State & Schools Actuarial Valuation

As of June 30, 2012

Establishing Required Contributions

for the Fiscal Year

July 1, 2013 through June 30, 2014

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

State & Schools Actuarial Valuation as of June 30, 2012

Actuarial Office

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Actuarial Certification

To the best of our knowledge, this report is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the CalPERS State and Schools plans. This valuation is based on the member and financial data as of June 30, 2012 provided by the various CalPERS databases and the benefits under these plans 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 these plans, 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, are members of the American Academy of Actuaries and the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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HIGHLIGHTS AND EXECUTIVE SUMMARY

- INTRODUCTION
- PURPOSE OF THE REPORT
- EMPLOYER REQUIRED CONTRIBUTION RATES
- EXPECTED FUTURE CHANGES
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Introduction

This is the actuarial valuation report as of June 30, 2012 for the State and Schools plans. This actuarial valuation was used to set the 2013-14 required employer contribution rates.

On average, employer contribution rates for 2013-14 are slightly higher than the 2012-13 rates; however, the expected contribution amounts (in dollars) are expected to decrease due to lower payrolls and an increase in member contributions for many State members. The funded ratios for the plans are decreasing from the prior year due to a less than expected investment return of -0.1% for the 2011-12 fiscal year.

There are two enhancements to this report to assist the reader:

- Appendix D is a new addition to the report. It contains normal cost information for the various benefit groups within the State plans and School pool. This was added due to the proliferation of benefit formulas as a result of the adoption of lower benefit levels in recent years. This information will assist readers in understanding how costs will evolve over time as more members come under the new benefit formulas.
- The “Risk Analysis” section of the report, including a projection of future contribution rates under different investment return scenarios, has been moved to the body of the report.

Three events occurred after the valuation date that the reader should be aware of. They include pension reform, an actuarial method change, and a possible assumption change.

On January 1, 2013, the Public Employees’ Pension Reform Act of 2013 (PEPRA) took effect. The impact of most of the PEPRA changes will first show up in the rates and the benefit provision listings of the June 30, 2013 valuation, which sets the 2014-15 contribution rates. The legislation associated with pension reform (AB340) also included member contribution rate changes for some State employees. The impact of the changes in employee contribution rates effective July 1, 2013, is reflected in this valuation. For more information on pension reform, please refer to the CalPERS website.

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Beginning with the June 30, 2014 valuations that set the 2015-16 rates, CalPERS will no longer use an actuarial value of assets and will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The impact of this new actuarial methodology is reflected in the “Analysis of Future Investment Return Scenarios” subsection of the “Risk Analysis” section of the report.

As stewards of the System, CalPERS must ensure that the pension fund is sustainable over multiple generations. Our strategic plan calls for us to take an integrated view of our assets and liabilities and to take steps designed to achieve a fully funded plan. A review of the preferred asset allocation mix for CalPERS investment portfolio will be performed in late 2013, which could influence future discount rates. In addition, CalPERS will review economic and demographic assumptions, including mortality rate improvements that are likely to increase employer contribution rates in future years.

Asset volatility in addition to risk measures shown in the "Risk Analysis" section in the report indicate that these plans still face considerable challenges. The changes outlined above address some of these challenges but will take time to have full impact. Future reports will reflect the evolution of these factors and the CalPERS Board's ongoing focus on the funding of the System.

Purpose of the Report

This actuarial valuation was performed by the CalPERS Actuarial Office using data as of June 30, 2012. The purpose of the report is to:

- Set forth the actuarial assets and accrued liabilities of these plans as of June 30, 2012
- Determine the required employer contribution rates of these plans for the fiscal year July 1, 2013 through June 30, 2014
- Provide actuarial information as of June 30, 2012 to the CalPERS Board of Administration and other interested parties, and to
- Provide pension information as of June 30, 2012 to be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 27.

The use of this report for any other purposes may be inappropriate.

California Actuarial Advisory Panel Recommendations

This report includes all basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), except for the following:

- Due to the various employee contribution rates within the majority of State plans, we have shown the total normal cost for the plans and shown the average employee portion as "Employee Contribution." More specific employee normal costs are given in Appendix B.
- The unfunded liability amortization schedule does not give the amounts of each of the original bases; instead, the rolling 30-year gain/loss bases were all combined into a single base.

Additionally, this report includes the following "Enhanced Risk Disclosures" also recommended by the CAAP in the Model Disclosure Elements document:

- A "Deterministic Stress Test," projecting future results under different investment return scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1% plus or minus change in the discount rate.

Employer Required Contribution Rates

The actuarially required employer contribution rates for the fiscal year July 1, 2013 through June 30, 2014 are shown in the table on the following page. For comparison purposes, the corresponding contribution rates for fiscal year July 1, 2012 through June 30, 2013 are also provided. The expected contribution amounts that these rates are/were expected to generate are also shown.

	2012-13 Fiscal Year		2013-14 Fiscal Year	
	Expected Employer Contribution	**Required Employer Rate[1]**	**Expected Employer Contribution**	**Required Employer Rate**
State Miscellaneous Tier 1	$2,064,654,743	20.503%	$2,093,047,896	21.121%
State Miscellaneous Tier 2	72,880,957	20.457%	72,151,897	20.992%
State Industrial	100,447,274	16.302%	90,690,285	15.682%
State Safety	347,275,501	17.503%	326,678,917	17.205%
State Peace Officers & Firefighters	1,028,095,419	30.297%	954,994,296	30.495%
California Highway Patrol	263,068,361	33.728%	267,523,309	34.616%
Subtotal State	**$3,876,422,255**		**$3,805,086,600**	
Schools	1,203,430,156	11.417%	1,171,945,558	11.442%
Total	**$5,079,852,411**		**$4,977,032,158**	

In 2012, the CalPERS Board adopted new economic assumptions that were used for the first time in the June 30, 2011 valuation. In an effort to mitigate the impact this assumption change had on employers' budgets, the Board chose to phase-in the impact of the assumption change over two years. In the May 2012 meeting of the Pension and Health Benefits Committee, representatives from the Department of Finance requested that the Board not adopt a two-year phase-in of the assumption change for the State plans. The Board adopted employer contribution rates with the two-year phase-in for the State plans and the Schools Pool and indicated to the representatives of the Department of Finance that the employer contribution rates adopted by the Board were the minimum required contribution rates and the State could, as part of its regular budget setting process, agree to send additional contributions to CalPERS. In June 2012, the Governor signed a budget that included funds to be allocated to CalPERS based on contribution rates derived without a phase-in of the assumption change. The above table compares the expected contributions in 2012-13 without the phase-in of the assumption change for the State plans to the expected contributions for 2013-14.

The supporting exhibits in this report entitled "Reconciliation of Employer Contribution Rates" on page 43 and "Reconciliation of Employer Contributions" on page 45 provide explanations of the changes in required contribution rates and expected contribution amounts from the 2012-13 fiscal year to the 2013-14 fiscal year.

A history of the required contribution rates is included on page 47 of this report.

Reasons for Change in Employer Contributions for the State Plans

Overall, the required contributions (in dollars) for the State plans have decreased between fiscal year 2012-13 and fiscal year 2013-14. There are two main reasons for the decrease: 1) the Plans' experience in fiscal year 2011-12, which includes demographic, contribution and asset gains/losses, and 2) increases in member contributions implemented as part of pension reform legislation (AB340).

[1] For State plans, this is without the phase-in of the assumption change adopted by the Board in 2012.

The main reasons for the changes in employer contributions from 2012-13 and 2013-14 are shown in the table below. Note that the "Others Gains and Losses" category includes a refinement in the 415(b) limit calculation for CHP members which is a minor increase in contribution and only impacts that plan. The table below compares the expected contribution amounts in 2012-13 without the phase-in of the assumption change for the State plans to the expected contribution amount for 2013-14.

Reason for Change	**Change in Required Contribution (millions)**
Change due to normal progression of existing amortization bases	$54.6
Change due to reduction in overall payroll	(73.6)
Actuarial gains and losses:	
• Impact of investment return less than expected in fiscal year 2011-12	108.3
• Lower than expected individual salary increases in fiscal year 2011-12	(82.6)
• Lower than expected contributions received in 2011-12	3.6
• Impact of additional member contributions as per AB 340	(63.1)
• Other Gains and Losses	(18.5)
Total Change in Required Contributions due to plan experience	($71.3)

Additional Contributions

One of the provisions of AB340 added Government Code Section 20683.2 which changes the contribution rates of many members effective July 1, 2013. In addition, it requires that the "savings realized by the state employer as a result of the employee contribution rate increases required by this section shall be allocated to any unfunded liability, subject to appropriation in the annual Budget Act." Under the California Constitution, the Board has "plenary" authority over the actuarial function at CalPERS consistent with the fiduciary duties of a trustee. This includes authority to set employer contribution rates. By statute, the State may pay additional contributions in addition to the actuarially required contribution rates set by the Board and, of course, CalPERS will generally accept these payments. AB 340 effectively augments the contributions of the State when increased employee contributions actually result in a savings to the employer.

The table below shows the:

- Actuarially required contributions (the rates that the Board set for the State plans at its June 2013 meeting)
- The additional contributions that the State is to make to offset the savings due to the increased member contributions, and
- The total contributions that the State is to make for each plan.

Plan	Actuarially Required Employer Contribution for 2013-14	Additional Statutory Contribution to Offset Increased Member Contributions	Total Contribution 2013-14
State Miscellaneous Tier 1	21.121%	0.082%	21.203%
State Miscellaneous Tier 2	20.992%	0.363%	21.355%
State Industrial	15.682%	0.764%	16.446%
State Safety	17.205%	0.700%	17.905%
State Peace Officers & Firefighters	30.495%	0.825%	31.320%
California Highway Patrol	34.616%	1.319%	35.935%

In all cases, the savings are less than the actual increase in member contributions. This is because the additional member contributions increase the value of the benefit in some circumstances. An example is when a member terminates and takes a refund. A less obvious example is for Tier 2 members where the members are assumed to elect to receive a Tier 1 benefit with an actuarial equivalent reduction to offset the missed Tier 1 contributions. Because the members are now required to make member contributions (although only at 1.5 percent of pay for the 2013-14 fiscal year) a smaller reduction will apply in the future.

With the passage of the 2013 Budget Act, the California State Legislature adopted the contribution rates that include the additional contribution to offset the increase in member contributions. The rates and information shown in the remainder of this report reflect the rates set by the Board at its June 2013 meeting (shown above as the actuarially required employer contribution). The additional contribution adopted by the Legislature will be realized in future valuations as actuarial gains.

Reasons for Change in Employer Contributions for the Schools Pool

Overall, the required contributions (in dollars) for the Schools pool have decreased between fiscal year 2012-13 and fiscal year 2013-14 by $31.5 million. As mentioned earlier, in 2012, the CalPERS

Board updated the economic assumptions that were used beginning with the June 30, 2011 valuation. The Board chose to phase-in the impact of the assumption change over two years. The 2013-14 contributions are approximately $63.9 million higher than 2012-13 because this is the second year of the phase-in. The investment return for 2011-12 was less than expected and caused an increase in contributions of approximately $41.1 million. These increases in required contributions are offset by large liability gains due to demographic experience, mainly individual salary increases and overall payroll growth being less than expected in 2011-12.

Expected Future Changes

In July 2013, the investment return for fiscal year 2012-13 was announced to be 12.5%. This return does not reflect final investment return information for real estate and private equities. The final return information for these two asset classes will be available in October 2013. For purposes of projecting future employer rates, we are assuming a 12% investment return for fiscal year 2012-13.

Below is a table showing the estimated 2014-15 employer rates for the State plans and the Schools pool based on a 12% investment return for fiscal year 2012-13. Note that the projected rates assume that all other actuarial assumptions will be realized, reflect member contribution changes effective July 1, 2014 bargained for prior to the release of this report, and assume that no changes to benefits will occur between now and the beginning of fiscal year 2014-15.

Plan	Estimated 2014-15 Employer Rates Assuming a 12% Investment Return for 2012-13
State Miscellaneous Tier 1	21.3%
State Miscellaneous Tier 2	21.0%
State Industrial	15.7%
State Safety	16.6%
State Police Officers & Firefighters	29.6%
California Highway Patrol	35.1%
Schools	11.7%

A scenario analysis was performed to determine the effects of various investment returns on future employer contribution rates for three years beyond the estimated 2014-15 employer rates shown above. That information is available in the "Risk Analysis" section of this report.

History of the Expected Contribution Requirements

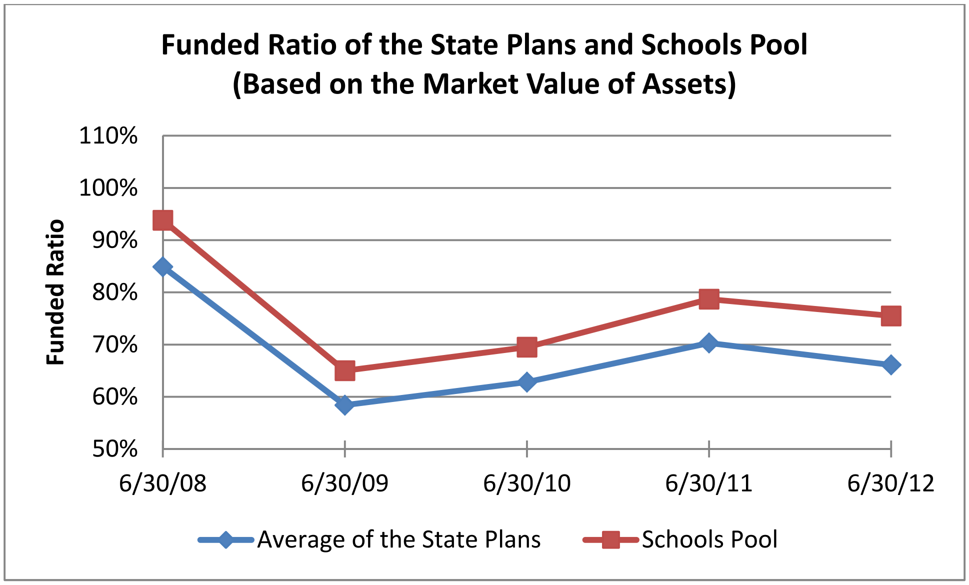
The following table shows the history of the employer contributions set by CalPERS based on projected payroll for the State plans and the Schools pool going back to fiscal year 1996-97.

Fiscal Year	Total State Contributions	Total School Contributions
1996-97	$1,236,447,373	$ 416,694,314
1997-98	1,223,327,746	317,571,853
1998-99	766,067,149	0
1999-00	159,460,097	0
2000-01	156,722,747	0
2001-02	677,244,769	0
2002-03	1,189,559,722	228,972,653
2003-04	2,212,518,481	869,501,830
2004-05	2,547,364,178	903,570,002
2005-06	2,428,720,628	826,672,339
2006-07	2,665,262,125	841,504,282
2007-08	2,746,929,250	919,528,538
2008-09	3,025,181,372	966,316,743
2009-10	3,287,572,458	1,081,377,863
2010-11[1]	3,684,715,103	1,189,482,769
2011-12	3,514,951,156	1,232,486,937
2012-13	3,876,422,255	1,203,430,156
2013-14	$3,805,086,600	$1,171,945,558

Funded Status of the Plans

Because the investment return experienced by CalPERS in fiscal year 2011-12 was less than the assumed 7.5 percent, the funded status decreased in the range of 3.2 percent to 4.8 percent for all plans. The graph on the following page shows the average funded status for the past five years for the State plans and for the Schools Pool based on the market value of assets.

[1] The State employer contributions for 2010-11 differ from the expected employer contribution of $3,888,278,401 determined by the June 30, 2009 annual valuation due to additional member contributions which resulted in lower expected employer contributions.



The table below shows the funded status of the plans using the market value of assets on June 30, 2012.

Funded Status and Unfunded Liability on June 30, 2012

Plan	Entry Age Normal Accrued Liability	Market Value of Assets	Unfunded Liability	Funded Ratio
State Miscellaneous	$83,523,526,246	$55,371,256,388	$28,152,269,858	66.3%
State Industrial	2,968,403,342	2,168,103,394	800,299,948	73.0%
State Safety	7,827,253,833	5,524,386,200	2,302,867,633	70.6%
State Peace Officers and Firefighters	31,335,588,660	20,525,705,429	10,809,883,231	65.5%
California Highway Patrol	8,659,143,106	5,220,072,829	3,439,070,277	60.3%
Total for the State	**$134,313,915,187**	**$88,809,524,240**	**$45,504,390,947**	**66.1%**
Schools	$59,439,130,743	$44,853,803,861	$14,585,326,882	75.5%

The table below shows the funded status for each of the plans for the last five years.

Funded Ratio of the Retirement Program (Based on the Market Value of Assets)					
	June 30, 2008	June 30, 2009	June 30, 2010	June 30, 2011	June 30, 2012
State Miscellaneous	86.1%	59.0%	63.2%	70.7%	66.3%
State Industrial	91.0%	63.1%	68.3%	77.0%	73.0%
State Safety	84.8%	58.5%	65.2%	74.6%	70.6%
State Police Officers & Firefighters	82.2%	57.4%	62.1%	69.0%	65.5%
California Highway Patrol	79.3%	53.9%	57.6%	65.1%	60.3%
Total for the State	**84.9%**	**58.4%**	**62.8%**	**70.3%**	**66.1%**
Schools	93.8%	65.0%	69.5%	78.7%	75.5%

Subsequent Events

Actuarial Methods and Assumptions

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Beginning with the June 30, 2014 valuation for State and Schools that sets the 2015-16 rates, CalPERS will no longer use an actuarial value of assets and will employ an amortization and rate smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The impact of this new actuarial methodology is reflected in the “Expected Rate Increases” subsection of the “Risk Analysis” section of this report.

Not reflected in the “Expected Rate Increases” subsection of the “Risk Analysis” section is the impact of assumption changes that we expect will also impact future rates. A review of the preferred asset allocation mix for CalPERS investment portfolio will be performed in late 2013, which could influence future discount rates. In addition, CalPERS will review economic and demographic assumptions, including mortality rate improvements that are likely to increase employer contribution rates in future years.

Benefits and Contributions

On January 1, 2013, the Public Employees’ Pension Reform Act of 2013 (PEPRA) took effect. The impact of most of the PEPRA changes will first show up in the rates and the benefit provision listings of the June 30, 2013 valuation, which sets the 2014-15 contribution rates. The legislation associated with pension reform (AB340) also included member contribution rate changes for some State employees. The impact of the changes in employee contribution rates effective July 1, 2013, is reflected in this valuation. For more information on pension reform, please refer to the CalPERS website.

ASSETS

- RECONCILIATION OF THE MARKET VALUE OF ASSETS OVER THE PRIOR FISCAL YEAR
- DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS
- ASSET ALLOCATION
- CALPERS HISTORY OF INVESTMENT RETURNS

Reconciliation of the Market Value of Assets Over the Prior Fiscal Year

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
1. Market Value of Assets as of June 30, 2011 Including Receivables for Tier 1 Conversion and Service Buybacks	$ 57,451,959,716	$ 2,179,954,931	$ 5,389,522,934	$ 20,801,283,158	$ 5,335,993,093	$ 45,900,990,362
2. Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2011	$ 561,381,449	$ 18,015,356	$ 12,325,260	$ 43,000,069	$ 11,480,870	$ 27,503,406
3. Market Value of Assets as of June 30, 2011	$ 56,890,578,267	$ 2,161,939,575	$ 5,377,197,674	$ 20,758,283,089	$ 5,324,512,223	$ 45,873,486,956
4. Contributions Received during fiscal year 2011-12	2,504,240,038	121,223,812	469,220,649	1,168,454,487	294,020,794	1,837,217,464
5. Benefit Payments in 2011-12	(4,472,574,601)	(128,448,945)	(318,706,174)	(1,394,563,939)	(397,028,770)	(2,716,394,957)
6. Refunds in 2011-12	(14,219,927)	(825,056)	(5,294,211)	(8,776,840)	(884,657)	(69,588,022)
7. Investment Return	(132,792,224)	(4,909,717)	(11,261,036)	(43,840,659)	(12,880,630)	(100,326,147)
8. Market Value of Assets as of June 30, 2012 [(3) + (4) + (5) + (6) + (7)]	$ 54,775,231,553	$ 2,148,979,669	$ 5,511,156,902	$ 20,479,556,138	$ 5,207,738,960	$ 44,824,395,294
9. Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2012	$ 596,024,835	$ 19,123,725	$ 13,229,298	$ 46,149,291	$ 12,333,869	$ 29,408,567
10. Market Value of Assets as of June 30, 2012 Including Receivables for Tier 1 Conversion and Service Buybacks	$ 55,371,256,388	$ 2,168,103,394	$ 5,524,386,200	$ 20,525,705,429	$ 5,220,072,829	$ 44,853,803,861

Development of the Actuarial Value of Assets

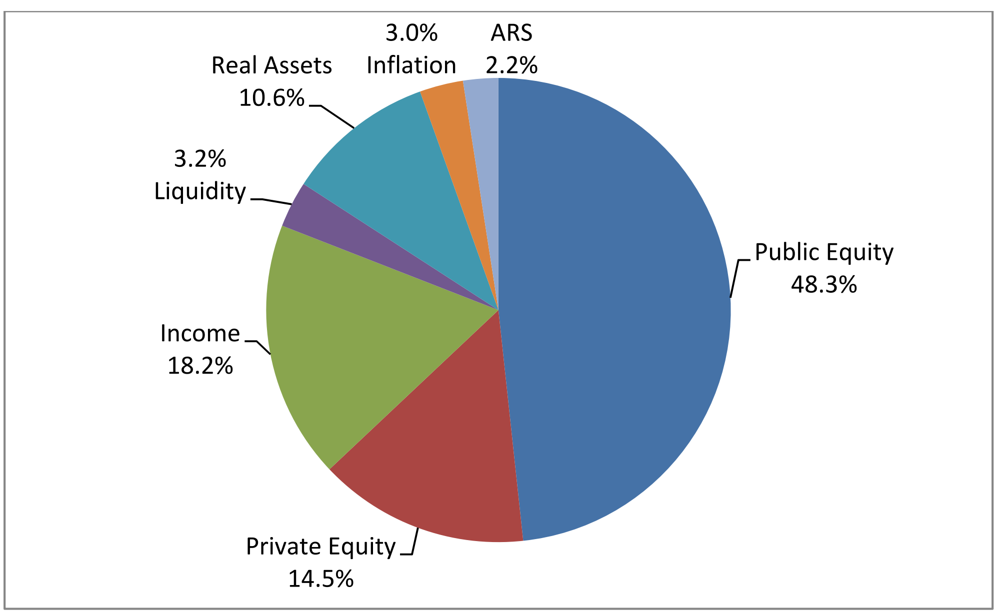
	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
1. Actuarial Value of Assets as of June 30, 2011 Used for Rate Setting Purposes	$ 64,792,922,278	$ 2,435,530,361	$ 5,914,941,212	$ 23,317,993,416	$ 5,990,968,539	$ 51,547,418,456
2. Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2011	$ 561,381,449	$ 18,015,356	$ 12,325,260	$ 43,000,069	$ 11,480,870	$ 27,503,406
3. Actuarial Value of Assets as of 6/30/11 (Prior to adjustments for Receivables for Tier 1 Conversion and Service Buybacks) [(1)-(2)]	$ 64,231,540,829	$ 2,417,515,005	$ 5,902,615,952	$ 23,274,993,347	$ 5,979,487,669	$ 51,519,915,050
4. Contributions Received during fiscal year 2011-12	2,504,240,038	121,223,812	469,220,649	1,168,454,487	294,020,794	1,837,217,464
5. Benefit Payments in 2011-12	(4,472,574,601)	(128,448,945)	(318,706,174)	(1,394,563,939)	(397,028,770)	(2,716,394,957)
6. Refunds in 2011-12	(14,219,927)	(825,056)	(5,294,211)	(8,776,840)	(884,657)	(69,588,022)
7. Expected Investment Return during fiscal 2011-12 [(3) x 0.075 + [(4) + (5) + (6)] x ((1 + 0.075)^.5-1)]	4,744,363,807	181,017,201	448,043,507	1,736,975,502	444,636,034	3,829,058,121
8. Expected Actuarial Value of Assets as of June 30, 2012 (Prior to Adjustment for Receivables) [(3) + (4) + (5) + (6) + (7)]	$ 66,993,350,146	$ 2,590,482,017	$ 6,495,879,723	$ 24,777,082,557	$ 6,320,231,070	$ 54,400,207,656
9. Market Value of Assets as of 6/30/12 (Prior to Adjustment for Receivables for Tier 1 Conversion and Service Buybacks)	$ 54,775,231,553	$ 2,148,979,669	$ 5,511,156,902	$ 20,479,556,138	$ 5,207,738,960	$ 44,824,395,294
10. Actuarial Value of Assets as of 6/30/12 [(8) + [(9) - (8)]/15, but not less than 80% or more than 120% of (9)]	$ 65,730,277,864	$ 2,561,048,527	$ 6,430,231,535	$ 24,490,580,796	$ 6,246,064,929	$ 53,761,820,165
11. Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2012	$ 596,024,835	$ 19,123,725	$ 13,229,298	$ 46,149,291	$ 12,333,869	$ 29,408,567
12. Actuarial Value of Assets as of June 30, 2012 Used for Rate Setting Purposes Only {(10) + (11)}, Including Receivables	$ 66,326,302,699	$ 2,580,172,252	$ 6,443,460,833	$ 24,536,730,087	$ 6,258,398,798	$ 53,791,228,732

Asset Allocation

CalPERS adheres to an Asset Allocation Strategy which establishes asset class allocation policy targets and ranges, and manages those asset class allocations within their policy ranges. CalPERS recognizes that over 90 percent of the variation in investment returns of a well-diversified pool of assets can typically be attributed to asset allocation decisions. In December 2010, the Board approved the policy asset class targets and ranges listed below. These policy asset allocation targets and ranges are expressed as a percentage of total assets and were expected to be implemented over a period of one to two years beginning July 1, 2011 and reviewed again in December 2013.

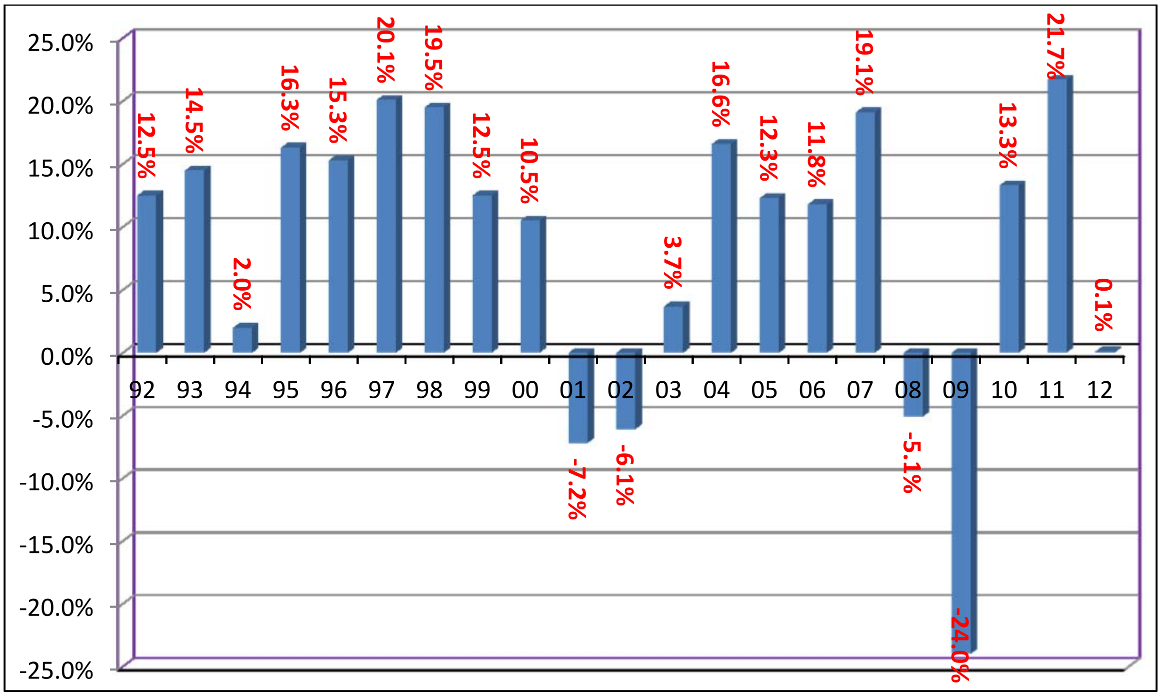
The asset allocation and market value of assets shown below reflect the values of the Public Employees Retirement Fund (PERF) in its entirety as of June 30, 2012. The assets of the State plans and Schools pool are part of the Public Employees Retirement Fund (PERF) and are invested accordingly.

(A) Asset Class	(B) Market Value ($ Billion)	(C) Policy Target Allocation	(D) Policy Target Range
1) Public Equity	113.0	50.0%	+/- 7%
2) Private Equity	33.9	14.0%	+/- 4%
3) Income	42.6	17.0%	+/- 5%
4) Liquidity	7.5	4.0%	+/- 5%
5) Real Assets	24.8	11.0%	+/- 3%
6) Inflation	7.0	4.0%	+/- 3%
7) Absolute Return Strategy (ARS)	5.1	0.0%	N/A
Total Fund	**$233.9**	**100.0%**	**N/A**



CalPERS 20-Year History of Investment Returns

The following is a chart with historical annual returns of the Public Employees Retirement Fund for each fiscal year ending on June 30. Beginning with June 30, 2002, the figures are reported gross of fees.



LIABILITIES AND RATES

- COMPARISON OF CURRENT AND PRIOR YEAR
- DEVELOPMENT OF ACCRUED AND UNFUNDED LIABILITIES
- DEVELOPMENT OF EMPLOYER CONTRIBUTION RATES
- SCHEDULE OF AMORTIZATION BASES FOR THE RETIREMENT PROGRAM
- GAIN AND LOSS ANALYSIS
- DEVELOPMENT OF GROUP TERM LIFE INSURANCE CONTRIBUTIONS
- RECONCILIATION OF EMPLOYER CONTRIBUTION RATES
- RECONCILIATION OF EMPLOYER CONTRIBUTIONS
- EMPLOYER CONTRIBUTION RATE HISTORY
- HISTORY OF FUNDED STATUS AND FUNDING PROGRESS

Comparison of Current and Prior Year

Shown below are the key valuation results for the current valuation compared to the corresponding results from the prior valuation.

STATE MISCELLANEOUS

Participant Information

	June 30, 2011	June 30, 2012
Members Included in the Valuation [1]		
Active Members Tier 1	150,826	149,384
Active Members Tier 2	7,204	6,948
Subtotal Active Members	158,030	156,332
Transfers from Tier 1	26,954	23,430
Transfers from Tier 2	11,460	11,424
Subtotal Transfers	38,414	34,854
Vested Terminations Tier 1	41,889	44,785
Vested Terminations Tier 2	1,635	1,562
Subtotal Vested Terminations [2]	43,524	46,347
Receiving Payments Tier 1	159,812	163,905
Receiving Payments Tier 2	4,531	5,043
Subtotal Receiving Payments	164,343	168,948
Subtotal Tier 1	379,481	381,504
Subtotal Tier 2	24,830	24,977
Grand Total	404,311	406,481
Average Entry Age of Active Members Tier 1	34.9	34.5
Average Entry Age of Active Members Tier 2	32.3	32.1
Average Age of Active Members Tier 1	48.0	48.1
Average Age of Active Members Tier 2	50.1	50.9
Average Pay Tier 1	$ 62,566	$ 62,139
Average Pay Tier 2	54,290	55,056
Average Pay Total	$ 62,188	$ 61,824
Covered Payroll Prior Fiscal Year		
Tier 1	$ 9,436,518,971	$ 9,282,610,034
Tier 2	391,102,267	382,527,908
Total	$ 9,827,621,238	$ 9,665,137,942
Projected Payroll for Contribution Rate		
Tier 1	$ 10,069,864,485	$ 9,910,025,419
Tier 2	356,258,886	343,719,424
Total	$ 10,426,123,371	$ 10,253,744,843

1 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 coverage group. This does not result in double counting of liabilities.

2 Includes non-vested terminated participants with employee contributions remaining in the plan.

STATE MISCELLANEOUS (CONTINUED)

Funded Status of the Retirement Program

	June 30, 2011	June 30, 2012
Present Value of Benefits	$ 92,738,298,297	$ 94,581,622,979
Accrued Liability	$ 81,271,085,568	$ 83,523,526,246
Market Value of Assets	$ 57,451,959,716	$ 55,371,256,388
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 23,819,125,852	$ 28,152,269,858
Funded Status	70.7%	66.3%

Employer Contribution

	June 30, 2011	June 30, 2012
Tier 1 Contribution Required in Dollars		
Total Normal Cost	$ 1,518,334,167	$ 1,477,782,990
Employee Contribution	675,486,510	676,161,034
Employer Normal Costs	842,847,657	801,621,956
Amortization of Unfunded Liability [3]	1,214,153,989	1,284,389,822
Group Term Life Benefits	7,653,097	7,036,118
Total	$ 2,064,654,743	$ 2,093,047,896
Tier 1 Contribution Required (Percent of Payroll)		
Total Normal Cost	15.078%	14.912%
Employee Contribution	6.708%	6.823%
Employer Normal Costs	8.370%	8.089%
Amortization of Unfunded Liability [3]	12.057%	12.961%
Group Term Life Benefits	0.076%	0.071%
Total	20.503%	21.121%

Tier 2 Contribution Required in Dollars		
Total Normal Cost	$ 29,654,990	$ 32,515,858
Employee Contribution	-	5,155,791
Employer Normal Costs	29,654,990	27,360,066
Amortization of Unfunded Liability [3]	42,955,210	44,547,790
Group Term Life Benefits	270,757	244,041
Total	$ 72,880,957	$ 72,151,897
Tier 2 Contribution Required (Percent of Payroll)		
Total Normal Cost	8.324%	9.460%
Employee Contribution	0.000%	1.500%
Employer Normal Costs	8.324%	7.960%
Amortization of Unfunded Liability [3]	12.057%	12.961%
Group Term Life Benefits	0.076%	0.071%
Total	20.457%	20.992%

3 For rate setting purposes, the unfunded liability is calculated based on the smoothed actuarial value of assets.

STATE INDUSTRIAL

Participant Information

	June 30, 2011	June 30, 2012
Members Included in the Valuation [1]		
Active Members	11,532	10,838
Transfers from Industrial	8,247	7,573
Vested Terminations [2]	2,874	2,985
Receiving Payments	10,024	10,654
Total	32,677	32,050
Average Entry Age of Active Members	36.7	36.1
Average Age of Active Members	45.2	45.9
Average Pay	$ 50,362	$ 50,296
Covered Payroll Prior Fiscal Year	$ 580,778,021	$ 545,112,340
Projected Payroll for Contribution Rate	$ 616,147,402	$ 578,309,682

1 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 coverage group. This does not result in double counting of liabilities.

2 Includes non-vested terminated participants with employee contributions remaining in the plan.

Funded Status of the Retirement Program

	June 30, 2011	June 30, 2012
Present Value of Benefits	$ 3,749,643,963	$ 3,801,133,984
Accrued Liability	$ 2,831,498,651	$ 2,968,403,342
Market Value of Assets	$ 2,179,954,931	$ 2,168,103,394
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 651,543,720	$ 800,299,948
Funded Status	77.0%	73.0%

Employer Contribution

	June 30, 2011	June 30, 2012
Contribution Required in Dollars		
Total Normal Cost	$ 110,573,813	$ 103,424,903
Employee Contribution	41,442,074	43,714,429
Employer Normal Costs	69,131,739	59,710,475
Amortization of Unfunded Liability [3]	31,315,535	30,979,810
Group Term Life Benefits	-	-
Total	$ 100,447,274	$ 90,690,285
Contribution Required (Percent of Payroll)		
Total Normal Cost	17.946%	17.884%
Employee Contribution	6.726%	7.559%
Employer Normal Costs	11.220%	10.325%
Amortization of Unfunded Liability [3]	5.082%	5.357%
Group Term Life Benefits	0.000%	0.000%
Total	16.302%	15.682%

3 For rate setting purposes, the unfunded liability is calculated based on the smoothed actuarial value of assets.

STATE SAFETY

Participant Information

	June 30, 2011	June 30, 2012
Members Included in the Valuation [1]		
Active Members	24,497	23,729
Transfers From State Safety	5,231	4,991
Vested Terminations [2]	5,022	5,351
Receiving Payments	18,152	19,295
Total	52,902	53,366
Average Entry Age of Active Members	39.9	39.7
Average Age of Active Members	47.4	47.6
Average Pay	$ 76,344	$ 75,426
Covered Payroll Prior Fiscal Year	$ 1,870,201,361	$ 1,789,794,486
Projected Payroll for Contribution Rate	$ 1,984,096,624	$ 1,898,792,970

1 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 coverage group. This does not result in double counting of liabilities.

2 Includes non-vested terminated participants with employee contributions remaining in the plan.

Funded Status of the Retirement Program

	June 30, 2011	June 30, 2012
Present Value of Benefits	$ 10,261,735,907	$ 10,671,496,146
Accrued Liability	$ 7,224,281,258	$ 7,827,253,833
Market Value of Assets	$ 5,389,522,934	$ 5,524,386,200
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 1,834,758,324	$ 2,302,867,633
Funded Status	74.6%	70.6%

Employer Contribution

	June 30, 2011	June 30, 2012
Contribution Required in Dollars		
Total Normal Cost	$ 437,850,443	$ 419,272,476
Employee Contribution	185,076,533	191,284,404
Employer Normal Costs	252,773,910	227,988,072
Amortization of Unfunded Liability [3]	94,005,567	98,690,845
Group Term Life Benefits	496,024	-
Total	$ 347,275,501	$ 326,678,917
Contribution Required (Percent of Payroll)		
Total Normal Cost	22.068%	22.081%
Employee Contribution	9.328%	10.074%
Employer Normal Costs	12.740%	12.007%
Amortization of Unfunded Liability [3]	4.738%	5.198%
Group Term Life Benefits	0.025%	0.000%
Total	17.503%	17.205%

3 For rate setting purposes, the unfunded liability is calculated based on the smoothed actuarial value of assets.

STATE PEACE OFFICERS AND FIREFIGHTERS

Participant Information

	June 30, 2011	June 30, 2012
Members Included in the Valuation [1]		
Active Members	43,428	41,250
Transfers from State POFF	5,192	5,237
Vested Terminations [2]	6,430	6,074
Receiving Payments	26,911	28,842
Total	81,961	81,403
Average Entry Age of Active Members	30.2	30.1
Average Age of Active Members	41.9	42.5
Average Pay	$ 73,653	$ 71,560
Covered Payroll Prior Fiscal Year	$ 3,198,599,288	$ 2,951,833,630
Projected Payroll for Contribution Rate	$ 3,393,393,985	$ 3,131,600,298

1 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 coverage group. This does not result in double counting of liabilities.

2 Includes non-vested terminated participants with employee contributions remaining in the plan.

Funded Status of the Retirement Program

	June 30, 2011	June 30, 2012
Present Value of Benefits	$ 37,694,679,095	$ 38,007,241,496
Accrued Liability	$ 30,127,480,709	$ 31,335,588,660
Market Value of Assets	$ 20,801,283,158	$ 20,525,705,429
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 9,326,197,551	$ 10,809,883,231
Funded Status	69.0%	65.5%

Employer Contribution

	June 30, 2011	June 30, 2012
Contribution Required in Dollars		
Total Normal Cost	$ 882,757,511	$ 810,896,581
Employee Contribution	324,272,729	325,843,011
Employer Normal Costs	558,484,782	485,053,570
Amortization of Unfunded Liability [3]	468,728,355	469,940,726
Group Term Life Benefits	882,282	-
Total	$ 1,028,095,419	$ 954,994,296
Contribution Required (Percent of Payroll)		
Total Normal Cost	26.014%	25.894%
Employee Contribution	9.556%	10.405%
Employer Normal Costs	16.458%	15.489%
Amortization of Unfunded Liability [3]	13.813%	15.006%
Group Term Life Benefits	0.026%	0.000%
Total	30.297%	30.495%

3 For rate setting purposes, the unfunded liability is calculated based on the smoothed actuarial value of assets.

CALIFORNIA HIGHWAY PATROL

Participant Information

	June 30, 2011	June 30, 2012
Members Included in the Valuation [1]		
Active Members	7,485	7,312
Transfers from CHP	300	295
Vested Terminations [2]	342	325
Receiving Payments	8,046	8,140
Total	16,173	16,072
Average Entry Age of Active Members	26.5	26.6
Average Age of Active Members	39.1	39.9
Average Pay	$ 98,224	$ 99,626
Covered Payroll Prior Fiscal Year	$ 735,204,799	$ 728,467,347
Projected Payroll for Contribution Rate	$ 779,978,771	$ 772,831,008

1 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 coverage group. This does not result in double counting of liabilities.

2 Includes non-vested terminated participants with employee contributions remaining in the plan.

Funded Status of the Retirement Program

	June 30, 2011	June 30, 2012
Present Value of Benefits	$ 9,968,667,762	$ 10,359,988,007
Accrued Liability	$ 8,193,449,625	$ 8,659,143,106
Market Value of Assets	$ 5,335,993,093	$ 5,220,072,829
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 2,857,456,532	$ 3,439,070,277
Funded Status	65.1%	60.3%

Employer Contribution

	June 30, 2011	June 30, 2012
Contribution Required in Dollars		
Total Normal Cost	$ 180,440,289	$ 179,497,730
Employee Contribution	69,979,695	79,841,171
Employer Normal Costs	110,460,594	99,656,559
Amortization of Unfunded Liability [3]	152,404,973	167,573,074
Group Term Life Benefits	202,794	293,676
Total	$ 263,068,361	$ 267,523,309
Contribution Required (Percent of Payroll)		
Total Normal Cost	23.134%	23.226%
Employee Contribution	8.972%	10.331%
Employer Normal Costs	14.162%	12.895%
Amortization of Unfunded Liability [3]	19.540%	21.683%
Group Term Life Benefits	0.026%	0.038%
Total	33.728%	34.616%

3 For rate setting purposes, the unfunded liability is calculated based on the smoothed actuarial value of assets.

SCHOOLS

Participant Information

	June 30, 2011	June 30, 2012
Members Included in the Valuation [1]		
Active Members	287,177	283,003
Transfers from Schools	25,910	30,237
Vested Terminations [2]	161,663	167,758
Receiving Payments	188,715	195,233
Total	663,465	676,231
Average Entry Age of Active Members	36.6	36.5
Average Age of Active Members	47.2	47.5
Average Pay	$ 34,597	$ 34,114
Covered Payroll Prior Fiscal Year	$ 9,935,362,340	$ 9,654,303,484
Projected Payroll for Contribution Rate	$ 10,540,425,907	$ 10,242,250,566

1 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 coverage group. This does not result in double counting of liabilities.

2 Includes non-vested terminated participants with employee contributions remaining in the plan.

Funded Status of the Retirement Program

	June 30, 2011	June 30, 2012
Present Value of Benefits	$ 69,095,599,982	$ 69,705,029,824
Accrued Liability	$ 58,358,406,128	$ 59,439,130,743
Market Value of Assets	$ 45,900,990,362	$ 44,853,803,861
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 12,457,415,766	$ 14,585,326,882
Funded Status	78.7%	75.5%

Employer Contribution

	June 30, 2011	June 30, 2012
Contribution Required in Dollars		
Total Normal Cost	$ 1,519,402,394	$ 1,465,973,324
Employee Contribution	737,829,813	716,957,540
Employer Normal Costs	781,572,581	$ 749,015,784
Amortization of Unfunded Liability [3]	421,857,575	422,929,774
Total	$ 1,203,430,156	$ 1,171,945,558
Contribution Required (Percent of Payroll)		
Total Normal Cost	14.415%	14.313%
Employee Contribution	7.000%	7.000%
Employer Normal Costs	7.415%	7.313%
Amortization of Unfunded Liability [3]	4.002%	4.129%
Total	11.417%	11.442%

3 For rate setting purposes, the unfunded liability is calculated based on the smoothed actuarial value of assets.

Development of Accrued and Unfunded Liabilities

The following table shows the development of the accrued liabilities and the unfunded liabilities based on the market value of assets and represent the true measure of the plan's ability to pay benefits.

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
1. Present Value of Benefits						
a. Actives and Inactives	$ 46,938,411,242	$ 2,365,018,282	$ 6,614,691,746	$ 19,367,209,247	$ 4,897,662,459	$ 40,240,386,146
b. Retired	47,643,211,737	1,436,115,702	4,056,804,400	18,640,032,249	5,462,325,548	29,464,643,678
c. Total	$ 94,581,622,979	$ 3,801,133,984	$ 10,671,496,146	$ 38,007,241,496	$ 10,359,988,007	$ 69,705,029,824
2. Present Value of Future Employee Contributions	$ 5,128,823,497	$ 372,925,980	$ 1,374,715,936	$ 2,751,927,595	$ 758,498,943	$ 5,220,898,208
3. Present Value of Future Employer Normal Costs	$ 5,929,273,236	$ 459,804,662	$ 1,469,526,377	$ 3,919,725,241	$ 942,345,958	$ 5,045,000,873
4. Accrued Liability [(1c) - (2) - (3)]	$ 83,523,526,246	$ 2,968,403,342	$ 7,827,253,833	$ 31,335,588,660	$ 8,659,143,106	$ 59,439,130,743
5. Market Value of Assets (MVA)	$ 55,371,256,388	$ 2,168,103,394	$ 5,524,386,200	$ 20,525,705,429	$ 5,220,072,829	$ 44,853,803,861
6. Unfunded Liability/(Surplus) MVA Basis [(4) - (5)]	$ 28,152,269,858	$ 800,299,948	$ 2,302,867,633	$ 10,809,883,231	$ 3,439,070,277	$ 14,585,326,882
7. Funded Status MVA Basis [(5)/(4)]	66.3%	73.0%	70.6%	65.5%	60.3%	75.5%

Development of Employer Contribution Rates

The following table shows the development of the unfunded liabilities based on the smoothed actuarial value of assets. The unfunded liability on an actuarial value of assets basis is used only for purposes of setting the employer contribution and keeping the contribution rates as smooth as possible from year to year.

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
Accrued Liability	$ 83,523,526,246	$ 2,968,403,342	$ 7,827,253,833	$ 31,335,588,660	$ 8,659,143,106	$ 59,439,130,743
Actuarial Value of Assets (AVA)	$ 66,326,302,699	$ 2,580,172,252	$ 6,443,460,833	$ 24,536,730,087	$ 6,258,398,798	$ 53,791,228,732
Unfunded Liability/(Surplus) AVA Basis	$ 17,197,223,547	$ 388,231,090	$ 1,383,793,000	$ 6,798,858,573	$ 2,400,744,308	$ 5,647,902,011

The following table shows the development of the employer contribution rates which includes the amortization of the unfunded liability calculated on an actuarial value of assets basis.

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
Employer Contribution Amount							
Normal Cost	801,621,956	27,360,066	59,710,475	227,988,072	485,053,570	99,656,559	749,015,784
Payment on the Unfunded Liability	1,284,389,822	44,547,790	30,979,810	98,690,845	469,940,726	167,573,074	422,929,774
Payment for Term Life Benefits (Sec. 21600-21605)	7,036,118	244,041	-	-	-	293,676	N/A
Total Employer Contribution Amount	$ 2,093,047,896	$ 72,151,897	$ 90,690,285	$ 326,678,917	$ 954,994,296	$ 267,523,309	$ 1,171,945,558
Projected Payroll	$ 9,910,025,419	$ 343,719,424	$ 578,309,682	$ 1,898,792,970	$ 3,131,600,298	$ 772,831,008	$ 10,242,250,566
Employer Contribution (as a percent of payroll)							
Normal Cost	8.089%	7.960%	10.325%	12.007%	15.489%	12.895%	7.313%
Payment on the Unfunded Liability	12.961%	12.961%	5.357%	5.198%	15.006%	21.683%	4.129%
Payment for Term Life Benefits (Sec. 21600-21605)	0.071%	0.071%	0.000%	0.000%	0.000%	0.038%	N/A
Total Employer Contribution Rate	21.121%	20.992%	15.682%	17.205%	30.495%	34.616%	11.442%

Schedule of Amortization Bases for the Retirement Program

The schedule below shows the development of the payment on the amortization bases used to determine the employer contribution rates. Each row of the schedule gives a brief description of a base (or portion of the Unfunded Actuarial Liability), the date the base was established, 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 payment for the year immediately following the valuation date, the balance on the date a year after the valuation date, and the scheduled payment for fiscal year 2013-14. Please refer to Appendix A for an explanation of how amortization periods are determined.

State Miscellaneous

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2012	Expected Payment in 2012-13	Amount Remaining on 6/30/2013	Scheduled Payment for Fiscal Year 2013-14
Assumption Change	6/30/2011	19	$ 1,766,322,918	$ 133,366,968	$ 1,760,519,322	$ 137,367,977
Assumption Change	6/30/2009	17	$ 2,146,217,765	$ 173,510,466	$ 2,127,284,618	$ 178,715,780
Reclass of BU 7 Members	6/30/2005	13	$ (90,167,999)	$ (8,687,775)	$ (87,922,922)	$ (8,948,408)
New Rate Stabilization Policies	6/30/2004	12	$ (188,838,296)	$ (19,219,130)	$ (183,074,350)	$ (19,795,704)
Actuarial Equivalent Reduction Benefits	6/30/2004	12	$ 261,932,007	$ 26,658,287	$ 253,937,008	$ 27,458,035
Benefit Change (SB 1801)	6/30/2003	11	$ (2,431,170)	$ (262,881)	$ (2,340,947)	$ (270,767)
Assumption Change	6/30/2003	11	$ 832,916,182	$ 90,062,658	$ 802,005,945	$ 92,764,538
(Gain)/Loss Prior to 2009	N/A	20	$ 10,672,481,068	$ 781,628,350	$ 10,662,507,626	$ 805,077,200
(Gain)/Loss in 2009	6/30/2009	27	$ 1,107,619,007	$ 68,871,976	$ 1,119,282,448	$ 70,938,136
(Gain)/Loss in 2010	6/30/2010	28	$ (42,632,414)	$ (2,603,735)	$ (43,130,235)	$ (2,681,847)
(Gain)/Loss in 2011	6/30/2011	29	$ 22,303,737	$ 1,339,351	$ 22,587,848	$ 1,379,532
(Gain)/Loss	N/A	30	$ 504,264,172	$ -	$ 542,083,985	$ 32,552,429
Payment (Gain)/Loss	N/A	30	$ 207,236,568	$ (16,104,550)	$ 239,476,864	$ 14,380,712
Total			$ 17,197,223,547	$ 1,228,559,985	$ 17,213,217,210	$ 1,328,937,612

Schedule of Amortization Bases for the Retirement Program (Continued)

State Industrial

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2012	Expected Payment in 2012-13	Amount Remaining on 6/30/2013	Scheduled Payment for Fiscal Year 2013-14
Assumption Change	6/30/2011	19	$ 64,856,992	$ 4,897,055	$ 64,643,892	$ 5,043,967
Assumption Change	6/30/2009	17	$ 71,067,155	$ 5,745,407	$ 70,440,227	$ 5,917,770
New Rate Stabilization Policies	6/30/2004	12	$ (6,482,744)	$ (659,785)	$ (6,284,870)	$ (679,579)
Actuarial Equivalent Reduction Benefits	6/30/2004	12	$ 11,775,041	$ 1,198,412	$ 11,415,629	$ 1,234,364
Assumption Change	6/30/2003	11	$ 89,221,349	$ 9,647,444	$ 85,910,268	$ 9,936,867
(Gain)/Loss in 2009	6/30/2009	27	$ 38,303,542	$ 2,381,722	$ 38,706,886	$ 2,453,174
(Gain)/Loss in 2010	6/30/2010	28	$ 5,208,919	$ 318,130	$ 5,269,744	$ 327,674
(Gain)/Loss in 2011	6/30/2011	29	$ (6,981,020)	$ (419,214)	$ (7,069,946)	$ (431,790)
(Gain)/Loss	N/A	30	$ 124,082,572	$ 8,375,750	$ 124,704,603	$ 7,488,577
Payment (Gain)/Loss	N/A	30	$ (2,820,716)	$ 2,073,885	$ (5,182,520)	$ (311,213)
Total			$ 388,231,090	$ 33,558,805	$ 382,553,913	$ 30,979,810

State Safety

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2012	Expected Payment in 2012-13	Amount Remaining on 6/30/2013	Scheduled Payment for Fiscal Year 2013-14
Assumption Change	6/30/2011	19	$ 177,899,732	$ 13,432,395	$ 177,315,208	$ 13,835,367
Assumption Change	6/30/2009	17	$ 274,771,269	$ 22,213,818	$ 272,347,337	$ 22,880,233
New Rate Stabilization Policies	6/30/2004	12	$ (7,313,962)	$ (744,383)	$ (7,090,716)	$ (766,714)
Assumption Change	6/30/2003	11	$ (3,235,172)	$ (349,817)	$ (3,115,112)	$ (360,311)
Benefit Change (Arnett)	6/30/2002	10	$ 100,317,266	$ 11,603,262	$ 95,810,543	$ 11,951,359
(Gain)/Loss in 2009	6/30/2009	27	$ 144,153,953	$ 8,963,522	$ 145,671,922	$ 9,232,428
(Gain)/Loss in 2010	6/30/2010	28	$ (107,198,339)	$ (6,547,038)	$ (108,450,101)	$ (6,743,449)
(Gain)/Loss in 2011	6/30/2011	29	$ (9,707,799)	$ (582,958)	$ (9,831,459)	$ (600,447)
(Gain)/Loss	N/A	30	$ 846,148,176	$ 47,940,913	$ 859,903,093	$ 51,637,634
Payment (Gain)/Loss	N/A	30	$ (32,042,123)	$ 4,927,533	$ (39,554,257)	$ (2,375,254)
Total			$ 1,383,793,000	$ 100,857,246	$ 1,383,006,457	$ 98,690,845

Schedule of Amortization Bases for the Retirement Program (Continued)

State Peace Officers and Firefighters

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2012	Expected Payment in 2012-13	Amount Remaining on 6/30/2013	Scheduled Payment for Fiscal Year 2013-14
Assumption Change	6/30/2011	19	$ 748,916,442	$ 56,547,256	$ 746,455,732	$ 58,243,674
Assumption Change	6/30/2009	17	$ 712,673,580	$ 57,615,926	$ 706,386,634	$ 59,344,404
Benefit Change (SB 65)	6/30/2006	14	$ 283,225,730	$ 25,963,171	$ 277,548,471	$ 26,742,066
New Rate Stabilization Policies	6/30/2004	12	$ (54,098,408)	$ (5,505,898)	$ (52,447,152)	$ (5,671,075)
Benefit Change (SB 183)	6/30/2004	12	$ 17,654,176	$ 1,796,764	$ 17,115,314	$ 1,850,667
Assumption Change	6/30/2003	11	$ 349,463,201	$ 37,787,217	$ 336,494,320	$ 38,920,834
(Gain)/Loss in 2009	6/30/2009	27	$ 359,120,322	$ 22,330,175	$ 362,901,928	$ 23,000,080
(Gain)/Loss in 2010	6/30/2010	28	$ 42,297,211	$ 2,583,263	$ 42,791,118	$ 2,660,760
(Gain)/Loss in 2011	6/30/2011	29	$ 283,499,265	$ 17,024,280	$ 287,110,561	$ 17,535,009
(Gain)/Loss	N/A	30	$ 4,071,670,291	$ 253,520,780	$ 4,114,189,623	$ 247,059,258
Payment (Gain)/Loss	N/A	30	$ (15,563,237)	$ (20,232,687)	$ 4,247,217	$ 255,048
Total			$ 6,798,858,573	$ 449,430,249	$ 6,842,793,766	$ 469,940,726

California Highway Patrol

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2012	Expected Payment in 2012-13	Amount Remaining on 6/30/2013	Scheduled Payment for Fiscal Year 2013-14
Assumption Change	6/30/2011	19	$ 194,194,604	$ 14,662,747	$ 193,556,540	$ 15,102,629
Assumption Change	6/30/2009	17	$ 174,222,385	$ 14,084,967	$ 172,685,458	$ 14,507,516
Benefit Change (AB 2936)	6/30/2008	16	$ (208,697,559)	$ (17,532,937)	$ (206,171,340)	$ (18,058,925)
Benefit Change (SB 439)	6/30/2005	13	$ 170,057,475	$ 16,385,204	$ 165,823,245	$ 16,876,760
New Rate Stabilization Policies	6/30/2004	12	$ (18,448,406)	$ (1,877,598)	$ (17,885,302)	$ (1,933,926)
Assumption Change	6/30/2003	11	$ 57,399,168	$ 6,206,533	$ 55,269,035	$ 6,392,729
Benefit Change (SB 1801)	6/30/2003	11	$ 9,093,665	$ 983,292	$ 8,756,191	$ 1,012,791
Benefit Change (Arnett)	6/30/2002	10	$ 1,863,942	$ 215,594	$ 1,780,205	$ 222,062
Benefit Change (AB 2621)	6/30/2001	9	$ 2,552,676	$ 318,420	$ 2,413,983	$ 327,972
(Gain)/Loss Prior to 2009	N/A	25	$ 1,529,390,289	$ 98,919,177	$ 1,541,532,975	$ 101,886,752
(Gain)/Loss in 2009	6/30/2009	27	$ 290,742,956	$ 18,078,456	$ 293,804,535	$ 18,620,810
(Gain)/Loss in 2010	6/30/2010	28	$ 96,188,243	$ 5,874,607	$ 97,311,440	$ 6,050,845
(Gain)/Loss in 2011	6/30/2011	29	$ (42,266,495)	$ (2,538,125)	$ (42,804,898)	$ (2,614,269)
(Gain)/Loss	N/A	30	$ 167,354,810	$ -	$ 179,906,420	$ 10,803,475
Payment (Gain)/Loss	N/A	30	$ (22,903,443)	$ 2,339,030	$ (27,046,359)	$ (1,624,148)
Total			$ 2,400,744,308	$ 156,119,367	$ 2,418,932,126	$ 167,573,074

Schedule of Amortization Bases for the Retirement Program (Continued)

Schools

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2012	Expected Payment in 2012-13	Amount Remaining on 6/30/2013	Scheduled Payment for Fiscal Year 2013-14
Assumption Change	6/30/2011	19	$ 1,306,783,444	$ 32,889,748	$ 1,370,691,386	$ 106,950,887
Assumption Change	6/30/2009	17	$ 1,055,354,514	$ 85,319,885	$ 1,046,044,563	$ 87,879,482
Fresh Start	6/30/2004	22	$ 2,801,418,323	$ 194,225,332	$ 2,810,147,587	$ 200,052,092
(Gain)/Loss in 2009	6/30/2009	27	$ 826,562,534	$ 51,395,827	$ 835,266,396	$ 52,937,702
(Gain)/Loss in 2010	6/30/2010	28	$ 399,822,999	$ 24,418,816	$ 404,491,757	$ 25,151,380
(Gain)/Loss in 2011	6/30/2011	29	$ (870,455,786)	$ (52,271,329)	$ (881,543,903)	$ (53,839,469)
(Gain)/Loss	N/A	30	$ 89,646,129	$ 83,551,146	$ 9,741,917	$ 585,007
Payment (Gain)/Loss	N/A	30	$ 38,769,854	$ (11,402,384)	$ 53,499,836	$ 3,212,693
Total			$ 5,647,902,011	$ 408,127,041	$ 5,648,339,539	$ 422,929,774

Gain and Loss Analysis

STATE MISCELLANEOUS

A. Total (Gain)/Loss for the Year	
1. Unfunded Liability/(Surplus) as of 6/30/11	$ 16,478,163,290
2. Expected Payment on the Unfunded Liability during 2011-12	984,803,655
3. Interest through 6/30/12 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]	1,199,599,740
4. Change in Unfunded Liability as of 6/30/11 due to New Assumptions	-
5. Expected Unfunded Liability as of 6/30/12 before all changes [(A1)–(A2)+(A3)+(A4)]	$ 16,692,959,375
6. Actual Unfunded Liability as of 6/30/12	17,197,223,547
7. Total (Gain)/Loss for 2011-12 [(A6) – (A5)]	$ 504,264,172
B. Contribution (Gain)/Loss for the Year	
1. Expected Contribution for 2011-12	$ 2,474,540,360
2. Actual Contribution for 2011-12	2,504,240,038
3. Contribution (Gain)/Loss for 2011-12 [(B1) – (B2)]	$ (29,699,678)
C. Asset (Gain)/Loss for the Year	
1. Actuarial Value of Assets before receivables as of 6/30/11	$ 64,231,540,829
2. Contributions Received during 2011-12	2,504,240,038
3. Benefits and Refunds Paid during 2011-12	(4,486,794,528)
4. Expected Interest for 2011-12 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3))]	4,744,363,807
5. Receivables for AER and Past Service Benefits	561,381,449
6. Expected Actuarial Value of Assets as of 6/30/12 [(C1) + (C2) + (C3) + (C4) + (C5)]	$ 67,554,731,595
7. Actual Actuarial Value of Assets as of 6/30/12	66,326,302,699
8. Asset (Gain)/Loss for 2011-12 [(C6) – (C7)]	$ 1,228,428,896
D. Liability (Gain)/Loss for the Year	
1. Total (Gain)/Loss for 2011-12 (A7)	$ 504,264,172
2. Contribution (Gain)/Loss for 2011-12 (B3)	(29,699,678)
3. Asset (Gain)/Loss for 2011-12 (C8)	1,228,428,896
4. Liability (Gain)/Loss for 2011-12 [(D1) – (D2) – (D3)]	$ (694,465,046)
E. Development of the (Gain)/Loss Balance as of 6/30/12	
1. (Gain)/Loss Balance as of 6/30/11	$ 11,733,501,286
2. Payment Made on the Balance during 2011-12	823,422,365
3. Interest through 6/30/12 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]	849,692,482
4. Scheduled (Gain)/Loss Balance as of 6/30/12 [(E1) – (E2) + (E3)]	$ 11,759,771,404
5. (Gain)/Loss for 2011-12 [(A7) above]	504,264,172
6. Final (Gain)/Loss Balance as of 6/30/12 [(E4) + (E5)]	$ 12,264,035,576

Gain and Loss Analysis (Continued)

STATE INDUSTRIAL

A. Total (Gain)/Loss for the Year	
1. Unfunded Liability/(Surplus) as of 6/30/11	$ 395,968,290
2. Expected Payment on the Unfunded Liability during 2011-12	21,256,315
3. Interest through 6/30/12 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]	28,914,920
4. Change in Unfunded Liability as of 6/30/11 due to New Assumptions	-
5. Expected Unfunded Liability as of 6/30/12 before all changes [(A1)–(A2)+(A3)+(A4)]	$ 403,626,895
6. Actual Unfunded Liability as of 6/30/12	388,231,090
7. Total (Gain)/Loss for 2011-12 [(A6) – (A5)]	$ (15,395,805)
B. Contribution (Gain)/Loss for the Year	
1. Expected Contribution for 2011-12	$ 130,545,483
2. Actual Contribution for 2011-12	121,223,812
3. Contribution (Gain)/Loss for 2011-12 [(B1) – (B2)]	$ 9,321,671
C. Asset (Gain)/Loss for the Year	
1. Actuarial Value of Assets before receivables as of 6/30/11	$ 2,417,515,005
2. Contributions Received during 2011-12	121,223,812
3. Benefits and Refunds Paid during 2011-12	(129,274,001)
4. Expected Interest for 2011-12 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3))]	181,017,201
5. Receivables for AER and Past Service Benefits	18,015,356
6. Expected Actuarial Value of Assets as of 6/30/12 [(C1) + (C2) + (C3) + (C4) + (C5)]	$ 2,608,497,373
7. Actual Actuarial Value of Assets as of 6/30/12	2,580,172,252
8. Asset (Gain)/Loss for 2011-12 [(C6) – (C7)]	$ 28,325,121
D. Liability (Gain)/Loss for the Year	
1. Total (Gain)/Loss for 2011-12 (A7)	$ (15,395,805)
2. Contribution (Gain)/Loss for 2011-12 (B3)	9,321,671
3. Asset (Gain)/Loss for 2011-12 (C8)	28,325,121
4. Liability (Gain)/Loss for 2011-12 [(D1) – (D2) – (D3)]	$ (53,042,597)
E. Development of the (Gain)/Loss Balance as of 6/30/12	
1. (Gain)/Loss Balance as of 6/30/11	$ 174,235,031
2. Payment Made on the Balance during 2011-12	10,891,776
3. Interest through 6/30/12 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]	12,666,570
4. Scheduled (Gain)/Loss Balance as of 6/30/12 [(E1) – (E2) + (E3)]	$ 176,009,825
5. (Gain)/Loss for 2011-12 [(A7) above]	(15,395,805)
6. Final (Gain)/Loss Balance as of 6/30/12 [(E4) + (E5)]	$ 160,614,020

Gain and Loss Analysis (Continued)

STATE SAFETY

A. Total (Gain)/Loss for the Year	
1. Unfunded Liability/(Surplus) as of 6/30/11	$ 1,309,340,046
2. Expected Payment on the Unfunded Liability during 2011-12	69,011,669
3. Interest through 6/30/12 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]	95,659,351
4. Change in Unfunded Liability as of 6/30/11 due to New Assumptions	-
5. Expected Unfunded Liability as of 6/30/12 before all changes [(A1)–(A2)+(A3)+(A4)]	$ 1,335,987,728
6. Actual Unfunded Liability as of 6/30/12	1,383,793,000
7. Total (Gain)/Loss for 2011-12 [(A6) – (A5)]	$ 47,805,272
B. Contribution (Gain)/Loss for the Year	
1. Expected Contribution for 2011-12	$ 494,637,215
2. Actual Contribution for 2011-12	469,220,649
3. Contribution (Gain)/Loss for 2011-12 [(B1) – (B2)]	$ 25,416,566
C. Asset (Gain)/Loss for the Year	
1. Actuarial Value of Assets before receivables as of 6/30/11	$ 5,902,615,952
2. Contributions Received during 2011-12	469,220,649
3. Benefits and Refunds Paid during 2011-12	(324,000,385)
4. Expected Interest for 2011-12 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3))]	448,043,507
5. Receivables for AER and Past Service Benefits	12,325,260
6. Expected Actuarial Value of Assets as of 6/30/12 [(C1) + (C2) + (C3) + (C4) + (C5)]	$ 6,508,204,983
7. Actual Actuarial Value of Assets as of 6/30/12	6,443,460,833
8. Asset (Gain)/Loss for 2011-12 [(C6) – (C7)]	$ 64,744,150
D. Liability (Gain)/Loss for the Year	
1. Total (Gain)/Loss for 2011-12 (A7)	$ 47,805,272
2. Contribution (Gain)/Loss for 2011-12 (B3)	25,416,566
3. Asset (Gain)/Loss for 2011-12 (C8)	64,744,150
4. Liability (Gain)/Loss for 2011-12 [(D1) – (D2) – (D3)]	$ (42,355,444)
E. Development of the (Gain)/Loss Balance as of 6/30/12	
1. (Gain)/Loss Balance as of 6/30/11	$ 815,911,536
2. Payment Made on the Balance during 2011-12	49,684,686
3. Interest through 6/30/12 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]	59,363,872
4. Scheduled (Gain)/Loss Balance as of 6/30/12 [(E1) – (E2) + (E3)]	$ 825,590,722
5. (Gain)/Loss for 2011-12 [(A7) above]	47,805,272
6. Final (Gain)/Loss Balance as of 6/30/12 [(E4) + (E5)]	$ 873,395,994

Gain and Loss Analysis (Continued)

STATE PEACE OFFICERS AND FIREFIGHTERS

A. Total (Gain)/Loss for the Year	
1. Unfunded Liability/(Surplus) as of 6/30/11	$ 6,809,487,293
2. Expected Payment on the Unfunded Liability during 2011-12	358,035,888
3. Interest through 6/30/12 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]	497,527,925
4. Change in Unfunded Liability as of 6/30/11 due to New Assumptions	-
5. Expected Unfunded Liability as of 6/30/12 before all changes [(A1)–(A2)+(A3)+(A4)]	$ 6,948,979,330
6. Actual Unfunded Liability as of 6/30/12	6,798,858,573
7. Total (Gain)/Loss for 2011-12 [(A6) – (A5)]	$ (150,120,757)
B. Contribution (Gain)/Loss for the Year	
1. Expected Contribution for 2011-12	$ 1,207,751,748
2. Actual Contribution for 2011-12	1,168,454,487
3. Contribution (Gain)/Loss for 2011-12 [(B1) – (B2)]	$ 39,297,261
C. Asset (Gain)/Loss for the Year	
1. Actuarial Value of Assets before receivables as of 6/30/11	$ 23,274,993,347
2. Contributions Received during 2011-12	1,168,454,487
3. Benefits and Refunds Paid during 2011-12	(1,403,340,779)
4. Expected Interest for 2011-12 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3))]	1,736,975,502
5. Receivables for AER and Past Service Benefits	43,000,069
6. Expected Actuarial Value of Assets as of 6/30/12 [(C1) + (C2) + (C3) + (C4) + (C5)]	$ 24,820,082,626
7. Actual Actuarial Value of Assets as of 6/30/12	24,536,730,087
8. Asset (Gain)/Loss for 2011-12 [(C6) – (C7)]	$ 283,352,539
D. Liability (Gain)/Loss for the Year	
1. Total (Gain)/Loss for 2011-12 (A7)	$ (150,120,757)
2. Contribution (Gain)/Loss for 2011-12 (B3)	39,297,261
3. Asset (Gain)/Loss for 2011-12 (C8)	283,352,539
4. Liability (Gain)/Loss for 2011-12 [(D1) – (D2) – (D3)]	$ (472,770,557)
E. Development of the (Gain)/Loss Balance as of 6/30/12	
1. (Gain)/Loss Balance as of 6/30/11	$ 4,829,152,555
2. Payment Made on the Balance during 2011-12	274,522,664
3. Interest through 6/30/12 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]	352,077,950
4. Scheduled (Gain)/Loss Balance as of 6/30/12 [(E1) – (E2) + (E3)]	$ 4,906,707,841
5. (Gain)/Loss for 2011-12 [(A7) above]	(150,120,757)
6. Final (Gain)/Loss Balance as of 6/30/12 [(E4) + (E5)]	$ 4,756,587,084

Gain and Loss Analysis (Continued)

CALIFORNIA HIGHWAY PATROL

A. Total (Gain)/Loss for the Year	
1. Unfunded Liability/(Surplus) as of 6/30/11	$ 2,202,481,086
2. Expected Payment on the Unfunded Liability during 2011-12	129,508,884
3. Interest through 6/30/12 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]	160,417,297
4. Change in Unfunded Liability as of 6/30/11 due to New Assumptions	-
5. Expected Unfunded Liability as of 6/30/12 before all changes [(A1)–(A2)+(A3)+(A4)]	$ 2,233,389,499
6. Actual Unfunded Liability as of 6/30/12	2,400,744,308
7. Total (Gain)/Loss for 2011-12 [(A6) – (A5)]	$ 167,354,809
B. Contribution (Gain)/Loss for the Year	
1. Expected Contribution for 2011-12	$ 304,836,513
2. Actual Contribution for 2011-12	294,020,794
3. Contribution (Gain)/Loss for 2011-12 [(B1) – (B2)]	$ 10,815,719
C. Asset (Gain)/Loss for the Year	
1. Actuarial Value of Assets before receivables as of 6/30/11	$ 5,979,487,669
2. Contributions Received during 2011-12	294,020,794
3. Benefits and Refunds Paid during 2011-12	(397,913,427)
4. Expected Interest for 2011-12 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3))]	444,636,034
5. Receivables for AER and Past Service Benefits	11,480,870
6. Expected Actuarial Value of Assets as of 6/30/12 [(C1) + (C2) + (C3) + (C4) + (C5)]	$ 6,331,711,940
7. Actual Actuarial Value of Assets as of 6/30/12	6,258,398,798
8. Asset (Gain)/Loss for 2011-12 [(C6) – (C7)]	$ 73,313,142
D. Liability (Gain)/Loss for the Year	
1. Total (Gain)/Loss for 2011-12 (A7)	$ 167,354,809
2. Contribution (Gain)/Loss for 2011-12 (B3)	10,815,719
3. Asset (Gain)/Loss for 2011-12 (C8)	73,313,142
4. Liability (Gain)/Loss for 2011-12 [(D1) – (D2) – (D3)]	$ 83,225,948
E. Development of the (Gain)/Loss Balance as of 6/30/12	
1. (Gain)/Loss Balance as of 6/30/11	$ 1,858,374,443
2. Payment Made on the Balance during 2011-12	119,304,494
3. Interest through 6/30/12 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]	134,985,045
4. Scheduled (Gain)/Loss Balance as of 6/30/12 [(E1) – (E2) + (E3)]	$ 1,874,054,994
5. (Gain)/Loss for 2011-12 [(A7) above]	167,354,809
6. Final (Gain)/Loss Balance as of 6/30/12 [(E4) + (E5)]	$ 2,041,409,803

Gain and Loss Analysis (Continued)

SCHOOLS

A. Total (Gain)/Loss for the Year		
1. Unfunded Liability/(Surplus) as of 6/30/11	$	6,810,987,672
2. Expected Payment on the Unfunded Liability during 2011-12		358,989,711
3. Interest through 6/30/12 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]		497,605,332
4. Change in Unfunded Liability as of 6/30/11 due to New Assumptions		-
5. Expected Unfunded Liability as of 6/30/12 before all changes [(A1)–(A2)+(A3)+(A4)]	$	6,949,603,293
6. Actual Unfunded Liability as of 6/30/12		5,647,902,011
7. Total (Gain)/Loss for 2011-12 [(A6) – (A5)]	$	(1,301,701,282)
B. Contribution (Gain)/Loss for the Year		
1. Expected Contribution for 2011-12	$	1,834,035,332
2. Actual Contribution for 2011-12		1,837,217,464
3. Contribution (Gain)/Loss for 2011-12 [(B1) – (B2)]	$	(3,182,132)
C. Asset (Gain)/Loss for the Year		
1. Actuarial Value of Assets before receivables as of 6/30/11	$	51,519,915,050
2. Contributions Received during 2011-12		1,837,217,464
3. Benefits and Refunds Paid during 2011-12		(2,785,982,979)
4. Expected Interest for 2011-12 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3))]		3,829,058,121
5. Receivables for AER and Past Service Benefits		27,503,406
6. Expected Actuarial Value of Assets as of 6/30/12 [(C1) + (C2) + (C3) + (C4) + (C5)]	$	54,427,711,062
7. Actual Actuarial Value of Assets as of 6/30/12		53,791,228,732
8. Asset (Gain)/Loss for 2011-12 [(C6) – (C7)]	$	636,482,330
D. Liability (Gain)/Loss for the Year		
1. Total (Gain)/Loss for 2011-12 (A7)	$	(1,301,701,282)
2. Contribution (Gain)/Loss for 2011-12 (B3)		(3,182,132)
3. Asset (Gain)/Loss for 2011-12 (C8)		636,482,330
4. Liability (Gain)/Loss for 2011-12 [(D1) – (D2) – (D3)]	$	(1,935,001,480)
E. Development of the (Gain)/Loss Balance as of 6/30/12		
1. (Gain)/Loss Balance as of 6/30/11	$	1,775,939,511
2. Payment Made on the Balance during 2011-12		156,109,538
3. Interest through 6/30/12 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]		127,447,187
4. Scheduled (Gain)/Loss Balance as of 6/30/12 [(E1) – (E2) + (E3)]	$	1,747,277,160
5. (Gain)/Loss for 2011-12 [(A7) above]		(1,301,701,282)
6. Final (Gain)/Loss Balance as of 6/30/12 [(E4) + (E5)]	$	445,575,878

Development of Group Term Life Insurance Contributions

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
1. GTLI Market Value of Assets as of June 30, 2011	$ 3,583,586	$ 1,503,624	$ 2,170,589	$ 2,117,410	$ 334,220
2. Contributions Received for GTLI During Fiscal Year 2011-12	3,063,261	-	2,656,650	1,879,284	-
3. Benefits Paid for GTLI During Fiscal Year 2011-12	(2,695,371)	(146,078)	(696,396)	(938,744)	(96,297)
4. Investment Return During Fiscal Year 2011-12	(8,063)	-	(5,419)	(4,880)	(753)
5. GTLI Market Value of Assets as of June 30, 2012	$ 3,943,413	$ 1,357,546	$ 4,125,424	$ 3,053,070	$ 237,170
6. Plan's Actuarial Value of Assets As a Percentage of Market Value of Assets	120.000%	119.175%	116.677%	119.586%	119.938%
7. GTLI Actuarial Value of Assets as of June 30, 2012	$ 4,732,096	$ 1,617,855	$ 4,813,421	$ 3,651,044	$ 284,457
8. Expected GTLI Benefit Payments for Fiscal Year 2012-13	$ 7,715,855	$ 452,479	$ 1,855,486	$ 2,056,754	$ 376,446
9. Closed Group Projected Payroll for Fiscal Year 2012-13	$ 9,703,492,050	$ 555,558,688	$ 1,786,780,489	$ 3,006,262,645	$ 745,369,041
10. Required GTLI Contribution Rate [(1.5 x (8) - 7, but not less than zero) / (9)]	0.071%	0.000%	0.000%	0.000%	0.038%
11. Projected Payroll for Contributions	$ 10,253,744,843	$ 578,309,682	$ 1,898,792,970	$ 3,131,600,298	$ 772,831,008
12. Required GTLI Contribution for Fiscal Year 2013-14* [(10) x (11)]	$ 7,280,159	$ -	$ -	$ -	$ 293,676

* The Required GTLI Contribution for Miscellaneous Tier 1 and Tier 2 is divided equally between the two groups as a percentage of payroll.

Reconciliation of Employer Contribution Rates

Change in Normal Cost Rate from 2012-13 to 2013-14 for the Retirement Program

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
2012-13 Normal Cost Rate	8.370%	8.324%	11.220%	12.740%	16.458%	14.162%	7.415%
Effect of Change in Employee Contribution Rate	-0.082%	-0.363%	-0.764%	-0.700%	-0.825%	-1.319%	0.000%
Effect of (Gain)/Loss	-0.199%	-0.001%	-0.131%	-0.033%	-0.144%	0.052%	-0.102%
2013-14 Normal Cost Rate	8.089%	7.960%	10.325%	12.007%	15.489%	12.895%	7.313%

Change in Unfunded Liability Amortization Rate from 2012-13 to 2013-14 for the Retirement Program

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
2012-13 Rate to Amortize the Unfunded Liability	12.057%	12.057%	5.082%	4.738%	13.813%	19.540%	4.002%
Effect of Phase-in of Impact of Change in	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.624%
Effect of (Gain)/Loss	0.904%	0.904%	0.275%	0.460%	1.193%	2.143%	-0.497%
2013-14 Rate to Amortize the Unfunded Liability	12.961%	12.961%	5.357%	5.198%	15.006%	21.683%	4.129%

Reconciliation of Employer Contribution Rates (Continued)

Change in Group Term Life Rate from 2012-13 to 2013-14

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
2012-13 Group Term Life Rate	0.076%	0.076%	0.000%	0.025%	0.026%	0.026%	N/A
Effect of (Gain)/Loss	-0.005%	-0.005%	0.000%	-0.025%	-0.026%	0.012%	N/A
2013-14 Group Term Life Rate	0.071%	0.071%	0.000%	0.000%	0.000%	0.038%	N/A

Change in Total Rate from 2012-13 to 2013-14

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
2012-13 Employer Rates	20.503%	20.457%	16.302%	17.503%	30.297%	33.728%	11.417%
Effect of Change in Employee Contribution Rate	-0.082%	-0.363%	-0.764%	-0.700%	-0.825%	-1.319%	0.000%
Effect of Phase-in of Impact of Change in	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.624%
Effect of (Gain)/Loss	0.700%	0.898%	0.144%	0.402%	1.023%	2.207%	-0.599%
2013-14 Employer Rates	21.121%	20.992%	15.682%	17.205%	30.495%	34.616%	11.442%

Reconciliation of Employer Contributions

Change in Normal Cost Contribution from 2012-13 to 2013-14 for the Retirement Program

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
2012-13 Normal Cost Contribution	$842,847,657	$29,654,990	$69,131,739	$252,773,910	$558,484,782	$110,460,594	$781,572,581
Effect of Change in Payroll	(13,378,530)	(1,043,785)	(4,245,392)	(10,867,685)	(43,086,005)	(1,012,266)	(22,109,701)
Effect of Change in Employee Contribution Rate	(8,126,221)	(1,247,702)	(4,418,286)	(13,291,551)	(25,835,702)	(10,193,641)	-
Effect of (Gain)/Loss	(19,720,950)	(3,437)	(757,586)	(626,602)	(4,509,505)	401,872	(10,447,096)
2013-14 Normal Cost Contribution	$801,621,956	$27,360,066	$59,710,475	$227,988,072	$485,053,570	$99,656,559	$749,015,784

Change in Unfunded Liability Amortization Contribution from 2012-13 to 2013-14 for the Retirement Program

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
2012-13 Amortization of the Unfunded Liability	$1,214,153,989	$42,955,210	$31,315,535	$94,005,567	$468,728,355	$152,404,973	$421,857,575
Effect of Progression of Amortization of Prior Unfunded Liability	37,056,667	441,793	797,810	2,025,839	9,701,781	4,595,890	20,329,074
Effect of Phase-in of Impact of Change in Assumption	-	-	-	-	-	-	63,918,676
Effect of (Gain)/Loss	33,179,166	1,150,787	(1,133,535)	2,659,439	(8,489,410)	10,572,211	(83,175,551)
2013-14 Amortization of the Unfunded Liability	$1,284,389,822	$44,547,790	$30,979,810	$98,690,845	$469,940,726	$167,573,074	$422,929,774

Reconciliation of Employer Contributions (Continued)

Change in Group Term Life Contribution from 2012-13 to 2013-14

	State Miscellaneous		State	State	State Peace Officers and	California Highway	
	Tier 1	Tier 2	Industrial	Safety	Firefighters	Patrol	Schools
2012-13 Group Term Life Contribution	$7,653,097	$270,757	$0	$496,024	$882,282	$202,794	N/A
Effect of Change in Payroll	(121,478)	(9,530)	-	(21,326)	(68,066)	(1,858)	N/A
Effect of (Gain)/Loss	(495,501)	(17,186)	-	(474,698)	(814,216)	92,740	N/A
2013-14 Group Term Life Contribution	$7,036,118	$244,041	$0	$0	$0	$293,676	N/A

Change in Total Contribution from 2012-13 to 2013-14

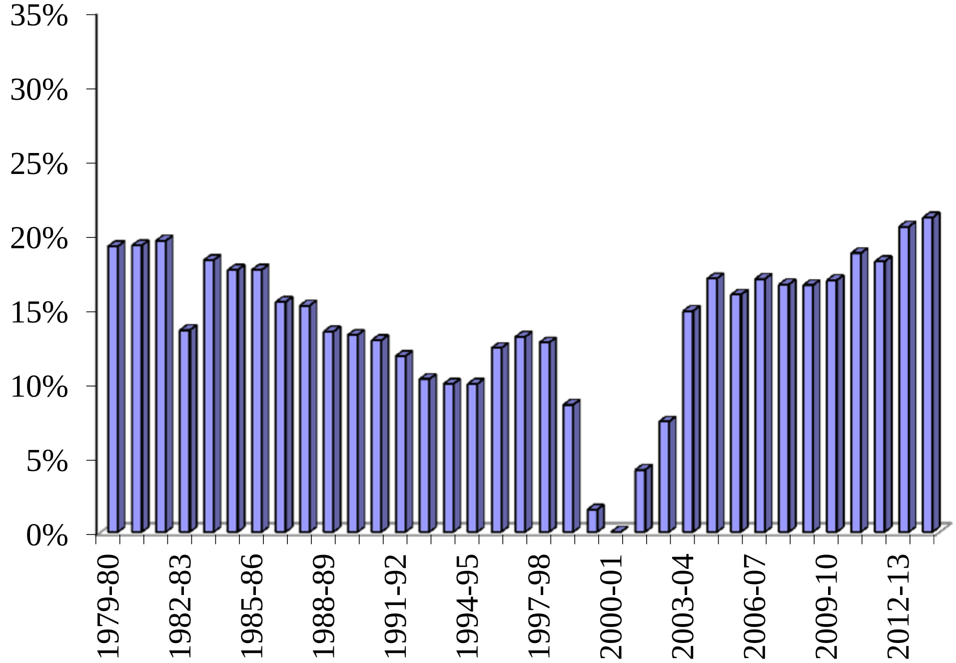
	State Miscellaneous		State	State	State Peace Officers and	California Highway	
	Tier 1	Tier 2	Industrial	Safety	Firefighters	Patrol	Schools
2012-13 Employer Contribution	$2,064,654,743	$72,880,957	$100,447,274	$347,275,501	$1,028,095,419	$263,068,361	$1,203,430,156
Effect of Change in Payroll and Progression of Amortization of Prior Unfunded Liability	23,556,659	(611,522)	(3,447,582)	(8,863,172)	(33,452,290)	3,581,766	(1,780,627)
Effect of Change in Employee Contribution Rate	(8,126,221)	(1,247,702)	(4,418,286)	(13,291,551)	(25,835,702)	(10,193,641)	-
Effect of Phase-in of Impact of Change in Assumption	-	-	-	-	-	-	63,918,676
Effect of (Gain)/Loss	12,962,715	1,130,164	(1,891,121)	1,558,139	(13,813,131)	11,066,823	(93,622,647)
2013-14 Employer Contribution	$2,093,047,896	$72,151,897	$90,690,285	$326,678,917	$954,994,296	$267,523,309	$1,171,945,558

Employer Contribution Rate History

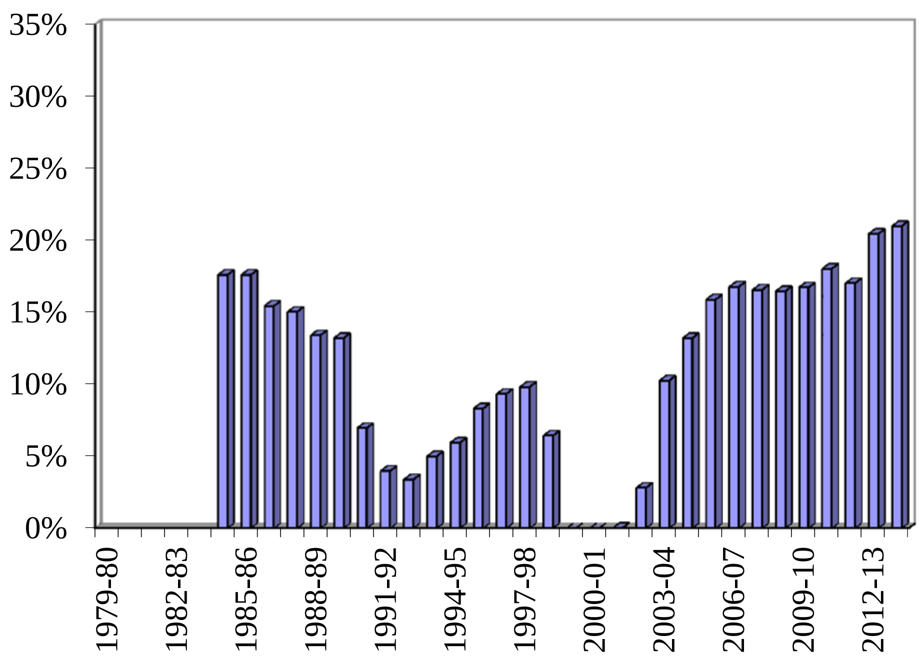
The table below provides a history of the contribution rates for the various State plans and the Schools plan. In cases where the contribution rate changed during the course of a fiscal year, the entry shown is the weighted average of the rates effective during the fiscal year.

Fiscal Year	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Schools
1979-80	19.188%		20.040%	20.106%		31.373%	12.515%
1980-81	19.247%		20.047%	20.145%		31.440%	13.119%
1981-82	19.563%		20.263%	20.409%		31.995%	13.020%
1982-83	13.559%		15.013%	16.381%		19.555%	12.045%
1983-84	18.262%		18.884%	20.615%		24.306%	12.378%
1984-85	17.604%	17.604%	19.976%	20.518%		25.292%	12.378%
1985-86	17.604%	17.604%	19.749%	20.518%	24.310%	24.868%	11.969%
1986-87	15.450%	15.450%	16.638%	22.522%	20.578%	22.150%	11.015%
1987-88	15.202%	15.038%	15.332%	19.229%	17.171%	20.859%	9.718%
1988-89	13.464%	13.413%	16.626%	17.296%	16.431%	18.453%	8.454%
1989-90	13.224%	13.218%	16.783%	17.424%	16.200%	18.318%	8.210%
1990-91	12.878%	6.975%	16.720%	17.916%	15.702%	18.090%	7.282%
1991-92	11.804%	3.986%	13.399%	17.376%	17.386%	21.721%	8.162%
1992-93	10.266%	3.391%	11.995%	15.698%	15.560%	17.074%	7.273%
1993-94	9.939%	5.005%	11.765%	15.485%	15.202%	16.940%	7.066%
1994-95	9.934%	5.947%	10.597%	13.927%	12.817%	15.552%	3.849%
1995-96	12.350%	8.326%	8.981%	14.228%	14.350%	14.778%	6.979%
1996-97	13.106%	9.345%	9.260%	14.656%	15.401%	15.851%	7.787%
1997-98	12.721%	9.822%	9.048%	13.754%	15.270%	15.515%	6.172%
1998-99	8.541%	6.437%	4.583%	9.440%	9.591%	13.541%	0.000%
1999-00	1.491%	0.000%	0.026%	7.487%	0.000%	13.345%	0.000%
2000-01	0.000%	0.000%	0.026%	6.808%	2.729%	13.711%	0.000%
2001-02	4.166%	0.036%	0.350%	12.923%	9.638%	16.897%	0.000%
2002-03	7.413%	2.813%	2.858%	17.055%	13.925%	23.076%	2.894%
2003-04	14.843%	10.265%	11.099%	21.930%	20.325%	32.653%	10.420%
2004-05	17.022%	13.216%	16.386%	20.773%	23.841%	33.434%	9.952%
2005-06	15.942%	15.890%	17.147%	19.026%	23.563%	26.396%	9.116%
2006-07	16.997%	16.778%	17.861%	19.294%	24.505%	31.463%	9.124%
2007-08	16.633%	16.565%	17.345%	18.835%	25.552%	32.212%	9.306%
2008-09	16.574%	16.470%	17.236%	18.411%	26.064%	32.149%	9.428%
2009-10	16.917%	16.737%	17.251%	18.099%	25.848%	28.438%	9.709%
2010-11	18.725%	18.032%	16.433%	18.187%	28.722%	31.291%	10.707%
2011-12	18.175%	17.025%	14.934%	16.428%	27.415%	31.264%	10.923%
2012-13	20.503%	20.457%	16.302%	17.503%	30.297%	33.728%	11.417%
2013-14	21.121%	20.992%	15.682%	17.205%	30.495%	34.616%	11.442%

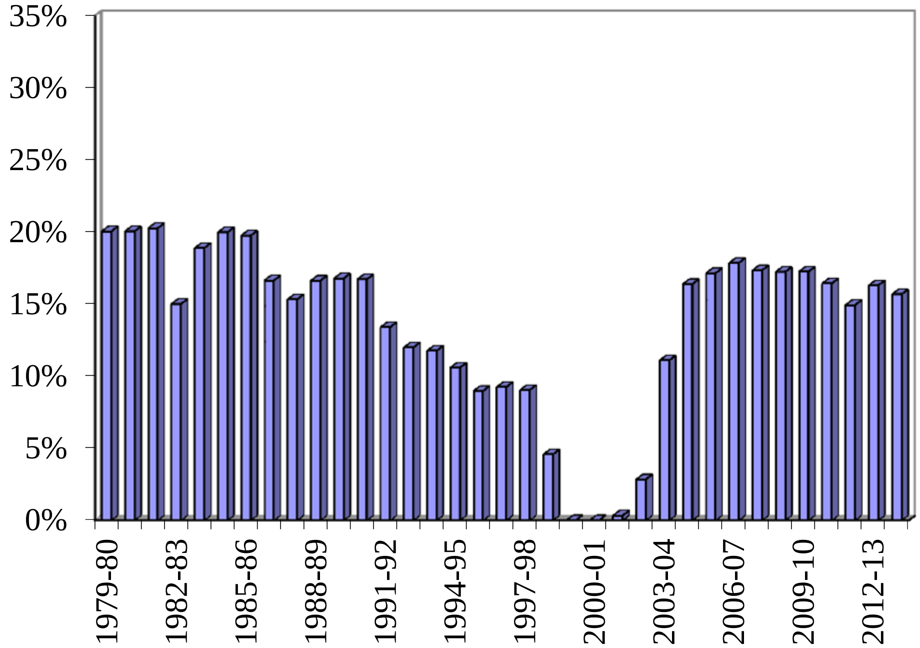
State Miscellaneous Tier 1 Rates



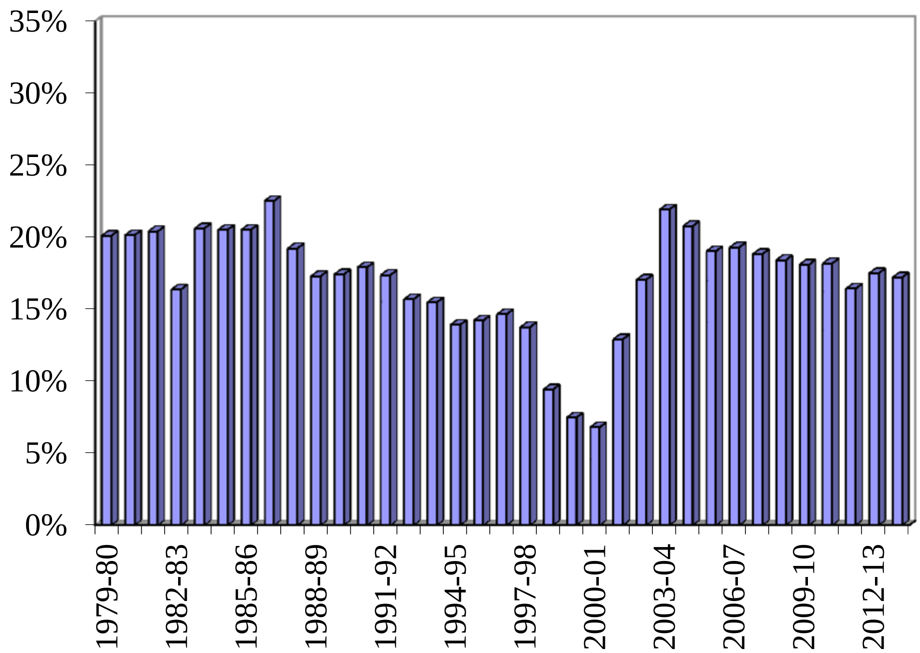
State Miscellaneous Tier 2 Rates



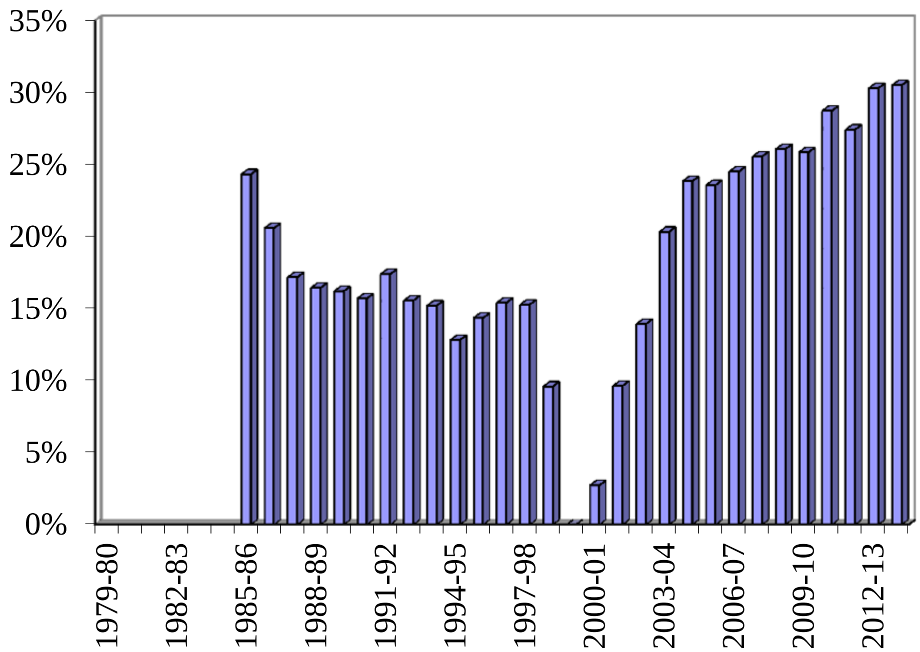
State Industrial Rates



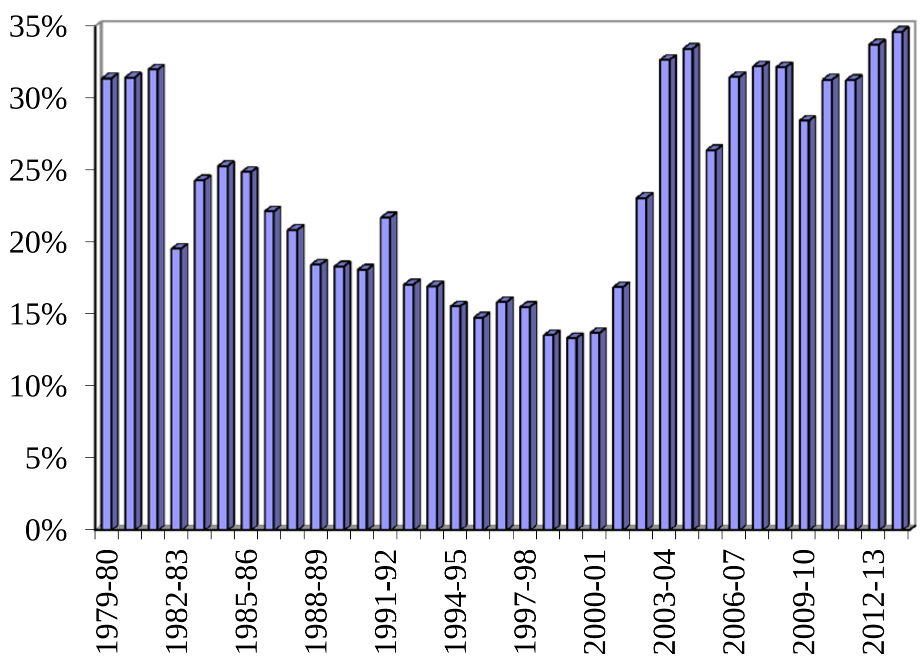
State Safety Rates



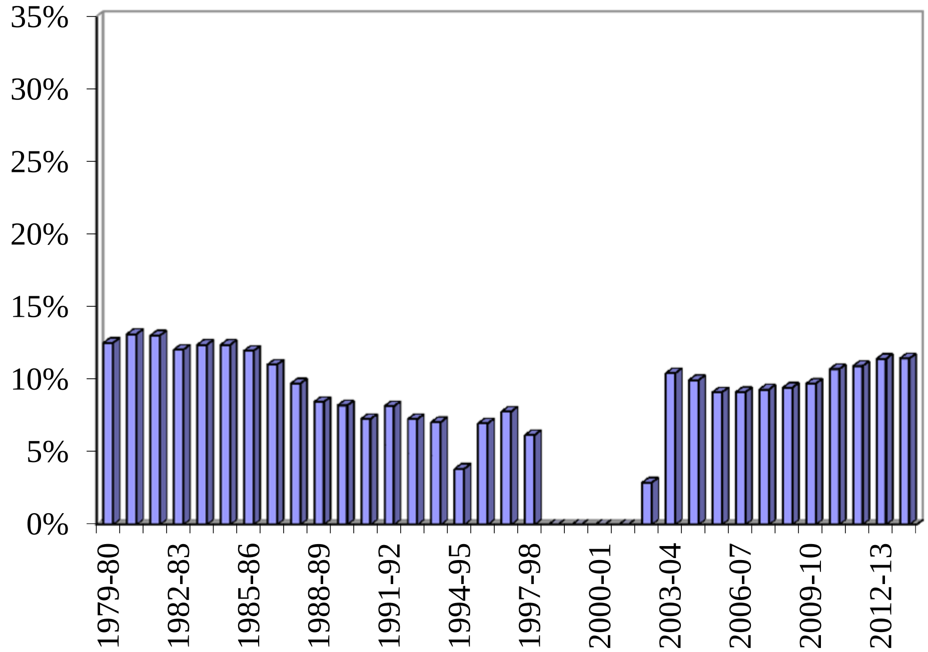
State Peace Officers and Firefighters Rates



California Highway Patrol Rates



Schools Rates



History of Funded Status and Funding Progress

Shown below is the history of funding progress for the plans. One could view the trend in the ratio of the unfunded liability to covered payroll as a measure of the ability of the employer to address the unfunded liability.

State Miscellaneous

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets (MVA)	Funded Status (MVA)	Unfunded Liabilities/ (Surplus) (MVA)	Projected Payroll for Contribution	Unfunded/ (Surplus) as a % of Payroll
6/30/87	$17,216.59	$14,341.10	83.3%	$2,875.49	$4,632.96	62.1%
6/30/88	18,551.55	14,534.21	78.3%	$4,017.34	4,912.26	81.8%
6/30/89	19,971.99	17,132.13	85.8%	$2,839.87	5,348.02	53.1%
6/30/90	22,441.71	16,026.60	71.4%	$6,415.10	5,815.86	110.3%
6/30/91	23,152.67	22,441.42	96.9%	$711.24	6,302.82	11.3%
6/30/92	24,887.16	22,978.69	92.3%	$1,908.47	6,242.74	30.6%
6/30/93	26,162.26	24,714.91	94.5%	$1,447.35	6,310.21	22.9%
6/30/94	27,820.55	24,278.25	87.3%	$3,542.30	6,826.52	51.9%
6/30/95	29,959.51	27,087.75	90.4%	$2,871.76	7,009.46	41.0%
6/30/96	31,742.11	30,451.89	95.9%	$1,290.22	6,881.12	18.8%
6/30/97	32,557.43	35,958.74	110.4%	($3,401.31)	6,623.62	-51.4%
6/30/98	34,169.38	42,011.09	122.9%	($7,841.72)	6,592.21	-119.0%
6/30/99	35,771.22	46,176.43	129.1%	($10,405.22)	7,332.11	-141.9%
6/30/00	42,386.05	49,207.61	116.1%	($6,821.57)	8,246.46	-82.7%
6/30/01	45,261.49	43,933.20	97.1%	$1,328.30	8,815.88	15.1%
6/30/02	48,118.21	39,530.08	82.2%	$8,588.13	9,238.43	93.0%
6/30/03	51,558.91	39,324.37	76.3%	$12,234.54	9,207.49	132.9%
6/30/04	54,700.51	45,459.67	83.1%	$9,240.84	9,078.96	101.8%
6/30/05	58,266.63	50,230.53	86.2%	$8,036.10	8,896.91	90.3%
6/30/06	61,298.78	55,050.67	89.8%	$6,248.11	8,956.47	69.8%
6/30/07	65,341.72	64,441.85	98.6%	$899.87	9,529.56	9.4%
6/30/08	69,647.97	59,978.56	86.1%	$9,669.41	10,241.26	94.4%
6/30/09	74,762.62	44,093.66	59.0%	$30,668.96	10,464.95	293.1%
6/30/10	76,980.43	48,645.91	63.2%	$28,334.52	10,514.72	269.5%
6/30/11	81,271.09	57,451.96	70.7%	$23,819.13	10,426.12	228.5%
6/30/12	83,523.53	55,371.26	66.3%	$28,152.27	10,253.74	274.6%

State Industrial

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets (MVA)	Funded Status (MVA)	Unfunded Liabilities/ (Surplus) (MVA)	Projected Payroll for Contribution	Unfunded/ (Surplus) as a % of Payroll
6/30/87	$315.86	$350.09	110.8%	($34.22)	$146.17	-23.4%
6/30/88	344.81	$347.47	100.8%	($2.66)	166.90	-1.6%
6/30/89	386.48	$405.87	105.0%	($19.39)	191.17	-10.1%
6/30/90	459.94	$401.13	87.2%	$58.81	224.06	26.2%
6/30/91	492.36	$579.06	117.6%	($86.71)	256.41	-33.8%
6/30/92	539.59	$609.95	113.0%	($70.36)	268.41	-26.2%
6/30/93	596.89	$667.52	111.8%	($70.63)	278.37	-25.4%
6/30/94	618.92	$665.17	107.5%	($46.25)	235.06	-19.7%
6/30/95	659.45	$750.80	113.9%	($91.35)	270.74	-33.7%
6/30/96	721.31	$861.49	119.4%	($140.18)	293.77	-47.7%
6/30/97	740.68	$1,042.38	140.7%	($301.69)	284.64	-106.0%
6/30/98	789.88	$1,226.17	155.2%	($436.29)	296.55	-147.1%
6/30/99	880.05	$1,359.58	154.5%	($479.53)	343.75	-139.5%
6/30/00	1,078.75	$1,463.21	135.6%	($384.45)	379.44	-101.3%
6/30/01	1,196.07	$1,325.06	110.8%	($128.99)	390.17	-33.1%
6/30/02	1,294.63	$1,199.71	92.7%	$94.92	389.72	24.4%
6/30/03	1,462.07	$1,200.75	82.1%	$261.32	381.30	68.5%
6/30/04	1,601.67	$1,414.67	88.3%	$187.01	377.65	49.5%
6/30/05	1,753.85	$1,586.13	90.4%	$167.72	379.50	44.2%
6/30/06	1,870.23	$1,776.30	95.0%	$93.93	381.08	24.6%
6/30/07	2,043.85	$2,119.42	103.7%	($75.56)	440.39	-17.2%
6/30/08	2,234.92	$2,033.97	91.0%	$200.95	521.55	38.5%
6/30/09	2,467.30	$1,555.77	63.1%	$911.53	573.82	158.9%
6/30/10	2,614.48	$1,784.90	68.3%	$829.58	615.81	134.7%
6/30/11	2,831.50	$2,179.95	77.0%	$651.54	616.15	105.7%
6/30/12	2,968.40	$2,168.10	73.0%	$800.30	578.31	138.4%

State Safety

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets (MVA)	Funded Status (MVA)	Unfunded Liabilities/ (Surplus) (MVA)	Projected Payroll for Contribution	Unfunded/ (Surplus) as a % of Payroll
6/30/87	$349.50	$387.09	110.8%	($37.59)	$112.68	-33.4%
6/30/88	369.94	$372.43	100.7%	($2.49)	133.51	-1.9%
6/30/89	420.00	$440.28	104.8%	($20.28)	184.89	-11.0%
6/30/90	498.73	$425.64	85.3%	$73.09	231.79	31.5%
6/30/91	548.01	$636.70	116.2%	($88.70)	262.42	-33.8%
6/30/92	602.36	$679.63	112.8%	($77.27)	262.99	-29.4%
6/30/93	644.22	$721.61	112.0%	($77.39)	265.34	-29.2%
6/30/94	761.10	$761.74	100.1%	($0.64)	385.40	-0.2%
6/30/95	913.75	$936.36	102.5%	($22.61)	408.03	-5.5%
6/30/96	946.58	$1,122.60	118.6%	($176.02)	473.79	-37.2%
6/30/97	1,086.00	$1,403.64	129.2%	($317.64)	413.78	-76.8%
6/30/98	1,285.33	$1,671.77	130.1%	($386.45)	510.51	-75.7%
6/30/99	1,363.94	$1,927.29	141.3%	($563.35)	681.63	-82.6%
6/30/00	1,864.69	$2,121.78	113.8%	($257.09)	759.19	-33.9%
6/30/01	2,179.43	$1,999.67	91.8%	$179.76	850.00	21.1%
6/30/02	2,476.47	$1,925.90	77.8%	$550.56	875.83	62.9%
6/30/03	2,788.06	$2,049.31	73.5%	$738.75	890.67	82.9%
6/30/04	3,087.45	$2,508.66	81.3%	$578.79	889.30	65.1%
6/30/05	3,472.58	$2,999.91	86.4%	$472.67	1,106.95	42.7%
6/30/06	3,906.96	$3,486.19	89.2%	$420.77	1,225.72	34.3%
6/30/07	4,467.41	$4,341.68	97.2%	$125.73	1,530.40	8.2%
6/30/08	5,146.24	$4,364.99	84.8%	$781.25	1,913.63	40.8%
6/30/09	6,005.61	$3,514.11	58.5%	$2,491.50	2,047.94	121.7%
6/30/10	6,435.65	$4,196.17	65.2%	$2,239.48	2,004.05	111.7%
6/30/11	7,224.28	$5,389.52	74.6%	$1,834.76	1,984.10	92.5%
6/30/12	7,827.25	$5,524.39	70.6%	$2,302.87	1,898.79	121.3%

State Peace Officers and Firefighters

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets (MVA)	Funded Status (MVA)	Unfunded Liabilities/ (Surplus) (MVA)	Projected Payroll for Contribution	Unfunded/ (Surplus) as a % of Payroll
6/30/87	$2,046.60	$1,902.78	93.0%	$143.82	$791.32	18.2%
6/30/88	2,323.22	$2,060.31	88.7%	$262.91	892.79	29.4%
6/30/89	2,664.98	$2,594.85	97.4%	$70.13	1,001.85	7.0%
6/30/90	3,439.63	$2,585.12	75.2%	$854.51	1,150.54	74.3%
6/30/91	3,773.05	$3,854.02	102.1%	($80.97)	1,319.96	-6.1%
6/30/92	4,193.43	$4,232.07	100.9%	($38.63)	1,332.15	-2.9%
6/30/93	4,475.70	$4,867.29	108.7%	($391.58)	1,347.85	-29.1%
6/30/94	4,883.90	$5,031.67	103.0%	($147.77)	1,504.71	-9.8%
6/30/95	5,552.00	$5,892.10	106.1%	($340.10)	1,592.42	-21.4%
6/30/96	6,128.81	$6,860.00	111.9%	($731.19)	1,653.57	-44.2%
6/30/97	6,494.67	$8,435.81	129.9%	($1,941.14)	1,409.62	-137.7%
6/30/98	7,015.67	$10,321.52	147.1%	($3,305.85)	1,540.44	-214.6%
6/30/99	8,091.24	$11,684.90	144.4%	($3,593.66)	2,017.76	-178.1%
6/30/00	10,720.41	$12,667.55	118.2%	($1,947.13)	2,227.34	-87.4%
6/30/01	11,949.04	$11,574.35	96.9%	$374.70	2,303.58	16.3%
6/30/02	12,826.58	$10,731.13	83.7%	$2,095.45	2,406.97	87.1%
6/30/03	14,219.50	$11,037.85	77.6%	$3,181.65	2,506.75	126.9%
6/30/04	15,668.42	$12,998.58	83.0%	$2,669.85	2,603.55	102.5%
6/30/05	17,753.24	$14,984.69	84.4%	$2,768.54	2,860.33	96.8%
6/30/06	19,737.05	$16,972.81	86.0%	$2,764.24	3,057.73	90.4%
6/30/07	22,249.94	$20,538.69	92.3%	$1,711.25	3,420.18	50.0%
6/30/08	24,004.31	$19,734.05	82.2%	$4,270.26	3,588.76	119.0%
6/30/09	26,291.09	$15,083.09	57.4%	$11,208.00	3,591.82	312.0%
6/30/10	27,711.53	$17,199.10	62.1%	$10,512.44	3,454.76	304.3%
6/30/11	30,127.48	$20,801.28	69.0%	$9,326.20	3,393.39	274.8%
6/30/12	31,335.59	$20,525.71	65.5%	$10,809.88	3,131.60	345.2%

California Highway Patrol

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets (MVA)	Funded Status (MVA)	Unfunded Liabilities/ (Surplus) (MVA)	Projected Payroll for Contribution	Unfunded/ (Surplus) as a % of Payroll
6/30/87	$1,196.54	$1,325.90	110.8%	($129.35)	$216.42	-59.8%
6/30/88	1,290.70	$1,300.19	100.7%	($9.49)	226.20	-4.2%
6/30/89	1,414.86	$1,483.64	104.9%	($68.79)	249.06	-27.6%
6/30/90	1,612.80	$1,395.26	86.5%	$217.54	271.01	80.3%
6/30/91	1,628.94	$1,915.61	117.6%	($286.67)	287.52	-99.7%
6/30/92	1,732.68	$1,956.27	112.9%	($223.60)	282.14	-79.2%
6/30/93	1,772.76	$1,940.50	109.5%	($167.74)	278.84	-60.2%
6/30/94	1,970.53	$1,968.32	99.9%	$2.21	288.04	0.8%
6/30/95	2,133.61	$2,206.59	103.4%	($72.98)	301.83	-24.2%
6/30/96	2,328.09	$2,496.33	107.2%	($168.24)	343.47	-49.0%
6/30/97	2,620.57	$2,911.76	111.1%	($291.18)	370.66	-78.6%
6/30/98	2,756.37	$2,901.44	105.3%	($145.07)	366.98	-39.5%
6/30/99	2,983.40	$3,249.25	108.9%	($265.84)	402.37	-66.1%
6/30/00	3,635.32	$3,443.17	94.7%	$192.15	433.10	44.4%
6/30/01	3,980.87	$3,465.65	87.1%	$515.22	455.09	113.2%
6/30/02	4,137.94	$3,159.30	76.3%	$978.64	461.05	212.3%
6/30/03	4,421.26	$3,230.38	73.1%	$1,190.87	475.73	250.3%
6/30/04	4,741.67	$3,733.81	78.7%	$1,007.86	508.61	198.2%
6/30/05	5,348.62	$4,248.85	79.4%	$1,099.77	546.14	201.4%
6/30/06	5,743.98	$4,681.57	81.5%	$1,062.41	556.30	191.0%
6/30/07	6,248.79	$5,546.16	88.8%	$702.63	613.03	114.6%
6/30/08	6,608.65	$5,237.58	79.3%	$1,371.08	674.69	203.2%
6/30/09	7,300.11	$3,932.22	53.9%	$3,367.89	733.57	459.1%
6/30/10	7,703.86	$4,439.50	57.6%	$3,264.37	767.42	425.4%
6/30/11	8,193.45	$5,335.99	65.1%	$2,857.46	779.98	366.4%
6/30/12	8,659.14	$5,220.07	60.3%	$3,439.07	772.83	445.0%

Schools

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets (MVA)	Funded Status (MVA)	Unfunded Liabilities/ (Surplus) (MVA)	Projected Payroll for Contribution	Unfunded/ (Surplus) as a % of Payroll
6/30/87	$8,582.66	$8,173.59	95.2%	$409.07	$3,605.26	11.3%
6/30/88	9,395.40	$8,341.39	88.8%	$1,054.01	3,768.65	28.0%
6/30/89	9,941.35	$9,925.64	99.8%	$15.72	4,054.28	0.4%
6/30/90	11,249.14	$9,297.76	82.7%	$1,951.37	4,392.59	44.4%
6/30/91	12,002.48	$13,300.78	110.8%	($1,298.30)	4,849.84	-26.8%
6/30/92	12,855.90	$13,815.63	107.5%	($959.73)	4,882.78	-19.7%
6/30/93	13,575.13	$14,955.70	110.2%	($1,380.57)	4,852.84	-28.4%
6/30/94	15,135.82	$15,373.38	101.6%	($237.56)	5,140.41	-4.6%
6/30/95	16,421.90	$17,314.37	105.4%	($892.46)	5,350.87	-16.7%
6/30/96	17,571.63	$19,706.46	112.1%	($2,134.83)	5,145.78	-41.5%
6/30/97	17,583.43	$23,499.15	133.6%	($5,915.72)	4,907.43	-120.5%
6/30/98	19,499.14	$27,873.56	142.9%	($8,374.42)	5,444.66	-153.8%
6/30/99	21,216.00	$30,917.57	145.7%	($9,701.57)	5,961.02	-162.8%
6/30/00	25,473.96	$33,295.07	130.7%	($7,821.11)	7,052.94	-110.9%
6/30/01	27,946.43	$30,307.55	108.4%	($2,361.12)	7,912.23	-29.8%
6/30/02	31,271.16	$27,689.90	88.5%	$3,581.27	8,344.24	42.9%
6/30/03	33,792.88	$28,182.01	83.4%	$5,610.86	9,079.11	61.8%
6/30/04	35,932.74	$32,828.49	91.4%	$3,104.24	9,068.75	34.2%
6/30/05	38,367.52	$36,898.25	96.2%	$1,469.27	9,222.78	15.9%
6/30/06	41,408.65	$40,852.35	98.7%	$556.31	9,880.89	5.6%
6/30/07	44,810.07	$48,292.93	107.8%	($3,482.86)	10,249.83	-34.0%
6/30/08	48,537.68	$45,547.90	93.8%	$2,989.78	11,137.70	26.8%
6/30/09	52,493.08	$34,146.45	65.0%	$18,346.63	11,109.76	165.1%
6/30/10	55,306.96	$38,435.17	69.5%	$16,871.79	11,283.40	149.5%
6/30/11	58,358.41	$45,900.99	78.7%	$12,457.42	10,540.43	118.2%
6/30/12	59,439.13	$44,853.80	75.5%	$14,585.33	10,242.25	142.4%

RISK ANALYSIS

- VOLATILITY RATIOS
- PROJECTED RATES
- ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS
- ANALYSIS OF DISCOUNT RATE SENSITIVITY & GOVERNMENT CODE SECTION 20229

Volatility Ratios

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 employer's rates from one year to the next. Therefore, the rates will inevitably fluctuate, especially due to the ups and downs of investment returns.

Asset Volatility Ratio

Plans that have higher asset to payroll ratios produce more volatile employer rates due to investment return volatility. For example, a plan with an asset to payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility than a plan with an asset to payroll ratio of 4. Below we have shown the asset volatility ratio. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures.

Liability Volatility Ratio

Plans that have higher liability to payroll ratios produce more volatile employer rates due to investment return and changes in liability. For example, a plan with a liability to payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability to payroll ratio of 4. The liability volatility ratio is also included in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility and the asset volatility ratio, described above, will tend to move closer to this ratio as the plan matures.

Rate Volatility

Plan	Market Value of Assets without Receivables	Annual Covered Payroll	Asset Volatility Ratio	Accrued Liability	Liability Volatility Ratio
	(1)	(2)	(1)/(2)	(3)	(3)/(2)
State Miscellaneous	54,775,231,553	9,665,137,942	5.7	83,523,526,246	8.6
State Industrial	2,148,979,669	545,112,340	3.9	2,968,403,342	5.4
State Safety	5,511,156,902	1,789,794,486	3.1	7,827,253,833	4.4
POFF	20,479,556,138	2,951,833,630	6.9	31,335,588,660	10.6
CHP	5,207,738,960	728,467,347	7.1	8,659,143,106	11.9
Schools	44,824,395,294	9,654,303,484	4.6	59,439,130,743	6.2

The above analysis shows that the CHP, POFF and Miscellaneous plans are expected to have more volatile contributions than the Schools pool, Industrial and Safety plans. It also shows that the contribution volatility is expected to increase as the plans become better funded. The contribution volatility would be 33% to 66% greater if the plans were 100% funded.

Projected Rates

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Beginning with the June 30, 2014 valuation that will set the 2015-16 rates, CalPERS will employ an amortization and rate smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread over a 5-year period. The table below shows projected employer contribution rates for the next six Fiscal Years, assuming CalPERS earns 12% for fiscal year 2012-13 and 7.50 percent every fiscal year thereafter, and assuming that all other actuarial assumptions will be realized and no changes to assumptions, contributions, benefits, or funding. These projections do not take into account potential rate increases from likely future assumption changes. They do take into account the positive impact PEPRA is expected to gradually have on the normal cost.

	New Rate	**Projected Future Employer Contribution Rates**					
Plan	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**
State Miscellaneous Tier 1	21.121%	21.3%	22.4%	23.5%	24.7%	25.8%	26.9%
State Miscellaneous Tier 2	20.992%	21.0%	22.3%	23.6%	24.9%	26.2%	27.5%
State Industrial	15.682%	15.7%	16.3%	16.9%	17.5%	18.1%	18.7%
State Safety	17.205%	16.6%	16.8%	16.9%	17.1%	17.4%	17.6%
POFF	30.495%	29.6%	30.9%	32.2%	33.5%	34.8%	36.1%
CHP	34.616%	35.1%	36.6%	38.1%	39.6%	41.1%	42.6%
Schools	11.442%	11.7%	12.6%	13.6%	14.5%	15.5%	16.4%

Analysis of Future Investment Return Scenarios

As part of this report, different scenarios were performed to determine the effects of various investment returns during fiscal years 2013-14, 2014-15 and 2015-16 on the 2015-16, 2016-17 and 2017-18 employer rates. The projected rates assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur. These projected rates also reflect that new hires will be entering into lower benefit formulas with a lower normal cost and the April 17, 2013 CalPERS Board-approved amortization and rate smoothing method change.

Five different investment return scenarios were selected.

- The first scenario is what one would expect if the markets were to give us a 5th percentile return from July 1, 2013 through June 30, 2016. The 5th percentile return corresponds to a -4.10% return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.

- The second scenario is what one would expect if the markets were to give us a 25th percentile return from July 1, 2013 through June 30, 2016. The 25th percentile return corresponds to a 2.60% return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.

- The third scenario assumed the return for 2013-14, 2014-15, and 2015-16 would be our assumed 7.50% investment return which represents about a 49th percentile event.

- The fourth scenario is what one would expect if the markets were to give us a 75th percentile return from July 1, 2013 through June 30, 2016. The 75th percentile return corresponds to a 11.90% return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.

- Finally, the last scenario is what one would expect if the markets were to give us a 95th percentile return from July 1, 2013 through June 30, 2016. The 95th percentile return corresponds to a 18.50% return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.

The tables below show the projected contribution rates for 2015-16 through 2017-18 for the various State Plans under the five different scenarios.

Estimated: 2015-16 Rates as a % of Payroll

	Investment Scenario				
	1st Scenario	**2nd Scenario**	**3rd Scenario**	**4th Scenario**	**5th Scenario**
Plan	**-4.10%**	**2.60%**	**7.50%**	**11.90%**	**18.50%**
State Miscellaneous Tier 1	23.4%	22.8%	22.4%	22.0%	21.5%
State Miscellaneous Tier 2	23.3%	22.7%	22.3%	22.0%	21.4%
State Industrial	17.0%	16.6%	16.3%	16.0%	15.7%
State Safety	17.3%	17.0%	16.8%	16.6%	16.2%
POFF	32.1%	31.4%	30.9%	30.5%	29.8%
CHP	37.8%	37.1%	36.6%	36.1%	35.4%
Schools	13.4%	12.9%	12.6%	12.3%	11.9%

Estimated: 2016-17 Rates as a % of Payroll

	Investment Scenario				
	1st Scenario	2nd Scenario	3rd Scenario	4th Scenario	5th Scenario
Plan	**-4.10%**	**2.60%**	**7.50%**	**11.90%**	**18.50%**
State Miscellaneous Tier 1	26.3%	24.7%	23.5%	22.4%	20.7%
State Miscellaneous Tier 2	26.3%	24.8%	23.6%	22.5%	20.8%
State Industrial	18.9%	17.8%	16.9%	16.1%	14.9%
State Safety	18.6%	17.6%	16.9%	16.3%	15.3%
POFF	35.7%	33.7%	32.2%	30.8%	28.7%
CHP	41.6%	39.6%	38.1%	36.7%	34.5%
Schools	15.8%	14.5%	13.6%	12.7%	11.3%

Estimated: 2017-18 Rates as a % of Payroll

	Investment Scenario				
	1st Scenario	2nd Scenario	3rd Scenario	4th Scenario	5th Scenario
Plan	**-4.10%**	**2.60%**	**7.50%**	**11.90%**	**18.50%**
State Miscellaneous Tier 1	29.9%	27.0%	24.7%	22.4%	18.8%
State Miscellaneous Tier 2	30.2%	27.2%	24.9%	22.7%	19.1%
State Industrial	21.4%	19.3%	17.5%	15.9%	13.2%
State Safety	20.3%	18.5%	17.1%	15.8%	13.6%
POFF	40.3%	36.5%	33.5%	30.7%	26.1%
CHP	46.5%	42.6%	39.6%	36.7%	32.1%
Schools	18.9%	16.4%	14.5%	12.7%	9.7%

Analysis of Discount Rate Sensitivity & Government Code Section 20229

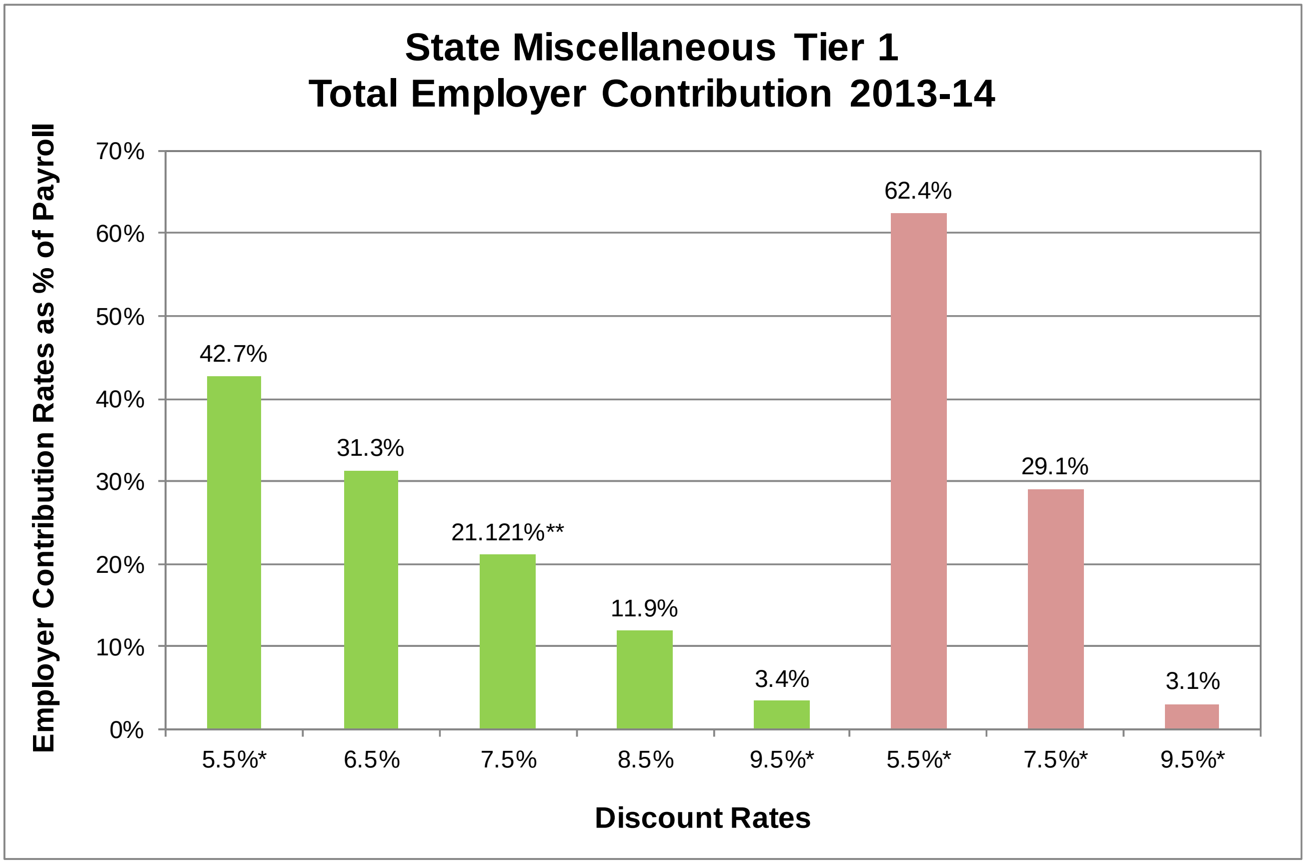
The discount rate reflects expectations of what the markets will deliver in the future and it is calculated based on two components: expected price inflation and real rate of return. A change in either of those components over the long term would necessitate further evaluation of the discount rate.

This section includes an analysis of discount rate sensitivity on employer contribution rates under two different discount rate scenarios. This type of analysis gives the reader a sense of the long-term risk to the employer contribution rates and changes to the funded status on a Market Value of Assets basis.

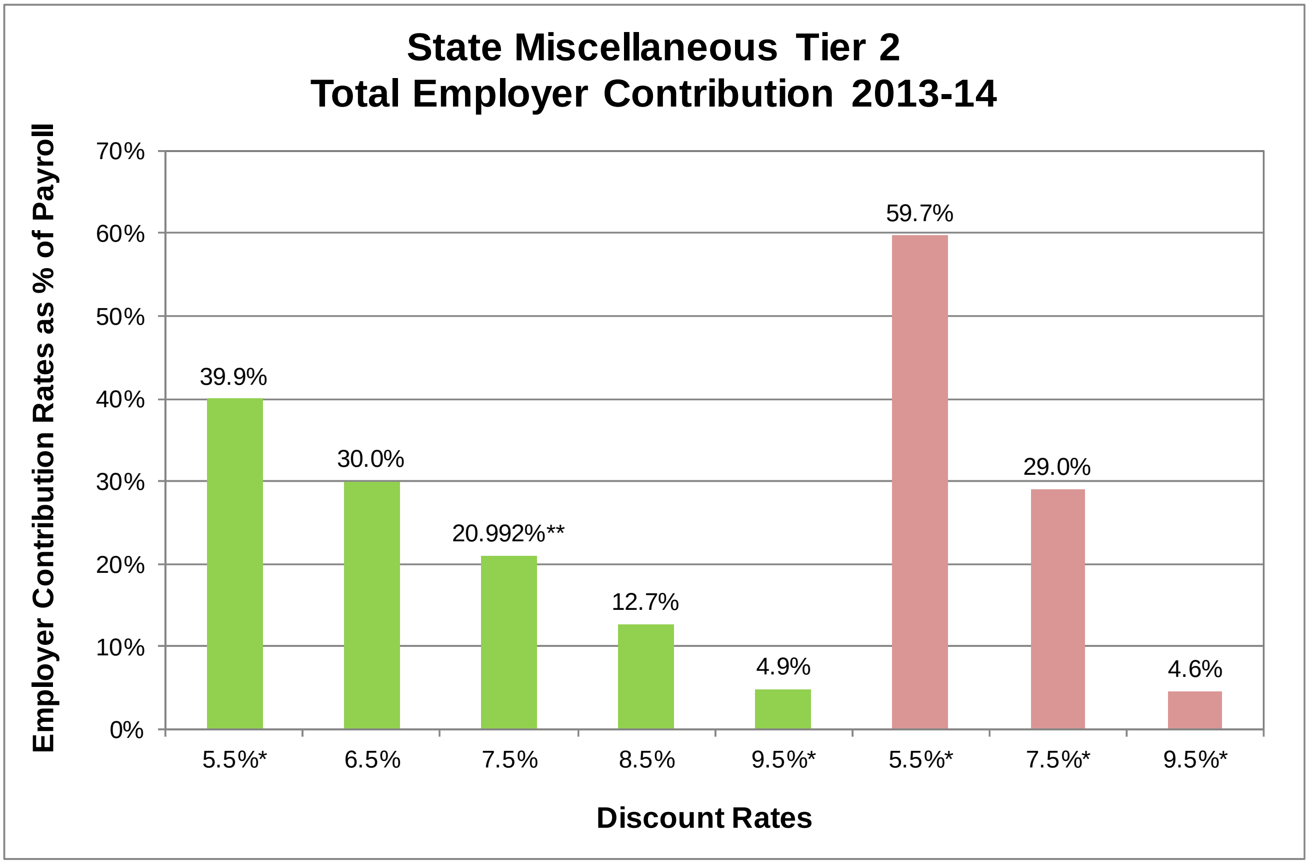
The first section shows the impact on employer contribution rates assuming discount rates that are 1 percentage point above and 1 percentage point below the current valuation discount rate and under current unfunded liability amortization methods. This analysis gives an indication of the potential required employer contribution rates if the discount rate was changed to 6.50% or 8.50% over the long-term.

The second section is in response to Government Code section 20229 which requires the CalPERS Board to provide an annual report which includes a calculation of the contribution rates and liabilities utilizing investment return and discount rate assumptions which are 2 percentage points above and 2 percentage points below the current investment return and discount rate assumptions utilized by the board, and a calculation of the rates based on an amortization period equal to the estimated average remaining service periods (EARSP) of the employees covered by the contributions. The results are presented for three different investment return assumptions (5.50%, 7.50% and 9.50%) for all the State plans. For comparison, contribution rates for the current fiscal year have been calculated using both the current amortization method and amortization over the estimated average remaining service periods of the employees covered by the contributions.

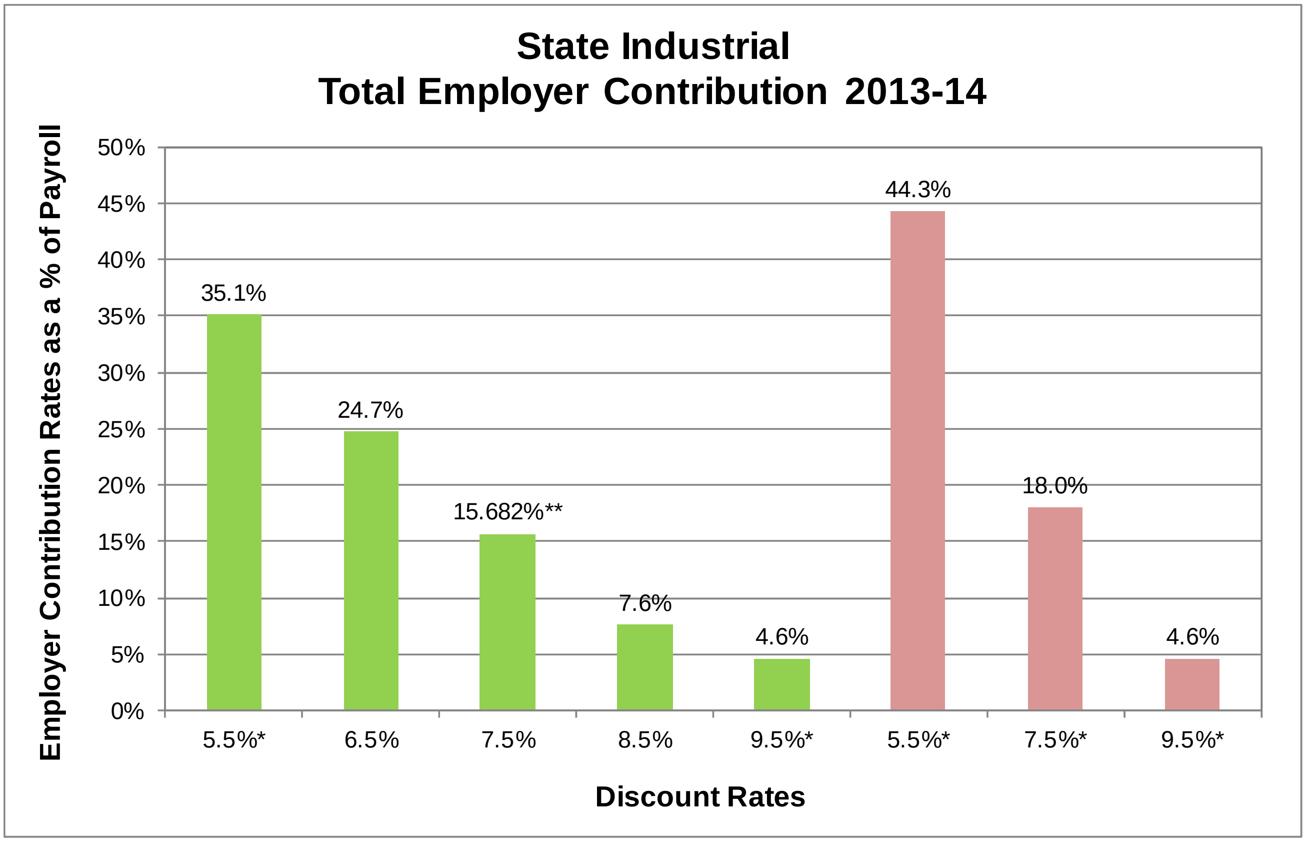
The results of the analysis are presented in three sections. The first section is a graphical representation of the impact on employer rates for both +/- 1% change in discount rate, and +/- 2% change in discount rate due to G.C. 20229. The second and third sections are the numeric representations. The reader may use the data points presented in the graph to estimate data points of interest using interpolation.



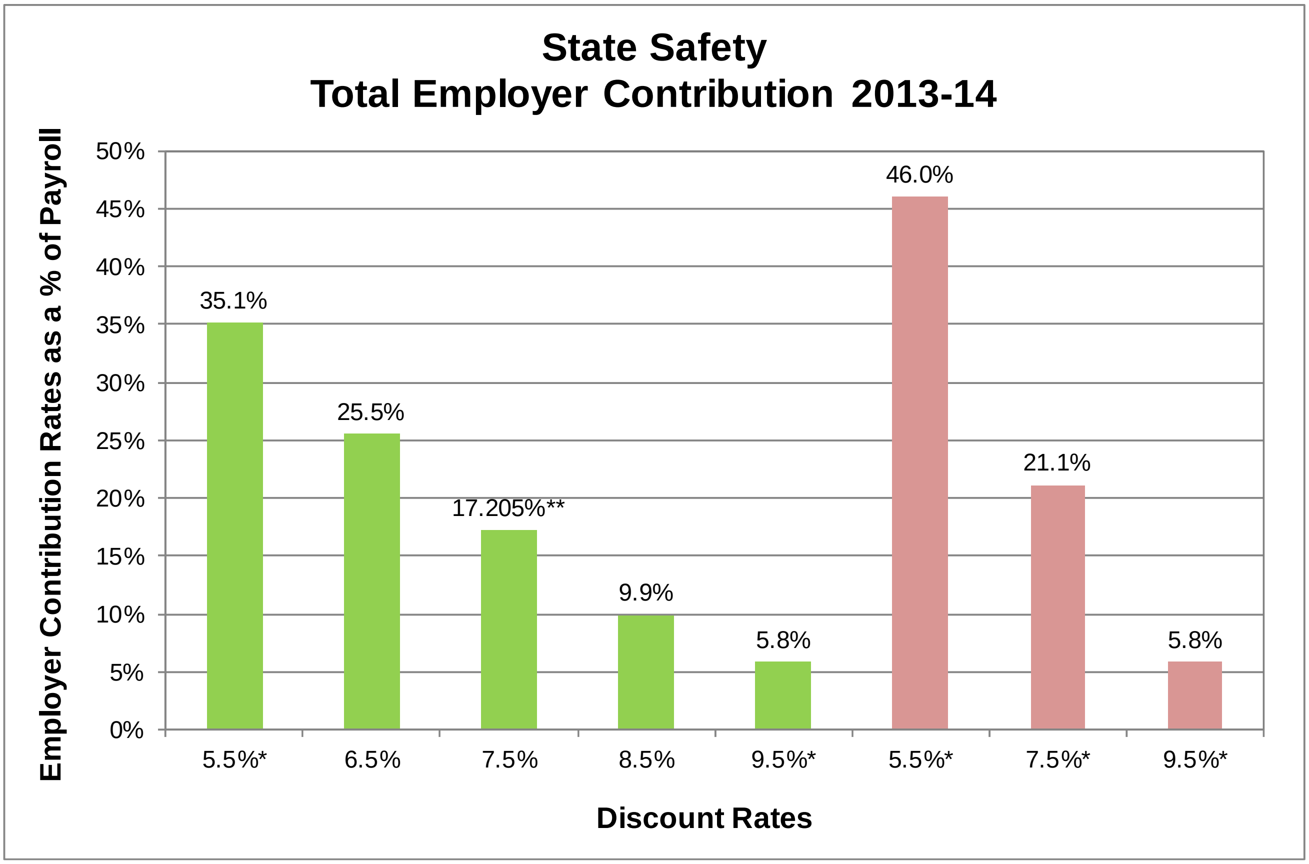
(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 11 to 30 years) or normal cost if in a surplus position
(pink)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (10 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2013-14 adopted by the CalPERS Board



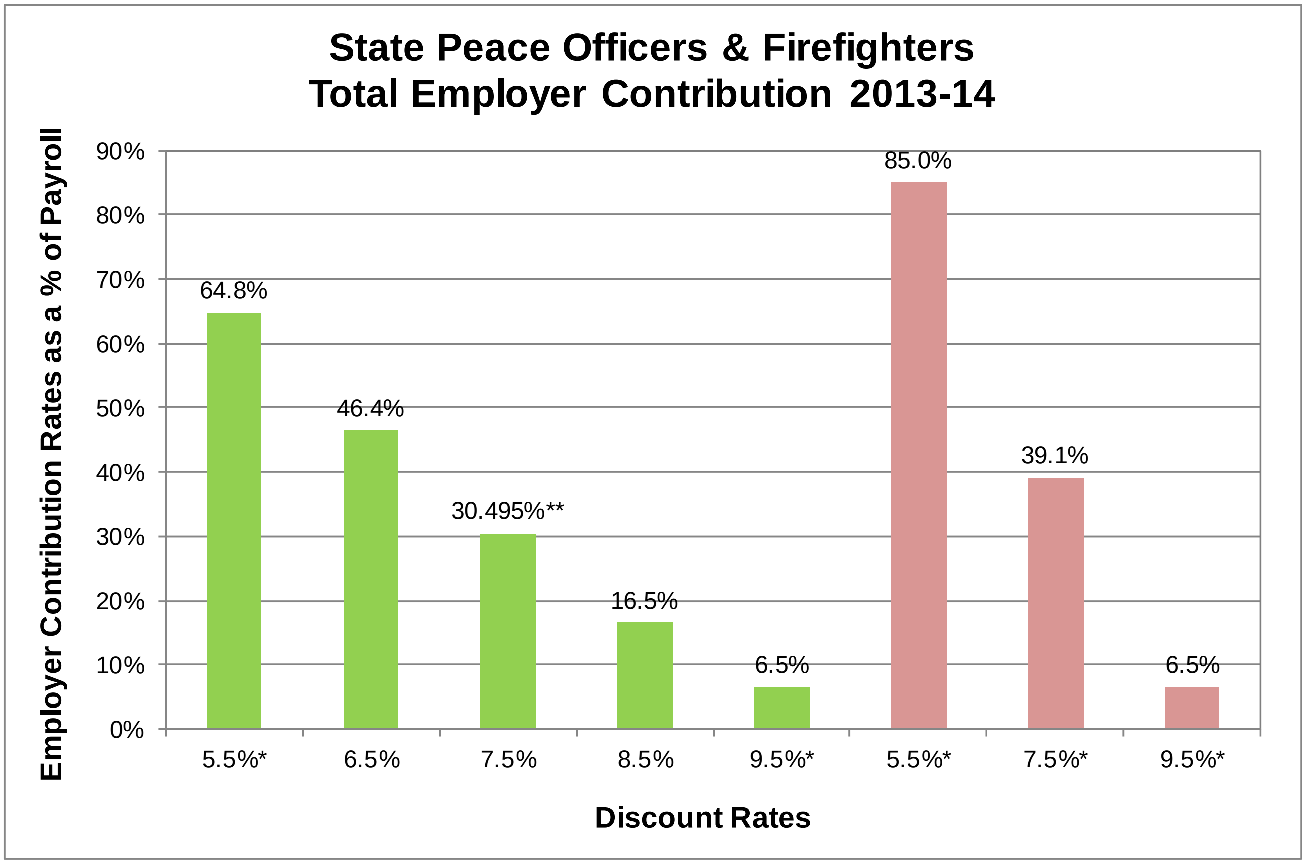
(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 11 to 30 years) or normal cost if in a surplus position
(red)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (10 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2013-14 adopted by the CalPERS Board



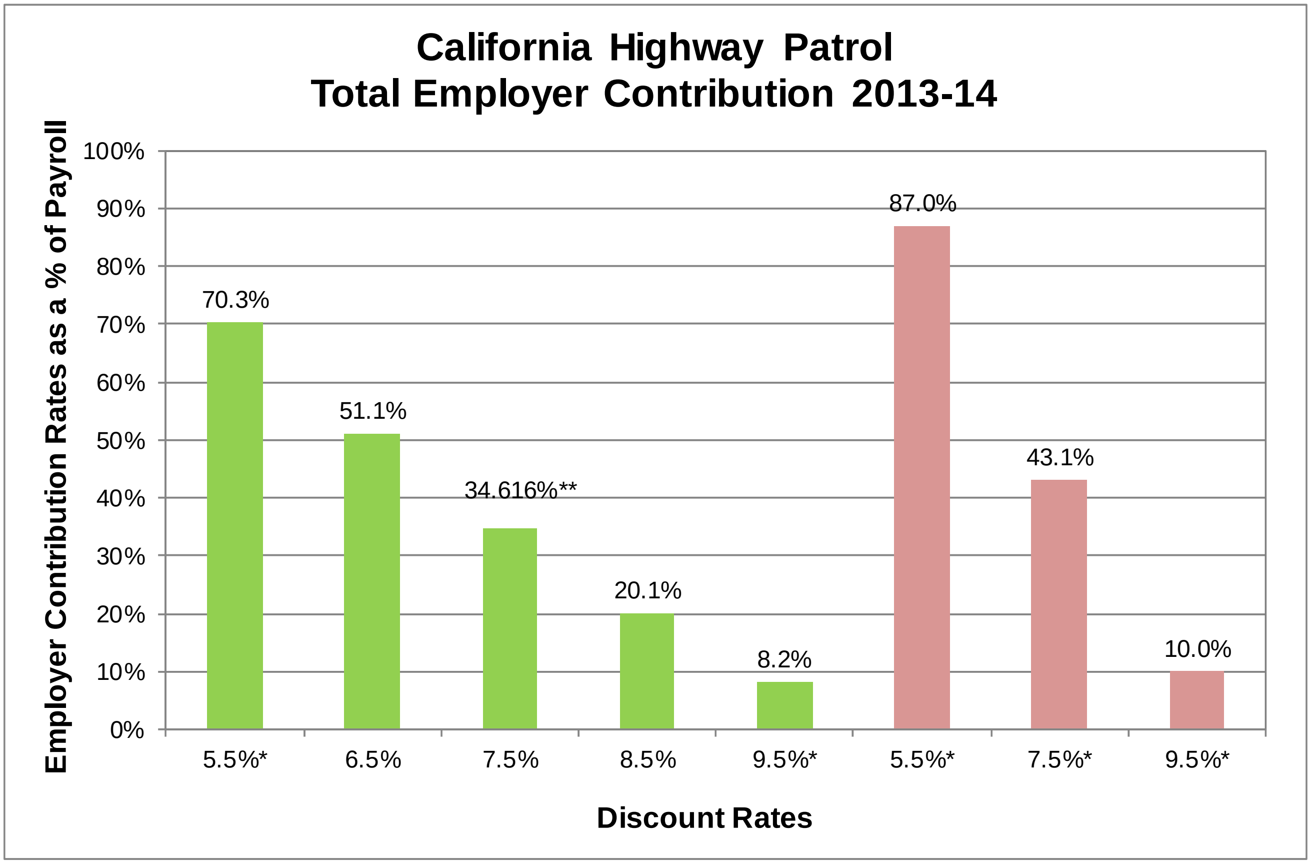
(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 11 to 30 years) or normal cost if in a surplus position
(pink)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (11 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2013-14 adopted by the CalPERS Board



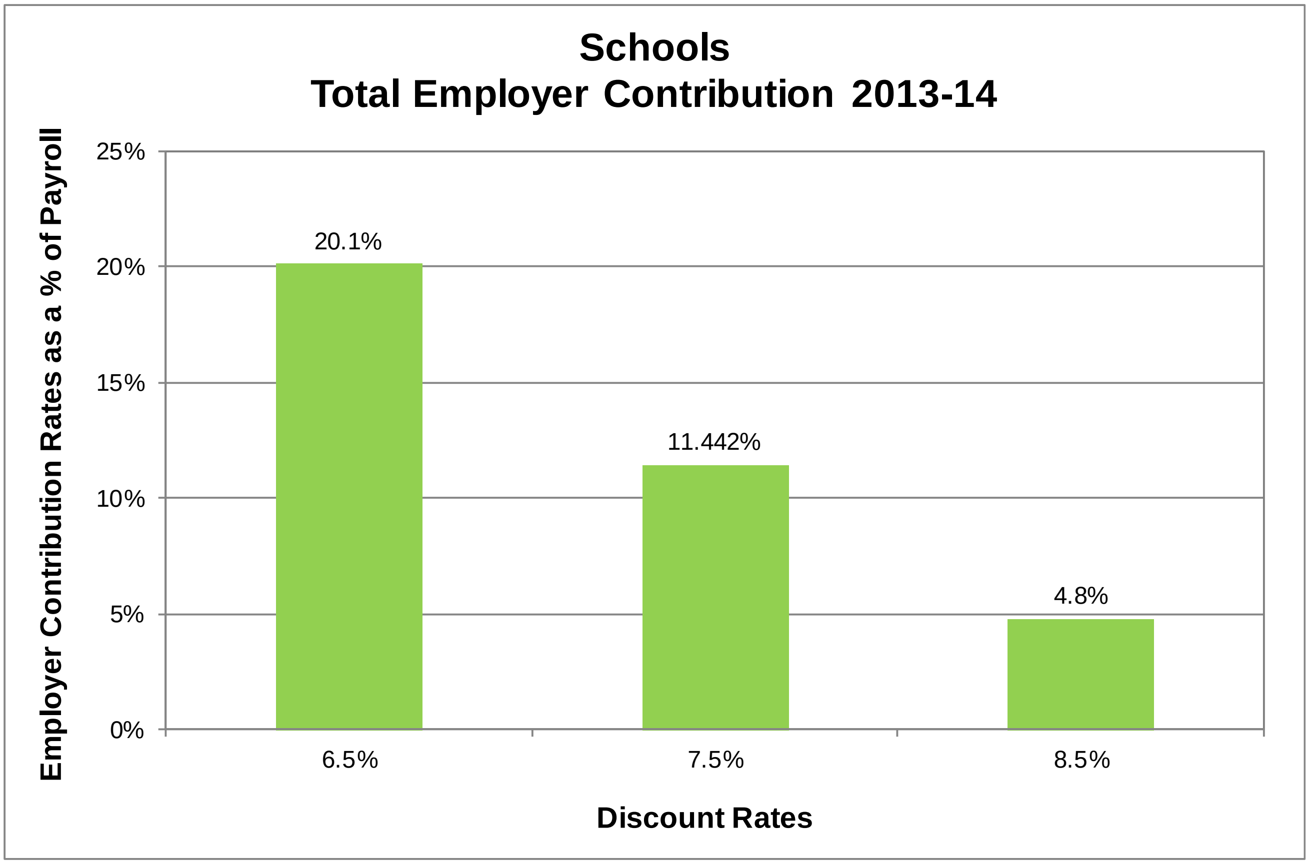
(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 10 to 30 years) or normal cost if in a surplus position
(red)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (10 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2013-14 adopted by the CalPERS Board



(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 11 to 30 years) or normal cost if in a surplus position
(red)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (12 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2013-14 adopted by the CalPERS Board



(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 9 to 30 years) or normal cost if in a surplus position
(red)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (14 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2013-14 adopted by the CalPERS Board



Analysis of discount rate sensitivity based on current amortization method (varies from 19 to 20 years)

Analysis of Discount Rate Sensitivity (+/- 1% change in discount rate)

Discount Rate		6.50%	7.50%	8.50%
State Miscellaneous Tier 1	Normal Cost	11.9%	8.089%	5.2%
	UAL Payment	19.3%	12.961%	6.6%
	GTLI	0.1%	0.071%	0.1%
	Total	31.3%	21.121%	11.9%
	Funded Status	59.2%	66.3%	73.7%
State Miscellaneous Tier 2	Normal Cost	10.6%	7.960%	6.0%
	UAL Payment	19.3%	12.961%	6.6%
	GTLI	0.1%	0.071%	0.1%
	Total	30.0%	20.992%	12.7%
	Funded Status	59.2%	66.3%	73.7%
State Industrial	Normal Cost	14.4%	10.325%	7.1%
	UAL Payment	10.3%	5.357%	0.5%
	GTLI	0.0%	0.000%	0.0%
	Total	24.7%	15.682%	7.6%
	Funded Status	64.4%	73.0%	82.1%
State Safety	Normal Cost	16.4%	12.007%	8.6%
	UAL Payment	9.1%	5.198%	1.4%
	GTLI	0.0%	0.000%	0.0%
	Total	25.5%	17.205%	9.9%
	Funded Status	62.2%	70.6%	79.4%
POFF	Normal Cost	22.1%	15.489%	10.4%
	UAL Payment	24.3%	15.006%	6.1%
	GTLI	0.0%	0.000%	0.0%
	Total	46.4%	30.495%	16.5%
	Funded Status	57.5%	65.5%	73.9%
CHP	Normal Cost	19.5%	12.895%	7.9%
	UAL Payment	31.5%	21.683%	12.2%
	GTLI	0.0%	0.038%	0.0%
	Total	51.1%	34.616%	20.1%
	Funded Status	53.0%	60.3%	68.0%
Schools	Normal Cost	10.6%	7.313%	4.8%
	UAL Payment	9.5%	4.129%	0.0%
	GTLI	N/A	N/A	N/A
	Total	20.1%	11.442%	4.8%
	Funded Status	67.0%	75.5%	84.4%

*Rates were calculated with a 30-year Fresh Start to the amortization bases in the case of an average amortization period greater than 30.
** In the case of a surplus, rates were calculated to equal the employer normal cost rate. This is based on a provision in the Public Employees' Pension Reform Act of 2013 (PEPRA) that requires a minimum employer contribution rate in combination with employee contributions shall not be less than the normal cost rate.
***Numbers may not add due to rounding.

Government Code Section 20229 (+/-2% change in discount rate based on current amortization method and amortization over EARSP)

State Miscellaneous Tier 1 & Tier 2			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	105,482,210,701	83,523,526,246	68,010,307,665
Market Value of Assets (MVA)	55,371,256,388	55,371,256,388	55,371,256,388
Funded Status MVA basis	52.5%	66.3%	81.4%
Unfunded Liability MVA basis	50,110,954,313	28,152,269,858	12,639,051,277
State Miscellaneous Tier 1			
Current Amortization Method			
Payment on Normal Cost	16.8%	8.089%	3.0%
Payment on UL	25.8%	12.961%	0.3%
Group Term Life Insurance	0.1%	0.071%	0.1%
Total ER Contribution 2013-14	42.7%	21.121%	3.4%
State Miscellaneous Tier 1			
Amortization of UL over EARSP			
Payment on Normal Cost	16.8%	8.1%	3.0%
Payment on UL (over EARSP=10 yrs)	45.6%	20.9%	0.0%
Group Term Life Insurance	0.1%	0.1%	0.1%
Total ER Contribution 2013-14	62.4%	29.1%	3.1%
State Miscellaneous Tier 2			
Current Amortization Method			
Payment on Normal Cost	14.0%	7.960%	4.5%
Payment on UL	25.8%	12.961%	0.3%
Group Term Life Insurance	0.1%	0.071%	0.1%
Total ER Contribution 2013-14	39.9%	20.992%	4.9%
State Miscellaneous Tier 2			
Amortization of UL over EARSP			
Payment on Normal Cost	14.0%	8.0%	4.5%
Payment on UL (over EARSP=10 yrs)	45.6%	20.9%	0.0%
Group Term Life Insurance	0.1%	0.1%	0.1%
Total ER Contribution 2013-14	59.7%	29.0%	4.6%

State Industrial			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	3,846,926,768	2,968,403,342	2,363,890,177
Market Value of Assets (MVA)	2,168,103,394	2,168,103,394	2,168,103,394
Funded Status MVA basis	56.4%	73.0%	91.7%
Unfunded Liability MVA basis	1,678,823,374	800,299,948	195,786,783
Current Amortization Method			
Payment on Normal Cost	19.7%	10.325%	4.6%
Payment on UL	15.3%	5.357%	0.0%
Group Term Life Insurance	0.0%	0.000%	0.0%
Total ER Contribution 2013-14	35.1%	15.682%	4.6%
Amortization of UL over EARSP			
Payment on Normal Cost	19.7%	10.3%	4.6%
Payment on UL (over EARSP=11 yrs)	24.6%	7.7%	0.0%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2013-14	44.3%	18.0%	4.6%

State Safety			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	10,149,134,494	7,827,253,833	6,220,770,789
Market Value of Assets (MVA)	5,524,386,200	5,524,386,200	5,524,386,200
Funded Status MVA basis	54.4%	70.6%	88.8%
Unfunded Liability MVA basis	4,624,748,294	2,302,867,633	696,384,589
Current Amortization Method			
Payment on Normal Cost	22.0%	12.007%	5.8%
Payment on UL	13.1%	5.198%	0.0%
Group Term Life Insurance	0.0%	0.000%	0.0%
Total ER Contribution 2013-14	35.1%	17.205%	5.8%
Amortization of UL over EARSP			
Payment on Normal Cost	22.0%	12.0%	5.8%
Payment on UL (over EARSP=10 yrs)	24.0%	9.1%	0.0%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2013-14	46.0%	21.1%	5.8%

State Peace Officers and Firefighters			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	41,009,093,707	31,335,588,660	24,793,962,705
Market Value of Assets (MVA)	20,525,705,429	20,525,705,429	20,525,705,429
Funded Status MVA basis	50.1%	65.5%	82.8%
Unfunded Liability MVA basis	20,483,388,278	10,809,883,231	4,268,257,276
Current Amortization Method			
Payment on Normal Cost	30.9%	15.489%	6.5%
Payment on UL	33.9%	15.006%	0.0%
Group Term Life Insurance	0.0%	0.000%	0.0%
Total ER Contribution 2013-14	64.8%	30.495%	6.5%
Amortization of UL over EARSP			
Payment on Normal Cost	30.9%	15.5%	6.5%
Payment on UL (over EARSP=12 yrs)	54.1%	23.6%	0.0%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2013-14	85.0%	39.1%	6.5%

California Highway Patrol			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	11,325,000,507	8,659,143,106	6,855,898,165
Market Value of Assets (MVA)	5,220,072,829	5,220,072,829	5,220,072,829
Funded Status MVA basis	46.1%	60.3%	76.1%
Unfunded Liability MVA basis	6,104,927,678	3,439,070,277	1,635,825,336
Current Amortization Method			
Payment on Normal Cost	28.4%	12.895%	4.1%
Payment on UL	41.8%	21.683%	4.0%
Group Term Life Insurance	0.0%	0.038%	0.0%
Total ER Contribution 2013-14	70.3%	34.616%	8.2%
Amortization of UL over EARSP			
Payment on Normal Cost	28.4%	12.9%	4.1%
Payment on UL (over EARSP=14 yrs)	58.6%	30.2%	5.9%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2013-14	87.0%	43.1%	10.0%

* Rates calculated using current amortization methods were calculated with a 30-year Fresh Start to the amortization bases in the case of an average amortization period greater than 30.
** In the case of a surplus, rates were calculated to equal the employer normal cost rate. This is based on a provision in the Public Employees' Pension Reform Act of 2013 (PEPRA) that requires a minimum employer contribution rate in combination with employee contributions shall not be less than the normal cost rate.
***Numbers may not add due to rounding.

APPENDIX A

STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Data

As stated in the Actuarial Certification, the data, which serves as the basis for 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 unusually large salary deviation in certain cases such as elected official. 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 this report is the Individual 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 payroll. Beginning July 1, 2000, all State and Schools plans became subject to the amortization methods prescribed in Actuarial Policy ACT-96-05E, described below.

Actuarial Policy ACT-96-05E specifies that 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 the net unamortized gain or loss is amortized as a rolling 30-year amortization with the exception of gains and losses in fiscal years 2008-09, 2009-10 and 2010-11 in which each years' gains or losses will be isolated and amortized over fixed and declining 30-year periods (as opposed to the current rolling 30-year amortization). Also, if a plan'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. Finally, all plans are subject to a minimum employer contribution rate equal to the employer normal cost plus a 30-year amortization of surplus, if any.

In addition, in February 2010 the CalPERS Board adopted a resolution requiring additional contributions for any State plans or the Schools pool if their cash flows hampered adequate funding progress by preventing the expected funded status on a market value of assets basis of the plan to either:

- Increase by at least 15% by June 30, 2042; or
- Reach a level of 75% funded by June 30, 2042

The necessary additional contribution will be obtained by changing the amortization period of the gains and losses, except for those occurring in the fiscal years 2008-09, 2009-10, and 2010-11 to a period which will result in the satisfaction of the above criteria. CalPERS actuaries will reassess the criteria above when performing each future valuation to determine whether or not the additional contributions are necessary for each plan.

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/surplus is projected and amortized over a set number of years. This fresh start approach generally occurs when a total negative rate would result or a positive payment would be required on a negative unfunded actuarial liability (or conversely a negative payment on a positive unfunded actuarial liability). When the fresh start is being used to avoid a negative total rate and the surplus is sufficient to offset at least 30 years of normal cost payments, the amortization period equals the number of years that the rate is projected to be zero. In addition, a fresh start may be used whenever the Chief Actuary feels that it would better achieve the intent of the Board's funding policy.

By State statute for California Highway Patrol only, a portion of the assets in excess of the Entry Age Normal accrued liability can be applied as a direct offset to required employer and employee contributions.

The 1959 Survivor Program valuation is not provided in this report. A separate report for that program is available.

The Term Insurance Method is used for the State Group Term Life Insurance Program. The required contribution for the coming fiscal year is the difference between the reserves for that benefit and one and one-half times the expected benefit payments, but not less than zero.

PURCHASING POWER PROTECTION ACT (PPPA) METHOD

PPPA benefits are cost-of-living adjustments intended to maintain the individual's current retirement benefit at 75% of the original benefit at retirement adjusted for inflation since retirement. The PPPA benefit is paid, if necessary, in addition to any other cost-of-living adjustment provided under the terms of the plan. Prior to January 1, 2001, there was a single PPPA pool covering all CalPERS employers. However, commencing January 1, 2001, separate PPPA pools were established. A pool was set up for all State plans and a separate pool for School employers. The public agencies were removed entirely from PPPA pooling resulting in each public agency plan paying for its own PPPA benefits. The creation of separate pools effectively eliminates the cross subsidization between the State, Schools and public agencies. Because there is a single PPPA pool for all State plans, cross subsidization between State plans still occurs.

For the State and Schools plans, the total annual outlay for PPPA benefits is limited by State statute to earnings of up to 1.1% of accumulated member contributions. If this annual outlay is insufficient to provide the PPPA benefits in a given fiscal year, the 75% maintenance target would be proportionately reduced. Since the inception of the PPPA benefit program, 1.1% has proved more than sufficient to provide the 75% maintenance. Under the inflation assumption of 3% compounded annually, the 1.1% appears to remain more than sufficient in the foreseeable future.

The actuarial model mimics the PPPA administrative procedure by deriving the employer contribution rate for the plan as the lesser of two separate actuarially computed rates:

1) The rate that results if a full 1.1% investment return on the actuarial value of each future year's employee assets in the plan is used for that plan's PPPA payments; or

2) The rate that results if the plan pays the full 75% purchasing power for itself.

In this way, those plans for which future PPPA costs equal or exceed a 1.1% return on current and future employee assets are charged an employer rate that replaces the 1.1% return on employee assets. Those plans that require less than the 1.1% return on current and future employee assets to maintain 75% purchasing power are charged the rate necessary to maintain the 75% purchasing power. It must be noted that nothing is charged in the rates for any cross-subsidization. That is, the model assumes that cross subsidization for PPPA for State plans will remain so small that it can be ignored.

INTERNAL REVENUE CODE SECTION 415

The limitations on benefits imposed by Internal Revenue Code Section 415 are taken into account in this valuation.

INTERNAL REVENUE CODE SECTION 401(a)(17)

The limitations on compensation imposed by Internal Revenue Code Section 401(a)(17) are taken into account in this valuation. Each year, the impact of any changes in the compensation limitation since the prior valuation is included and amortized as part of the actuarial gain or loss base.

PEPRA Assumptions

The Public Employees' Pension Reform Act of 2013 (PEPRA) mandated new benefit formulas and new member contributions for new members (as defined by PEPRA) hired after January 1, 2013. These new members will first be reflected in the June 30, 2013 valuations. Different assumptions for these new PEPRA members will be disclosed in the 2013 valuation.

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 would be 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 would then be 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. Finally, the Actuarial Value of Assets is restricted to no less than 80% and no more than 120% of the Market Value of Assets.

In December 2009, the CalPERS Board adopted changes to the asset smoothing method in order to phase in over a three year period the impact of the -24% investment loss experienced by CalPERS in fiscal year 2008-09. The phase in was accomplished by temporarily increasing the corridor limits for the actuarial value of assets to 60% - 140% in the 2009 valuation and 70% - 130% in the 2010 valuation. In this valuation, the corridor limits are back to 80% - 120%.

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and rate smoothing policies. Beginning with the June 30, 2014 valuations for the State and Schools plans that set the 2015-16 rates, CalPERS will no longer use an actuarial value of assets and will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. Details of the agenda item can be found on our website CalPERS On-Line:

http://www.calpers.ca.gov/index.jsp?bc=/about/committee-meetings/archives/pension-201304.xml

ACCOUNTS RECEIVABLE

In preparing valuations 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.

Actuarial Assumptions Applicable to All Plans

ECONOMIC ASSUMPTIONS:

Investment Return

7.5% compounded annually (net of administrative expenses).

Salary Growth

Annual increases vary by entry age and service. See sample rates in table below.

Annual Percentage Increase

Duration of Service	State Miscellaneous Tier 1 & Tier 2 – Entry Age 20	30	40	Industrial – Entry Age 20	30	40
0	13.10%	10.70%	8.00%	9.30%	8.60%	8.00%
3	8.70%	7.80%	6.30%	7.90%	7.50%	7.10%
5	7.00%	6.50%	5.60%	7.10%	6.90%	6.70%
10	4.70%	4.60%	4.20%	5.80%	5.60%	5.50%
15	4.00%	3.90%	3.70%	4.90%	4.80%	4.70%
20	3.60%	3.60%	3.50%	4.30%	4.20%	4.10%
25	3.50%	3.50%	3.40%	3.60%	3.60%	3.60%
30	3.50%	3.50%	3.40%	3.60%	3.60%	3.60%

Duration of Service	Safety – Entry Age 20	30	40	POFF – Entry Age 20	30	40
0	7.30%	7.10%	6.90%	19.70%	18.30%	16.6%
3	5.90%	5.40%	4.60%	8.80%	8.60%	8.00%
5	5.30%	4.80%	3.80%	6.60%	6.40%	5.80%
10	4.60%	4.10%	3.30%	4.40%	4.30%	4.10%
15	4.10%	3.80%	3.20%	3.90%	3.80%	3.80%
20	3.70%	3.50%	3.20%	3.60%	3.50%	3.50%
25	3.60%	3.50%	3.20%	3.40%	3.40%	3.40%
30	3.60%	3.50%	3.20%	3.40%	3.40%	3.40%

Duration of Service	CHP Entry Age 20	CHP Entry Age 30	CHP Entry Age 40	Schools Entry Age 20	Schools Entry Age 30	Schools Entry Age 40
0	8.80%	8.80%	8.80%	10.80%	9.60%	8.20%
3	6.00%	6.00%	6.00%	7.50%	7.00%	6.20%
5	4.90%	4.90%	4.90%	6.30%	6.00%	5.30%
10	3.70%	3.70%	3.70%	4.50%	4.40%	4.10%
15	3.50%	3.50%	3.50%	3.90%	3.80%	3.50%
20	3.40%	3.40%	3.40%	3.60%	3.50%	3.20%
25	3.40%	3.40%	3.40%	3.40%	3.40%	3.20%
30	3.40%	3.40%	3.40%	3.40%	3.40%	3.20%

Overall Payroll Growth

3% compounded annually (used in projecting the payroll over which the unfunded liability is amortized). For the State Miscellaneous plan, the payroll of the Second Tier members is assumed to decrease in accordance with actuarial assumptions based on the assumption that all new entrants will elect the State Miscellaneous First Tier. The payroll of the First Tier members is assumed to grow at the rate necessary for the overall payroll of the State Miscellaneous plan to grow annually at a rate of 3%.

Inflation

2.75% compounded annually.

DEMOGRAPHIC ASSUMPTIONS:

Postretirement Mortality

Rates vary by age and gender for healthy benefit recipients, for non-industrially disabled (disability not job related) retirees and for retirees who are industrially disabled (disability is job-related). See sample rates in table below.

	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
50	0.00239	0.00125	0.01632	0.01245	0.00443	0.00356
55	0.00474	0.00243	0.01936	0.01580	0.00563	0.00546
60	0.00720	0.00431	0.02293	0.01628	0.00777	0.00798
65	0.01069	0.00775	0.03174	0.01969	0.01388	0.01184
70	0.01675	0.01244	0.03870	0.03019	0.02236	0.01716
75	0.03080	0.02071	0.06001	0.03915	0.03585	0.02665
80	0.05270	0.03749	0.08388	0.05555	0.06926	0.04528
85	0.09775	0.07005	0.14035	0.09577	0.11799	0.08017
90	0.16747	0.12404	0.21554	0.14949	0.16575	0.13775
95	0.25659	0.21556	0.31025	0.23055	0.26108	0.23331
100	0.34551	0.31876	0.45905	0.37662	0.40918	0.35165

The mortality assumptions are based on mortality rates resulting from the most recent CalPERS Experience Study adopted by the CalPERS Board, first used in the June 30, 2009 valuation. For purposes of the post-retirement mortality rates, those revised rates include 5 years of projected on-going mortality improvement using Scale AA published by the Society of Actuaries until June 30, 2010. There is no margin for future mortality improvement beyond the valuation date. The mortality assumption will be reviewed with the next experience study expected to be completed for the June 30, 2013 valuation to determine an appropriate margin to be used.

Marital Status

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

Plan	Percent Married
State Miscellaneous, Tier 1	85%
State Miscellaneous, Tier 2	85%
State Industrial	85%
State Safety	90%
State Police Officers/Firefighters	90%
California Highway Patrol	90%
Schools	85%

Age of Spouse

It is assumed that female spouses are 3 years younger than male spouses.

Service Retirement Assumption for Separated Vested Members

It is assumed that separated vested members will follow the same service retirement pattern as the active members but with a load to reflect the expected higher rates of retirement, especially at lower ages. The following table shows the load factors that are applied to the service retirement assumption for active members to obtain the service retirement pattern for separated vested members:

Age	Load Factor
50	450%
51	250%
52 through 56	200%
57 through 60	150%
61 through 64	125%
65 and above	100% (no change)

MISCELLANEOUS LOADING FACTORS:

Credit for Unused Sick Leave

Benefits are increased by 1% for all groups providing credit for unused sick leave.

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. A unisex conversion table was developed for employees hired after July 1, 1982, which was a weighted average of the male and female tables. Therefore, no loading is necessary in this case.

MISCELLANEOUS ASSUMPTIONS:

Tier 2 Members electing Tier 1 benefits

Tier 2 members of both the State Miscellaneous and State Industrial plans have the right to convert their Tier 2 service to Tier 1 service provided that they make up the shortfall in their accumulated contributions with interest. In this valuation, we have assumed that all Tier 2 members will elect to convert their Tier 2 service to Tier 1 service.

Plan Specific Actuarial Assumptions

STATE MISCELLANEOUS TIER 1

Service Retirement

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service 5	10	15	20	25	30	35
50	0.004	0.011	0.016	0.019	0.023	0.027	0.032
52	0.004	0.012	0.016	0.020	0.025	0.029	0.033
54	0.008	0.022	0.030	0.037	0.046	0.054	0.062
56	0.014	0.038	0.054	0.066	0.081	0.095	0.109
58	0.019	0.050	0.071	0.087	0.106	0.124	0.144
60	0.026	0.070	0.098	0.121	0.148	0.173	0.200
62	0.047	0.125	0.176	0.217	0.266	0.311	0.359
65	0.054	0.145	0.204	0.250	0.307	0.359	0.415
70	0.050	0.134	0.188	0.231	0.284	0.331	0.383
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age 20	25	30	35	40
0	0.1401	0.1340	0.1280	0.1220	0.1160
1	0.1249	0.1189	0.1128	0.1068	0.1009
2	0.1097	0.1037	0.0978	0.0917	0.0857
3	0.0945	0.0886	0.0826	0.0766	0.0705
4	0.0794	0.0734	0.0674	0.0614	0.0553
5	0.0104	0.0094	0.0084	0.0075	0.0065
10	0.0059	0.0051	0.0042	0.0034	0.0026
15	0.0040	0.0033	0.0025	0.0018	0.0011
20	0.0025	0.0019	0.0013	0.0007	0.0001
25	0.0013	0.0008	0.0003	0.0001	0.0001
30	0.0005	0.0001	0.0001	0.0001	0.0001

STATE MISCELLANEOUS TIER 1 (CONTINUED)

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age 20	25	30	35	40
5	0.0556	0.0504	0.0452	0.0400	0.0349
6	0.0526	0.0472	0.0420	0.0368	0.0316
7	0.0495	0.0441	0.0389	0.0335	0.0280
8	0.0463	0.0409	0.0356	0.0299	0.0245
9	0.0430	0.0374	0.0321	0.0264	0.0209
10	0.0395	0.0340	0.0283	0.0226	-
14	0.0349	0.0289	0.0229	-	-
15	0.0335	0.0275	0.0216	-	-
19	0.0277	0.0213	-	-	-
20	0.0262	0.0198	-	-	-
24	0.0196	0.0130	-	-	-
25	0.0179	-	-	-	-
29	0.0103	-	-	-	-
30	-	-	-	-	-

Non-Industrial Death

Rates vary by age and gender. See sample rates in table below.

Non-Industrial Disability

Rates vary by age and gender. See sample rates in table below.

	Male		Female	
Attained Age	Non-Industrial Death	Non-Industrial Disability	Non-Industrial Death	Non-Industrial Disability
20	0.00047	0.0001	0.00016	0.0001
25	0.00050	0.0002	0.00026	0.0001
30	0.00053	0.0003	0.00036	0.0005
35	0.00067	0.0005	0.00046	0.0013
40	0.00087	0.0012	0.00065	0.0023
45	0.00120	0.0022	0.00093	0.0040
50	0.00176	0.0038	0.00126	0.0055
55	0.00260	0.0040	0.00176	0.0050
60	0.00395	0.0026	0.00266	0.0031

STATE MISCELLANEOUS TIER 2

Service Retirement

Rates vary by age and Service. See sample rates in table below.

Attained Age	Years of Service 5	10	15	20	25	30	35
50	0.004	0.011	0.016	0.019	0.023	0.027	0.032
52	0.004	0.012	0.016	0.020	0.025	0.029	0.033
54	0.008	0.022	0.003	0.037	0.046	0.054	0.062
56	0.014	0.038	0.054	0.066	0.081	0.095	0.109
58	0.019	0.050	0.071	0.087	0.106	0.124	0.144
60	0.026	0.070	0.098	0.121	0.148	0.173	0.200
62	0.047	0.125	0.176	0.217	0.266	0.311	0.359
65	0.054	0.145	0.204	0.250	0.307	0.359	0.415
70	0.050	0.134	0.188	0.231	0.284	0.331	0.383
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Non-vested Termination

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age 20	25	30	35	40
0	0.1496	0.1433	0.1370	0.1307	0.1244
1	0.1365	0.1302	0.1239	0.1176	0.1113
2	0.1234	0.1172	0.1109	0.1046	0.0983
3	0.1104	0.1041	0.0978	0.0915	0.0852
4	0.0973	0.0910	0.0848	0.0785	0.0722
5	0.0843	0.0780	0.0717	0.0654	0.0591
6	0.0792	0.0729	0.0666	0.0603	0.0540
7	0.0741	0.0678	0.0615	0.0553	0.0490
8	0.0691	0.0628	0.0565	0.0502	0.0439
9	0.0640	0.0577	0.0514	0.0451	0.0388

STATE MISCELLANEOUS TIER 2 (Continued)

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age 20	25	30	35	40
10	0.0589	0.0526	0.0463	0.0400	-
14	0.0480	0.0417	0.0354	0.0291	-
15	0.0453	0.0390	0.0327	-	-
19	0.0344	0.0281	0.0218	-	-
20	0.0317	0.0254	-	-	-
24	0.0208	0.0145	-	-	-
25	0.0180	-	-	-	-
29	0.0071	-	-	-	-
30	-	-	-	-	-

Non-Industrial Death

Rates vary by age and gender. See sample rates in table below.

Non-Industrial Disability

Rates vary by age and gender. See sample rates in table below.

	Male		Female	
Attained Age	**Non-Industrial Death**	**Non-Industrial Disability**	**Non-Industrial Death**	**Non-Industrial Disability**
20	0.00047	0.0001	0.00016	0.0001
25	0.00050	0.0002	0.00026	0.0004
30	0.00053	0.0003	0.00036	0.0006
35	0.00067	0.0003	0.00046	0.0017
40	0.00087	0.0023	0.00065	0.0041
45	0.00120	0.0042	0.00093	0.0068
50	0.00176	0.0058	0.00126	0.0099
55	0.00260	0.0073	0.00176	0.0123
60	0.00395	0.0081	0.00266	0.0134

STATE INDUSTRIAL TIER 1

Service Retirement

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service 5	10	15	20	25	30	35
50	0.006	0.011	0.018	0.026	0.031	0.033	0.039
52	0.006	0.011	0.018	0.026	0.031	0.033	0.039
54	0.016	0.029	0.045	0.067	0.079	0.084	0.100
56	0.020	0.037	0.057	0.085	0.100	0.106	0.126
58	0.025	0.046	0.071	0.106	0.125	0.132	0.157
60	0.038	0.070	0.109	0.162	0.191	0.202	0.240
62	0.076	0.139	0.217	0.321	0.378	0.402	0.476
65	0.083	0.153	0.238	0.353	0.416	0.442	0.523
70	0.089	0.163	0.254	0.376	0.444	0.472	0.559
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age 20	25	30	35	40
0	0.0829	0.0794	0.0758	0.0723	0.0687
1	0.0740	0.0704	0.0669	0.0633	0.0598
2	0.0650	0.0615	0.0579	0.0544	0.0507
3	0.0560	0.0524	0.0489	0.0453	0.0418
4	0.0470	0.0435	0.0399	0.0364	0.0328
5	0.0095	0.0086	0.0077	0.0068	0.0059
10	0.0054	0.0046	0.0039	0.0031	0.0024
15	0.0036	0.0030	0.0023	0.0017	0.0010
20	0.0023	0.0017	0.0011	0.0006	0.0002
25	0.0011	0.0007	0.0003	0.0002	0.0002
30	0.0005	0.0002	0.0002	0.0002	0.0002

STATE INDUSTRIAL TIER 1 (Continued)

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age 20	25	30	35	40
5	0.0496	0.0449	0.0405	0.0356	0.0311
6	0.0470	0.0421	0.0377	0.0328	0.0281
7	0.0442	0.0393	0.0346	0.0297	0.0250
8	0.0414	0.0365	0.0316	0.0267	0.0220
9	0.0384	0.0335	0.0285	0.0234	0.0187
10	0.0353	0.0302	0.0253	0.0201	-
14	0.0311	0.0257	0.0206	0.0152	-
15	0.0302	0.0246	0.0194	-	-
19	0.0248	0.0190	0.0136	-	-
20	0.0232	0.0176	-	-	-
24	0.0173	0.0115	-	-	-
25	0.0159	-	-	-	-
29	0.0091	-	-	-	-
30	-	-	-	-	-

Non-Industrial Death

Rates vary by age and gender. See sample rates in table below.

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in table below.

	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
Attained Age	Male	Female	Male and Female	Male and Female	Male and Female
20	0.00047	0.00016	0.00043	0.00015	0.00003
25	0.00050	0.00026	0.00085	0.00015	0.00007
30	0.00053	0.00036	0.00136	0.00015	0.00010
35	0.00067	0.00046	0.00204	0.00029	0.00012
40	0.00087	0.00065	0.00315	0.00029	0.00013
45	0.00120	0.00093	0.00468	0.00044	0.00014
50	0.00176	0.00126	0.00621	0.00044	0.00015
55	0.00260	0.00176	0.00791	0.00058	0.00016
60	0.00395	0.00266	0.00918	0.00058	0.00017

STATE INDUSTRIAL TIER 2

Service Retirement

Rates vary by age and service . See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.006	0.011	0.018	0.026	0.031	0.033	0.039
52	0.006	0.011	0.018	0.026	0.031	0.033	0.039
54	0.016	0.029	0.045	0.067	0.079	0.084	0.100
56	0.020	0.037	0.057	0.085	0.100	0.106	0.126
58	0.025	0.046	0.071	0.106	0.125	0.132	0.157
60	0.038	0.070	0.109	0.162	0.191	0.202	0.240
62	0.076	0.139	0.217	0.321	0.378	0.402	0.476
65	0.083	0.153	0.238	0.353	0.416	0.442	0.523
70	0.089	0.163	0.254	0.376	0.444	0.472	0.559
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age				
	20	25	30	35	40
0	0.0829	0.0794	0.0758	0.0723	0.0687
1	0.0740	0.0704	0.0669	0.0633	0.0598
2	0.0650	0.0615	0.0579	0.0544	0.0507
3	0.0560	0.0524	0.0489	0.0453	0.0418
4	0.0470	0.0435	0.0399	0.0364	0.0328
5	0.0095	0.0086	0.0077	0.0068	0.0059
10	0.0054	0.0046	0.0039	0.0031	0.0024
15	0.0036	0.0030	0.0023	0.0017	0.0010
20	0.0023	0.0017	0.0011	0.0006	0.0002
25	0.0011	0.0007	0.0003	0.0002	0.0002
30	0.0005	0.0002	0.0002	0.0002	0.0002

STATE INDUSTRIAL TIER 2 (Continued)

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age 20	25	30	35	40
5	0.0496	0.0449	0.0405	0.0356	0.0311
6	0.0470	0.0421	0.0377	0.0328	0.0281
7	0.0442	0.0393	0.0346	0.0297	0.0250
8	0.0414	0.0365	0.0316	0.0267	0.0220
9	0.0384	0.0335	0.0285	0.0234	0.0187
10	0.0353	0.0302	0.0253	0.0201	-
14	0.0349	0.0289	0.0229	0.0171	-
15	0.0302	0.0246	0.0194	-	-
19	0.0277	0.0213	0.0150	-	-
20	0.0232	0.0176	-	-	-
24	0.0196	0.0130	-	-	-
25	0.0159	-	-	-	-
29	0.0103	-	-	-	-
30	-	-	-	-	-

Non-Industrial Death

Rates vary by age and gender. See sample rates in table below.

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in table below.

	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
Attained Age	Male	Female	Male and Female	Male and Female	Male and Female
20	0.00047	0.00016	0.00043	0.00015	0.00003
25	0.00050	0.00026	0.00085	0.00015	0.00007
30	0.00053	0.00036	0.00136	0.00015	0.00010
35	0.00067	0.00046	0.00204	0.00029	0.00012
40	0.00087	0.00065	0.00315	0.00029	0.00013
45	0.00120	0.00093	0.00468	0.00044	0.00014
50	0.00176	0.00126	0.00621	0.00044	0.00015
55	0.00260	0.00176	0.00791	0.00058	0.00016
60	0.00395	0.00266	0.00918	0.00058	0.00017

STATE SAFETY

Service Retirement

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.012	0.021	0.028	0.033	0.037	0.048	0.057
52	0.008	0.014	0.019	0.023	0.025	0.033	0.039
54	0.024	0.041	0.055	0.064	0.072	0.093	0.111
56	0.038	0.064	0.086	0.101	0.113	0.146	0.174
58	0.040	0.068	0.092	0.107	0.120	0.155	0.184
60	0.043	0.072	0.098	0.115	0.128	0.166	0.197
62	0.070	0.117	0.159	0.186	0.208	0.270	0.320
65	0.095	0.160	0.217	0.254	0.284	0.369	0.437
70	0.086	0.144	0.195	0.229	0.255	0.331	0.393
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Termination with Refund

Rates vary by service. See sample rates in table below.

Duration of Service										
0	1	2	3	4	5	10	15	20	25	30
0.1313	0.0967	0.0622	0.0461	0.0374	0.0080	0.0058	0.0039	0.0025	0.0013	0.0009

Terminations with Vested Deferred Benefits

Rates vary by service. See sample rates in table below.

Duration of Service										
5	6	7	8	9	10	15	20	25	30	35
0.0369	0.0363	0.0357	0.0349	0.0341	0.0333	0.0286	0.0226	0.0159	0.0131	0.000

STATE SAFETY (Continued)

Non-Industrial Death

Rates vary by age and gender. See sample rates in table below.

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in table below.

	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
Attained Age	**Male**	**Female**	**Male and Female**	**Male and Female**	**Male and Female**
20	0.00047	0.00016	0.00036	0.00024	0.00003
25	0.00050	0.00026	0.00054	0.00108	0.00007
30	0.00053	0.00036	0.00063	0.00216	0.00010
35	0.00067	0.00046	0.00072	0.00324	0.00012
40	0.00087	0.00065	0.00072	0.00432	0.00013
45	0.00120	0.00093	0.00108	0.00528	0.00014
50	0.00176	0.00126	0.00216	0.00636	0.00015
55	0.00260	0.00176	0.00306	0.00960	0.00016
60	0.00395	0.00266	0.00387	0.00960	0.00017

STATE PEACE OFFICERS AND FIREFIGHTERS

Service Retirement

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service 5	10	15	20	25	30	35
50	0.006	0.020	0.027	0.031	0.052	0.082	0.095
52	0.008	0.026	0.035	0.041	0.067	0.106	0.123
54	0.016	0.054	0.073	0.084	0.139	0.219	0.254
56	0.021	0.070	0.094	0.109	0.181	0.284	0.330
58	0.020	0.066	0.089	0.103	0.170	0.267	0.310
60	0.020	0.067	0.091	0.105	0.174	0.273	0.317
62	0.035	0.116	0.157	0.181	0.301	0.472	0.549
65	0.039	0.132	0.178	0.206	0.341	0.536	0.623
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by service. See sample rates in table below.

Duration of Service 0	1	2	3	4	5	10	15	20	25	30
0.1217	0.0779	0.0431	0.0353	0.0275	0.0056	0.0039	0.0025	0.0015	0.0006	0.0003

Terminations with Vested Deferred Benefits

Rates vary by service. See sample rates in table below.

Duration of Service 5	6	7	8	9	10	15	20	25	30	35
0.0173	0.0168	0.0164	0.0159	0.0155	0.0149	0.0120	0.0086	0.0046	0.0030	0.0000

STATE PEACE OFFICERS AND FIREFIGHTERS (Continued)

Non-Industrial Death

Rates vary by age and gender. See sample rates in table below.

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in table below.

	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
Attained Age	**Male**	**Female**	**Male and Female**	**Male and Female**	**Male and Female**
20	0.00047	0.00016	0.00010	0.00030	0.00003
25	0.00050	0.00026	0.00010	0.00150	0.00007
30	0.00053	0.00036	0.00010	0.00300	0.00010
35	0.00067	0.00046	0.00020	0.00450	0.00012
40	0.00087	0.00065	0.00040	0.00600	0.00013
45	0.00120	0.00093	0.00060	0.00750	0.00014
50	0.00176	0.00126	0.00098	0.00900	0.00015
55	0.00260	0.00176	0.00143	0.02080	0.00016
60	0.00395	0.00266	0.00188	0.02080	0.00017

CALIFORNIA HIGHWAY PATROL

Service Retirement

Rates vary by age and service. See sample rates in table below.

Attained	Years of Service						
Age	**5**	**10**	**15**	**20**	**25**	**30**	**35**
50	0.0044	0.0044	0.0044	0.0044	0.0132	0.0250	0.0288
52	0.0145	0.0145	0.0145	0.0145	0.0435	0.0825	0.0950
54	0.0303	0.0303	0.0303	0.0303	0.0909	0.1725	0.1988
56	0.0271	0.0271	0.0271	0.0271	0.0813	0.1542	0.1777
58	0.0229	0.0229	0.0229	0.0229	0.0686	0.1301	0.1499
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Termination with Refund

Rates vary by service. See sample rates in table below.

Duration of Service										
0	**1**	**2**	**3**	**4**	**5**	**10**	**15**	**20**	**25**	**30**
0.0129	0.0124	0.0121	0.0116	0.0113	0.0040	0.0029	0.0019	0.0011	0.0006	0.0003

Terminations with Vested Deferred Benefits

Rates vary by service. See sample rates in table below.

Duration of Service										
5	**6**	**7**	**8**	**9**	**10**	**15**	**20**	**25**	**30**	**35**
0.0093	0.0091	0.0090	0.0087	0.0085	0.0082	0.0070	0.0053	0.0033	0.0026	0.0000

CALIFORNIA HIGHWAY PATROL (Continued)

Non-Industrial Death

Rates vary by age and gender. See sample rates in table below.

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in table below.

	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
Attained Age	**Male**	**Female**	**Male and Female**	**Male and Female**	**Male and Female**
20	0.00047	0.00016	0.00014	0.00104	0.00003
25	0.00050	0.00026	0.00014	0.00196	0.00007
30	0.00053	0.00036	0.00014	0.00288	0.00010
35	0.00067	0.00046	0.00014	0.00380	0.00012
40	0.00087	0.00065	0.00014	0.00483	0.00013
45	0.00120	0.00093	0.00028	0.00575	0.00014
50	0.00176	0.00126	0.00028	0.00667	0.00015
55	0.00260	0.00176	0.00028	0.11890	0.00016
60	0.00395	0.00266	0.00028	0.11890	0.00017

SCHOOLS

Service Retirement

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	**10**	**15**	**20**	**25**	**30**	**35**
50	0.005	0.009	0.013	0.015	0.016	0.018	0.022
52	0.006	0.012	0.017	0.020	0.022	0.025	0.029
54	0.012	0.024	0.033	0.039	0.044	0.049	0.057
56	0.020	0.039	0.055	0.065	0.072	0.081	0.095
58	0.025	0.050	0.070	0.083	0.092	0.103	0.121
60	0.037	0.073	0.102	0.121	0.134	0.150	0.176
62	0.076	0.151	0.212	0.250	0.278	0.311	0.366
65	0.091	0.180	0.251	0.297	0.331	0.370	0.435
70	0.066	0.131	0.183	0.216	0.241	0.270	0.316
75	0.055	0.108	0.151	0.179	0.199	0.223	0.262

Termination with Refund

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age				
	20	**25**	**30**	**35**	**40**
0	0.1730	0.1627	0.1525	0.1422	0.1319
1	0.1585	0.1482	0.1379	0.1277	0.1174
2	0.1440	0.1336	0.1234	0.1131	0.1028
3	0.1295	0.1192	0.1089	0.0987	0.0884
4	0.1149	0.1046	0.0944	0.0841	0.0738
5	0.0278	0.0249	0.0221	0.0192	0.0164
10	0.0172	0.0147	0.0122	0.0098	0.0074
15	0.0115	0.0094	0.0074	0.0053	0.0032
20	0.0073	0.0055	0.0038	0.0020	0.0002
25	0.0037	0.0023	0.0010	0.0002	0.0002
30	0.0015	0.0003	0.0002	0.0002	0.0002

SCHOOLS (Continued)

Termination with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age 20	25	30	35	40
5	0.0816	0.0733	0.0649	0.0566	0.0482
6	0.0782	0.0697	0.0613	0.0527	0.0443
7	0.0745	0.0660	0.0573	0.0487	0.0400
8	0.0708	0.0621	0.0534	0.0446	0.0359
9	0.0671	0.0582	0.0493	0.0404	0.0316
10	0.0629	0.0540	0.0450	0.0359	-
14	0.0558	0.0462	0.0367	0.0272	-
15	0.0537	0.0440	0.0344	-	-
19	0.0443	0.0344	0.0243	-	-
20	0.0420	0.0317	-	-	-
24	0.0319	0.0211	-	-	-
25	0.0291	-	-	-	-
29	0.0170	-	-	-	-
30	-	-	-	-	-

Non-Industrial Death

Rates vary by age and gender. See sample rates in table below.

Non-Industrial Disability

Rates vary by age and gender. See sample rates in table below.

	Male		Female	
Attained Age	Non-Industrial Death	Non-Industrial Disability	Non-Industrial Death	Non-Industrial Disability
20	0.00047	0.00010	0.00016	0.00010
25	0.00050	0.00010	0.00026	0.00010
30	0.00053	0.00018	0.00036	0.00010
35	0.00067	0.00064	0.00046	0.00038
40	0.00087	0.00136	0.00065	0.00094
45	0.00120	0.00283	0.00093	0.00171
50	0.00176	0.00439	0.00126	0.00299
55	0.00260	0.00489	0.00176	0.00335
60	0.00395	0.00425	0.00266	0.00239

APPENDIX B

PRINCIPAL PLAN PROVISIONS

Summary of Principal Plan Provisions

STATE MISCELLANEOUS TIER 1

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of this plan. Many of the statements in this summary are general in nature, and are intended to provide a summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

RETIREMENT PROGRAM

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. These members will first be reflected in June 30, 2013 valuations. Included in this valuation is the change to member contributions effective July 1, 2013 for classic members.

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 **2% at 55** benefit factor table. All new members hired on or after January 15, 2011 are subject to the **2% at 60** benefit 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	2% at 55 Factor	Retirement Age	2% at 60 Factor
50	1.100%	50	1.092%
51	1.280%	51	1.156%
52	1.460%	52	1.224%
53	1.640%	53	1.296%
54	1.820%	54	1.376%
55	2.000%	55	1.460%
56	2.064%	56	1.552%
57	2.126%	57	1.650%
58	2.188%	58	1.758%
59	2.250%	59	1.874%

60	2.314%	60	2.000%
61	2.376%	61	2.134%
62	2.438%	62	2.272%
63 & Up	2.500%	63 & Up	2.418%

- 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 the 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 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006 and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. Employees may or may not be covered by Social Security. For employees covered by Social Security, the final compensation is offset by $133.33 (or by one third if the final compensation is less than $400).

- The Service Retirement benefit is not capped.

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 PERS employers, and with certain other Retirement Systems with which PERS 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.

Benefit

The 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.

Post-Retirement Death Benefit

Lump Sum Payment

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

Form of Payment for Retirement Allowance

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.

For retirement allowances with respect to service earned by employment in this group, 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. This additional benefit is often referred to as *post retirement survivor allowance* (PRSA) or simply as *survivor continuance.*

In other words, 25% 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.

The remaining 75% 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

Group Term Life Insurance

Eligibility
An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit
The benefit is a lump sum payment of $5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount shall not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

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 who is no longer actively employed with **any** CalPERS employer is not 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.

Benefit
The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.5% per year. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. 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.

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

<u>Eligibility</u>
This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

<u>Benefit</u>
The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

<u>Eligibility</u>
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 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 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 Optional Settlement 2 Death benefit.

<u>Benefit</u>
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 2 Death Benefit

<u>Eligibility</u>
An employee's *eligible survivor* may receive the Optional Settlement 2 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.

Benefit

The Optional Settlement 2 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 2. (A retiree who elects Optional Settlement 2 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. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

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.

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 75% 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. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

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

For employees covered by Social Security, the monthly compensation breakpoint is $513 and the contribution schedule is as follows:

Approximately 22% of the active population is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 5%.

Approximately 69% of the active population is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.

The percent contributed above the monthly compensation breakpoint is 8%.

Approximately 2% of the active population is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 9%.

Approximately 7% of the active population is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 10%.

There are a small number of employees not covered by Social Security in this plan. For those employees, the monthly compensation breakpoint is $317 and contributions are as follows:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 1% greater than those covered by Social Security.

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.

1959 SURVIVOR BENEFITS PROGRAM

For these benefits, please refer to the 1959 Survivor Report.

STATE MISCELLANEOUS TIER 2

The following is a summary of the major plan provisions applicable to State Miscellaneous Tier 2 members. 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.

RETIREMENT PROGRAM

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. These members will first be reflected in June 30, 2013 valuations. Included in this valuation is the change to member contributions effective July 1, 2013 for classic members.

Tier 2 Members electing Tier 1 benefits

State Miscellaneous Tier 2 members have the right to convert their Tier 2 service to Tier 1 service provided that they make up the shortfall in their accumulated contributions with interest. In this valuation, we have assumed that all State Miscellaneous Tier 2 members will elect to convert their Tier 2 service to Tier 1 service.

Service Retirement

Eligibility
A CalPERS member becomes eligible for Service Retirement upon attainment of age 55 with at least 10 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 1.25% at 65 Tier 2 benefit 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	1.25% at 65 Tier 2 Factor	Retirement Age	1.25% at 65 Tier 2 Factor
50	0.5000%	58	0.9000%
51	0.5500%	59	0.9500%
52	0.6000%	60	1.0000%
53	0.6500%	61	1.0500%

54	0.7000%	62	1.1000%
55	0.7500%	63	1.1500%
56	0.8000%	64	1.2000%
57	0.8500%	65 & Up	1.2500%

- 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 the 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 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006 and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. Employees may or may not be covered by Social Security. The final compensation is not offset by a dollar amount.

- The Service Retirement benefit is not capped.

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 10 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 55. Members with 5 years of service before January 1, 1985, are eligible at 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 10 years of credited service (total service across all PERS employers, and with certain other Retirement Systems with which PERS 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. Members with 5 years of service before January 1, 1985 are also eligible.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.125% 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 29.628 years of service; or
- Service is CalPERS credited service plus the additional number of years that the member would have worked until age 65, for members with at least 10 years but not more than 29.628 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.

Post-Retirement Death Benefit

Lump Sum Payment

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

Form of Payment for Retirement Allowance

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.

For retirement allowances with respect to service earned by employment in this group, 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. This additional benefit is often referred to as post retirement survivor allowance (PRSA) or simply as survivor continuance.

In other words, 25% 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.

The remaining 75% 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

Group Term Life Insurance

Eligibility
An employee’s beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit
The benefit is a lump sum payment of $5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member’s death. The additional amount shall not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

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 who is no longer actively employed with **any** CalPERS employer is not 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.

Benefit
The Basic Death Benefit is a lump sum in the amount of six months' salary which shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. 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.

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

<u>Eligibility</u>
This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

<u>Benefit</u>
The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

<u>Eligibility</u>
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 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 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 Optional Settlement 2 Death benefit.

<u>Benefit</u>
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 2 Death Benefit

<u>Eligibility</u>
An employee's *eligible survivor* may receive the Optional Settlement 2 Death benefit if the member dies while actively employed and has attained retirement eligibility. 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.

Benefit

The Optional Settlement 2 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 2. (A retiree who elects Optional Settlement 2 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. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by 3%.

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 75% 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. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

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

The percent contributed above the monthly compensation breakpoint is 1.5%.
The monthly compensation breakpoint is $0.
The percent contributed below the monthly compensation breakpoint is 0%.

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.

1959 SURVIVOR BENEFITS PROGRAM

For these benefits, please refer to the 1959 Survivor Report.

STATE INDUSTRIAL TIER 1

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of the plan. 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.

RETIREMENT PROGRAM

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. These members will first be reflected in June 30, 2013 valuations. Included in this valuation is the change to member contributions effective July 1, 2013 for classic members.

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 **2% at 55** benefit factor table. All new members hired on or after January 15, 2011 are subject to the **2% at 60** benefit 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	2% at 55 Factor	Retirement Age	2% at 60 Factor
50	1.100%	50	1.092%
51	1.280%	51	1.156%
52	1.460%	52	1.224%
53	1.640%	53	1.296%
54	1.820%	54	1.376%
55	2.000%	55	1.460%
56	2.064%	56	1.552%
57	2.126%	57	1.650%
58	2.188%	58	1.758%
59	2.250%	59	1.874%
60	2.314%	60	2.000%
61	2.376%	61	2.134%

62	2.438%	62	2.272%
63 & Up	2.500%	63 & Up	2.418%

- 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 the 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 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006 and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. Employees may or may not be covered by Social Security. For employees covered by Social Security, the final compensation is offset by $133.33 (or by one third if the final compensation is less than $400).

- The Service Retirement benefit is not capped.

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 PERS employers, and with certain other Retirement Systems with which PERS 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.

Benefit

The 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.

Industrial (Job-Related) Disability Retirement

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.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of 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 or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

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

Form of Payment for Retirement Allowance

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.

For retirement allowances with respect to service earned by employment in this group, 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. This additional benefit is often referred to as *post retirement survivor allowance* (PRSA) or simply as *survivor continuance.*

In other words, 25% 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.

The remaining 75% 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

Group Term Life Insurance

Eligibility
An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit
The benefit is a lump sum payment of $5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount shall not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

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 who is no longer actively employed with **any** CalPERS employer is not 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.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.5% per year. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. 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.

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.

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 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

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

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 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 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.

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 2 Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2 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.

Benefit

The Optional Settlement 2 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 2. (A retiree who elects Optional Settlement 2 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. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

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.

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 75% 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. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

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

For employees covered by Social Security, the monthly compensation breakpoint is $513 and the contribution schedule is as follows:

Approximately 99% of the active population is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 9%.

Approximately 1% of the active population is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 8%.

There are a small number of employees not covered by Social Security in this plan. For those employees, the monthly compensation breakpoint is $317 and contributions are as follows:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 1% greater than those covered by Social Security.

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.

1959 SURVIVOR BENEFITS PROGRAM

For these benefits, please refer to the 1959 Survivor Report

STATE INDUSTRIAL TIER 2

The following is a summary of the major plan provisions applicable to State Industrial Tier 2 Members. 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.

RETIREMENT PROGRAM

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. These members will first be reflected in June 30, 2013 valuations. Included in this valuation is the change to member contributions effective July 1, 2013 for classic members.

Tier 2 Members electing Tier 1 benefits

State Industrial Tier 2 members have the right to convert their Tier 2 service to Tier 1 service provided that they make up the shortfall in their accumulated contributions with interest. In this valuation, we have assumed that all Stat Industrial Tier 2 members will elect to convert their Tier 2 service to Tier 1 service.

Service Retirement

Eligibility
A CalPERS member becomes eligible for Service Retirement upon attainment of age 55 with at least 10 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). Members with 5 years of service before January 1, 1985 are also eligible.

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 **1.25% at 65 Tier 2** benefit 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	1.25% at 65 Tier 2 Factor	Retirement Age	1.25% at 65 Tier 2 Factor
50	0.5000%	58	0.9000%
51	0.5500%	59	0.9500%
52	0.6000%	60	1.0000%
53	0.6500%	61	1.0500%

54	0.7000%	62	1.1000%
55	0.7500%	63	1.1500%
56	0.8000%	64	1.2000%
57	0.8500%	65 & Up	1.2500%

- 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 the 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 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006 and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. The employees in this group may or may not be not covered by Social Security. The final compensation is not offset by a dollar amount.

- The Service Retirement benefit is not capped.

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 10 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). Members with 5 years of service before January 1, 1985 are also eligible.

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 55.

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 10 years of credited service (total service across all PERS employers, and with certain other Retirement Systems with which PERS 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. Members with 5 years of service before January 1, 1985 are also eligible.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.125% 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 29.628 years of service; or
- *service* is CalPERS credited service plus the additional number of years that the member would have worked until age 65, for members with at least 10 years but not more than 29.628 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.

Industrial (Job-Related) Disability Retirement

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.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of 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 or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

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

Form of Payment for Retirement Allowance

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.

For retirement allowances with respect to service earned by employment in this group, 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. This additional benefit is often referred to as *post retirement survivor allowance* (PRSA) or simply as *survivor continuance.*

In other words, 25% 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.

The remaining 75% 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

Group Term Life Insurance

Eligibility
An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit
The benefit is a lump sum payment of $5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount shall not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

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 who is no longer actively employed with **any** CalPERS employer is not 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.

Benefit

The Basic Death Benefit is a lump sum in the amount of six months' salary which shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. 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.

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.

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 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

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

<u>Eligibility</u>

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

<u>Benefit</u>

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

<u>Eligibility</u>

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 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 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.

<u>Benefit</u>

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 2 Death Benefit

<u>Eligibility</u>

An employee's *eligible survivor* may receive the Optional Settlement 2 Death benefit if the member dies while actively employed and has attained retirement eligibility. 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.

Benefit
The Optional Settlement 2 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 2. (A retiree who elects Optional Settlement 2 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. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by 3%.

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 75% 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. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

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

The percent contributed above the monthly compensation breakpoint is 1.5%.
The monthly compensation breakpoint is $0.
The percent contributed below the monthly compensation breakpoint is 0%.

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.

1959 SURVIVOR BENEFITS PROGRAM

For these benefits, please refer to the 1959 Survivor Report.

STATE SAFETY

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of the plan. 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.

RETIREMENT PROGRAM

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. These members will first be reflected in June 30, 2013 valuations. Included in this valuation is the change to member contributions effective July 1, 2013 for classic members.

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 **2.5% at 55 Safety** benefit factor table. All new members hired on or after January 15, 2011 are subject to either the **2% at 55 Safety** or the **2.5% at 60 Safety** benefit 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	2.5% at 55 Safety Factor	Retirement Age	2% at 55 Safety Factor	Retirement Age	2.5% at 60 Safety Factor
50	1.700%	50	1.426%	50	1.426%
51	1.800%	51	1.522%	51	1.522%
52	1.900%	52	1.628%	52	1.628%
53	2.000%	53	1.742%	53	1.742%
54	2.250%	54	1.866%	54	1.866%
55 & Up	2.500%	55 & Up	2.000%	55	2.000%
				56	2.100%
				57	2.200%
				58	2.300%
				59	2.400%
				60 & Up	2.500%

- 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 the 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 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006 and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. The employees in this group are not covered by Social Security. The final compensation is not offset by a dollar amount.

- The Service Retirement benefit is capped at 80% of final compensation.

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 PERS employers, and with certain other Retirement Systems with which PERS 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.

Benefit

The 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.

Industrial (Job-Related) Disability Retirement

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.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of 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 or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

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

Form of Payment for Retirement Allowance

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.

For retirement allowances with respect to service earned by employment in this group, 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, 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.
The remaining 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

Group Term Life Insurance

Eligibility
An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit
The benefit is a lump sum payment of $5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount shall not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

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 who is no longer actively employed with **any** CalPERS employer is not 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.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.5% per year. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. 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.

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.

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 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

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

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 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 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.

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 2 Death Benefit

Eligibility
An employee's *eligible survivor* may receive the Optional Settlement 2 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.

Benefit
The Optional Settlement 2 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 2. (A retiree who elects Optional Settlement 2 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. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

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.

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 75% 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. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

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.

Approximately 40% of the active population is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The monthly compensation breakpoint is $317.
The percent contributed above the monthly compensation breakpoint is 10%.

Approximately 60% of the active population is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The monthly compensation breakpoint is $317.
The percent contributed above the monthly compensation breakpoint is 11%.

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.

1959 SURVIVOR BENEFITS PROGRAM

For these benefits, please refer to the 1959 Survivor Report

STATE PEACE OFFICERS AND FIREFIGHTERS

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of this plan. 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.

RETIREMENT PROGRAM

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. These members will first be reflected in June 30, 2013 valuations. Included in this valuation is the change to member contributions effective July 1, 2013 for classic members.

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 either the **3% at 55** or the **3% at 50** benefit factor table. All new members, except firefighters, hired on or after January 15, 2011 are subject to the **2.5% at 55 Safety** benefit factor table. All new firefighters hired on or after October 31, 2010 are subject to the **3% at 55** benefit 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 55 Factor	Retirement Age	3% at 50 Factor	Retirement Age	2.5% at 55 Factor
50	2.400%	50 & Up	3.000%	50	2.000%
51	2.520%			51	2.100%
52	2.640%			52	2.200%
53	2.760%			53	2.300%
54	2.880%			54	2.400%
55 & Up	3.000%			55 & Up	2.500%

- 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 the 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 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after January 1, 2007 and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. The employees in this group are not covered by Social Security. The final compensation is not offset by a dollar amount.

- The Service Retirement benefit is capped at 90% of final compensation.

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 PERS employers, and with certain other Retirement Systems with which PERS 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.

Benefit

The 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.

Industrial (Job-Related) Disability Retirement

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.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of 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 or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

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

Form of Payment for Retirement Allowance

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.

For retirement allowances with respect to service earned by employment in this group, 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, 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.

The remaining 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

Group Term Life Insurance

Eligibility
An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit
The benefit is a lump sum payment of $5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount shall not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

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 who is no longer actively employed with **any** CalPERS employer is not 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.

Benefit
The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.5% per year. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the

Alternate Death Benefit. 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.

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.

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 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

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility
This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit
The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid

to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

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 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 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.

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 2 Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2 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.

Benefit

The Optional Settlement 2 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 2. (A retiree who elects Optional Settlement 2 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. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

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.

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 75% 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. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

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

Approximately 78% of the active population has a monthly compensation breakpoint of $863 and is subject to the following schedule:

Most of these members are subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 12%.

Less than 1% of these members are subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 11%.

Approximately 22% of the active population has a monthly compensation breakpoint of $513 and is subject to the following schedule:

Most of these members are subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 11.5%.

Approximately 4% of these members are subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0%.
The percent contributed above the monthly compensation breakpoint is 8%.

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.

1959 SURVIVOR BENEFITS PROGRAM

For these benefits, please refer to the 1959 Survivor Report

CALIFORNIA HIGHWAY PATROL

The following is a summary of the major plan provisions used in calculating the liabilities of the plan. 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.

RETIREMENT PROGRAM

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. These members will first be reflected in June 30, 2013 valuations. Included in this valuation is the change to member contributions effective July 1, 2013 for classic members.

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 is **3% at all ages,** it does not depend on the member's age at retirement. All new members hired on or after October 31, 2010 are subject to the **3% at 55** benefit factor table.

Retirement Age	3% at 55 Factor
50	2.400%
51	2.520%
52	2.640%
53	2.760%
54	2.880%
55	3.000%

- 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 including service at the CHP Academy for graduating members). 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 the 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 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). The *final compensation* for an employee hired on or after October 31, 2010 is the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay.

- The employees in this group are not covered by Social Security. The final compensation is not offset by a dollar amount.

- The Service Retirement benefit is capped at 90% of final compensation.

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 PERS employers, and with certain other Retirement Systems with which PERS 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.

Benefit

The 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.

Industrial (Job-Related) Disability Retirement

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.

Benefit
The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation. For members who, as a result of a single event, incur serious bodily injury, the benefit provided is equal to the greater of 50% of final compensation, or, three percent of final compensation multiplied by the number of years of service credited to the member, plus an annuity purchased with the accumulated additional contributions, if any. 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, plus an annuity purchased with the accumulated additional contributions, if any. 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 or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment
Upon the death of a retiree, a one-time lump sum payment of $2,000 will be made to the retiree's designated survivor(s), or to the retiree's estate.

Form of Payment for Retirement Allowance

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.

For retirement allowances with respect to service earned by employment in this group, 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, 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.

The remaining 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

Group Term Life Insurance

Eligibility
An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit
The benefit is a lump sum payment of $5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount shall not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

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 who is no longer actively employed with **any** CalPERS

employer is not 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.

Benefit
The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.5% per year. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. 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.

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.

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 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

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility
This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit
The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

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 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 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.

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 2 Death Benefit

Eligibility
An employee's *eligible survivor* may receive the Optional Settlement 2 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.

Benefit
The Optional Settlement 2 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 2. (A retiree who elects Optional Settlement 2 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. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

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.

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 75% 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. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

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 $863.
> The percent contributed above the monthly compensation breakpoint is 11.5%.

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.

1959 SURVIVOR BENEFITS PROGRAM

For these benefits, please refer to the 1959 Survivor Report

SCHOOLS

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of this plan. 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.

RETIREMENT PROGRAM

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. These members will first be reflected in June 30, 2013 valuations. Included in this valuation is the change to member contributions effective July 1, 2013 for classic members.

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 **2% at 55** benefit 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	2% at 55 Factor
50	1.100%
51	1.280%
52	1.460%
53	1.640%
54	1.820%
55	2.000%
56	2.064%
57	2.126%
58	2.188%
59	2.250%
60	2.314%
61	2.376%
62	2.438%
63 & Up	2.500%

- 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 the 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 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). The employees in this plan may or may not be covered by Social Security. For employees with service prior to January 1, 2001 covered by Social Security, the final compensation is offset by $133.33 (or by one-third if, the final compensation is less than $400).

- The Service Retirement benefit is not capped.

Vested Deferred Retirement

<u>Eligibility for Deferred Status</u>
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).

<u>Eligibility to Start Receiving Benefits</u>
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.

<u>Benefit</u>
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

<u>Eligibility</u>
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 PERS employers, and with certain other Retirement Systems with which PERS 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.

Benefit

The 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.

Post-Retirement Death Benefit

Lump Sum Payment

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

Form of Payment for Retirement Allowance

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.

For retirement allowances with respect to service earned by employment in this group, 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 (50% for service not covered by Social Security). This additional benefit is often referred to as *post retirement survivor allowance* (PRSA) or simply as *survivor continuance.*

In other words, 25% of the allowance (or 50% for service not covered by Social Security), 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.

The remaining 75% of the retirement allowance (or 50% for service not covered by Social Security), 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 who is no longer actively employed with **any** CalPERS employer is not 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.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.5% per year. In addition, a lump sum in the amount of six months' salary is paid. 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.

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 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 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.

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.

Cost-of-Living Adjustments

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.

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 75% 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. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

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

The contribution schedule is as follows:
- The percent contributed below the monthly compensation breakpoint is 0%.
- The monthly compensation breakpoint is $0.
- The percent contributed above the monthly compensation breakpoint is 7%.

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.

1959 SURVIVOR BENEFITS PROGRAM

For these benefits, please refer to the 1959 Survivor Report

APPENDIX C

PARTICIPANT DATA

Source of the Participant Data

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

- 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 data warehouse, 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. It is not specific to the State and Schools plans.

The data for each of the State and Schools plans was then pulled into separate files. The data in these files was then checked for reasonableness and consistency with data from the prior valuation.

Checks on the data included:

- 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
- Pension amounts for each retiree and beneficiary receiving payments were compared with the pension amounts 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, and
- The annual earnings rate for most Schools members were overwritten with the annualized earnings based on their yearly contributions.

In addition, it is also known that records relating to pre-1984 State Safety retirees who were transferred to the State Peace Officers and Firefighters plan upon its creation have not had their records updated to reflect the transfer. In this valuation, as in prior valuations, this deficiency has been handled by adjusting the assets and liabilities rather than by trying to correct the data. The member counts and summary of retiree data have not been adjusted to correct for this deficiency.

Data Statement

The data does not contain information about reciprocal systems and hence salary information for terminated participants covered by reciprocal systems may not be up to date. This situation is not expected to have a material impact on the employer contribution rates since the total present value for all terminated participants represents less than 2% of the present value of benefits for all members.

We are unaware of any other data issues that would have a material effect on the results of this valuation.

It is our opinion that, after the adjustments noted above, the participant data was sufficient and reliable for the purposes of the valuation.

Reconciliation of Participants

For the Fiscal Year Ending June 30, 2012

State Miscellaneous Tier 1

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2011	**150,826**	**26,954**	**41,889**	**159,812**	**379,481**
Retirements	(6,018)	(1,170)	(594)	7,782	-
Industrial Disabilities	(1)	(26)	(5)	32	-
Ordinary Disabilities	(153)	(16)	(40)	209	-
Deaths[2]	(246)	(32)	(59)	(5,532)	(5,869)
New Survivors	n/a	n/a	n/a	1,690	1,690
Non-vested Terminations[1]	(2,446)	(471)	2,917	-	-
Vested Terminations	(2,263)	(282)	2,551	(6)	-
Refunds of Contributions	(555)	(105)	(818)	(32)	(1,510)
Transfers	(543)	1,098	(537)	(18)	-
Redeposits/Rehires	5,403	(4,594)	(763)	(46)	-
First Year in Status	5,306	3,861	147	112	9,426
Moved from Tier 2	108	132	238	66	544
Data Corrections[3]	(34)	(1,919)	(141)	(164)	(2,258)
As of June 30, 2012	**149,384**	**23,430**	**44,785**	**163,905**	**381,504**

State Miscellaneous Tier 2

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2011	**7,204**	**11,460**	**1,635**	**4,531**	**24,830**
Retirements	(144)	(250)	(83)	477	-
Industrial Disabilities	(1)	(3)	-	4	-
Ordinary Disabilities	(16)	(15)	(10)	41	-
Deaths[2]	(26)	(24)	(14)	(87)	(151)
New Survivors	n/a	n/a	n/a	62	62
Non-vested Terminations[1]	(27)	(44)	71	-	-
Vested Terminations	(154)	(159)	313	-	-
Refunds of Contributions	(4)	(36)	(43)	(1)	(84)
Transfers	(8)	192	(183)	(1)	-
Redeposits/Rehires	91	(33)	(58)	-	-
First Year in Status	41	394	326	61	822
Moved to Tier 1	(108)	(132)	(238)	(66)	(544)
Data Corrections[3]	100	74	(154)	22	42
As of June 30, 2012	**6,948**	**11,424**	**1,562**	**5,043**	**24,977**

[1] Includes non-vested terminated participants with employee contributions left in the plan.
[2] Includes both deaths without survivors and deaths with survivors receiving a benefit.
[3] May include the combining of data records into a single record.

Reconciliation of Participants (Continued)

For the Fiscal Year Ending June 30, 2012

State Industrial

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2011	**11,532**	**8,247**	**2,874**	**10,024**	**32,677**
Retirements	(369)	(318)	(40)	727	-
Industrial Disabilities	(2)	(7)	(2)	11	-
Ordinary Disabilities	(18)	(14)	(8)	40	-
Deaths[2]	(13)	(7)	(7)	(227)	(254)
New Survivors	n/a	n/a	n/a	88	88
Non-vested Terminations[1]	(207)	(64)	271	-	-
Vested Terminations	(80)	(73)	153	-	-
Refunds of Contributions	(73)	(37)	(60)	(2)	(172)
Transfers	(620)	696	(68)	(8)	-
Redeposits/Rehires	475	(412)	(63)	-	-
First Year in Status	229	136	38	14	417
Data Corrections[3]	(16)	(574)	(103)	(13)	(706)
As of June 30, 2012	**10,838**	**7,573**	**2,985**	**10,654**	**32,050**

State Safety

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2011	**24,497**	**5,231**	**5,022**	**18,152**	**52,902**
Retirements	(860)	(242)	(126)	1,228	-
Industrial Disabilities	(81)	(8)	(3)	92	-
Ordinary Disabilities	(11)	(6)	(1)	18	-
Deaths[2]	(42)	(7)	(11)	(498)	(558)
New Survivors	n/a	n/a	n/a	285	285
Non-vested Terminations[1]	(436)	(31)	467	-	-
Vested Terminations	(174)	(39)	214	(1)	-
Refunds of Contributions	(291)	(37)	(346)	(2)	(676)
Transfers	(455)	576	(118)	(3)	-
Redeposits/Rehires	280	(153)	(115)	(12)	-
First Year in Status	1,375	104	322	76	1,877
Data Corrections[3]	(73)	(397)	46	(40)	(464)
As of June 30, 2012	**23,729**	**4,991**	**5,351**	**19,295**	**53,366**

[1] Includes non-vested terminated participants with employee contributions left in the plan.
[2] Includes both deaths without survivors and deaths with survivors receiving a benefit.
[3] May include the combining of data records into a single record.

Reconciliation of Participants (Continued)

For the Fiscal Year Ending June 30, 2012

State Peace Officers and Firefighters

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2011	**43,428**	**5,192**	**6,430**	**26,911**	**81,961**
Retirements	(1,583)	(127)	(107)	1,817	-
Industrial Disabilities	(174)	(15)	(28)	217	-
Ordinary Disabilities	(15)	(3)	(5)	23	-
Deaths[2]	(44)	(3)	(6)	(301)	(354)
New Survivors	n/a	n/a	n/a	192	192
Non-vested Terminations[1]	(378)	(38)	416	-	-
Vested Terminations	(228)	(52)	282	(2)	-
Refunds of Contributions	(163)	(18)	(229)	(4)	(414)
Transfers	(225)	578	(349)	(4)	-
Redeposits/Rehires	271	(26)	(242)	(3)	-
First Year in Status	486	537	315	25	1,363
Data Corrections[3]	(125)	(788)	(403)	(29)	(1,345)
As of June 30, 2012	**41,250**	**5,237**	**6,074**	**28,842**	**81,403**

California Highway Patrol

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2011	**7,485**	**300**	**342**	**8,046**	**16,173**
Retirements	(128)	(15)	(10)	153	-
Industrial Disabilities	(22)	(1)	(2)	25	-
Ordinary Disabilities	-	-	-	-	-
Deaths[2]	(2)	(1)	-	(144)	(147)
New Survivors	n/a	n/a	n/a	65	65
Non-vested Terminations[1]	(14)	(3)	17	-	-
Vested Terminations	(17)	(3)	20	-	-
Refunds of Contributions	(5)	(1)	(6)	-	(12)
Transfers	(6)	11	(4)	(1)	-
Redeposits/Rehires	14	-	(13)	(1)	-
First Year in Status	7	9	12	5	33
Data Corrections[3]	-	(1)	(31)	(8)	(40)
As of June 30, 2012	**7,312**	**295**	**325**	**8,140**	**16, 072**

[1] Includes non-vested terminated participants with employee contributions left in the plan.
[2] Includes both deaths without survivors and deaths with survivors receiving a benefit.
[3] May include the combining of data records into a single record.

Reconciliation of Participants (Continued)

For the Fiscal Year Ending June 30, 2012

Schools

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2011	**287,177**	**25,910**	**161,663**	**188,715**	**663,465**
Retirements	(8,118)	(1,232)	(1,274)	10,624	-
Industrial Disabilities	(1)	(18)	(2)	21	-
Ordinary Disabilities	(114)	(17)	(52)	186	-
Deaths[2]	(384)	(45)	(196)	(6,137)	(6,762)
New Survivors	n/a	n/a	n/a	1,805	1,805
Non-vested Terminations[1]	(10,264)	(272)	10,536	-	-
Vested Terminations	(3,234)	(440)	3,674	-	-
Refunds of Contributions	(2,445)	(131)	(4,717)	(27)	(7,320)
Transfers	(2,031)	2,880	(833)	(16)	-
Redeposits/Rehires	4,331	(331)	(3,960)	(40)	-
First Year in Status	18,271	935	7,618	129	26,953
Data Corrections[3]	(185)	2,998	(4,699)	(24)	(1,910)
As of June 30, 2012	**283,003**	**30,237**	**167,758**	**195,233**	**676,231**

[1] Includes non-vested terminated participants with employee contributions left in the plan.
[2] Includes both deaths without survivors and deaths with survivors receiving a benefit.
[3] May include the combining of data records into a single record.

Active Members

Distribution of Active Members By Age and Service

As of June 30, 2012

State Miscellaneous Tier 1

			Years of Service at Valuation Date					
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Total**	**Payroll**
15-24	1,300	8	0	0	0	0	1,308	39,011,397
25-29	6,494	1,261	34	0	0	0	7,789	327,231,868
30-34	6,877	4,228	1,416	45	0	0	12,566	635,190,729
35-39	5,392	4,571	4,251	623	43	0	14,880	865,546,250
40-44	4,770	4,810	6,029	2,145	1,060	81	18,895	1,177,744,251
45-49	4,303	4,209	6,099	2,797	3,761	1,393	22,562	1,462,722,249
50-54	4,031	3,856	6,203	3,023	4,579	5,583	27,275	1,796,534,147
55-59	3,185	3,347	4,955	2,540	3,748	6,572	24,347	1,626,013,132
60-64	1,869	2,186	2,911	1,575	2,145	3,356	14,042	957,810,740
65 and Over	909	988	1,353	640	692	1,138	5,720	394,805,269
Total	**39,130**	**29,464**	**33,251**	**13,388**	**16,028**	**18,123**	**149,384**	**$ 9,282,610,034**

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 Average Annual Salaries By Age and Service

As of June 30, 2012

State Miscellaneous Tier 1

Attained Age	**0-4**	**5-9**	**Years of Service at Valuation Date** **10-14**	**15-19**	**20-24**	**25+**	**Average Salary**
15-24	29,784	36,484	0	0	0	0	$29,825
25-29	40,599	48,954	54,459	0	0	0	42,012
30-34	47,044	53,456	58,201	72,119	0	0	50,548
35-39	50,978	58,533	64,909	70,621	74,279	0	58,168
40-44	50,907	60,651	67,530	71,342	72,276	79,059	62,331
45-49	49,912	59,783	66,785	72,212	75,209	74,775	64,831
50-54	49,468	58,669	66,073	71,349	73,670	73,084	65,867
55-59	49,922	58,178	65,579	69,898	74,439	74,681	66,785
60-64	51,000	59,748	66,134	71,122	77,067	78,082	68,210
65 and Over	49,439	58,114	69,191	72,065	80,731	85,101	69,022
Average	**$47,458**	**$57,966**	**$66,031**	**$71,229**	**$74,880**	**$75,500**	**$62,139**

Distribution of Active Members By Age and Service

As of June 30, 2012

State Miscellaneous Tier 2

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Total**	**Payroll**
15-24	3	0	0	0	0	0	3	126,152
25-29	28	2	0	0	0	0	30	1,364,547
30-34	36	13	78	0	0	0	127	6,330,971
35-39	36	39	340	109	7	0	531	29,255,169
40-44	42	61	449	408	147	0	1,107	60,999,271
45-49	35	51	462	439	375	59	1,421	77,425,841
50-54	46	48	395	388	345	255	1,477	82,118,554
55-59	23	44	296	298	265	305	1,231	67,925,808
60-64	14	28	158	170	160	191	721	40,997,664
65 and Over	15	26	86	68	54	51	300	15,983,931
Total	**278**	**312**	**2,264**	**1,880**	**1,353**	**861**	**6,948**	**$ 382,527,908**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2012

State Miscellaneous Tier 2

Attained Age	Years of Service at Valuation Date **0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Average Salary**
15-24	42,051	0	0	0	0	0	$42,051
25-29	44,089	65,025	0	0	0	0	45,485
30-34	58,111	47,960	46,352	0	0	0	49,850
35-39	49,331	50,327	56,027	55,879	53,800	0	55,094
40-44	42,094	47,670	55,013	56,639	57,919	0	55,103
45-49	34,946	50,034	51,453	55,602	59,297	54,818	54,487
50-54	45,318	47,255	53,292	54,819	59,060	59,096	55,598
55-59	37,768	37,596	53,171	53,124	57,284	61,157	55,179
60-64	48,608	37,526	53,506	56,014	59,217	61,860	56,862
65 and Over	27,499	35,809	55,803	56,262	55,460	59,229	53,280
Average	**$44,122**	**$45,129**	**$53,524**	**$55,350**	**$58,502**	**$60,154**	**$55,056**

Distribution of Active Members By Age and Service

As of June 30, 2012

State Industrial

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Total**	**Payroll**
15-24	176	5	0	0	0	0	181	5,874,132
25-29	703	119	3	0	0	0	825	31,254,468
30-34	722	315	81	1	0	0	1,119	47,856,909
35-39	604	315	235	56	0	0	1,210	57,912,547
40-44	596	366	309	180	63	0	1,514	76,874,116
45-49	587	422	325	254	155	33	1,776	93,210,103
50-54	511	420	352	268	187	121	1,859	100,514,562
55-59	384	278	267	172	122	80	1,303	71,390,142
60-64	203	170	186	114	66	31	770	43,288,926
65 and Over	86	58	65	45	21	6	281	16,936,436
Total	**4,572**	**2,468**	**1,823**	**1,090**	**614**	**271**	**10,838**	**$ 545,112,340**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2012

State Industrial

Attained Age	**0-4**	**5-9**	**Years of Service at Valuation Date** **10-14**	**15-19**	**20-24**	**25+**	**Average Salary**
15-24	32,303	37,777	0	0	0	0	$32,454
25-29	36,997	42,664	56,143	0	0	0	37,884
30-34	41,623	44,046	47,835	55,902	0	0	42,768
35-39	45,776	48,212	50,539	57,155	0	0	47,862
40-44	48,443	50,149	50,910	56,455	59,595	0	50,776
45-49	50,468	50,578	52,313	55,638	58,346	62,561	52,483
50-54	52,815	52,070	50,318	55,902	58,834	65,792	54,069
55-59	57,047	52,644	50,196	57,136	55,441	60,693	54,789
60-64	56,969	54,523	53,442	55,076	64,404	64,055	56,219
65 and Over	58,099	56,142	58,053	64,036	69,903	93,428	60,272
Average	**$46,664**	**$49,860**	**$51,278**	**$56,440**	**$59,092**	**$64,306**	**$50,296**

Distribution of Active Members By Age and Service

As of June 30, 2012

State Safety

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Total**	**Payroll**
15-24	237	6	0	0	0	0	243	10,669,507
25-29	1,063	238	2	0	0	0	1,303	69,585,312
30-34	1,377	767	68	0	0	0	2,212	137,224,206
35-39	1,292	1,085	222	14	0	0	2,613	192,165,167
40-44	1,257	1,253	461	133	14	1	3,119	234,796,130
45-49	1,155	1,339	571	285	89	8	3,447	257,989,021
50-54	1,085	1,466	737	432	239	85	4,044	306,736,322
55-59	874	1,252	784	390	204	68	3,572	291,352,660
60-64	477	813	482	289	119	41	2,221	194,281,140
65 and Over	172	312	250	147	58	16	955	94,995,021
Total	**8,989**	**8,531**	**3,577**	**1,690**	**723**	**219**	**23,729**	$ **1,789,794,486**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2012

State Safety

Attained Age	Years of Service at Valuation Date **0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Average Salary**
15-24	43,622	55,186	0	0	0	0	$43,907
25-29	53,044	54,982	57,186	0	0	0	53,404
30-34	61,628	63,113	58,152	0	0	0	62,036
35-39	73,927	74,197	68,705	63,915	0	0	73,542
40-44	75,884	74,395	76,536	72,966	78,808	102,020	75,279
45-49	76,743	72,323	77,155	74,734	73,275	79,278	74,845
50-54	77,829	71,991	81,422	77,660	71,427	72,052	75,850
55-59	87,027	77,547	82,007	80,096	83,591	82,623	81,566
60-64	94,641	84,481	89,077	84,024	83,951	79,179	87,475
65 and Over	109,193	93,513	106,893	98,384	79,430	77,825	99,471
Average	**$72,929**	**$74,185**	**$81,806**	**$80,136**	**$77,933**	**$77,491**	**$75,426**

Distribution of Active Members By Age and Service

As of June 30, 2012

State Peace Officers and Firefighters

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Total**	**Payroll**
15-24	389	1	0	0	0	0	390	8,153,927
25-29	2,298	1,010	2	0	0	0	3,310	164,066,528
30-34	2,056	3,022	778	3	0	0	5,859	364,247,169
35-39	1,332	2,405	2,708	598	6	0	7,049	489,379,808
40-44	972	1,804	2,242	2,630	418	6	8,072	597,556,142
45-49	663	1,153	1,440	2,074	1,814	965	8,109	646,231,488
50-54	319	721	883	1,290	1,035	795	5,043	408,847,326
55-59	177	335	449	632	434	321	2,348	187,595,036
60-64	53	113	178	257	144	116	861	68,742,863
65 and Over	16	24	51	59	24	35	209	17,013,343
Total	**8,275**	**10,588**	**8,731**	**7,543**	**3,875**	**2,238**	**41,250**	**$ 2,951,833,630**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2012

State Peace Officers and Firefighters

Attained Age	Years of Service at Valuation Date						**Average Salary**
	0-4	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	
15-24	20,809	59,285	0	0	0	0	$20,908
25-29	43,488	63,365	65,918	0	0	0	49,567
30-34	49,847	67,355	74,520	79,873	0	0	62,169
35-39	56,969	68,023	74,565	79,435	79,484	0	69,425
40-44	58,900	69,149	74,581	80,359	87,339	83,307	74,028
45-49	62,316	70,129	74,666	80,330	87,954	93,664	79,693
50-54	65,151	72,146	75,807	80,631	87,374	93,916	81,072
55-59	68,068	75,418	75,547	79,794	85,301	90,065	79,896
60-64	70,591	72,379	75,693	79,440	86,496	90,327	79,841
65 and Over	70,696	70,661	83,389	76,901	87,484	94,191	81,404
Average	**$51,078**	**$68,376**	**$74,831**	**$80,218**	**$87,366**	**$93,045**	**$71,560**

Distribution of Active Members By Age and Service

As of June 30, 2012

California Highway Patrol

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Total**	**Payroll**
15-24	55	0	0	0	0	0	55	4,558,452
25-29	575	217	0	0	0	0	792	69,818,227
30-34	496	510	240	0	0	0	1,246	114,998,677
35-39	290	418	678	277	1	0	1,664	160,046,556
40-44	31	191	557	652	190	2	1,623	162,878,961
45-49	0	16	58	347	546	228	1,195	130,688,483
50-54	0	0	3	57	230	302	593	68,625,361
55-59	0	0	0	22	26	95	144	16,852,630
60-64	0	0	0	0	0	0	0	0
65 and Over	0	0	0	0	0	0	0	0
Total	**1,449**	**1,352**	**1,536**	**1,355**	**993**	**627**	**7,312**	**$ 728,467,347**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2012

California Highway Patrol

Attained			Years of Service at Valuation Date				**Average**
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Salary**
15-24	82,881	0	0	0	0	0	$82,881
25-29	85,624	94,859	0	0	0	0	88,154
30-34	85,845	96,021	97,703	0	0	0	92,294
35-39	85,139	96,098	98,557	102,053	97,048	0	96,182
40-44	86,755	95,792	97,601	102,300	108,565	101,447	100,357
45-49	0	94,135	98,567	101,761	112,468	117,309	109,363
50-54	0	0	105,252	104,774	110,565	122,114	115,726
55-59	0	0	0	103,844	118,952	120,199	117,032
60-64	0	0	0	0	0	0	0
65 and Over	0	0	0	0	0	0	0
Average	**$85,464**	**$95,804**	**$98,090**	**$102,241**	**$111,435**	**$120,011**	**$99,626**

Distribution of Active Members By Age and Service

As of June 30, 2012

Schools

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Total**	**Payroll**
15-24	7,236	106	0	0	0	0	7,342	147,089,438
25-29	15,303	3,445	74	0	0	0	18,822	479,004,794
30-34	12,718	8,318	2,350	55	0	0	23,441	738,095,294
35-39	11,295	8,202	5,651	1,197	24	0	26,369	900,971,730
40-44	12,898	9,022	6,855	2,930	962	34	32,701	1,117,923,470
45-49	13,810	11,377	8,714	4,100	2,758	1,251	42,010	1,470,605,441
50-54	12,294	12,892	10,961	5,788	3,872	3,860	49,667	1,808,139,308
55-59	8,598	10,464	10,428	6,584	4,437	4,823	45,334	1,674,020,863
60-64	4,547	5,913	6,146	4,223	3,125	2,757	26,711	977,849,389
65 and Over	2,281	2,470	2,283	1,450	1,081	1,041	10,606	340,029,657
Total	**100,980**	**72,209**	**53,462**	**26,327**	**16,259**	**13,766**	**283,003**	**$ 9,653,729,383**

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 Average Annual Salaries By Age and Service

As of June 30, 2012

Schools

Attained Age	Years of Service at Valuation Date						**Average Salary**
	0-4	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	
15-24	19,843	33,045	0	0	0	0	$20,034
25-29	23,246	34,828	44,338	0	0	0	25,449
30-34	25,819	36,440	44,153	52,007	0	0	31,487
35-39	25,644	36,957	43,909	49,144	52,065	0	34,168
40-44	24,102	35,011	43,295	48,566	52,360	51,037	34,186
45-49	23,388	32,918	41,836	47,300	52,575	55,645	35,006
50-54	23,188	31,731	40,055	45,300	51,087	55,684	36,405
55-59	22,810	30,492	38,276	42,733	47,670	55,324	36,926
60-64	22,151	30,563	37,633	41,453	45,750	53,353	36,608
65 and Over	18,367	27,377	36,040	38,046	41,317	46,897	32,096
Average	**$23,520**	**$33,190**	**$40,557**	**$44,506**	**$48,809**	**$54,413**	**$34,113**

Terminated and Transferred Participants

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2012

State Miscellaneous Tier 1

Attained Age	0-4	5-9	Years of Service at Valuation Date 10-14	15-19	20-24	25+	Total	Average Salary
15-24	87	0	0	0	0	0	87	48,557
25-29	779	20	0	0	0	0	799	52,225
30-34	1,795	218	11	0	0	0	2,024	63,064
35-39	2,169	421	65	4	0	0	2,659	71,044
40-44	2,183	637	221	49	9	0	3,099	72,510
45-49	2,570	736	405	223	77	11	4,022	78,268
50-54	2,568	850	490	388	206	84	4,586	76,729
55-59	1,842	694	356	236	153	114	3,395	72,320
60-64	1,114	419	212	107	69	38	1,959	70,791
65 and Over	523	164	55	41	11	6	800	67,735
Total	**15,630**	**4,159**	**1,815**	**1,048**	**525**	**253**	**23,430**	**72,227**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2012

State Miscellaneous Tier 1

Attained Age	0-4	5-9	Years of Service at Valuation Date 10-14	15-19	20-24	25+	Total	Average Salary
15-24	272	0	0	0	0	0	272	29,176
25-29	2,647	52	1	0	0	0	2,700	33,431
30-34	5,202	511	39	1	0	0	5,753	36,654
35-39	4,952	892	181	12	0	0	6,037	43,183
40-44	4,651	1,251	381	90	17	0	6,390	47,133
45-49	4,044	1,431	631	244	70	12	6,432	48,517
50-54	3,909	1,410	642	317	140	63	6,481	47,512
55-59	3,420	1,098	474	188	97	53	5,330	44,932
60-64	2,458	659	244	96	51	41	3,549	43,785
65 and Over	1,515	186	72	30	15	23	1,841	40,923
Total	**33,070**	**7,490**	**2,665**	**978**	**390**	**192**	**44,785**	**43,791**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2012

State Miscellaneous Tier 2

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	0	0	0	0	0	0	0	0
25-29	7	0	0	0	0	0	7	48,660
30-34	234	22	0	0	0	0	256	58,686
35-39	959	177	39	3	0	0	1,178	64,987
40-44	1,485	688	173	17	2	0	2,365	66,310
45-49	1,451	731	430	89	14	2	2,717	65,371
50-54	1,176	524	388	149	79	9	2,325	64,155
55-59	755	314	272	112	91	31	1,575	63,445
60-64	357	178	102	46	43	29	755	66,138
65 and Over	143	48	30	7	10	8	246	61,640
Total	**6,567**	**2,682**	**1,434**	**423**	**239**	**79**	**11,424**	**64,823**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2012

State Miscellaneous Tier 2

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	35,048
30-34	0	0	2	0	0	0	2	25,080
35-39	0	0	33	4	0	0	37	28,375
40-44	0	0	153	25	6	0	184	30,679
45-49	0	0	269	63	10	1	343	31,075
50-54	0	0	294	84	24	4	406	30,776
55-59	0	0	222	67	25	3	317	29,561
60-64	0	0	152	48	11	5	216	29,004
65 and Over	0	0	37	14	4	2	57	29,700
Total	**0**	**0**	**1,162**	**305**	**80**	**15**	**1,562**	**30,029**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2012

State Industrial

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	85	1	0	0	0	0	86	33,282
25-29	297	8	0	0	0	0	305	43,193
30-34	486	66	2	0	0	0	554	52,897
35-39	590	126	32	1	0	0	749	58,642
40-44	853	223	91	19	2	0	1,188	61,744
45-49	997	290	109	39	12	1	1,448	65,406
50-54	983	272	144	44	14	8	1,465	66,132
55-59	747	211	107	44	19	1	1,129	66,830
60-64	346	74	33	19	7	1	480	65,291
65 and Over	126	25	11	2	4	1	169	73,972
Total	**5,510**	**1,296**	**529**	**168**	**58**	**12**	**7,573**	**62,524**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2012

State Industrial

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	33	0	0	0	0	0	33	30,392
25-29	158	3	0	0	0	0	161	35,109
30-34	252	20	0	0	0	0	272	33,874
35-39	279	43	10	2	0	0	334	34,858
40-44	387	78	26	8	0	0	499	38,526
45-49	379	85	39	11	1	0	515	39,373
50-54	292	85	21	12	5	0	415	38,043
55-59	248	48	16	2	1	0	315	37,904
60-64	183	39	4	1	1	0	228	37,017
65 and Over	188	25	0	0	0	0	213	37,491
Total	**2,399**	**426**	**116**	**36**	**8**	**0**	**2,985**	**37,242**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2012

State Safety

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	13	0	0	0	0	0	13	41,154
25-29	158	3	0	0	0	0	161	51,425
30-34	349	25	0	0	0	0	374	59,192
35-39	475	68	5	0	0	0	548	61,749
40-44	537	99	19	3	0	0	658	67,905
45-49	668	134	58	17	5	0	882	71,962
50-54	723	186	62	42	14	3	1,030	74,813
55-59	587	127	51	17	6	7	795	74,505
60-64	299	61	26	14	4	0	404	75,479
65 and Over	86	20	15	3	2	0	126	81,852
Total	**3,895**	**723**	**236**	**96**	**31**	**10**	**4,991**	**70,134**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2012

State Safety

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	36	0	0	0	0	0	36	42,141
25-29	257	7	0	0	0	0	264	45,001
30-34	520	31	0	0	0	0	551	53,707
35-39	572	61	6	0	0	0	639	62,682
40-44	731	87	17	2	0	0	837	62,192
45-49	660	113	24	9	2	0	808	62,504
50-54	684	115	30	11	4	0	844	59,325
55-59	605	67	16	2	1	1	692	60,950
60-64	400	41	6	4	1	0	452	65,697
65 and Over	218	6	4	0	0	0	228	66,401
Total	**4,683**	**528**	**103**	**28**	**8**	**1**	**5,351**	**60,303**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2012

State Peace Officers and Fire Fighters

Attained Age	0-4	5-9	Years of Service at Valuation Date 10-14	15-19	20-24	25+	Total	Average Salary
15-24	128	0	0	0	0	0	128	32,407
25-29	439	8	0	0	0	0	447	53,193
30-34	765	34	1	0	0	0	800	71,515
35-39	727	69	10	0	0	0	806	77,245
40-44	814	120	34	10	1	0	979	80,486
45-49	821	114	51	8	7	1	1,002	84,969
50-54	475	89	46	12	6	4	632	81,198
55-59	232	45	23	10	3	0	313	72,737
60-64	69	16	12	3	1	0	101	73,102
65 and Over	20	9	0	0	0	0	29	71,744
Total	**4,490**	**504**	**177**	**43**	**18**	**5**	**5,237**	**75,402**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2012

State Peace Officers and Firefighters

Attained Age	0-4	5-9	Years of Service at Valuation Date 10-14	15-19	20-24	25+	Total	Average Salary
15-24	214	0	0	0	0	0	214	29,799
25-29	795	10	0	0	0	0	805	33,713
30-34	1,064	90	4	0	0	0	1,158	36,000
35-39	849	98	29	2	0	0	978	37,485
40-44	810	136	62	22	6	0	1,036	39,658
45-49	653	143	96	50	27	5	974	43,178
50-54	367	80	35	13	5	0	500	36,895
55-59	194	33	15	4	4	0	250	35,983
60-64	98	12	6	2	1	0	119	36,895
65 and Over	32	2	6	0	0	0	40	34,285
Total	**5,076**	**604**	**253**	**93**	**43**	**5**	**6,074**	**37,572**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2012

California Highway Patrol

Attained Age	0-4	5-9	Years of Service at Valuation Date 10-14	15-19	20-24	25+	Total	Average Salary
15-24	2	0	0	0	0	0	2	43,528
25-29	9	0	0	0	0	0	9	55,764
30-34	23	4	0	0	0	0	27	78,739
35-39	48	16	3	0	0	0	67	77,563
40-44	49	11	8	2	0	0	70	82,851
45-49	39	9	3	7	1	0	59	78,076
50-54	26	10	5	2	0	0	43	79,685
55-59	9	2	1	0	0	0	12	69,816
60-64	2	2	1	0	0	0	5	79,471
65 and Over	1	0	0	0	0	0	1	48,336
Total	**208**	**54**	**21**	**11**	**1**	**0**	**295**	**78,060**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2012

California Highway Patrol

Attained Age	0-4	5-9	Years of Service at Valuation Date 10-14	15-19	20-24	25+	Total	Average Salary
15-24	1	0	0	0	0	0	1	85,273
25-29	14	0	0	0	0	0	14	63,576
30-34	27	7	0	0	0	0	34	75,291
35-39	43	23	7	0	0	0	73	67,962
40-44	49	19	17	4	0	0	89	56,771
45-49	31	10	9	13	4	0	67	59,998
50-54	10	13	6	0	0	0	29	46,303
55-59	8	3	2	0	0	0	13	46,551
60-64	2	1	0	0	0	0	3	38,296
65 and Over	0	2	0	0	0	0	2	32,765
Total	**185**	**78**	**41**	**17**	**4**	**0**	**325**	**60,607**

Distributions By Age and Service
Transfers to Other CalPERS Plans
As of June 30, 2012
Schools

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	81	0	0	0	0	0	81	28,762
25-29	728	15	0	0	0	0	743	42,150
30-34	1,685	124	26	0	0	0	1,835	51,654
35-39	2,184	308	76	9	0	0	2,577	56,315
40-44	2,498	628	171	39	7	0	3,343	57,805
45-49	2,956	930	453	128	25	8	4,500	58,993
50-54	3,565	1,244	699	351	107	21	5,987	57,762
55-59	3,409	1,304	786	382	150	49	6,080	55,612
60-64	2,065	832	484	210	104	39	3,734	53,682
65 and Over	833	281	133	62	30	18	1,357	45,697
Total	**20,004**	**5,666**	**2,828**	**1,181**	**423**	**135**	**30,237**	**55,517**

Distributions By Age and Service
Terminated Participants With Funds on Deposit
As of June 30, 2012
Schools

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	2,693	1	0	0	0	0	2,694	25,397
25-29	13,247	163	3	0	0	0	13,413	28,135
30-34	21,405	861	32	0	0	0	22,298	29,228
35-39	20,807	1,243	93	2	0	0	22,145	30,240
40-44	18,955	1,769	193	3	0	0	20,920	31,285
45-49	18,306	2,357	524	55	4	1	21,247	31,716
50-54	20,079	2,890	723	198	44	1	23,935	32,276
55-59	17,881	2,499	662	144	55	7	21,248	30,954
60-64	11,380	1,447	409	83	22	9	13,350	29,690
65 and Over	5,753	562	147	31	8	7	6,508	28,311
Total	**150,506**	**13,792**	**2,786**	**516**	**133**	**25**	**167,758**	**30,439**

Retired Members and Beneficiaries

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

State Miscellaneous Tier 1

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	2	14	4	191	211
30-34	0	11	6	2	0	136	155
35-39	0	30	13	8	2	127	180
40-44	0	153	33	17	2	206	411
45-49	0	419	135	44	4	307	909
50-54	1,873	1,119	317	102	11	548	3,970
55-59	11,605	1,789	432	194	3	819	14,842
60-64	24,097	2,109	467	293	3	1,359	28,328
65-69	26,562	1,804	336	287	9	1,954	30,952
70-74	20,240	1,350	250	260	7	2,479	24,586
75-79	15,469	866	144	204	5	3,252	19,940
80-84	12,480	569	77	178	5	4,001	17,310
85 and Over	13,906	558	47	218	4	7,378	22,111
Total	**126,232**	**10,777**	**2,259**	**1,821**	**59**	**22,757**	**163,905**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for

Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Miscellaneous Tier 1

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	$0	$0	$150	$100,551	$354	$1,470,120	$1,571,175
30-34	0	74,371	19,913	50,403	0	1,145,107	1,289,794
35-39	0	214,357	3,087	200,483	25,246	1,154,824	1,597,997
40-44	0	1,440,062	115,048	317,559	1,389	2,400,574	4,274,632
45-49	0	5,097,868	207,048	934,176	116	3,802,856	10,042,064
50-54	20,960,013	15,688,320	964,356	2,082,556	59,873	7,072,831	46,827,949
55-59	310,158,336	26,773,250	1,279,522	4,222,555	3,214	13,034,377	355,471,254
60-64	748,099,752	31,197,603	1,565,188	7,436,319	77,041	24,650,236	813,026,139
65-69	849,137,063	27,207,798	1,605,042	7,117,745	20,657	40,990,133	926,078,438
70-74	643,305,505	20,882,975	1,119,746	6,870,031	11,374	55,995,243	728,184,874
75-79	466,919,756	12,881,454	482,920	5,134,384	4,633	75,253,176	560,676,323
80-84	367,732,736	7,659,670	224,662	3,885,121	6,678	87,945,326	467,454,193
85 and Over	325,788,484	7,062,904	99,712	5,060,333	4,349	129,123,924	467,139,706
Total	**$3,732,101,645**	**$156,180,632**	**$7,686,394**	**$43,412,216**	**$214,924**	**$444,038,727**	**$4,383,634,538**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

State Miscellaneous Tier 1

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	37,383	1,451	245	375	5	713	40,172
5-9	29,750	1,934	437	322	5	1,632	34,080
10-14	21,178	2,436	483	313	7	2,263	26,680
15-19	14,555	2,028	429	236	9	3,166	20,423
20-24	10,943	1,199	351	215	8	4,035	16,751
25-29	7,871	790	156	185	11	4,983	13,996
30 and Over	4,552	939	158	175	14	5,965	11,803
Total	**126,232**	**10,777**	**2,259**	**1,821**	**59**	**22,757**	**163,905**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Miscellaneous Tier 1

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	$1,231,901,743	$22,137,983	$1,383,765	$9,344,820	$51,181	$13,785,933	$1,278,605,425
5-9	923,324,361	30,029,944	2,282,692	7,791,509	1,657	34,283,801	997,713,964
10-14	667,904,673	37,644,103	1,956,432	7,935,837	56,738	56,467,753	771,965,536
15-19	398,387,160	29,914,634	1,113,973	6,473,465	77,373	77,527,095	513,493,700
20-24	300,708,947	17,132,880	680,016	5,228,951	4,471	104,046,580	427,801,845
25-29	148,075,165	9,063,627	154,101	3,813,909	12,605	95,789,806	256,909,213
30 and Over	61,799,596	10,257,461	115,415	2,823,725	10,899	62,137,759	137,144,855
Total	**$3,732,101,645**	**$156,180,632**	**$7,686,394**	**$43,412,216**	**$214,924**	**$444,038,727**	**$4,383,634,538**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

State Miscellaneous Tier 2

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	2	0	27	29
30-34	0	0	0	0	0	14	14
35-39	0	5	0	1	0	14	20
40-44	0	30	5	1	0	18	54
45-49	0	81	10	5	0	30	126
50-54	86	188	16	14	0	48	352
55-59	368	302	8	20	0	71	769
60-64	626	318	11	25	2	96	1,078
65-69	630	233	9	14	0	110	996
70-74	437	127	4	13	0	82	663
75-79	400	58	2	6	0	86	552
80-84	207	12	1	2	0	51	273
85 and Over	83	2	0	3	0	29	117
Total	**2,837**	**1,356**	**66**	**106**	**2**	**676**	**5,043**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for

Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Miscellaneous Tier 2

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	$0	$0	$0	$8,255	$0	$112,886	$121,141
30-34	0	0	0	0	0	76,641	76,641
35-39	0	52,424	0	87	0	86,103	138,614
40-44	0	315,174	126,912	11	0	86,888	528,985
45-49	0	877,444	217,351	20,578	0	312,427	1,427,800
50-54	199,508	2,339,930	241,490	106,051	0	457,837	3,344,816
55-59	1,805,910	3,950,935	165,265	191,140	0	704,877	6,818,127
60-64	3,771,516	4,573,050	251,033	211,734	47,187	1,011,464	9,865,984
65-69	4,091,483	3,425,478	159,212	158,527	0	1,203,233	9,037,933
70-74	3,482,442	2,063,830	46,487	162,376	0	751,342	6,506,477
75-79	3,707,426	834,349	48,890	94,599	0	1,050,278	5,735,542
80-84	2,503,198	155,080	31,459	71,507	0	551,401	3,312,645
85 and Over	941,180	41,205	0	109,000	0	249,940	1,341,325
Total	**$20,502,663**	**$18,628,899**	**$1,288,099**	**$1,133,865**	**$47,187**	**$6,655,317**	**$48,256,030**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

State Miscellaneous Tier 2

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	1,056	136	7	29	0	40	1,268
5-9	375	181	11	31	0	60	658
10-14	729	459	28	22	1	200	1,439
15-19	467	346	14	15	1	213	1,056
20-24	168	192	6	7	0	124	497
25-29	41	42	0	2	0	33	118
30 and Over	1	0	0	0	0	6	7
Total	**2,837**	**1,356**	**66**	**106**	**2**	**676**	**5,043**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Miscellaneous Tier 2

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	$6,894,236	$1,378,166	$60,026	$203,230	$0	$248,286	$8,783,944
5-9	1,829,343	1,992,078	231,911	223,398	0	434,262	4,710,992
10-14	5,036,461	5,986,194	505,064	241,358	32,202	1,709,694	13,510,973
15-19	4,855,341	5,535,466	357,722	360,277	14,985	2,578,165	13,701,956
20-24	1,573,608	3,146,959	133,376	81,824	0	1,411,708	6,347,475
25-29	310,456	590,036	0	23,778	0	240,600	1,164,870
30 and Over	3,218	0	0	0	0	32,602	35,820
Total	**$20,502,663**	**$18,628,899**	**$1,288,099**	**$1,133,865**	**$47,187**	**$6,655,317**	**$48,256,030**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

State Industrial

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	2	0	15	17
30-34	0	0	1	0	0	12	13
35-39	0	3	2	0	0	9	14
40-44	0	38	11	0	0	9	58
45-49	0	87	27	2	0	19	135
50-54	294	165	69	10	0	37	575
55-59	1,364	215	94	12	0	58	1,743
60-64	1,950	249	76	14	0	92	2,381
65-69	1,874	186	64	16	1	107	2,248
70-74	1,078	107	32	11	2	113	1,343
75-79	691	57	27	7	2	106	890
80-84	444	31	8	5	1	121	610
85 and Over	371	18	8	3	7	220	627
Total	**8,066**	**1,156**	**419**	**82**	**13**	**918**	**10,654**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for

Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Industrial

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	$0	$0	$0	$13,515	$0	$48,965	$62,480
30-34	0	0	65	0	0	35,827	35,892
35-39	0	9,425	20,285	0	0	32,202	61,912
40-44	0	240,769	45,713	0	0	25,086	311,568
45-49	0	794,025	123,965	24,539	0	89,051	1,031,580
50-54	1,849,281	1,339,595	335,299	28,033	0	272,376	3,824,584
55-59	15,502,724	1,748,182	553,959	77,991	0	377,188	18,260,044
60-64	23,848,690	1,972,366	441,410	104,608	0	659,110	27,026,184
65-69	24,517,921	1,637,032	440,290	231,278	17,945	842,183	27,686,649
70-74	15,233,835	985,918	162,966	225,941	1,459	1,016,579	17,626,698
75-79	10,271,344	674,447	173,955	77,833	50,295	1,126,950	12,374,824
80-84	6,676,980	373,291	82,577	49,875	21,274	1,538,468	8,742,465
85 and Over	6,138,273	246,493	244,628	20,881	216,977	3,370,411	10,237,663
Total	**$104,039,048**	**$10,021,543**	**$2,625,112**	**$854,494**	**$307,950**	**$9,434,396**	**$127,282,543**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

State Industrial

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	3,422	224	62	21	0	55	3,784
5-9	2,120	286	117	24	0	116	2,663
10-14	1,279	321	107	13	1	158	1,879
15-19	598	178	65	14	0	152	1,007
20-24	324	92	41	6	0	142	605
25-29	229	32	13	2	1	125	402
30 and Over	94	23	14	2	11	170	314
Total	**8,066**	**1,156**	**419**	**82**	**13**	**918**	**10,654**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Industrial

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	$45,205,187	$2,124,886	$451,018	$157,933	$0	$445,262	$48,384,286
5-9	27,281,657	2,441,445	750,819	319,738	0	905,412	31,699,071
10-14	16,332,354	2,778,358	622,184	76,355	72	1,404,158	21,213,481
15-19	6,875,832	1,420,898	292,477	205,528	0	1,301,780	10,096,515
20-24	4,136,656	734,675	205,082	52,415	0	1,712,836	6,841,664
25-29	3,089,119	232,641	83,759	19,202	1,387	1,940,970	5,367,078
30 and Over	1,118,243	288,640	219,773	23,323	306,491	1,723,978	3,680,448
Total	**$104,039,048**	**$10,021,543**	**$2,625,112**	**$854,494**	**$307,950**	**$9,434,396**	**$127,282,543**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

State Safety

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	7	4	2	22	35
30-34	0	0	16	0	0	10	26
35-39	0	2	37	0	0	15	54
40-44	0	12	77	1	1	22	113
45-49	0	30	149	7	4	34	224
50-54	472	61	322	22	5	71	953
55-59	1,976	108	610	37	16	117	2,864
60-64	3,097	144	837	53	13	206	4,350
65-69	2,884	118	668	31	10	265	3,976
70-74	1,780	70	433	32	14	285	2,614
75-79	992	38	282	20	18	320	1,670
80-84	587	25	181	4	16	409	1,222
85 and Over	464	15	128	14	14	559	1,194
Total	**12,252**	**623**	**3,747**	**225**	**113**	**2,335**	**19,295**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for

Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Safety

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	$0	$0	$209,429	$60,625	$21,478	$213,240	$504,772
30-34	0	0	387,798	0	0	103,839	491,637
35-39	0	6,438	970,932	0	0	80,730	1,058,100
40-44	0	78,928	1,971,362	25,755	27,031	154,865	2,257,941
45-49	0	250,250	3,695,528	127,632	118,736	340,837	4,532,983
50-54	4,436,078	383,892	7,372,336	303,668	91,185	818,100	13,405,259
55-59	39,133,721	1,015,737	13,771,816	615,578	389,717	1,668,107	56,594,676
60-64	60,905,181	1,560,796	18,708,820	732,160	231,785	2,952,287	85,091,029
65-69	55,003,432	1,204,928	15,586,779	522,983	214,666	3,865,090	76,397,878
70-74	34,378,544	796,814	10,604,141	569,486	341,098	4,052,631	50,742,714
75-79	16,386,395	555,136	7,389,590	419,164	451,270	4,505,900	29,707,455
80-84	9,599,339	407,025	4,489,517	73,155	383,243	5,956,186	20,908,465
85 and Over	9,545,638	177,564	3,278,883	258,178	347,277	7,780,999	21,388,539
Total	**$229,388,328**	**$6,437,508**	**$88,436,931**	**$3,708,384**	**$2,617,486**	**$32,492,811**	**$363,081,448**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

State Safety

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	5,614	162	605	53	14	119	6,567
5-9	3,311	148	840	76	6	258	4,639
10-14	1,770	151	671	38	12	281	2,923
15-19	700	74	372	24	1	233	1,404
20-24	292	36	305	12	6	190	841
25-29	305	16	397	10	14	377	1,119
30 and Over	260	36	557	12	60	877	1,802
Total	**12,252**	**623**	**3,747**	**225**	**113**	**2,335**	**19,295**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Safety

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	$130,501,564	$2,514,413	$18,663,797	$922,159	$262,755	$2,066,433	$154,931,121
5-9	53,207,367	1,490,252	20,268,549	1,157,459	120,850	3,990,882	80,235,359
10-14	23,498,946	1,275,452	15,217,060	627,564	233,642	3,834,423	44,687,087
15-19	7,910,826	497,688	8,085,525	387,723	29,526	2,632,310	19,543,598
20-24	3,588,552	200,461	6,015,925	202,161	117,444	2,566,241	12,690,784
25-29	5,402,740	112,944	7,992,769	164,994	310,255	5,867,215	19,850,917
30 and Over	5,278,333	346,298	12,193,306	246,324	1,543,014	11,535,307	31,142,582
Total	**$229,388,328**	**$6,437,508**	**$88,436,931**	**$3,708,384**	**$2,617,486**	**$32,492,811**	**$363,081,448**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

State Peace Officers and Firefighters

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	6	4	8	48	66
30-34	0	2	55	1	1	22	81
35-39	0	6	171	1	4	19	201
40-44	0	24	481	2	11	31	549
45-49	0	48	903	8	24	47	1,030
50-54	2,972	88	1,380	32	24	104	4,600
55-59	4,160	85	1,461	36	17	200	5,959
60-64	4,456	82	1,500	46	25	277	6,386
65-69	3,339	66	1,050	37	17	289	4,798
70-74	1,805	35	497	16	7	292	2,652
75-79	937	17	208	15	6	257	1,440
80-84	503	10	85	3	3	166	770
85 and Over	190	4	26	2	0	88	310
Total	**18,362**	**467**	**7,823**	**203**	**147**	**1,840**	**28,842**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for

Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Peace Officers and Firefighters

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	$0	$0	$127,643	$89,710	$189,155	$546,296	$952,804
30-34	0	18,616	1,581,852	38,370	35,687	396,239	2,070,764
35-39	0	62,716	5,181,911	42,395	156,200	327,666	5,770,888
40-44	0	337,257	15,092,869	58,719	480,084	730,968	16,699,897
45-49	0	737,265	28,506,947	316,843	923,087	1,194,742	31,678,884
50-54	183,065,552	1,633,436	46,453,832	1,430,585	889,097	2,673,057	236,145,559
55-59	246,354,709	1,890,639	54,579,478	1,282,659	604,323	6,329,768	311,041,576
60-64	243,682,286	1,867,546	59,288,964	1,805,726	880,007	9,433,850	316,958,379
65-69	165,898,735	1,599,538	41,414,431	1,432,053	588,334	9,883,178	220,816,269
70-74	80,005,894	944,241	18,883,639	567,630	193,420	9,885,441	110,480,265
75-79	38,207,430	453,731	7,377,868	414,932	230,926	8,218,575	54,903,462
80-84	18,170,992	232,658	3,020,312	101,435	144,356	5,097,353	26,767,106
85 and Over	6,514,932	72,481	867,468	67,636	0	2,355,339	9,877,856
Total	**$981,900,530**	**$9,850,124**	**$282,377,214**	**$7,648,693**	**$5,314,676**	**$57,072,472**	**$1,344,163,709**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

State Peace Officers and Firefighters

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	8,391	109	1,206	30	26	105	9,867
5-9	4,899	94	1,875	71	35	256	7,230
10-14	2,661	142	2,051	49	31	348	5,282
15-19	1,273	79	1,352	34	19	335	3,092
20-24	684	34	992	15	14	397	2,136
25-29	454	8	346	4	22	398	1,232
30 and Over	0	1	1	0	0	1	3
Total	**18,362**	**467**	**7,823**	**203**	**147**	**1,840**	**28,842**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

State Peace Officers and Firefighters

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	$492,437,201	$2,841,886	$53,726,284	$1,313,851	$1,128,336	$3,188,303	$554,635,861
5-9	267,075,723	2,079,158	75,189,318	2,756,359	1,313,026	9,433,455	357,847,039
10-14	125,149,632	2,724,608	71,370,571	1,714,847	1,010,373	11,078,463	213,048,494
15-19	52,046,158	1,447,166	44,702,375	1,258,649	742,879	10,150,720	110,347,947
20-24	29,413,929	591,437	28,719,177	440,640	530,673	12,278,419	71,974,275
25-29	15,777,887	165,131	8,669,413	164,347	589,389	10,943,033	36,309,200
30 and Over	0	738	76	0	0	79	893
Total	**$981,900,530**	**$9,850,124**	**$282,377,214**	**$7,648,693**	**$5,314,676**	**$57,072,472**	**$1,344,163,709**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

California Highway Patrol

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	0	8	8	16
30-34	0	0	7	0	3	3	13
35-39	0	0	17	0	3	4	24
40-44	0	1	53	2	9	4	69
45-49	0	1	125	1	13	8	148
50-54	545	5	298	4	18	21	891
55-59	651	5	405	7	8	39	1,115
60-64	505	7	478	8	11	81	1,090
65-69	617	4	809	6	19	172	1,627
70-74	443	9	698	4	17	182	1,353
75-79	208	4	400	0	18	183	813
80-84	139	3	205	3	4	172	526
85 and Over	118	1	102	0	7	227	455
Total	**3,226**	**40**	**3,597**	**35**	**138**	**1,104**	**8,140**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for

Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

California Highway Patrol

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	$0	$0	$0	$0	$193,161	$78,405	$271,566
30-34	0	0	324,919	0	271,031	49,383	645,333
35-39	0	0	731,206	0	149,518	17,262	897,986
40-44	0	6,817	2,152,037	126,806	557,274	18,494	2,861,428
45-49	0	8,124	4,530,513	49,687	830,176	361,643	5,780,143
50-54	47,820,191	85,697	14,127,721	237,525	1,058,954	918,030	64,248,118
55-59	54,719,346	158,691	24,053,249	405,219	419,831	1,414,107	81,170,443
60-64	35,599,686	346,062	28,331,169	482,260	306,295	2,757,746	67,823,218
65-69	32,969,090	103,577	42,055,562	278,108	491,276	5,266,591	81,164,204
70-74	20,238,944	152,679	28,070,939	135,537	477,155	5,298,560	54,373,814
75-79	8,205,017	87,699	15,095,990	0	441,811	4,931,311	28,761,828
80-84	4,890,159	73,320	7,574,739	47,867	101,395	3,967,231	16,654,711
85 and Over	4,287,244	23,115	3,283,897	0	179,912	4,506,852	12,281,020
Total	**$208,729,677**	**$1,045,781**	**$170,331,941**	**$1,763,009**	**$5,477,789**	**$29,585,615**	**$416,933,812**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

California Highway Patrol

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	1,102	2	268	4	14	11	1,401
5-9	678	5	512	9	19	35	1,258
10-14	601	8	652	10	10	84	1,365
15-19	396	7	596	5	14	101	1,119
20-24	176	6	539	2	9	152	884
25-29	140	3	414	3	11	206	777
30 and Over	133	9	616	2	61	515	1,336
Total	**3,226**	**40**	**3,597**	**35**	**138**	**1,104**	**8,140**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

California Highway Patrol

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	$96,102,946	$244,378	$21,963,369	$242,356	$1,067,845	$714,677	$120,335,571
5-9	45,364,185	263,253	36,879,095	560,532	1,051,182	1,986,908	86,105,155
10-14	33,034,518	172,182	38,646,813	590,077	410,120	3,669,633	76,523,343
15-19	17,545,227	95,803	26,123,926	216,079	622,153	3,936,830	48,540,018
20-24	7,127,520	99,984	19,787,642	58,824	392,776	5,072,908	32,539,654
25-29	4,997,941	55,967	11,986,245	53,530	404,616	5,273,416	22,771,715
30 and Over	4,557,340	114,214	14,944,851	41,611	1,529,097	8,931,243	30,118,356
Total	**$208,729,677**	**$1,045,781**	**$170,331,941**	**$1,763,009**	**$5,477,789**	**$29,585,615**	**$416,933,812**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

Schools

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	1	7	0	183	191
30-34	0	11	3	0	0	100	114
35-39	2	33	17	2	0	133	187
40-44	0	111	23	5	0	211	350
45-49	0	377	45	6	0	326	754
50-54	1,666	1,071	87	41	3	547	3,415
55-59	11,641	1,841	150	89	2	850	14,573
60-64	28,240	2,154	194	150	0	1,424	32,162
65-69	35,231	2,069	116	117	3	1,929	39,465
70-74	27,501	1,711	68	102	4	2,527	31,913
75-79	21,486	1,099	24	69	2	3,258	25,938
80-84	16,418	742	20	49	0	3,931	21,160
85 and Over	17,587	683	7	35	0	6,699	25,011
Total	**159,772**	**11,902**	**755**	**672**	**14**	**22,118**	**195,233**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for

Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

Schools

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	$0	$0	$38	$62,028	$0	$789,235	$851,301
30-34	0	90,211	675	0	0	692,018	782,904
35-39	7,696	295,294	5,608	8,846	0	893,883	1,211,327
40-44	0	1,010,700	15,711	33,554	0	1,304,307	2,364,272
45-49	0	3,649,647	20,623	48,175	0	2,502,587	6,221,032
50-54	13,234,961	11,617,120	103,965	353,950	780	4,457,831	29,768,607
55-59	177,271,244	20,752,085	199,571	746,101	3,014	7,974,143	206,946,158
60-64	507,037,267	23,769,397	407,787	1,127,274	0	13,742,511	546,084,236
65-69	623,957,588	22,164,934	306,451	873,311	4,337	20,139,369	667,445,990
70-74	433,694,654	17,190,433	182,724	683,355	2,260	25,175,703	476,929,129
75-79	290,764,498	9,802,167	45,192	508,439	125	30,479,398	331,599,819
80-84	197,582,802	6,032,229	104,267	298,233	0	33,341,341	237,358,872
85 and Over	173,434,119	5,248,703	6,295	252,932	0	46,960,820	225,902,869
Total	**$2,416,984,829**	**$121,622,920**	**$1,398,907**	**$4,996,198**	**$10,516**	**$188,453,146**	**$2,733,466,516**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Number of Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

Schools

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	48,047	1,436	129	231	1	990	50,834
5-9	38,722	2,251	191	196	2	2,103	43,465
10-14	26,069	2,819	160	107	0	2,873	32,028
15-19	19,601	2,365	108	48	1	3,597	25,720
20-24	13,412	1,426	70	49	3	3,959	18,919
25-29	8,647	682	53	21	5	4,224	13,632
30 and Over	5,274	923	44	20	2	4,372	10,635
Total	**159,772**	**11,902**	**755**	**672**	**14**	**22,118**	**195,233**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2012

Annual Amounts not Including PPPA Payments

Schools

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	$894,038,662	$17,482,744	$377,220	$1,900,254	$100	$11,709,967	$925,508,947
5-9	656,425,272	26,615,394	492,297	1,491,249	776	23,266,916	708,291,904
10-14	384,123,768	29,947,551	256,001	704,330	0	28,860,761	443,892,411
15-19	234,599,588	23,240,879	172,455	291,808	3,206	32,958,017	291,265,953
20-24	143,760,537	13,154,874	70,625	365,183	3,994	37,077,771	194,432,984
25-29	70,755,003	4,874,199	17,486	93,276	2,315	33,157,712	108,899,991
30 and Over	33,281,999	6,307,279	12,823	150,098	125	21,422,002	61,174,326
Total	**$2,416,984,829**	**$121,622,920**	**$1,398,907**	**$4,996,198**	**$10,516**	**$188,453,146**	**$2,733,466,516**

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Retirees and Beneficiaries

Number Counts and Benefits

By Year of Retirement

As of June 30, 2012

State Miscellaneous Tier 1

Years Retired	Total Retirement	Total Benefits	Average Benefits
2012	2,729[1]	73,444,233	26,913
2011	8,364	247,512,722	29,593
2010	9,339	302,856,304	32,429
2009	8,188	277,152,579	33,849
2008	6,911	225,273,635	32,596
2007	6,625	200,679,439	30,291
2006	6,426	176,797,028	27,513
2005	7,260	215,469,039	29,679
2004	8,602	269,539,083	31,334
2003	6,032	171,637,110	28,454
2002	5,958	175,231,767	29,411
2001	6,098	200,692,303	32,911
2000	8,151	269,635,465	33,080
1999	3,020	63,397,072	20,992
1998	4,411	106,825,272	24,218
1997	4,486	110,733,955	24,684
1996	4,245	107,731,962	25,379
1995	3,931	100,510,233	25,569
1994	3,940	99,605,832	25,281
1993	3,009	61,219,206	20,345
1992	4,813	131,902,046	27,405
1991	5,407	170,987,725	31,623
1990	2,987	69,954,984	23,420
1989	2,770	58,205,743	21,013
1988	3,026	69,816,046	23,072
1987	3,323	72,769,632	21,899
1986	2,690	54,714,074	20,340
1985	2,687	47,258,342	17,588
1984	2,298	38,244,240	16,642
1983	2,977	53,471,782	17,962
1982	2,078	32,109,558	15,452
1981 and Earlier	11,124	128,256,127	11,530
Totals	163,905	4,383,634,538	26,745

Counts of members include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

1 – The numbers for 2012 are for the first 6 months of the calendar year only.

Retirees and Beneficiaries

Number Counts and Benefits

By Year of Retirement

As of June 30, 2012

State Miscellaneous Tier 2

Years Retired	Total Retirement	Total Benefits	Average Benefits
2012	226[1]	1,477,227	6,536
2011	427	3,135,325	7,343
2010	201	1,227,177	6,105
2009	181	1,146,641	6,335
2008	146	1,129,152	7,734
2007	134	994,511	7,422
2006	130	792,897	6,099
2005	147	1,044,045	7,102
2004	125	882,293	7,058
2003	130	1,081,127	8,316
2002	165	1,248,854	7,569
2001	213	1,433,994	6,732
2000	259	2,102,712	8,119
1999	290	2,741,219	9,452
1998	373	3,946,049	10,579
1997	350	4,107,788	11,737
1996	295	3,583,186	12,146
1995	240	3,288,735	13,703
1994	156	2,276,894	14,595
1993	147	1,999,443	13,602
1992	140	1,728,354	12,345
1991	147	1,976,090	13,443
1990	82	1,057,346	12,894
1989	94	1,206,211	12,832
1988	91	1,102,498	12,115
1987	60	644,706	10,745
1986	51	516,518	10,128
1985	33	308,233	9,340
1984	1	9,327	9,327
1983	2	31,658	15,829
1982	0	0	0
1981 and Earlier	7	35,820	5,117
Totals	5,043	48,256,030	9,569

Counts of members include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

1 – The numbers for 2012 are for the first 6 months of the calendar year only.

Retirees and Beneficiaries

Number Counts and Benefits

By Year of Retirement

As of June 30, 2012

State Industrial

Years Retired	Total Retirement	Total Benefits	Average Benefits
2012	282[1]	3,531,456	12,523
2011	802	9,617,451	11,992
2010	946	12,770,766	13,500
2009	782	10,292,326	13,162
2008	611	7,483,961	12,249
2007	510	6,260,718	12,276
2006	562	6,351,659	11,302
2005	549	7,080,034	12,896
2004	663	8,195,634	12,361
2003	466	5,173,696	11,102
2002	451	5,206,335	11,544
2001	443	5,804,607	13,103
2000	569	7,252,263	12,746
1999	200	1,772,019	8,860
1998	301	2,664,811	8,853
1997	284	2,762,205	9,726
1996	228	1,973,490	8,656
1995	221	2,091,709	9,465
1994	184	1,766,172	9,599
1993	147	1,419,564	9,657
1992	200	2,721,325	13,607
1991	183	2,650,041	14,481
1990	116	1,064,542	9,177
1989	123	1,150,145	9,351
1988	80	884,282	11,054
1987	103	1,289,499	12,519
1986	64	945,964	14,781
1985	82	1,109,701	13,533
1984	61	666,649	10,929
1983	82	972,075	11,855
1982	66	876,803	13285
1981 and Earlier	293	3,480,641	11,879
Totals	10,654	127,282,543	11,947

Counts of members include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

1 – The numbers for 2012 are for the first 6 months of the calendar year only.

Retirees and Beneficiaries

Number Counts and Benefits

By Year of Retirement

As of June 30, 2012

State Safety

Years Retired	Total Retirement	Total Benefits	Average Benefits
2012	526[1]	11,914,279	22,651
2011	1,406	32,902,773	23,402
2010	1,624	41,825,236	25,754
2009	1,357	33,175,348	24,448
2008	1,037	22,921,528	22,104
2007	961	18,778,048	19,540
2006	947	15,562,490	16,433
2005	1,020	17,711,738	17,364
2004	1,057	18,713,919	17,705
2003	802	13,707,693	17,092
2002	759	12,437,180	16,386
2001	715	11,793,542	16,494
2000	863	14,487,771	16,788
1999	392	5,176,920	13,206
1998	427	5,443,405	12,748
1997	388	5,469,468	14,097
1996	334	4,725,580	14,148
1995	276	3,428,466	12,422
1994	282	3,530,712	12,520
1993	191	2,862,513	14,987
1992	264	4,452,849	16,867
1991	245	3,425,171	13,980
1990	156	2,365,913	15,166
1989	176	2,711,579	15,407
1988	119	1,701,455	14,298
1987	143	2,335,609	16,333
1986	107	1,740,781	16,269
1985	157	2,377,265	15,142
1984	210	3,627,691	17,275
1983	358	6,822,601	19,058
1982	299	5,605,073	18,746
1981 and Earlier	1,697	29,346,852	17,293
Totals	19,295	363,081,448	18,817

Counts of members include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

1 – The numbers for 2012 are for the first 6 months of the calendar year only.

Retirees and Beneficiaries

Number Counts and Benefits

By Year of Retirement

As of June 30, 2012

State Peace Officers and Firefighters

Years Retired	Total Retirement	Total Benefits	Average Benefits
2012	751[1]	37,004,277	49,273
2011	2,071	105,993,486	51,180
2010	2,310	127,277,548	55,099
2009	2,088	124,430,832	59,593
2008	1,525	89,366,721	58,601
2007	1,717	103,064,266	60,026
2006	1,973	112,504,597	57,022
2005	1,231	59,368,556	48,228
2004	1,427	63,985,978	44,840
2003	1,209	52,567,141	43,480
2002	1,342	59,218,036	44,127
2001	1,250	54,173,941	43,339
2000	1,664	77,919,418	46,827
1999	622	18,978,694	30,512
1998	728	22,855,844	31,395
1997	758	25,827,229	34,073
1996	693	25,657,941	37,024
1995	611	22,545,760	36,900
1994	551	18,522,857	33,617
1993	510	17,527,693	34,368
1992	643	24,085,303	37,458
1991	629	25,454,238	40,468
1990	351	10,502,747	29,922
1989	388	11,531,276	29,720
1988	381	11,647,227	30,570
1987	476	14,885,047	31,271
1986	387	11,110,473	28,709
1985	299	8,474,465	28,343
1984	254	7,608,261	29,954
1983	0	0	0
1982	0	0	0
1981 and Earlier	3	893	298
Totals	28,842	1,344,090,745	46,602

Counts of members include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

1 – The numbers for 2012 are for the first 6 months of the calendar year only.

Retirees and Beneficiaries

Number Counts and Benefits

By Year of Retirement

As of June 30, 2012

California Highway Patrol

Years Retired	Total Retirement	Total Benefits	Average Benefits
2012	70[1]	5,258,655	75,124
2011	305	26,475,434	86,805
2010	329	28,704,665	87,248
2009	298	27,357,164	91,803
2008	240	20,163,200	84,013
2007	242	18,284,071	75,554
2006	284	20,255,343	71,322
2005	318	24,027,551	75,558
2004	256	16,855,187	65,841
2003	182	10,349,512	56,865
2002	260	16,591,246	63,812
2001	301	19,731,850	65,554
2000	430	25,563,246	59,449
1999	145	6,481,759	44,702
1998	193	8,923,016	46,233
1997	242	10,977,079	45,360
1996	267	13,371,338	50,080
1995	239	10,722,894	44,866
1994	188	7,553,303	40,177
1993	242	9,947,985	41,107
1992	188	6,901,561	36,710
1991	213	8,531,818	40,055
1990	141	4,982,900	35,340
1989	176	5,973,600	33,941
1988	189	6,863,834	36,317
1987	148	4,997,417	33,766
1986	172	5,453,952	31,709
1985	137	4,182,163	30,527
1984	135	4,022,555	29,797
1983	169	4,486,034	26,545
1982	179	4,501,629	25,149
1981 and Earlier	1,262	28,441,851	22,537
Totals	8,140	416,933,812	51,220

Counts of members include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

1 – The numbers for 2012 are for the first 6 months of the calendar year only.

Retirees and Beneficiaries

Number Counts and Benefits

By Year of Retirement

As of June 30, 2012

Schools

Years Retired	Total Retirement	Total Benefits	Average Benefits
2012	4,843[1]	78,481,162	16,205
2011	10,410	183,707,524	17,647
2010	11,331	209,275,445	18,469
2009	10,469	196,543,913	18,774
2008	8,610	156,362,568	18,161
2007	8,272	144,110,972	17,422
2006	8,625	140,273,408	16,264
2005	8,789	139,461,418	15,868
2004	9,105	144,792,193	15,902
2003	9,577	163,084,636	17,029
2002	7,442	123,956,579	16,656
2001	6,632	107,181,836	16,161
2000	8,417	129,754,471	15,416
1999	4,829	54,948,517	11,379
1998	5,747	67,147,424	11,684
1997	5,407	60,013,677	11,099
1996	5,224	57,792,632	11,063
1995	5,371	59,571,248	11,091
1994	4,942	55,890,159	11,309
1993	4,968	59,030,676	11,882
1992	4,772	54,984,269	11,522
1991	4,435	50,238,223	11,328
1990	3,826	39,107,244	10,221
1989	3,670	36,411,615	9,921
1988	3,436	32,853,444	9,562
1987	3,095	28,081,977	9,073
1986	2,858	23,969,202	8,387
1985	2,549	18,809,427	7,379
1984	2,022	13,399,060	6,627
1983	3,691	32,959,714	8,930
1982	1,919	13,937,015	7,263
1981 and Earlier	9,950	57,334,868	5,762
Totals	195,233	2,733,466,516	14,001

Counts of members include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

1 – The numbers for 2012 are for the first 6 months of the calendar year only.

APPENDIX D

NORMAL COST CHART

Normal Cost Chart

The normal cost is determined using the Entry Age Cost method. Some important features of this method are that the costs are dependent upon a member's entry age in the plan and benefit level of the plan. In general the lower the entry age the lower the total normal cost. Note that future costs may vary as the entry age of the members change. FAC means Final Average Compensation.

SCHOOLS	TOTAL NORMAL COST	EMPLOYEE CONTRIBUTION[2]	Range of Breakpoints[3]	Average Effective Member Rate[4,5]	Employer Normal Cost
Schools 2% @ 62 - 3 year FAC	11.9%	6%	-	N/A	N/A
Schools 2% @ 55 - 1 Year FAC	14.3%	7%	-	7.0%	7.30%

	STATE PLANS	TOTAL NORMAL COST	EMPLOYEE CONTRIBUTION[2]	Range of Breakpoints[3]	Average Effective Member Rate[4,5]	Employer Normal Cost
	State Miscellaneous (Including CSU) - 2% @ 62	12.1%	5% - 11%	$317 - $513	N/A	N/A
P	State Industrial - 2% @ 62	14.4%	5% - 11%	$317 - $513	N/A	N/A
E	State Safety - 2% @ 57	18.1%	9% - 11%	$238 - $317	N/A	N/A
P	POFF (90% of current members) - 2.5% @ 57	20.8%	8% - 12%	$513 - $863	N/A	N/A
R	POFF (10% of current members) - 2.7% @ 57	21.8%	8% - 12%	$513 - $863	N/A	N/A
A	CHP - 2.7% @ 57	19.4%	11.5%	$863	N/A	N/A
	State Miscellaneous - 2% @ 60 & 3 Year FAC	13.2%	5% - 11%	$317 - $513	7.6%	5.6%
C	State Miscellaneous - 2% @ 55[1]	14.9%	5% - 11%	$317 - $513	6.7%	8.2%
L	State Industrial - 2% @ 60 & 3 Year FAC	17.5%	5% - 11%	$317 - $513	7.0%	10.5%
A	State Industrial - 2% @ 55[1]	18.1%	5% - 11%	$317 - $513	7.9%	10.2%
S	State Safety - 2% @ 55 & 3 Year FAC	17.1%	9% - 11%	$238 - $317	9.7%	7.4%
S	State Safety - 2.5% @ 60 & 3 Year FAC	19.8%	9% - 11%	$238 - $317	10.5%	9.3%
I	State Safety - 2.5% @ 55[1]	22.5%	9% - 11%	$238 - $317	10.1%	12.4%
C	State POFF - 2.5% @ 55 & 3 Year FAC	21.1%	8% - 12%	$513 - $863	N/A	N/A
	State POFF - 3% @ 55 & 3 Year FAC	24.3%	8% - 12%	$513 - $863	N/A	N/A
	State POFF - 3% @ 50[1]	25.9%	8% - 12%	$513 - $863	10.3%	15.6%
	CHP - 3% @ 55 & 3 Year FAC	21.6%	11.5%	$863	N/A	N/A
	CHP - 3% @ 50[1]	23.2%	11.5%	$863	10.3%	12.9%
	State Miscellaneous - 2nd Tier	9.5%	1.5%	-	1.5%	8.0%

Notes:

1-For State plans, most current employees have benefits based on a final one year compensation period while new hires' benefits are based on a final three compensation period.

2-Employee contribution rates are based on rates in effect during the 2013-14 fiscal year.

3-Employees only make contributions to the pension plan based on salaries earned above the breakpoint.

4-The average effective member rate was calculated based on data as of June 30, 2012 and is reflective of the breakpoint and the different contribution rates paid by members within the same plans. For example, a member earning $6,000 a month with an 8% contribution rate and a breakpoint of $513 will pay $438.96 and have an effective contribution rate of 7.316% of salary. This is calculated as ($6,000-$513) * 8% divided by $6,000.

5-Plans displaying N/A in this column did not have sufficient active data as of June 30, 2012 to calculate an average effective member rate. For the School pool, the average effective member rate will be 6% and employer normal cost 5.9% for 2% @ 62 due to $0 breakpoint and a single member contribution rate. For the State plans, the average effective member rate and employer normal cost depend on the distribution of member contribution rates and salaries.

APPENDIX E

GLOSSARY OF ACTUARIAL TERMS

Glossary of Actuarial Terms

Accrued Liability *(also called Actuarial Accrued Liability or Entry Age Normal 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 discount rate, salary growth and inflation.

Actuarial Methods
Procedures employed by actuaries to achieve certain funding goals of a pension plan. Actuarial methods include funding method, setting the length of time to fund the Accrued Liability and determining the Actuarial Value of Assets.

Actuarial Valuation
The determination, as of a valuation date, of the Normal Cost, 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 of a Risk Pool or non-pooled plan can be segregated by "cause," creating “bases” and each such base will be separately amortized and paid for over a specific period of time. However, all bases are amortized using investment and payroll assumptions from the current valuation. This can be likened to a home having a first mortgage of 24 years remaining payments and a second mortgage that has 10 years remaining payments. 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 unfunded liability due to contract amendments, actuarial assumption changes, actuarial methodology changes, and or 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 as set forth in GASB Statement No. 27, 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.

Classic Member (under PEPRA)

A classic member is a member who joined CalPERS prior to January, 1, 2013 and who is not defined as a new member under PEPRA. (See definition of new member below)

Discount Rate Assumption

The actuarial assumption that was called “investment return” in earlier CalPERS reports or “actuarial interest rate” in Section 20014 of the California Public Employees’ Retirement Law (PERL).

Entry Age

The earliest age at which a plan member begins to accrue benefits under a defined benefit pension plan. In most cases, this is the age of the member on their date of hire.

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 yield a rate expressed as a level percentage of payroll.
(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 on the date of 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.)

Fresh Start

A Fresh Start is when multiple amortization bases are collapsed to one base and amortized together over a new funding period.

Funded Status

A measure of how well funded, or how "on track" a plan or risk pool is with respect to assets verses 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. A funded ratio based on the Actuarial Value of Assets indicates the progress toward fully funding the plan using the actuarial cost methods and assumptions. A funded ratio based on the Market Value of Assets indicates the short-term solvency of the plan.

GASB 27

Statement No. 27 of the Governmental Accounting Standards Board. The accounting standard governing a state or local governmental employer’s accounting for pensions.

GASB 68

Statement No. 68 of the Governmental Accounting Standards Board. The accounting standard governing a state or local governmental employer's accounting and financial reporting for pensions. GASB 68 replaces GASB 27 effective the first fiscal year beginning after June 15, 2014.

New Member (under PEPRA)

A new member includes an individual who becomes a member of a public retirement system for the first time on or after January 1, 2013, and who was not a member of another public retirement system prior to that date, and who is not subject to reciprocity with another public retirement system.

Normal Cost

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

Pension Actuary

A business professional that is authorized by the Society of Actuaries, and the American Academy of Actuaries to perform the calculations necessary to properly fund a pension plan.

PEPRA

The California Public Employees' Pension Reform Act of 2013

Prepayment Contribution

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

Present Value of Benefits (PVB)

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.

Rolling Amortization Period

An amortization period that remains the same each year, rather than declining.

Superfunded

A condition existing when a plan's Actuarial Value of Assets exceeds its Present Value of Benefits. Prior to the passage of PEPRA, when this condition existed on a given valuation date for a given plan, employee contributions for the rate year covered by that valuation could 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. If the Unfunded Liability is positive, the plan or pool will have to pay contributions exceeding the Normal Cost.