that time is given the best possible conversion factor when optional benefits are determined. No loading is necessary for employees hired after July 1, 1982.

APPENDIX A

Demographic Assumptions

Pre-Retirement Mortality

Non-Industrial Death Rates vary by age and gender. Industrial Death rates vary by age. See sample rates in table below. The non-industrial death rates are used for all plans. The industrial death rates are used for Safety Plans (except for Local Prosecutor safety members where the corresponding Miscellaneous Plan does not have the Industrial Death Benefit).

Age	Non-Industrial Death (Not Job-Related)		Industrial Death (Job-Related)
	Male	Female	Male and Female
20	0.00019	0.00009	0.00003
25	0.00027	0.00014	0.00007
30	0.00038	0.00021	0.00010
35	0.00054	0.00031	0.00013
40	0.00077	0.00046	0.00017
45	0.00110	0.00068	0.00020
50	0.00156	0.00102	0.00023
55	0.00221	0.00151	0.00027
60	0.00314	0.00226	0.00030

Miscellaneous Plans usually have Industrial Death rates set to zero unless the agency has specifically contracted for Industrial Death benefits. If so, each Non-Industrial Death rate shown above will be split into two components: 99% will become the Non-Industrial Death rate and 1% will become the Industrial Death rate.

Post-Retirement Mortality

Rates vary by age, type of retirement and gender. See sample rates in table below. These rates are used for all plans.

Age	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
	Male	Female	Male	Female	Male	Female
50	0.00245	0.00136	0.01459	0.01129	0.00546	0.00388
55	0.00429	0.00253	0.02115	0.01481	0.00616	0.00568
60	0.00721	0.00442	0.02870	0.01884	0.01016	0.00818
65	0.01302	0.00795	0.03617	0.02356	0.01853	0.01214
70	0.02135	0.01276	0.04673	0.03020	0.03369	0.01760
75	0.03716	0.02156	0.06552	0.04298	0.05768	0.02774
80	0.06256	0.03883	0.09481	0.06514	0.08670	0.04690
85	0.10195	0.07219	0.14041	0.10269	0.13032	0.08262
90	0.17379	0.12592	0.20793	0.16189	0.19588	0.13984
95	0.25917	0.21773	0.30792	0.25522	0.29444	0.23566
100	0.34724	0.32036	0.45599	0.40236	0.44259	0.35341

Marital Status

For active members, a percentage married upon retirement is assumed according to the following table.

Member Category	Percent Married
Miscellaneous Member	85%
Local Police	90%
Local Fire	90%
Other Local Safety	90%
School Police	90%
Schools	85%

APPENDIX A

Age of Spouse

It is assumed that female spouses are 3 years younger than male spouses. This assumption is used for all plans.

Separated Members

It is assumed that members refund immediately if non-vested, retire immediately if eligible, or retire at the earliest retirement age if not eligible.

Termination with Refund

Rates vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

Public Agency Miscellaneous

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40	Entry Age 45
0	0.1760	0.1691	0.1622	0.1553	0.1483	0.1414
1	0.1561	0.1492	0.1423	0.1353	0.1284	0.1215
2	0.1362	0.1293	0.1224	0.1154	0.1085	0.1016
3	0.1163	0.1094	0.1025	0.0955	0.0886	0.0817
4	0.0964	0.0895	0.0826	0.0756	0.0687	0.0618
5	0.0283	0.0257	0.0232	0.0206	0.0181	0.0155
10	0.0184	0.0161	0.0139	0.0117	0.0095	0.0073
15	0.0120	0.0102	0.0083	0.0064	0.0046	0.0027
20	0.0073	0.0057	0.0041	0.0025	0.0009	0.0002
25	0.0034	0.0022	0.0009	0.0002	0.0002	0.0002
30	0.0010	0.0002	0.0002	0.0002	0.0002	0.0002

Public Agency Safety

Duration of Service	Fire	Police	County Peace Officer
0	0.0947	0.1299	0.1072
1	0.0739	0.0816	0.0841
2	0.0531	0.0348	0.0609
3	0.0323	0.0331	0.0470
4	0.0290	0.0314	0.0445
5	0.0095	0.0110	0.0156
10	0.0029	0.0068	0.0096
15	0.0021	0.0035	0.0048
20	0.0016	0.0022	0.0022
25	0.0010	0.0015	0.0010
30	0.0009	0.0012	0.0006

The Police Termination and Refund rates are used for Public Agency Local Prosecutors, Other Safety, Local Sheriff, and School Police.

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Schools

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
0	0.1617	0.1521	0.1425	0.1329	0.1233
1	0.1481	0.1385	0.1289	0.1193	0.1097
2	0.1346	0.1249	0.1153	0.1057	0.0961
3	0.1210	0.1114	0.1018	0.0922	0.0826
4	0.1074	0.0978	0.0882	0.0786	0.0690
5	0.0347	0.0311	0.0276	0.0240	0.0205
10	0.0215	0.0184	0.0153	0.0123	0.0092
15	0.0144	0.0118	0.0092	0.0066	0.0040
20	0.0091	0.0069	0.0047	0.0025	0.0003
25	0.0046	0.0029	0.0012	0.0002	0.0002
30	0.0019	0.0004	0.0002	0.0002	0.0002

Termination with Vested Benefits

Rate vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

Public Agency Miscellaneous

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
5	0.0482	0.0439	0.0395	0.0351	0.0307
10	0.0390	0.0343	0.0296	0.0249	0.0000
15	0.0326	0.0274	0.0224	0.0000	0.0000
20	0.0245	0.0192	0.0000	0.0000	0.0000
25	0.0156	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000

Public Agency Safety

Duration of Service	Fire	Police	County Peace Officer
5	0.0162	0.0187	0.0265
10	0.0061	0.0145	0.0204
15	0.0058	0.0094	0.0130
20	0.0053	0.0075	0.0074
25	0.0047	0.0067	0.0043
30	0.0045	0.0064	0.0030
35	0.0000	0.0000	0.0000

- When a member is eligible to retire, the termination with vested benefits probability is set to zero.
- The Police Termination with vested benefits rates are used for Public Agency Local Prosecutors, Other Safety, Local Sheriff, and School Police.

APPENDIX A

Schools					
<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 25</u>	<u>Entry Age 30</u>	<u>Entry Age 35</u>	<u>Entry Age 40</u>
5	0.0591	0.0531	0.0470	0.0410	0.0349
6	0.0567	0.0505	0.0444	0.0382	0.0321
7	0.0540	0.0478	0.0415	0.0353	0.0290
8	0.0513	0.0450	0.0387	0.0323	0.0260
9	0.0486	0.0422	0.0357	0.0293	0.0229
10	0.0456	0.0391	0.0326	0.0260	0.0000
14	0.0404	0.0335	0.0266	0.0197	0.0000
15	0.0389	0.0319	0.0249	0.0000	0.0000
19	0.0321	0.0249	0.0176	0.0000	0.0000
20	0.0304	0.0230	0.0000	0.0000	0.0000
24	0.0231	0.0153	0.0000	0.0000	0.0000
25	0.0211	0.0000	0.0000	0.0000	0.0000
29	0.0123	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000

APPENDIX A

Non-Industrial (Not Job-Related) Disability

Rates vary by age and gender for Miscellaneous Plans.
 Rates vary by age for Safety Plans

Age	Miscellaneous		Fire	Police	County Peace Officer	Schools	
	Male	Female	Male and Female	Male and Female	Male and Female	Male	Female
20	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
25	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0001
30	0.0002	0.0004	0.0001	0.0002	0.0001	0.0004	0.0003
35	0.0008	0.0010	0.0001	0.0003	0.0002	0.0008	0.0005
40	0.0015	0.0016	0.0001	0.0004	0.0003	0.0014	0.0010
45	0.0024	0.0023	0.0002	0.0005	0.0004	0.0028	0.0016
50	0.0037	0.0035	0.0005	0.0008	0.0007	0.0050	0.0030
55	0.0049	0.0041	0.0010	0.0013	0.0012	0.0072	0.0047
60	0.0055	0.0039	0.0015	0.0020	0.0019	0.0071	0.0037

- The Miscellaneous Non-Industrial Disability rates are used for Local Prosecutors.
- The Police Non-Industrial Disability rates are used for Other Safety, Local Sheriff, and School Police.

Industrial (Job-Related) Disability

Rates vary by age and category.

Age	Fire	Police	County Peace Officer
20	0.0002	0.0006	0.0002
25	0.0010	0.0028	0.0012
30	0.0021	0.0056	0.0025
35	0.0031	0.0084	0.0037
40	0.0041	0.0112	0.0050
45	0.0051	0.0140	0.0062
50	0.0062	0.0167	0.0075
55	0.0601	0.0581	0.0128
60	0.0601	0.0581	0.0128

- The Police Industrial Disability rates are used for Local Sheriff and Other Safety.
- Fifty Percent of the Police Industrial Disability rates are used for School Police.
- One Percent of the Police Industrial Disability rates are used for Local Prosecutors.
- Normally, rates are zero for Miscellaneous Plans unless the agency has specifically contracted for Industrial Disability benefits. If so, each Miscellaneous Non-Industrial Disability rate will be split into two components: 50% will become the Non-Industrial Disability rate and 50% will become the Industrial Disability rate.

APPENDIX A

Service Retirement

Public Agency Miscellaneous 2% @ 60

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0085	0.0120	0.0146	0.0165	0.0184	0.0206
51	0.0059	0.0082	0.0100	0.0113	0.0126	0.0142
52	0.0092	0.0129	0.0157	0.0178	0.0198	0.0222
53	0.0104	0.0146	0.0177	0.0200	0.0224	0.0251
54	0.0109	0.0154	0.0187	0.0211	0.0236	0.0264
55	0.0198	0.0279	0.0339	0.0383	0.0427	0.0479
56	0.0181	0.0254	0.0308	0.0348	0.0389	0.0436
57	0.0208	0.0292	0.0354	0.0400	0.0447	0.0501
58	0.0262	0.0368	0.0447	0.0505	0.0564	0.0632
59	0.0335	0.0471	0.0572	0.0646	0.0721	0.0809
60	0.0615	0.0865	0.1051	0.1187	0.1325	0.1485
61	0.0628	0.0883	0.1073	0.1212	0.1353	0.1517
62	0.1258	0.1767	0.2147	0.2426	0.2708	0.3036
63	0.1263	0.1775	0.2156	0.2436	0.2720	0.3049
64	0.0972	0.1366	0.1659	0.1875	0.2093	0.2346
65	0.1731	0.2432	0.2955	0.3339	0.3727	0.4178
66	0.0946	0.1330	0.1616	0.1825	0.2038	0.2284
67	0.1272	0.1787	0.2171	0.2453	0.2738	0.3069

Public Agency Miscellaneous 2% @ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0145	0.0184	0.0224	0.0269	0.0307	0.0366
51	0.0106	0.0135	0.0164	0.0198	0.0226	0.0269
52	0.0114	0.0145	0.0176	0.0212	0.0241	0.0287
53	0.0150	0.0190	0.0231	0.0278	0.0318	0.0378
54	0.0199	0.0252	0.0307	0.0369	0.0421	0.0502
55	0.0475	0.0604	0.0734	0.0883	0.1008	0.1200
56	0.0395	0.0502	0.0611	0.0735	0.0838	0.0998
57	0.0427	0.0542	0.0659	0.0793	0.0905	0.1078
58	0.0473	0.0601	0.0730	0.0879	0.1003	0.1194
59	0.0510	0.0648	0.0788	0.0948	0.1082	0.1287
60	0.0715	0.0908	0.1104	0.1328	0.1516	0.1804
61	0.0715	0.0908	0.1104	0.1328	0.1516	0.1805
62	0.1275	0.1620	0.1969	0.2369	0.2704	0.3219
63	0.1287	0.1636	0.1988	0.2392	0.2731	0.3250
64	0.0931	0.1182	0.1438	0.1729	0.1974	0.2350
65	0.1738	0.2209	0.2686	0.3231	0.3688	0.4390
66	0.1085	0.1378	0.1675	0.2016	0.2301	0.2739
67	0.1109	0.1409	0.1713	0.2061	0.2353	0.2801

APPENDIX A

Public Agency Miscellaneous 2.5% @ 55, 2.7% @ 55, 3% @ 60

Age	2.5% @ 55		2.7% @ 55		3% @ 60	
	Male	Female	Male	Female	Male	Female
50	0.05000	0.07000	0.05000	0.07000	0.05000	0.07000
51	0.02000	0.05000	0.02000	0.05000	0.02000	0.05000
52	0.03000	0.05000	0.03000	0.05000	0.03000	0.05000
53	0.03000	0.05000	0.03000	0.06000	0.03000	0.05000
54	0.04000	0.05000	0.04000	0.06000	0.04000	0.05000
55	0.08000	0.09000	0.09000	0.10000	0.08000	0.09000
56	0.06000	0.07000	0.07000	0.08000	0.07000	0.08000
57	0.07000	0.06000	0.08000	0.07000	0.08000	0.07000
58	0.08000	0.10000	0.08000	0.10000	0.09000	0.11000
59	0.09000	0.09000	0.10000	0.09000	0.11000	0.10000
60	0.16000	0.12000	0.17000	0.13000	0.19000	0.15000
61	0.15000	0.10000	0.16000	0.11000	0.17000	0.12000
62	0.26000	0.21000	0.28000	0.23000	0.31000	0.25000
63	0.22000	0.18000	0.23000	0.20000	0.26000	0.22000
64	0.15000	0.13000	0.16000	0.14000	0.18000	0.16000
65	0.25000	0.25000	0.27000	0.27000	0.30000	0.30000
66	0.14000	0.15000	0.15000	0.16000	0.17000	0.18000
67	0.12000	0.14000	0.13000	0.16000	0.14000	0.17000
68	0.12000	0.11000	0.13000	0.12000	0.15000	0.13000
69	0.09000	0.13000	0.10000	0.14000	0.11000	0.15000
70	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

Public Agency Fire 1/2 @ 55 and 2% @ 55

Age	Rate	Age	Rate
50	0.01588	56	0.11079
51	0.00000	57	0.00000
52	0.03442	58	0.09499
53	0.01990	59	0.04409
54	0.04132	60	1.00000
55	0.07513		

Public Agency Police 1/2 @ 55 and 2% @ 55

Age	Rate	Age	Rate
50	0.02552	56	0.06921
51	0.00000	57	0.05113
52	0.01637	58	0.07241
53	0.02717	59	0.07043
54	0.00949	60	1.00000
55	0.16674		

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Public Agency Police 2%@ 50

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0138	0.0138	0.0138	0.0138	0.0253	0.0451
51	0.0123	0.0123	0.0123	0.0123	0.0226	0.0402
52	0.0262	0.0262	0.0262	0.0262	0.0480	0.0855
53	0.0523	0.0523	0.0523	0.0523	0.0957	0.1706
54	0.0697	0.0697	0.0697	0.0697	0.1275	0.2274
55	0.0899	0.0899	0.0899	0.0899	0.1645	0.2932
56	0.0638	0.0638	0.0638	0.0638	0.1166	0.2079
57	0.0711	0.0711	0.0711	0.0711	0.1300	0.2318
58	0.0628	0.0628	0.0628	0.0628	0.1149	0.2049
59	0.1396	0.1396	0.1396	0.1396	0.1735	0.2544
60	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
61	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
62	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
63	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
64	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.

Public Agency Fire 2%@50

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0065	0.0065	0.0065	0.0065	0.0101	0.0151
51	0.0081	0.0081	0.0081	0.0081	0.0125	0.0187
52	0.0173	0.0173	0.0173	0.0173	0.0267	0.0400
53	0.0465	0.0465	0.0465	0.0465	0.0716	0.1072
54	0.0638	0.0638	0.0638	0.0638	0.0983	0.1471
55	0.0868	0.0868	0.0868	0.0868	0.1336	0.2000
56	0.0779	0.0779	0.0779	0.0779	0.1200	0.1796
57	0.0901	0.0901	0.0901	0.0901	0.1387	0.2077
58	0.0790	0.0790	0.0790	0.0790	0.1217	0.1821
59	0.0729	0.0729	0.0729	0.0729	0.1123	0.1681
60	0.1135	0.1135	0.1135	0.1135	0.1747	0.2615
61	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618
62	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618
63	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618
64	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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Public Agency Police 3% @ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0193	0.0193	0.0193	0.0193	0.0397	0.0600
51	0.0157	0.0157	0.0157	0.0157	0.0324	0.0491
52	0.0163	0.0163	0.0163	0.0163	0.0337	0.0510
53	0.0587	0.0587	0.0587	0.0587	0.1208	0.1829
54	0.0691	0.0691	0.0691	0.0691	0.1422	0.2154
55	0.1164	0.1164	0.1164	0.1164	0.2397	0.3630
56	0.0756	0.0756	0.0756	0.0756	0.1556	0.2357
57	0.0581	0.0581	0.0581	0.0581	0.1196	0.1812
58	0.0508	0.0508	0.0508	0.0508	0.1045	0.1583
59	0.0625	0.0625	0.0625	0.0625	0.1287	0.1949
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.

Public Agency Fire 3% @ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0024	0.0024	0.0024	0.0035	0.0055	0.0065
51	0.0048	0.0048	0.0048	0.0070	0.0110	0.0128
52	0.0147	0.0147	0.0147	0.0215	0.0339	0.0396
53	0.0425	0.0425	0.0425	0.0621	0.0979	0.1142
54	0.0567	0.0567	0.0567	0.0828	0.1306	0.1523
55	0.0915	0.0915	0.0915	0.1337	0.2109	0.2459
56	0.0811	0.0811	0.0811	0.1184	0.1868	0.2178
57	0.0996	0.0996	0.0996	0.1455	0.2295	0.2676
58	0.0814	0.0814	0.0814	0.1189	0.1874	0.2185
59	0.0775	0.0775	0.0775	0.1131	0.1784	0.2080
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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Public Agency Police 3% @ 50

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0435	0.0435	0.0435	0.0821	0.1208	0.1559
51	0.0385	0.0385	0.0385	0.0728	0.1071	0.1382
52	0.0614	0.0614	0.0614	0.1159	0.1705	0.2200
53	0.0689	0.0689	0.0689	0.1303	0.1916	0.2472
54	0.0710	0.0710	0.0710	0.1342	0.1974	0.2547
55	0.0898	0.0898	0.0898	0.1698	0.2497	0.3222
56	0.0687	0.0687	0.0687	0.1299	0.1910	0.2465
57	0.0803	0.0803	0.0803	0.1518	0.2232	0.2880
58	0.0791	0.0791	0.0791	0.1495	0.2198	0.2837
59	0.0820	0.0820	0.0820	0.1549	0.2279	0.2940
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.

Public Agency Fire 3% @ 50

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0341	0.0341	0.0341	0.0477	0.0679	0.0804
51	0.0463	0.0463	0.0463	0.0647	0.0922	0.1091
52	0.0693	0.0693	0.0693	0.0967	0.1377	0.1630
53	0.0835	0.0835	0.0835	0.1166	0.1661	0.1965
54	0.1025	0.1025	0.1025	0.1431	0.2038	0.2412
55	0.1265	0.1265	0.1265	0.1766	0.2516	0.2977
56	0.1210	0.1210	0.1210	0.1690	0.2407	0.2848
57	0.1010	0.1010	0.1010	0.1411	0.2010	0.2378
58	0.1184	0.1184	0.1184	0.1652	0.2354	0.2786
59	0.1002	0.1002	0.1002	0.1399	0.1993	0.2358
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Schools 2% @ 55

Age	Duration of Service						
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years	35 Years
50	0.0036	0.0071	0.0100	0.0118	0.0131	0.0147	0.0172
52	0.0035	0.0069	0.0096	0.0114	0.0127	0.0142	0.0167
54	0.0060	0.0118	0.0165	0.0196	0.0218	0.0244	0.0286
56	0.0158	0.0314	0.0439	0.0519	0.0578	0.0647	0.0760
58	0.0202	0.0402	0.0562	0.0663	0.0739	0.0827	0.0971
60	0.0368	0.0729	0.1020	0.1205	0.1342	0.1502	0.1763
62	0.0762	0.1512	0.2115	0.2498	0.2784	0.3114	0.3657
65	0.0906	0.1797	0.2513	0.2969	0.3308	0.3701	0.4345
70	0.0660	0.1308	0.1830	0.2162	0.2408	0.2695	0.3164
75	0.0546	0.1082	0.1513	0.1788	0.1992	0.2229	0.2617

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- **SUMMARY OF PRINCIPAL PLAN PROVISIONS**

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The following is a description of the principal plan provisions used in calculating the liabilities of the Safety 3.0% at 50 Risk Pool. Plan provisions are divided based on whether they are standard, Class 1, Class 2 or Class 3 benefits. Standard benefits are applicable to all members of the risk pool while Class 1, 2 or 3 benefits vary among employers. Provided at the end of the listing is a table providing the percentage of members participating in the pool that are subject to each benefit.

Many of the statements in this summary are general in nature, and are intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

Service Retirement

Eligibility

A CalPERS member becomes eligible for Service Retirement upon attainment of age 50 with at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements)

Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The *benefit factor* for this group of employees comes from the **3% at 50 Safety** benefit formula factor table. The factor depends on the member's age at retirement. Listed below are the factors for retirement at whole year ages:

Retirement Age	3% at 50 Safety Factor
50 & Up	3%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at a rate of 0.004 years of service for each day of sick leave.
- The *final compensation* is the monthly average of the member's highest 36 or 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). The standard benefit available to all members is 36 months. Employers have the option of providing a final compensation equal to the highest 12 consecutive months by contracting for this class 1 optional benefit.
- For employees covered by the modified formula, the final compensation is offset by \$133.33 (or by one third if the final compensation is less than \$400). Employers have the option to contract for the class 3 benefit that will eliminate the offset applicable to the final compensation of employees covered by a modified formula.
- The Miscellaneous Service Retirement benefit is not capped. The Safety Service Retirement benefit is capped at 90% of final compensation.

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Vested Deferred Retirement

Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, **and** has earned at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits

The CalPERS member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50.

Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes *disabled* and has at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. *Disabled* means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

Standard Benefit

The standard Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8% of final compensation, multiplied by *service*, which is determined as follows:

- *service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or
- *service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33 1/3% of Final Compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Improved Benefit

Employers have the option of providing this improved benefit by contracting for this class 3 optional benefit.

The improved Non-Industrial Disability Retirement benefit is a monthly allowance equal to 30% of final compensation for the first 5 years of service, plus 1% for each additional year of service to a maximum of 50% of final compensation.

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Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Industrial (Job Related) Disability Retirement

All safety members have this benefit.

Eligibility

An employee is eligible for Industrial Disability Retirement if he or she becomes disabled while working, where disabled means the member is unable to perform the duties of the job because of a work-related illness or injury which is expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described in the next paragraph.

Standard Benefit

The standard Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return of or annuitization of the accumulated member contributions with respect to employment in this group. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit.

Increased Benefit (75% of Final Compensation)

The increased Industrial Disability Retirement benefit is a monthly allowance equal to 75% of final compensation for total disability. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return of or annuitization of the accumulated member contributions with respect to employment in this group. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit.

Improved Benefit (50% to 90% of Final Compensation)

The improved Industrial Disability Retirement benefit is a monthly allowance equal to the Workman's Compensation Appeals Board permanent disability rate percentage (if 50% or greater, with a maximum of 90%) times the final compensation. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Standard Lump Sum Payment

Upon the death of a retiree, a one-time lump sum payment of \$500 will be made to the retiree's designated survivor(s), or to the retiree's estate.

Improved Lump Sum Payment

Employers have the option of providing any of these improved lump sum death benefit by contracting for any of these class 3 optional benefits.

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Upon the death of a retiree, a one-time lump sum payment of \$600, \$2,000, \$3,000, \$4,000 or \$5,000 will be made to the retiree's designated survivor(s), or to the retiree's estate.

Form of Payment for Retirement Allowance

Standard Form of Payment

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. The larger the amount to be provided to the beneficiary is, and the younger the beneficiary is, the greater the reduction to the retiree's allowance.

Improved Form of Payment (Post Retirement Survivor Allowance)

Employers have the option to contract for this class 1 benefit providing an improved post retirement survivor allowance.

For retirement allowances with respect to service subject to the modified formula, 25% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. For retirement allowances with respect to service subject to the full formula, 50% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. This additional benefit is often referred to as post retirement survivor allowance (PRSA) or simply as survivor continuance.

In other words, 25% or 50% of the allowance, the continuance portion, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime. This benefit will not be discontinued in the event the spouse remarries.

The remaining 75% or 50% of the retirement allowance, which may be referred to as the option portion of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. Or, the retiree may choose to provide for some of this option portion to be paid to any designated beneficiary after the retiree's death. CalPERS offers a variety of such benefit options, which the retiree pays for by taking a reduction to the option portion of his or her retirement allowance.

Pre-Retirement Death Benefits

Basic Death Benefit

Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

Standard Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.75% per year, plus a lump sum in the amount of one month's salary for each completed year of current service, up to a maximum of six months' salary. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

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1957 Survivor Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. An eligible survivor means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Special Death benefit.

Standard Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18, unless the child is disabled. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

Optional Settlement 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor benefit.

Standard Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives, at which time it is continued to any unmarried children under age 18, if applicable. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Special Death Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

Improved Benefit

The Special Death benefit is a monthly allowance equal to 50% of final compensation, and will be increased whenever the compensation paid to active employees is increased but ceasing to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death at which time the

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allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an **additional monthly allowance** is paid equal to the following:

- if 1 eligible child: 12.5% of final compensation
- if 2 eligible children: 20.0% of final compensation
- if 3 or more eligible children: 25.0% of final compensation

Cost-of-Living Adjustments

Standard Benefit

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by 2%. However, the cumulative adjustment may not be greater than the cumulative change in the Consumer Price Index since the date of retirement.

Improved Benefit

Employers have the option of providing any of these improved cost-of-living adjustments by contracting for any one of these class 1 optional benefits.

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by either 3%, 4% or 5%. However, the cumulative adjustment may not be greater than the cumulative change in the Consumer Price Index since the date of retirement.

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 80% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan.

Employee Contributions

Each employee contributes toward his or her retirement based upon the following schedule. The employer may choose to "pick-up" these contributions for the employees.

- The percent contributed below the monthly compensation breakpoint is 0%.
- The monthly compensation breakpoint is \$0 for full and supplemental formula members.
- The monthly compensation breakpoint is \$133.33 for employees covered by the modified formula.
- The percent contributed above the monthly compensation breakpoint is 9%.

Refund of Employee Contributions

If the member's service with the employer ends, and if the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

APPENDIX C

- **CLASSIFICATION OF OPTIONAL BENEFITS**
- **EXAMPLE OF INDIVIDUAL AGENCY'S RATE CALCULATION**
- **DISTRIBUTION OF CLASS 1 BENEFITS**

APPENDIX C

Classification of Optional Benefits

Below is the list of the available optional benefit provisions and their initial classification upon establishment of risk pools. When new benefits become available as a result of legislation, the Chief actuary will determine their classification in accordance with the criteria established in the board policy.

Class 1

Class 1 benefits have been identified to be the more expensive ancillary benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 1 benefit will be responsible for the past service liability associated with such benefit and will be required to pay a surcharge established by the actuary to cover the ongoing cost (normal cost) of the Class 1 benefit.

The table below shows the list of Class 1 benefits and their applicable surcharge for the Safety 3.0% at 50 Risk Pool. Last year's surcharges are shown for comparison.

	June 30, 2007	June 30, 2008
• One Year Final Compensation	0.913%	0.917%
• EPMC 7%	N/A	N/A
• EPMC 8%	1.914%	1.924%
• EPMC 9%	2.153%	2.164%
• 25% PRSA	1.777%	1.786%
• 50% PRSA	1.777%	1.786%
• 3% Annual COLA	2.419%	2.429%
• 4% Annual COLA	2.419%	2.429%
• 5% Annual COLA	2.419%	2.429%
• IDR For Local Miscellaneous Members	N/A	N/A
• Increased IDR Allowance to 75% of Compensation	2.869%	2.894%
• Improved Industrial Disability Allowance for Local Safety Members	2.869%	2.894%
• 1% Employee Cost Sharing	(1.000%)	(1.000%)
• 2% Employee Cost Sharing	(2.000%)	(2.000%)
• .75% Employee Cost Sharing	(0.750%)	(0.750%)
• 7% Employee Contribution Reduction	7.000%	7.000%
• 3.50% Employee Contribution Reduction	3.500%	3.500%
• Employee Contribution Rate for CSUC Auxiliary Organizations Reduced to State Member Level - Covered by Social Security	N/A	N/A
• Employee Contribution Rate for CSUC Auxiliary Organizations Reduced to State Member Level - Not Covered by Social Security	N/A	N/A
• 1.25% @ 65 Miscellaneous	N/A	N/A
• 2.5% @ 55 Safety	N/A	N/A
• 1/2 @ 55 Safety	N/A	N/A

For employers contracting for more than one Class 1 benefit, the surcharges listed in this table will be added together.

Class 2

Class 2 benefits have been identified to be the ancillary benefits providing one-time increases in benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 2 benefit will be responsible for the past service liability associated with such benefit.

The following benefits shall be classified as Class 2:

- One-time 1% to 6% Ad Hoc COLA Increases for members who retired or died prior to January 1, 1998 (Section 21328)

APPENDIX C

- "Golden Handshakes" – Section 20903 Two Years Additional Service Credit
- Credit for Prior Service Paid for by the Employer
- Military Service Credit (Section 20996)
- Credit for Local Retirement System Service for Employees of Agencies Contracted on a Prospective basis (Section 20530.1)
- Prior Service Credit for Employees of an Assumed Agency Function (Section 20936)
- Limit Prior Service to Members Employed on Contract Date (Section 20938)
- Public Service Credit for Limited Prior Service (Section 21031)
- Public Service Credit for Employees of an Assumed Agency or Function (Section 21025)

Class 3

Class 3 benefits have been identified to be the less expensive ancillary benefits. Class 3 benefits may vary by rate plan within each risk pool. However, the employer contribution rate will not vary within the risk pool due to the Class 3 benefits.

The following benefits shall be classified as Class 3:

- Full formula plus social security
- Post Retirement Lump Sum Death Benefit
- \$600 lump sum retired death benefit (Section 21622)
- \$2,000 lump sum retired death benefit (Section 21623.5)
- \$3,000 lump sum retired death benefit (Section 21623.5)
- \$4,000 lump sum retired death benefit (Section 21623.5)
- \$5,000 lump sum retired death benefit (Section 21623.5)
- Improved non-industrial disability allowance (Section 21427)
- Special death benefit for local miscellaneous members (Section 21540.5)
- Service Credit Purchased by Member
- Partial Service Retirement (Section 21118)
- Optional Membership for Part Time Employees (Section 20325)
- Extension of Reciprocity Rights for Elective Officers (Section 20356)
- Removal of Contract Exclusions Prospectively Only (Section 20503)
- Alternate Death Benefit for Local Fire Members credited with 20 or more years of service (Section 21547.7)

APPENDIX C

Example Of Individual Agency's Rate Calculation

An individual employer rate is comprised of several components. These include the pool's net employer normal cost, payment on the pool's unfunded liability, additional surcharge payments for contracted Class 1 benefits, the normal cost phase-out and an agency's payment for their own side fund. An example of the total rate for an employer might look something like this:

Net Pool's Employer Normal Cost	15.707%
Rate Plan Surcharges	<u>0.917%</u>
Total Employer Normal Cost	16.624%
Plus: Pool's Payment on the Amortization Bases	2.470%
Normal Cost Phase Out	0.400%
Side Fund Amortization Payment	<u>2.600%</u>
Total Employer Rate for fiscal year 2010-2011	22.094%

Details regarding your individual agency's normal cost phase out, side fund and surcharges can be found in Section 1.

Distribution of Class 1 Benefits

	% of members in the pool with contracted benefit
<i>Final Compensation</i>	
One Year Final Compensation	89.1%
Three Years Final Compensation	10.9%
<i>Post Retirement Survivor Continuance (PRSA)</i>	
No PRSA	57.7%
With PRSA	42.3%
<i>Cost-of-Living Adjustments (COLA)</i>	
2% COLA	95.4%
3% COLA	2.9%
4% COLA	0.1%
5% COLA	1.6%
<i>Industrial Disability Benefit</i>	
None	0.0%
Standard Industrial Disability Benefit (50% of Final Compensation)	99.4%
Improved Industrial Disability Benefit (75% of Final Compensation)	0.4%
Improved Industrial Disability Benefit (50% - 90% of Final Compensation)	0.2%

APPENDIX D

- **LIST OF PARTICIPATING EMPLOYERS**

APPENDIX D

Employer Name

ALPINE FIRE PROTECTION DISTRICT
AMERICAN CANYON FIRE DISTRICT
ARBUCKLE-COLLEGE CITY FIRE PROTECTION DISTRICT
ARCATA FIRE PROTECTION DISTRICT
BELMONT SAN CARLOS FIRE DEPARTMENT
BIG BEAR CITY COMMUNITY SERVICES DISTRICT
BLUE LAKE FIRE PROTECTION DISTRICT
BONITA-SUNNYSIDE FIRE PROTECTION DISTRICT
BROADMOOR POLICE PROTECTION DISTRICT
CAMBRIA COMMUNITY HEALTHCARE DISTRICT
CAMBRIA COMMUNITY SERVICES DISTRICT
CARMEL REGIONAL FIRE AMBULANCE AUTHORITY
CARMEL VALLEY FIRE PROTECTION DISTRICT
CENTRAL FIRE PROTECTION DISTRICT OF SANTA CRUZ COUNTY
CITY OF ANDERSON
CITY OF ANGELS
CITY OF ARCATA
CITY OF ARROYO GRANDE
CITY OF ATASCADERO
CITY OF AUBURN
CITY OF AZUSA
CITY OF BALDWIN PARK
CITY OF BANNING
CITY OF BARSTOW
CITY OF BEAUMONT
CITY OF BELL
CITY OF BELL GARDENS
CITY OF BELMONT
CITY OF BENICIA
CITY OF BISHOP
CITY OF BLYTHE
CITY OF BRAWLEY
CITY OF BRENTWOOD
CITY OF BUENA PARK
CITY OF BURLINGAME
CITY OF CALIFORNIA CITY
CITY OF CAMPBELL
CITY OF CAPITOLA
CITY OF CARMEL-BY-THE-SEA
CITY OF CHINO
CITY OF CITRUS HEIGHTS
CITY OF CLAREMONT
CITY OF CLEARLAKE
CITY OF CLOVERDALE
CITY OF COLTON
CITY OF COMPTON
CITY OF CORNING
CITY OF CORONA
CITY OF CORONADO
CITY OF COTATI
CITY OF COVINA
CITY OF CYPRESS
CITY OF DEL MAR
CITY OF DESERT HOT SPRINGS
CITY OF DIXON
CITY OF DOS PALOS
CITY OF EL CENTRO

APPENDIX D

CITY OF EL CERRITO
CITY OF ELK GROVE
CITY OF EMERYVILLE
CITY OF ESCALON
CITY OF EUREKA
CITY OF FORTUNA
CITY OF GALT
CITY OF GARDENA
CITY OF GLENDORA
CITY OF GRASS VALLEY
CITY OF GRIDLEY
CITY OF HALF MOON BAY
CITY OF HAWTHORNE
CITY OF HEALDSBURG
CITY OF HERCULES
CITY OF HERMOSA BEACH
CITY OF HOLLISTER
CITY OF HUNTINGTON PARK
CITY OF IMPERIAL BEACH
CITY OF INDIO
CITY OF IONE
CITY OF IRWINDALE
CITY OF JACKSON
CITY OF LA HABRA
CITY OF LA PALMA
CITY OF LA VERNE
CITY OF LAGUNA BEACH
CITY OF LINCOLN
CITY OF LIVERMORE
CITY OF LOMPOC
CITY OF LOS ALAMITOS
CITY OF LOS ALTOS
CITY OF LOS BANOS
CITY OF MADERA
CITY OF MANHATTAN BEACH
CITY OF MARINA
CITY OF MARTINEZ
CITY OF MAYWOOD
CITY OF MENLO PARK
CITY OF MONROVIA
CITY OF MONTCLAIR
CITY OF MONTEREY
CITY OF MORGAN HILL
CITY OF MORRO BAY
CITY OF MURRIETA
CITY OF NEVADA CITY
CITY OF NEWARK
CITY OF NEWMAN
CITY OF OAKDALE
CITY OF ORLAND
CITY OF OXNARD
CITY OF PACIFIC GROVE
CITY OF PACIFICA
CITY OF PALOS VERDES ESTATES
CITY OF PASO ROBLES
CITY OF PATTERSON
CITY OF PIEDMONT
CITY OF PISMO BEACH
CITY OF PITTSBURG

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CITY OF PLACENTIA
CITY OF PLACERVILLE
CITY OF PLEASANT HILL
CITY OF PLEASANTON
CITY OF POWAY
CITY OF RED BLUFF
CITY OF REDLANDS
CITY OF RIPON
CITY OF ROCKLIN
CITY OF ROHNERT PARK
CITY OF SALINAS
CITY OF SAN BRUNO
CITY OF SAN CARLOS
CITY OF SAN FERNANDO
CITY OF SAN GABRIEL
CITY OF SAN LEANDRO
CITY OF SAN LUIS OBISPO
CITY OF SAN MARCOS
CITY OF SAN MARINO
CITY OF SAN PABLO
CITY OF SAN RAMON
CITY OF SANTA CRUZ
CITY OF SANTA FE SPRINGS
CITY OF SANTA MARIA
CITY OF SANTA PAULA
CITY OF SANTEE
CITY OF SCOTTS VALLEY
CITY OF SEAL BEACH
CITY OF SEASIDE
CITY OF SEBASTOPOL
CITY OF SIGNAL HILL
CITY OF SOLANA BEACH
CITY OF SONOMA
CITY OF SONORA
CITY OF SOUTH GATE
CITY OF SOUTH LAKE TAHOE
CITY OF ST. HELENA
CITY OF SUISUN CITY
CITY OF SUSANVILLE
CITY OF SUTTER CREEK
CITY OF TEHACHAPI
CITY OF TULARE
CITY OF TURLOCK
CITY OF TUSTIN
CITY OF UKIAH
CITY OF VISTA
CITY OF WALNUT CREEK
CITY OF WATSONVILLE
CITY OF WEST SACRAMENTO
CITY OF WESTMINSTER
CITY OF WILLIAMS
CITY OF WILLITS
CITY OF WILLOWS
CITY OF YUBA CITY
CLOVERDALE FIRE PROTECTION DISTRICT
COMPTON UNIFIED SCHOOL DISTRICT
COTTONWOOD FIRE PROTECTION DISTRICT
COUNTY OF ALPINE
COUNTY OF AMADOR

APPENDIX D

COUNTY OF CALAVERAS
COUNTY OF COLUSA
COUNTY OF GLENN
COUNTY OF INYO
COUNTY OF LASSEN
COUNTY OF MARIPOSA
COUNTY OF MODOC
COUNTY OF MONO
COUNTY OF NAPA
COUNTY OF NEVADA
COUNTY OF TRINITY
COUNTY OF TUOLUMNE
DIAMOND SPRINGS/EL DORADO FIRE PROTECTION DISTRICT
EAST BAY REGIONAL PARK DISTRICT
EL DORADO COUNTY FIRE PROTECTION DISTRICT
EL DORADO HILLS COUNTY WATER DISTRICT
ESTERO MUNICIPAL IMPROVEMENT DISTRICT
FONTANA UNIFIED SCHOOL DISTRICT
FOUNTAIN VALLEY CITY
GARDEN VALLEY FIRE PROTECTION DISTRICT
GEORGETOWN FIRE PROTECTION DISTRICT
GLENDALE COMMUNITY COLLEGE DISTRICT
GOLD RIDGE FIRE PROTECTION DISTRICT
HACIENDA LA PUENTE UNIFIED SCHOOL DISTRICT
KENSINGTON COMMUNITY SERVICE DISTRICT
LAKESIDE FIRE PROTECTION DISTRICT
LINDEN-PETERS RURAL COUNTY FIRE PROTECTION DISTRICT
MARINWOOD COMMUNITY SERVICES DISTRICT
MARYSVILLE CITY
MENLO PARK FIRE PROTECTION DISTRICT
MONTEREY PENINSULA AIRPORT DISTRICT
MURRIETA FIRE PROTECTION DISTRICT
NORTH TAHOE FIRE PROTECTION DISTRICT
NORTHSTAR COMMUNITY SERVICES DISTRICT
PORT SAN LUIS HARBOR DISTRICT
RANCHO CUCAMONGA FIRE PROTECTION DISTRICT
RANCHO SANTA FE FIRE PROTECTION DISTRICT
RUNNING SPRINGS WATER DISTRICT
SALIDA FIRE PROTECTION DISTRICT
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT
SAN DIEGO UNIFIED SCHOOL DISTRICT
SANTA ANA UNIFIED SCHOOL DISTRICT
SQUAW VALLEY PUBLIC SERVICE DISTRICT
STANISLAUS CONSOLIDATED FIRE PROTECTION DISTRICT
STOCKTON UNIFIED SCHOOL DISTRICT
TEMPLETON COMMUNITY SERVICES DISTRICT
TOWN OF ATHERTON
TOWN OF COLMA
TOWN OF CORTE MADERA
TOWN OF FAIRFAX
TOWN OF HILLSBOROUGH
TOWN OF LOS GATOS
TOWN OF MAMMOTH LAKES
TOWN OF PARADISE
TOWN OF SAN ANSELMO
TOWN OF TRUCKEE
TWIN RIVERS UNIFIED SCHOOL DISTRICT
WINTERS FIRE PROTECTION DISTRICT
WOODSIDE FIRE PROTECTION DISTRICT

APPENDIX D

APPENDIX E

- **GLOSSARY OF ACTUARIAL TERMS**

Glossary of Actuarial Terms

Accrued Liability

The total dollars needed as of the valuation date to fund all benefits earned in the past for *current* members.

Actuarial Assumptions

Assumptions made about certain events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability and retirement rates. Economic assumptions include investment return, salary growth and inflation.

Actuarial Methods

Procedures employed by actuaries to achieve certain goals of a pension plan. These may include things such as funding method, setting the length of time to fund the past service liability and determining the actuarial value of assets.

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. These valuations are performed annually or when an employer is contemplating a change to their plan provisions.

Actuarial Value of Assets

The actuarial value of assets used for funding purposes is obtained through an asset smoothing technique where investment gains and losses are partially recognized in the year they are incurred, with the remainder recognized in subsequent years.

This method helps to dampen large fluctuations in the employer contribution rate.

Amortization Bases

Separate payment schedules for different portions of the unfunded liability. The total unfunded liability (or side fund) can be segregated by "cause", creating "bases" and each such base will be separately amortized and paid for over a specific period of time. This can be likened to a home mortgage that has 24 years of remaining payments and a second on that mortgage that has 10 years left. Each base or each mortgage note has its own terms (payment period, principal, etc.)

Generally in an actuarial valuation, the separate bases consist of changes in liability (principal) due to amendments, actuarial assumption changes, or methodology changes and gains and losses. Payment periods are determined by Board policy and vary based on the cause of the change.

Amortization Period

The number of years required to pay off an amortization base.

Annual Required Contributions (ARC)

The employer's periodic required annual contributions to a defined benefit pension plan, calculated in accordance with the plan assumptions. The ARC is determined by multiplying the employer contribution rate by the payroll reported to CalPERS for the applicable fiscal year. However, if this contribution is fully prepaid in a lump sum, then the dollar value of the ARC is equal to the Lump Sum Prepayment.

Class 1 Benefits

Class 1 benefits have been identified to be the more expensive ancillary benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 1 benefit will be responsible for the past service liability associated with such benefit and will be required to pay a surcharge established by the actuary to cover the ongoing cost (normal cost) of the Class 1 benefit.

APPENDIX E

Class 2 Benefits

Class 2 benefits have been identified to be the ancillary benefits providing one-time increases in benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 2 benefit will be responsible for the past service liability associated with such benefit.

Class 3 Benefits

Class 3 benefits have been identified to be the less expensive ancillary benefits. Class 3 benefits may vary by rate plan within each risk pool. However, the employer contribution rate will not vary within the risk pool due to the Class 3 benefits.

Entry Age

The earliest age at which a plan member begins to accrue benefits under a defined benefit pension Plan or risk pool. In most cases, this is the same as the date of hire.

(The assumed retirement age less the entry age is the amount of time required to fund a member's total benefit. Generally, the older a member is at hire, the greater the entry age normal cost. This is mainly because there is less time to earn investment income to fund the future benefits.)

Excess Assets

When a plan or pool's actuarial value of assets is greater than its accrued liability, the difference is the plan or pool's excess assets. A plan with excess assets is said to be overfunded. The result is that the plan or pool can temporarily reduce future contributions.

Entry Age Normal Cost Method

An actuarial cost method designed to fund a member's total plan benefit over the course of his or her career. This method is designed to produce stable employer contributions in amounts that increase at the same rate as the employer's payroll (i.e. level % of payroll).

Fresh Start

When multiple amortization bases are collapsed into one base and amortized over a new funding period. At CalPERS, fresh starts are used to avoid inconsistencies that would otherwise occur.

Funded Status

A measure of how well funded a plan or risk pool is. Or equivalently, how "on track" a plan or risk pool is with respect to assets vs. accrued liabilities. We calculate a funded ratio by dividing the market value of assets by the accrued liabilities. A ratio greater than 100% means the plan or risk pool has more assets than liabilities and a ratio less than 100% means liabilities are greater than assets.

Normal Cost

The annual cost of service accrual for the upcoming fiscal year for active employees. The normal cost plus surcharges should be viewed as the long term contribution rate.

Pension Actuary

A person who is responsible for the calculations necessary to properly fund a pension plan.

Prepayment Contribution

A payment made by the employer to reduce or eliminate the year's required employer contribution.

Present Value of Benefits

The total dollars needed as of the valuation date to fund all benefits earned in the past or expected to be earned in the future for current members.

Risk Pools

Using the benefit of the law of large numbers, it is a collection of employers for the purpose of sharing risk.

Rolling Amortization Period

An amortization period that remains the same each year or does not decline.

APPENDIX E

Side Fund

At the time of joining a risk pool, a side fund was created to account for the difference between the funded status of the pool and the funded status of your plan. Your side fund will be amortized on an annual basis, with the actuarial investment return assumption. This assumption is currently 7.75%. A positive side fund will cause your required employer contribution rate to be reduced by the Amortization of the Side Fund shown in REQUIRED CONTRIBUTIONS. A negative side fund will cause your required employer contribution rate to be increased by the Amortization of the Side Fund. In the absence of subsequent contract amendments or funding changes, the Side Fund will disappear at the end of the amortization period.

Superfunded

A condition existing when the actuarial value of assets exceeds the present value of benefits. When this condition exists on a given valuation date for a given plan, employee contributions for the rate year covered by that valuation may be waived.

Unfunded Liability

When a plan or pool's actuarial value of assets is less than its accrued liability, the difference is the plan or pool's unfunded liability. The plan or pool will have to temporarily increase contributions.

