CalPERS

State Actuarial Valuation

As of June 30, 2013

Establishing Required Contributions

for the Fiscal Year

July 1, 2014 through June 30, 2015

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

State Actuarial Valuation as of June 30, 2013

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 fully and fairly disclose the actuarial funded condition of the CalPERS State plans. This valuation is based on the member and financial data as of June 30, 2013 provided by the various CalPERS databases and the benefits under these plans with CalPERS as of the date this report was produced. In our opinion, this valuation has been performed in accordance with generally accepted actuarial principles and in accordance with standards of practice prescribed by the Actuarial Standards Board. 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, who 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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- **INTRODUCTION**
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Introduction

This is the actuarial valuation report as of June 30, 2013 for the State plans. This actuarial valuation was used to set the 2014-15 required employer contribution rates.

The five plans included in this valuation report provide retirement benefits to members employed by the State of California. This includes employees of the California State University system but generally does not include employees of the University of California system. It also does not cover school employees or employees of local governments that have elected to contract with CalPERS.

Previously, the valuation report for the State plans has been combined with the report on the valuation of the Schools Pool. Due to differences in the timing of actuarial assumption changes and a desire to simplify the report and to provide greater flexibility in the future, separate reports are now being provided.

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. This is the first actuarial valuation for most of the plans that includes membership under the new benefit formulas. The legislation associated with pension reform (AB 340) also included member contribution rate changes for some State employees. The impact of the changes in employer contribution rates effective July 1, 2013 and July 1, 2014 are reflected in this valuation. Information regarding member contribution rates for some PEPRA members can be found in the "Development of PEPRA Member Contribution Rates" in Appendix D of this report. For more information on PEPRA, 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. Prior to this change, CalPERS employed an amortization and smoothing policy, which spread investment returns over a 15-year period while experience gains and losses were amortized over a rolling 30-year period. Effective with the June 30, 2014 valuations that set the 2015-16 rates, CalPERS will spread rate increases or decreases over a 5-year period, and will amortize all experience gains and losses over a fixed 30-year period. This valuation will be performed in early 2015 and will set employer contribution rates for the fiscal year 2015-16.

In 2014 CalPERS completed a 2-year asset liability management study incorporating actuarial assumptions and strategic asset allocation. On February 19, 2014, the CalPERS Board of Administration adopted relatively modest changes to the current asset allocation that will reduce the expected volatility of returns. The adopted asset allocation is expected to have a long-term blended return that continues to support a discount rate assumption of 7.5 percent. The Board also approved several changes to the demographic assumptions that more closely align with actual experience. The most significant of these changes is the inclusion of mortality improvement to acknowledge the greater life expectancies we are seeing in our membership and expected continued improvements.

As per the Board's decision in February of this year, the new actuarial assumptions have been incorporated in this valuation. The increase in liability due to new actuarial assumptions has been amortized over 20 years and phased in over 3 years, beginning with the contribution requirement for fiscal year 2014-15. The impact of the assumption change for each State plan can be found in the "Reconciliation of Employer Contributions" section of this report.

Purpose of the Report

This actuarial valuation was performed by the CalPERS Actuarial Office using data as of June 30, 2013. The purpose of the report is to:

- Set forth the assets and accrued liabilities of these plans as of June 30, 2013
- Determine the required employer contribution rates of these plans for the fiscal year July 1, 2014 through June 30, 2015
- Provide actuarial information as of June 30, 2013 to the CalPERS Board of Administration and other interested parties, and to
- Provide pension information as of June 30, 2013 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 the 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 original base amounts of the various components of the unfunded liabilities in the "Schedule of Amortization Bases".

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 income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1 percent plus or minus change in the discount rate.

Employer Required Contribution Rates

The actuarially required employer contribution rates for the fiscal year July 1, 2014 through June 30, 2015 are shown in the table below. For comparison purposes, the corresponding contribution rates for fiscal year July 1, 2013 through June 30, 2014 are also provided. The expected contribution amounts that these rates are/were expected to generate are also shown.

	2013-14 Fiscal Year		2014-15 Fiscal Year	
	Expected Employer Contribution	**Required Employer Rate**	**Expected Employer Contribution**	**Required Employer Rate**
State Miscellaneous Tier 1	$2,093,047,896	21.121%	$2,350,570,687	24.198%
State Miscellaneous Tier 2	72,151,897	20.992%	70,586,143	23.510%
State Industrial	90,690,285	15.682%	92,024,304	17.286%
State Safety	326,678,917	17.205%	341,509,505	18.156%
State Peace Officers & Firefighters	954,994,296	30.495%	1,086,102,162	35.180%
California Highway Patrol	267,523,309	34.616%	323,393,110	42.175%
Total State	**$3,805,086,600**		**$4,264,185,911**	

The supporting exhibits in this report entitled "Reconciliation of Employer Contribution Rates" on page 41 and "Reconciliation of Employer Contributions" on page 43 provide explanations of the changes in required contribution rates and expected contribution amounts from the 2013-14 fiscal year to the 2014-15 fiscal year.

A history of the required contribution rates is included on page 45 of this report.

Reasons for Change in Employer Contributions for the State Plans

Overall, the required contributions for the State plans have increased by $459.1 million between fiscal year 2013-14 and fiscal year 2014-15. There are two main reasons for the increase in contributions: the change in demographic assumptions and the Plans' experience in fiscal year 2012-13, including the recognition of asset losses from prior years. Included in the category "Other Gains and Losses" in the table on the next page are gains from salary increases lower than expected, gains from higher than expected contributions received in 2012-13, losses due to greater than expected retirements, an increase in contributions due to an improvement in the calculation methodology for termination benefits and gains or losses due to data corrections.

Reason for Change	Change in Required Contribution (millions)
Change due to normal progression of existing amortization bases	$56.7
Change due to payroll being different than expected	(34.0)
Impact of change in assumptions	420.5
Impact of additional member contributions as per pension reform	(36.0)
Actuarial gains and losses:	
• Impact of recognizing lower than expected investment returns from prior years	74.8
• Other Gains and Losses	(22.8)
Total Change in Required Contributions	$459.1

In February 2014 the CalPERS Board adopted new demographic actuarial assumptions to be used in the June 30, 2013 actuarial valuation for the State plans. As shown above, the adoption of these new actuarial assumptions accounted for about $420.5 million of the total increase in contribution for the State Plans. The change in liability due to new actuarial assumptions has been amortized over 20 years and phased in over 3 years, beginning with the contribution requirement for fiscal year 2014-15. The increase of $420.5 million reflects the increase in normal cost and year one of the three-year phase-in of the increase in unfunded liability.

The actuarial assumption change causing the largest impact on employer rates for all plans is mortality improvement to acknowledge the greater life expectancies we are seeing in our membership and expected continued improvements. In addition, for the Peace Officers and Firefighters Plan and the California Highway Patrol Plan, changes to the assumption for service retirement have a large impact on accrued liability and employer costs.

Additional Contributions

One of the provisions of AB 340 added Government Code Section 20683.2 which changed the contribution rates of many State members effective July 1, 2013 with additional increases for some members effective July 1, 2014. 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 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)
- 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 2014-15	Additional Statutory Contribution to Offset Increased Member Contributions	Total Contribution 2014-15
State Miscellaneous Tier 1	24.198%	0.082%	24.280%
State Miscellaneous Tier 2	23.510%	0.727%	24.237%
State Industrial	17.286%	0.848%	18.134%
State Safety	18.156%	1.182%	19.338%
State Peace Officers & Firefighters	35.180%	1.647%	36.827%
California Highway Patrol	42.175%	1.319%	43.494%

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. The obvious example is when the 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 will make additional contributions, a smaller reduction will apply in the future.

With the passage of the 2014 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 April 2014 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.

Expected Future Changes

The table below shows the estimated 2015-16 employer rates for the State plans based on an 18 percent investment return for fiscal year 2013-14. 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, reflect the amortization and smoothing policy changes, and assume that no changes to benefits will occur between now and the beginning of fiscal year 2015-16.

Plan	Estimated 2015-16 Employer Rates Assuming an 18% Investment Return for 2013-14
State Miscellaneous Tier 1	25.9%
State Miscellaneous Tier 2	25.2%
State Industrial	18.1%
State Safety	18.6%
State Police Officers & Firefighters	37.5%
California Highway Patrol	45.6%

A scenario analysis was performed to determine the effects of various investment returns on future employer contribution rates for three years beyond the estimated 2015-16 employer rates shown above. That information is available in the "Risk Analysis" section of this report.

History of the Expected Contribution Requirements

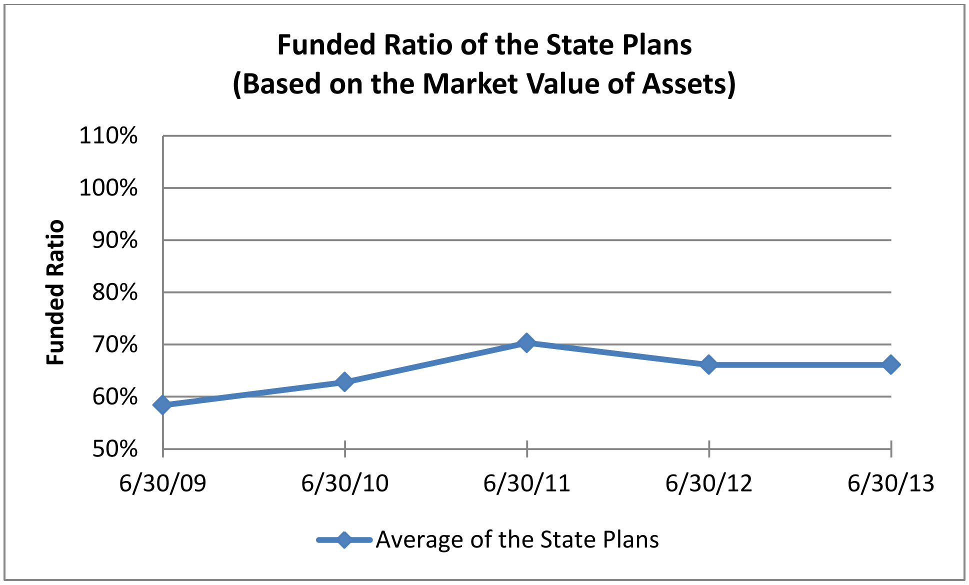
The following table shows the history of the employer contributions set by CalPERS based on projected payroll for the State plans going back to fiscal year 1996-97.

Fiscal Year	Total State Contributions
1996-97	$1,236,447,373
1997-98	1,223,327,746
1998-99	766,067,149
1999-00	159,460,097
2000-01	156,722,747
2001-02	677,244,769
2002-03	1,189,559,722
2003-04	2,212,518,481
2004-05	2,547,364,178
2005-06	2,428,720,628
2006-07	2,665,262,125
2007-08	2,746,929,250
2008-09	3,025,181,372
2009-10	3,287,572,458
2010-11[1]	3,684,715,103
2011-12	3,514,951,156
2012-13	3,876,422,255
2013-14	3,805,086,600
2014-15	$4,264,185,911

Funded Status of the Plans

The funded status of a pension plan is defined as the ratio of assets to a plan's accrued liabilities. Plans with a lower funded ratio are, all other things being equal, more at risk of not being able to meet their future benefit obligations. From June 30, 2012 to June 30, 2013 the funded status for the State plans, on average, remained the same. This was due to the investment return for 2012-13 being greater than expected, offset by the increase in liability due to the change in assumptions. The graph on the following page shows the average funded status for the past five years for the State plans 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, 2013.

Funded Status and Unfunded Liability on June 30, 2013

Plan	Entry Age Normal Accrued Liability	Market Value of Assets	Unfunded Liability	Funded Ratio
State Miscellaneous	$90,277,023,739	$60,029,027,274	$ 30,247,996,465	66.5%
State Industrial	3,236,221,429	2,417,771,894	818,449,535	74.7%
State Safety	8,833,760,689	6,326,950,892	2,506,809,797	71.6%
State Peace Officers and Firefighters	35,270,981,461	22,918,567,682	12,352,413,779	65.0%
California Highway Patrol	9,774,594,369	5,760,252,078	4,014,342,291	58.9%
Total for the State	**$147,392,581,687**	**$97,452,569,820**	**$49,940,011,867**	**66.1%**

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, 2009	**June 30, 2010**	**June 30, 2011**	**June 30, 2012**	**June 30, 2013**
State Miscellaneous	59.0%	63.2%	70.7%	66.3%	66.5%
State Industrial	63.1%	68.3%	77.0%	73.0%	74.7%
State Safety	58.5%	65.2%	74.6%	70.6%	71.6%
State Police Officers & Firefighters	57.4%	62.1%	69.0%	65.5%	65.0%
California Highway Patrol	53.9%	57.6%	65.1%	60.3%	58.9%
Total for the State	**58.4%**	**62.8%**	**70.3%**	**66.1%**	**66.1%**

Changes Since the Prior Year's Valuation

Actuarial Assumptions and Methods

In 2014, CalPERS completed a 2-year asset liability management study incorporating actuarial assumptions and strategic asset allocation. On February 19 the CalPERS Board of Administration adopted relatively modest changes to the current asset allocation that will reduce the expected volatility of returns. The adopted asset allocation is expected to have a long-term blended return that continues to support a discount rate assumption of 7.5 percent. The Board also approved several changes to the demographic assumptions that more closely align with actual experience. The most significant of these changes is the inclusion of mortality improvement to acknowledge the greater life expectancies we are seeing in our membership and expected continued improvements.

As per the Board's decision in February of this year, the new actuarial assumptions have been incorporated in this valuation for the State. The increase in liability due to new actuarial assumptions has been amortized over 20 years and phased in over 3 years, beginning with the contribution requirement for fiscal year 2014-15. The impact of the assumption change for each State plan can be found in the "Reconciliation of Employer Contributions" section.

Plan Provisions

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. This is the first actuarial valuation for most of the plans that includes membership under the new benefit formulas. 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 and July 1, 2014 are reflected in this valuation. For more information on pension reform, please refer to the CalPERS website.

Subsequent Events

Amortization Method and Smoothing Policy

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 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 “Projected Rates” and “Analysis of Future Investment Return Scenarios” subsections of the “Risk Analysis” section of this report.

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
1. 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
2. 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
3. Adjustment	$ (231,819,481)	$ (13,886,696)	$ (52,459,943)	$ (115,309,119)	$ (30,142,884)
4. Market Value of Assets as of July 1, 2012	$ 54,543,412,072	$ 2,135,092,973	$ 5,458,696,959	$ 20,364,247,019	$ 5,177,596,076
5. Contributions Received during fiscal year 2012-13	2,862,747,254	130,153,418	512,706,245	1,288,807,296	338,414,426
6. Benefit Payments in 2012-13	(4,568,785,870)	(134,136,781)	(345,815,242)	(1,459,811,281)	(426,539,157)
7. Refunds in 2012-13	(21,516,534)	(1,477,481)	(8,472,345)	(13,295,648)	(1,718,815)
8. Transfers In/Out in 2012-13	7,943,419	1,459,878	492,351	(39,121)	(64,255)
9. Investment Return	6,864,391,729	273,310,955	681,587,816	2,640,122,036	658,028,567
10. Market Value of Assets as of June 30, 2013 [(4) + (5) + (6) + (7) + (8) + (9)]	$ 59,688,192,070	$ 2,404,402,962	$ 6,299,195,784	$ 22,820,030,301	$ 5,745,716,842
11. Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2013	$ 340,835,204	$ 13,368,932	$ 27,755,108	$ 98,537,381	$ 14,535,236
12. Market Value of Assets as of June 30, 2013 Including Receivables for Tier 1 Conversion and Service Buybacks	$ 60,029,027,274	$ 2,417,771,894	$ 6,326,950,892	$ 22,918,567,682	$ 5,760,252,078

Development of the Actuarial Value of Assets

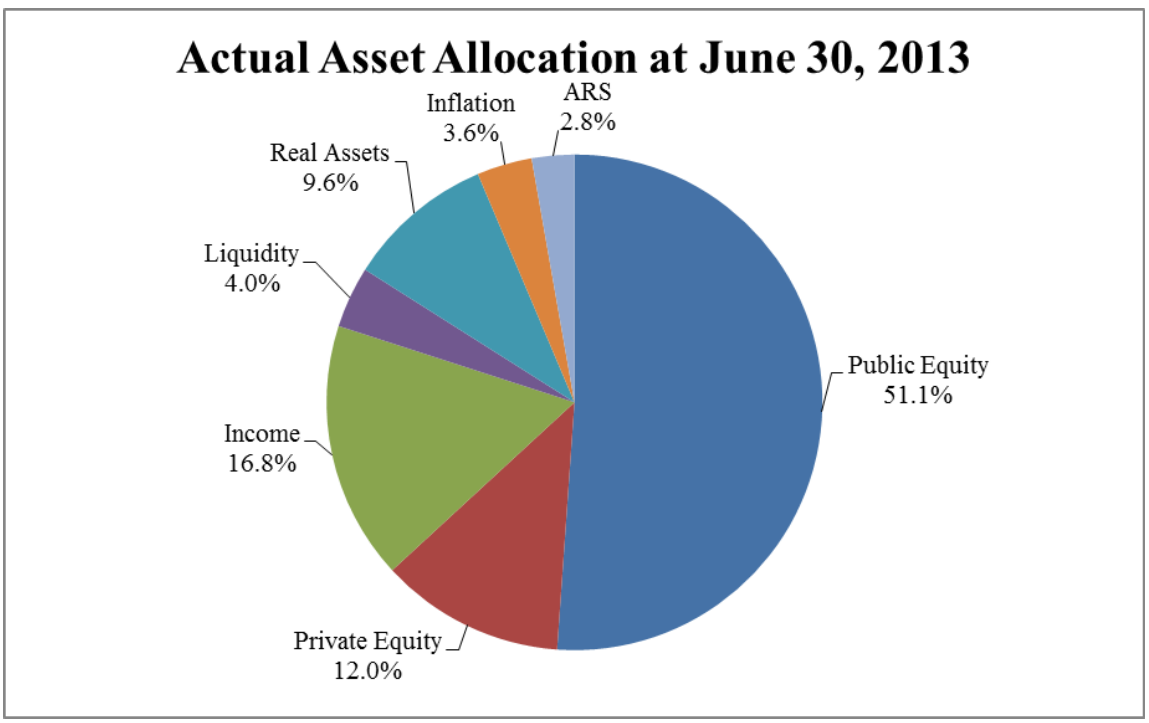
	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
1. Actuarial Value of Assets as of June 30, 2012 Used for Rate Setting Purposes	$ 66,326,302,699	$ 2,580,172,252	$ 6,443,460,833	$ 24,536,730,087	$ 6,258,398,798
2. Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2012	$ 596,024,835	$ 19,123,725	$ 13,229,298	$ 46,149,291	$ 12,333,869
3. Actuarial Value of Assets as of June 30, 2012 (Prior to adjustments for Receivables for Tier 1 Conversion and Service Buybacks) [(1)-(2)]	$ 65,730,277,864	$ 2,561,048,527	$ 6,430,231,535	$ 24,490,580,796	$ 6,246,064,929
4. Contributions Received during fiscal year 2012-13	2,862,747,254	130,153,418	512,706,245	1,288,807,296	338,414,426
5. Benefit Payments in 2012-13	(4,568,785,870)	(134,136,781)	(345,815,242)	(1,459,811,281)	(426,539,157)
6. Refunds in 2012-13	(21,516,534)	(1,477,481)	(8,472,345)	(13,295,648)	(1,718,815)
7. Transfers In/Out in 2012-13	7,943,419	1,459,878	492,351	(39,121)	(64,255)
8. Expected Investment Return during fiscal 2012-13 [(3) x 0.075 + [(4) + (5) + (6) + (7)] x ((1 + 0.075)^.5-1)]	4,866,451,180	191,931,316	488,118,797	1,830,005,826	465,144,279
9. Expected Actuarial Value of Assets as of June 30, 2013 (Prior to Adjustment for Receivables) [(3) + (4) + (5) + (6) + (7) + (8)]	$ 68,877,117,313	$ 2,748,978,877	$ 7,077,261,341	$ 26,136,247,868	$ 6,621,301,407
10 Market Value of Assets as of June 30, 2013 (Prior to Adjustment for Receivables for Tier 1 Conversion and Service Buybacks)	$ 59,688,192,070	$ 2,404,402,962	$ 6,299,195,784	$ 22,820,030,301	$ 5,745,716,842
11. Actuarial Value of Assets as of June 30, 2013 [(9) + [(10) - (9)]/15, but not less than 80% or more than 120% of (9)]	$ 68,264,522,297	$ 2,726,007,149	$ 7,025,390,304	$ 25,915,166,697	$ 6,562,929,103
12. Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2013	$ 340,835,204	$ 13,368,932	$ 27,755,108	$ 98,537,381	$ 14,535,236
13. Actuarial Value of Assets as of June 30, 2013 Used for Rate Setting Purposes Only [(11) + (12)], Including Receivables	$ 68,605,357,501	$ 2,739,376,081	$ 7,053,145,412	$ 26,013,704,078	$ 6,577,464,339

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. On February 19, 2014 the CalPERS Board of Administration adopted changes to the current asset allocation that will lower the expected volatility while maintaining the expected long term blended rate of return of 7.5 percent.

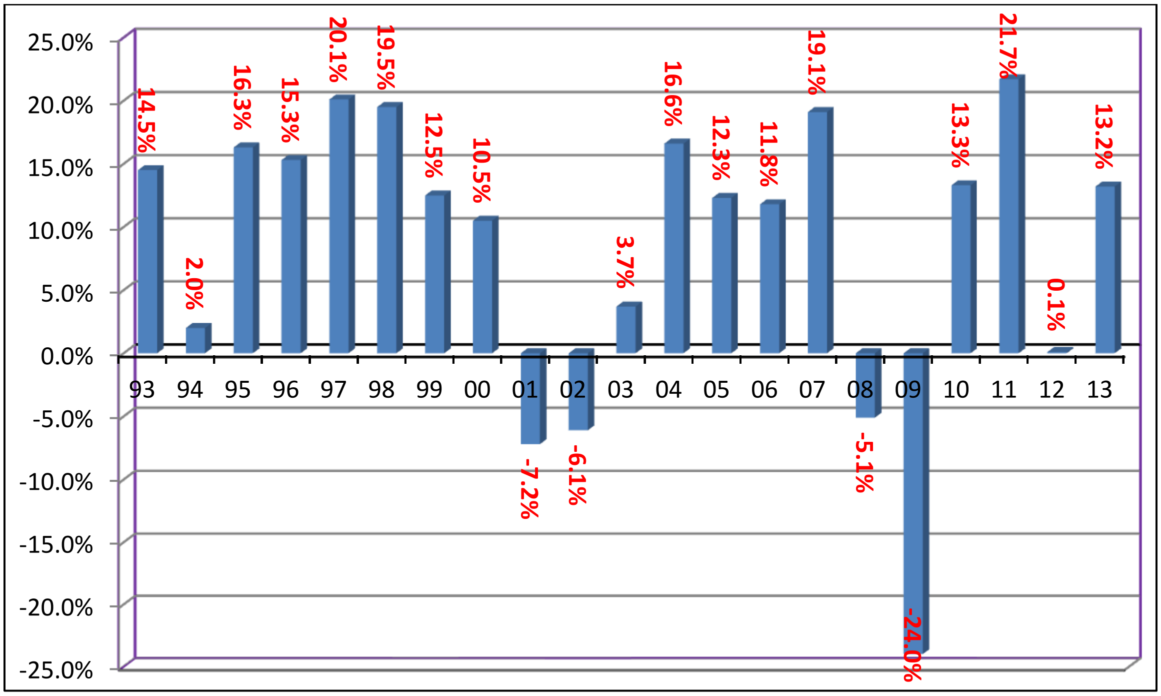
The asset allocation and market value of assets shown below reflect the values of the Public Employees Retirement Fund (PERF) in its entirety as of June 30, 2013. The assets of the State plans are part of the Public Employees Retirement Fund (PERF) and are invested accordingly.

(A) Asset Class	(B) Market Value ($ Billion)	(C) Policy Target Allocation
1) Gobal Equity	133.4	47.0%
2) Private Equity	31.4	12.0%
3) Global Fixed Income	43.9	19.0%
4) Liquidity	10.5	2.0%
5) Real Assets	25.2	14.0%
6) Inflation Sensitive Assets	9.4	6.0%
7) Absolute Return Strategy (ARS)	7.2	0.0%
Total Fund	**$261.0**	**100.0%**



CalPERS History of Investment Returns

The following is a chart with the 20-year historical annual returns of the Public Employees Retirement Fund for each fiscal year ending on June 30. Beginning in 2002, the figures are reported as gross of fees.



The table below shows historical geometric mean annual returns of the Public Employees Retirement Fund for each fiscal year ending on June 30, 2013, (figures are reported as gross of fees). The geometric mean rate of return is the average rate per period compounded over multiple periods. It should be recognized that in any given year the rate of return is volatile. Although the expected rate of return on the recently adopted new asset allocation is 7.5 percent the portfolio has an expected standard deviation of 11.76 percent per year. Consequently when looking at investment returns it is more instructive to look at returns over longer time horizons.

History of CalPERS Geometric Mean Rate of Return				
1 year	**5 year**	**10 year**	**20 year**	**30 year**
13.2%	3.5%	7.0%	7.6%	9.5%

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
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- 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, 2012	June 30, 2013
Members Included in the Valuation [1]		
Active Members Tier 1	149,384	146,735
Active Members Tier 2	6,948	6,099
Subtotal Active Members	156,332	152,834
Transfers from Tier 1	23,430	21,751
Transfers from Tier 2	11,424	10,390
Subtotal Transfers	34,854	32,141
Vested Terminations Tier 1	44,785	45,686
Vested Terminations Tier 2	1,562	1,594
Subtotal Vested Terminations [2]	46,347	47,280
Receiving Payments Tier 1	163,905	168,852
Receiving Payments Tier 2	5,043	5,592
Subtotal Receiving Payments	168,948	174,444
Subtotal Tier 1	381,504	383,024
Subtotal Tier 2	24,977	23,675
Grand Total	406,481	406,699
Average Entry Age of Active Members Tier 1	34.5	34.6
Average Entry Age of Active Members Tier 2	32.1	32.1
Average Age of Active Members Tier 1	48.1	48.4
Average Age of Active Members Tier 2	50.9	51.5
Average Pay Tier 1	$ 62,139	$ 62,043
Average Pay Tier 2	55,056	54,980
Average Pay Total	$ 61,824	$ 61,761
Covered Payroll Prior Fiscal Year		
Tier 1	$ 9,282,610,034	$ 9,103,860,682
Tier 2	382,527,908	335,320,684
Total	$ 9,665,137,942	$ 9,439,181,366
Projected Payroll for Contribution Rate		
Tier 1	$ 9,910,025,419	$ 9,713,792,285
Tier 2	343,719,424	300,235,226
Total	$ 10,253,744,843	$ 10,014,027,511

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, 2012	June 30, 2013
Present Value of Benefits	$ 94,581,622,979	$ 101,707,156,774
Accrued Liability	$ 83,523,526,246	$ 90,277,023,739
Market Value of Assets	$ 55,371,256,388	$ 60,029,027,274
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 28,152,269,858	$ 30,247,996,465
Funded Status	66.3%	66.5%

Employer Contribution

	June 30, 2012	June 30, 2013
Tier 1 Contribution Required in Dollars		
Total Normal Cost	$ 1,477,782,990	$ 1,536,236,250
Employee Contribution	676,161,034	645,384,359
Employer Normal Costs	801,621,956	890,851,890
Amortization of Unfunded Liability [3]	1,284,389,822	1,458,358,866
Group Term Life Benefits	7,036,118	1,359,931
Total	$ 2,093,047,896	$ 2,350,570,687
Tier 1 Contribution Required (Percent of Payroll)		
Total Normal Cost	14.912%	15.815%
Employee Contribution	6.823%	6.644%
Employer Normal Costs	8.089%	9.171%
Amortization of Unfunded Liability [3]	12.961%	15.013%
Group Term Life Benefits	0.071%	0.014%
Total	21.121%	24.198%

Tier 2 Contribution Required in Dollars		
Total Normal Cost	$ 32,515,858	$ 34,476,011
Employee Contribution	5,155,791	9,007,057
Employer Normal Costs	27,360,066	25,468,954
Amortization of Unfunded Liability [3]	44,547,790	45,075,156
Group Term Life Benefits	244,041	42,033
Total	$ 72,151,897	$ 70,586,143
Tier 2 Contribution Required (Percent of Payroll)		
Total Normal Cost	9.460%	11.483%
Employee Contribution	1.500%	3.000%
Employer Normal Costs	7.960%	8.483%
Amortization of Unfunded Liability [3]	12.961%	15.013%
Group Term Life Benefits	0.071%	0.014%
Total	20.992%	23.510%

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

STATE INDUSTRIAL

Participant Information

	June 30, 2012	June 30, 2013
Members Included in the Valuation [1]		
Active Members	10,838	9,855
Transfers from Industrial	7,573	8,017
Vested Terminations [2]	2,985	3,395
Receiving Payments	10,654	11,543
Total	32,050	32,810
Average Entry Age of Active Members	36.1	36.0
Average Age of Active Members	45.9	46.3
Average Pay	$ 50,296	$ 50,918
Covered Payroll Prior Fiscal Year	$ 545,112,340	$ 501,794,264
Projected Payroll for Contribution Rate	$ 578,309,682	$ 532,353,535

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, 2012	June 30, 2013
Present Value of Benefits	$ 3,801,133,984	$ 4,009,647,994
Accrued Liability	$ 2,968,403,342	$ 3,236,221,429
Market Value of Assets	$ 2,168,103,394	$ 2,417,771,894
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 800,299,948	$ 818,449,535
Funded Status	73.0%	74.7%

Employer Contribution

	June 30, 2012	June 30, 2013
Contribution Required in Dollars		
Total Normal Cost	$ 103,424,903	$ 97,846,580
Employee Contribution	43,714,429	40,304,486
Employer Normal Costs	59,710,475	57,542,094
Amortization of Unfunded Liability [3]	30,979,810	34,482,210
Group Term Life Benefits	0	0
Total	$ 90,690,285	$ 92,024,304
Contribution Required (Percent of Payroll)		
Total Normal Cost	17.884%	18.380%
Employee Contribution	7.559%	7.571%
Employer Normal Costs	10.325%	10.809%
Amortization of Unfunded Liability [3]	5.357%	6.477%
Group Term Life Benefits	0.000%	0.000%
Total	15.682%	17.286%

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

STATE SAFETY

Participant Information

	June 30, 2012	June 30, 2013
Members Included in the Valuation [1]		
Active Members	23,729	23,622
Transfers From State Safety	4,991	4,952
Vested Terminations [2]	5,351	5,211
Receiving Payments	19,295	20,534
Total	53,366	54,319
Average Entry Age of Active Members	39.7	39.4
Average Age of Active Members	47.6	47.7
Average Pay	$ 75,426	$ 75,055
Covered Payroll Prior Fiscal Year	$ 1,789,794,486	$ 1,772,958,002
Projected Payroll for Contribution Rate	$ 1,898,792,970	$ 1,880,931,144

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, 2012	June 30, 2013
Present Value of Benefits	$ 10,671,496,146	$ 11,716,262,319
Accrued Liability	$ 7,827,253,833	$ 8,833,760,689
Market Value of Assets	$ 5,524,386,200	$ 6,326,950,892
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 2,302,867,633	$ 2,506,809,797
Funded Status	70.6%	71.6%

Employer Contribution

	June 30, 2012	June 30, 2013
Contribution Required in Dollars		
Total Normal Cost	$ 419,272,476	$ 425,447,816
Employee Contribution	191,284,404	196,011,835
Employer Normal Costs	227,988,072	229,435,981
Amortization of Unfunded Liability [3]	98,690,845	110,944,965
Group Term Life Benefits	0	1,128,559
Total	$ 326,678,917	$ 341,509,505
Contribution Required (Percent of Payroll)		
Total Normal Cost	22.081%	22.619%
Employee Contribution	10.074%	10.421%
Employer Normal Costs	12.007%	12.198%
Amortization of Unfunded Liability [3]	5.198%	5.898%
Group Term Life Benefits	0.000%	0.060%
Total	17.205%	18.156%

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, 2012	June 30, 2013
Members Included in the Valuation [1]		
Active Members	41,250	38,975
Transfers from State POFF	5,237	5,705
Vested Terminations [2]	6,074	6,395
Receiving Payments	28,842	31,125
Total	81,403	82,200
Average Entry Age of Active Members	30.1	30.0
Average Age of Active Members	42.5	42.7
Average Pay	$ 71,560	$ 74,664
Covered Payroll Prior Fiscal Year	$ 2,951,833,630	$ 2,910,025,308
Projected Payroll for Contribution Rate	$ 3,131,600,298	$ 3,087,245,849

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, 2012	June 30, 2013
Present Value of Benefits	$ 38,007,241,496	$ 42,233,640,215
Accrued Liability	$ 31,335,588,660	$ 35,270,981,461
Market Value of Assets	$ 20,525,705,429	$ 22,918,567,682
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 10,809,883,231	$ 12,352,413,779
Funded Status	65.5%	65.0%

Employer Contribution

	June 30, 2012	June 30, 2013
Contribution Required in Dollars		
Total Normal Cost	$ 810,896,581	$ 867,546,956
Employee Contribution	325,843,011	347,376,903
Employer Normal Costs	485,053,570	520,170,053
Amortization of Unfunded Liability [3]	469,940,726	564,481,103
Group Term Life Benefits	0	1,451,006
Total	$ 954,994,296	$ 1,086,102,162
Contribution Required (Percent of Payroll)		
Total Normal Cost	25.894%	28.101%
Employee Contribution	10.405%	11.252%
Employer Normal Costs	15.489%	16.849%
Amortization of Unfunded Liability [3]	15.006%	18.284%
Group Term Life Benefits	0.000%	0.047%
Total	30.495%	35.180%

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, 2012	June 30, 2013
Members Included in the Valuation [1]		
Active Members	7,312	7,325
Transfers from CHP	295	290
Vested Terminations [2]	325	346
Receiving Payments	8,140	8,388
Total	16,072	16,349
Average Entry Age of Active Members	26.6	26.8
Average Age of Active Members	39.9	40.0
Average Pay	$ 99,626	$ 98,673
Covered Payroll Prior Fiscal Year	$ 728,467,347	$ 722,779,348
Projected Payroll for Contribution Rate	$ 772,831,008	$ 766,796,610

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, 2012	June 30, 2013
Present Value of Benefits	$ 10,359,988,007	$ 11,651,578,658
Accrued Liability	$ 8,659,143,106	$ 9,774,594,369
Market Value of Assets	$ 5,220,072,829	$ 5,760,252,078
Unfunded Liability/(Surplus) on a Market Value of Assets Basis	$ 3,439,070,277	$ 4,014,342,291
Funded Status	60.3%	58.9%

Employer Contribution

	June 30, 2012	June 30, 2013
Contribution Required in Dollars		
Total Normal Cost	$ 179,497,730	$ 204,220,941
Employee Contribution	79,841,171	79,125,742
Employer Normal Costs	99,656,559	125,095,199
Amortization of Unfunded Liability [3]	167,573,074	197,998,860
Group Term Life Benefits	293,676	299,051
Total	$ 267,523,309	$ 323,393,110
Contribution Required (Percent of Payroll)		
Total Normal Cost	23.226%	26.633%
Employee Contribution	10.331%	10.319%
Employer Normal Costs	12.895%	16.314%
Amortization of Unfunded Liability [3]	21.683%	25.822%
Group Term Life Benefits	0.038%	0.039%
Total	34.616%	42.175%

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
1. Present Value of Benefits					
a. Actives and Inactives	$ 48,771,268,717	$ 2,349,059,031	$ 7,006,483,990	$ 20,995,634,506	$ 5,571,106,973
b. Retired	52,935,888,057	1,660,588,963	4,709,778,329	21,238,005,709	6,080,471,685
c. Total	$ 101,707,156,774	$ 4,009,647,994	$ 11,716,262,319	$ 42,233,640,215	$ 11,651,578,658
2. Present Value of Future Employee Contributions	$ 4,904,010,839	$ 336,377,995	$ 1,405,168,174	$ 2,857,454,310	$ 728,806,236
3. Present Value of Future Employer Normal Costs	$ 6,526,122,196	$ 437,048,570	$ 1,477,333,456	$ 4,105,204,444	$ 1,148,178,053
4. Accrued Liability [(1c) - (2) - (3)]	$ 90,277,023,739	$ 3,236,221,429	$ 8,833,760,689	$ 35,270,981,461	$ 9,774,594,369
5. Market Value of Assets (MVA)	$ 60,029,027,274	$ 2,417,771,894	$ 6,326,950,892	$ 22,918,567,682	$ 5,760,252,078
6. Unfunded Liability/(Surplus) MVA Basis [(4) - (5)]	$ 30,247,996,465	$ 818,449,535	$ 2,506,809,797	$ 12,352,413,779	$ 4,014,342,291
7. Funded Status MVA Basis [(5)/(4)]	66.5%	74.7%	71.6%	65.0%	58.9%

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
Accrued Liability	$ 90,277,023,739	$ 3,236,221,429	$ 8,833,760,689	$ 35,270,981,461	$ 9,774,594,369
Actuarial Value of Assets (AVA)	$ 68,605,357,501	$ 2,739,376,081	$ 7,053,145,412	$ 26,013,704,078	$ 6,577,464,339
Unfunded Liability/(Surplus) AVA Basis	$ 21,671,666,238	$ 496,845,348	$ 1,780,615,277	$ 9,257,277,383	$ 3,197,130,030

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		State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
	Tier 1	Tier 2				
Employer Contribution Amount						
Normal Cost	890,851,890	25,468,954	57,542,094	229,435,981	520,170,053	125,095,199
Payment on the Unfunded Liability	1,458,358,866	45,075,156	34,482,210	110,944,965	564,481,103	197,998,860
Payment for Term Life Benefits (Sec. 21600-21605)	1,359,931	42,033	0	1,128,559	1,451,006	299,051
Total Employer Contribution Amount	$ 2,350,570,687	$ 70,586,143	$ 92,024,304	$ 341,509,505	$ 1,086,102,162	$ 323,393,110
Projected Payroll	$ 9,713,792,285	$ 300,235,226	$ 532,353,535	$ 1,880,931,144	$ 3,087,245,849	$ 766,796,610
Employer Contribution (as a percent of payroll)						
Normal Cost	9.171%	8.483%	10.809%	12.198%	16.849%	16.314%
Payment on the Unfunded Liability	15.013%	15.013%	6.477%	5.898%	18.284%	25.822%
Payment for Term Life Benefits (Sec. 21600-21605)	0.014%	0.014%	0.000%	0.060%	0.047%	0.039%
Total Employer Contribution Rate	24.198%	23.510%	17.286%	18.156%	35.180%	42.175%

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 2014-15. 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 6/30/2013	Expected Payment in 2013-14	Amount Remaining on 6/30/2014	Scheduled Payment for Fiscal Year 2014-15
Assumption Change	6/30/2013	20	$ 4,687,434,902	$ (64,686,360)	$ 5,106,060,765	$ 143,523,554
Assumption Change	6/30/2011	18	$ 1,760,519,322	$ 137,367,977	$ 1,750,132,121	$ 141,489,016
Assumption Change	6/30/2009	16	$ 2,127,284,618	$ 178,715,780	$ 2,101,534,500	$ 184,077,253
Reclass of BU 7 Members	6/30/2005	12	$ (87,922,922)	$ (8,948,408)	$ (85,239,234)	$ (9,216,860)
New Rate Stabilization Policies	6/30/2004	11	$ (183,074,350)	$ (19,795,704)	$ (176,280,303)	$ (20,389,576)
Actuarial Equivalent Reduction Benefits	6/30/2004	11	$ 253,937,008	$ 27,458,035	$ 244,513,187	$ 28,281,776
Benefit Change (SB 1801)	6/30/2003	10	$ (2,340,947)	$ (270,767)	$ (2,235,781)	$ (278,890)
Assumption Change	6/30/2003	10	$ 802,005,945	$ 92,764,538	$ 765,976,071	$ 95,547,474
(Gain)/Loss Prior to 2009	N/A	19	$ 10,662,507,626	$ 805,077,200	$ 10,627,473,891	$ 829,229,516
(Gain)/Loss in 2009	6/30/2009	26	$ 1,119,282,448	$ 70,938,136	$ 1,129,678,407	$ 73,066,280
(Gain)/Loss in 2010	6/30/2010	27	$ (43,130,235)	$ (2,681,847)	$ (43,584,404)	$ (2,762,302)
(Gain)/Loss in 2011	6/30/2011	28	$ 22,587,848	$ 1,379,532	$ 22,851,607	$ 1,420,918
(Gain)/Loss	N/A	30	$ 313,098,111	$ 32,552,429	$ 302,829,393	$ 18,185,065
Payment (Gain)/Loss	N/A	30	$ 239,476,864	$ (93,179,791)	$ 354,048,492	$ 21,260,799
Total			$ 21,671,666,238	$ 1,156,690,750	$ 22,097,758,711	$ 1,503,434,022

Schedule of Amortization Bases for the Retirement Program (Continued)

State Industrial

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2013	Expected Payment in 2013-14	Amount Remaining on 6/30/2014	Scheduled Payment for Fiscal Year 2014-15
Assumption Change	6/30/2013	20	$ 144,812,015	$ (2,093,235)	$ 157,843,228	$ 4,436,732
Assumption Change	6/30/2011	18	$ 64,643,892	$ 5,043,967	$ 64,262,488	$ 5,195,286
Assumption Change	6/30/2009	16	$ 70,440,227	$ 5,917,770	$ 69,587,569	$ 6,095,303
New Rate Stabilization Policies	6/30/2004	11	$ (6,284,870)	$ (679,579)	$ (6,051,633)	$ (699,966)
Actuarial Equivalent Reduction Benefits	6/30/2004	11	$ 11,415,629	$ 1,234,364	$ 10,991,985	$ 1,271,395
Assumption Change	6/30/2003	10	$ 85,910,268	$ 9,936,867	$ 82,050,775	$ 10,234,973
(Gain)/Loss in 2009	6/30/2009	26	$ 38,706,886	$ 2,453,174	$ 39,066,398	$ 2,526,769
(Gain)/Loss in 2010	6/30/2010	27	$ 5,269,744	$ 327,674	$ 5,325,235	$ 337,504
(Gain)/Loss in 2011	6/30/2011	28	$ (7,069,946)	$ (431,790)	$ (7,152,503)	$ (444,744)
(Gain)/Loss	N/A	30	$ 94,184,023	$ 7,488,577	$ 93,483,502	$ 5,613,734
Payment (Gain)/Loss	N/A	30	$ (5,182,520)	$ (4,011,782)	$ (1,411,705)	$ (84,774)
Total			$ 496,845,348	$ 25,186,008	$ 507,995,339	$ 34,482,210

State Safety

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2013	Expected Payment in 2013-14	Amount Remaining on 6/30/2014	Scheduled Payment for Fiscal Year 2014-15
Assumption Change	6/30/2013	20	$ 456,577,135	$ (8,984,642)	$ 500,135,895	$ 14,058,055
Assumption Change	6/30/2011	18	$ 177,315,208	$ 13,835,367	$ 176,269,035	$ 14,250,428
Assumption Change	6/30/2009	16	$ 272,347,337	$ 22,880,233	$ 269,050,657	$ 23,566,639
New Rate Stabilization Policies	6/30/2004	11	$ (7,090,716)	$ (766,714)	$ (6,827,574)	$ (789,716)
Assumption Change	6/30/2003	10	$ (3,115,112)	$ (360,311)	$ (2,975,167)	$ (371,121)
Benefit Change (Arnett)	6/30/2002	9	$ 95,810,543	$ 11,951,359	$ 90,604,901	$ 12,309,900
(Gain)/Loss in 2009	6/30/2009	26	$ 145,671,922	$ 9,232,428	$ 147,024,931	$ 9,509,401
(Gain)/Loss in 2010	6/30/2010	27	$ (108,450,101)	$ (6,743,449)	$ (109,592,102)	$ (6,945,753)
(Gain)/Loss in 2011	6/30/2011	28	$ (9,831,459)	$ (600,447)	$ (9,946,262)	$ (618,461)
(Gain)/Loss	N/A	30	$ 800,934,777	$ 51,637,635	$ 807,465,846	$ 48,488,750
Payment (Gain)/Loss	N/A	30	$ (39,554,257)	$ (646,292)	$ (41,850,737)	$ (2,513,159)
Total			$ 1,780,615,277	$ 91,435,167	$ 1,819,359,423	$ 110,944,965

Schedule of Amortization Bases for the Retirement Program (Continued)

State Peace Officers and Firefighters

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2013	Expected Payment in 2013-14	Amount Remaining on 6/30/2014	Scheduled Payment for Fiscal Year 2014-15
Assumption Change	6/30/2013	20	$ 2,117,583,407	$ (67,469,810)	$ 2,346,356,350	$ 65,952,486
Assumption Change	6/30/2011	18	$ 746,455,732	$ 58,243,674	$ 742,051,585	$ 59,990,984
Assumption Change	6/30/2009	16	$ 706,386,634	$ 59,344,404	$ 697,836,044	$ 61,124,736
Benefit Change (SB 65)	6/30/2006	13	$ 277,548,471	$ 26,742,066	$ 270,637,842	$ 27,544,328
New Rate Stabilization Policies	6/30/2004	11	$ (52,447,152)	$ (5,671,075)	$ (50,500,793)	$ (5,841,207)
Benefit Change (SB 183)	6/30/2004	11	$ 17,115,314	$ 1,850,667	$ 16,480,150	$ 1,906,187
Assumption Change	6/30/2003	10	$ 336,494,320	$ 38,920,834	$ 321,377,414	$ 40,088,459
(Gain)/Loss in 2009	6/30/2009	26	$ 362,901,928	$ 23,000,080	$ 366,272,582	$ 23,690,083
(Gain)/Loss in 2010	6/30/2010	27	$ 42,791,118	$ 2,660,760	$ 43,241,717	$ 2,740,583
(Gain)/Loss in 2011	6/30/2011	28	$ 287,110,561	$ 17,535,009	$ 290,463,169	$ 18,061,059
(Gain)/Loss	N/A	30	$ 4,411,089,833	$ 247,059,258	$ 4,485,765,080	$ 269,372,560
Payment (Gain)/Loss	N/A	30	$ 4,247,217	$ 6,799,248	$ (2,483,852)	$ (149,157)
Total			$ 9,257,277,383	$ 409,015,115	$ 9,527,497,289	$ 564,481,103

Schedule of Amortization Bases for the Retirement Program (Continued)

California Highway Patrol

Reason for Base	Date Established	Remaining Amortization Period		Balance on 6/30/2013		Expected Payment in 2013-14		Amount Remaining on 6/30/2014		Scheduled Payment for Fiscal Year 2014-15
Assumption Change	6/30/2013	20	$	752,188,074	$	(24,708,718)	$	834,220,724	$	23,448,668
Assumption Change	6/30/2011	18	$	193,556,540	$	15,102,629	$	192,414,541	$	15,555,708
Assumption Change	6/30/2009	16	$	172,685,458	$	14,507,516	$	170,595,155	$	14,942,742
Benefit Change (AB 2936)	6/30/2008	15	$	(206,171,340)	$	(18,058,925)	$	(202,910,299)	$	(18,600,693)
Benefit Change (SB 439)	6/30/2005	12	$	165,823,245	$	16,876,760	$	160,761,791	$	17,383,063
New Rate Stabilization Policies	6/30/2004	11	$	(17,885,302)	$	(1,933,926)	$	(17,221,562)	$	(1,991,943)
Assumption Change	6/30/2003	10	$	55,269,035	$	6,392,729	$	52,786,090	$	6,584,511
Benefit Change (SB 1801)	6/30/2003	10	$	8,756,191	$	1,012,791	$	8,362,821	$	1,043,174
Benefit Change (Arnett)	6/30/2002	9	$	1,780,205	$	222,062	$	1,683,482	$	228,724
Benefit Change (AB 2621)	6/30/2001	8	$	2,413,983	$	327,972	$	2,254,983	$	337,811
(Gain)/Loss Prior to 2009	N/A	24	$	1,541,532,975	$	101,886,752	$	1,551,509,515	$	104,943,355
(Gain)/Loss in 2009	6/30/2009	26	$	293,804,535	$	18,620,810	$	296,533,408	$	19,179,434
(Gain)/Loss in 2010	6/30/2010	27	$	97,311,440	$	6,050,845	$	98,336,148	$	6,232,371
(Gain)/Loss in 2011	6/30/2011	28	$	(42,804,898)	$	(2,614,269)	$	(43,304,734)	$	(2,692,697)
(Gain)/Loss	N/A	30	$	205,916,249	$	10,803,475	$	210,158,686	$	12,620,140
Payment (Gain)/Loss	N/A	30	$	(27,046,360)	$	(8,519,709)	$	(20,241,415)	$	(1,215,508)
Total			$	3,197,130,030	$	135,968,795	$	3,295,939,336	$	197,998,860

Gain and Loss Analysis

STATE MISCELLANEOUS

A.	**Total (Gain)/Loss for the Year**		
1.	Unfunded Liability/(Surplus) as of June 30, 2012	$	17,197,223,547
2.	Expected Payment on the Unfunded Liability during 2012-13		1,228,559,985
3.	Interest through June 30, 2013 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]		1,244,553,647
4.	Change in Unfunded Liability as of June 30, 2013 due to New Assumptions		4,687,434,902
5.	Expected Unfunded Liability as of June 30, 2013 after all changes [(A1)–(A2)+(A3)+(A4)]		21,900,652,111
6.	Actual Unfunded Liability as of June 30, 2013		21,671,666,238
7.	Total (Gain)/Loss for 2012-13 [(A6) – (A5)]	$	(228,985,873)
B.	**Contribution (Gain)/Loss for the Year**		
1.	Expected Contribution for 2012-13	$	2,674,703,223
2.	Actual Contribution for 2012-13		2,862,747,254
3.	Contribution (Gain)/Loss for 2012-13 [(B1) – (B2)]	$	(188,044,031)
C.	**Asset (Gain)/Loss for the Year**		
1.	Actuarial Value of Assets before receivables as of June 30, 2012	$	65,730,277,864
2.	Contributions Received during 2012-13		2,862,747,254
3.	Benefits and Refunds Paid during 2012-13		(4,590,302,404)
4.	Transfers In/Out during 2012-13		7,943,419
5.	Expected Interest for 2012-13 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3)+(C4))]		4,866,451,180
6.	Receivables for AER and Past Service Benefits		596,024,835
7.	Expected Actuarial Value of Assets as of June 30, 2013 [(C1) + (C2) + (C3) + (C4) + (C5)+(C6)]	$	69,473,142,148
8.	Actual Actuarial Value of Assets as of June 30, 2013		68,605,357,501
9.	Asset (Gain)/Loss for 2012-13 [(C7) – (C8)]	$	$867,784,647
D.	**Liability (Gain)/Loss for the Year**		
1.	Total (Gain)/Loss for 2012-13 (A7)	$	(228,985,873)
2.	Contribution (Gain)/Loss for 2012-13 (B3)		(188,044,031)
3.	Asset (Gain)/Loss for 2012-13 (C9)		867,784,647
4.	Liability (Gain)/Loss for 2012-13 [(D1) – (D2) – (D3)]	$	(908,726,489)
E.	**Development of the (Gain)/Loss Balance as of June 30, 2013**		
1.	(Gain)/Loss Balance as of June 30, 2012	$	504,264,172
2.	Payment Made on the Balance during 2012-13		0
3.	Interest through 6/30/13 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]		37,819,813
4.	Scheduled (Gain)/Loss Balance as of June 30, 2013 [(E1) – (E2) + (E3)]	$	542,083,985
5.	(Gain)/Loss for 2012-13 [(A7) above]		(228,985,873)
6.	Final (Gain)/Loss Balance as of June 30, 2013 [(E4) + (E5)]	$	313,098,112

Gain and Loss Analysis (Continued)

STATE INDUSTRIAL

A. Total (Gain)/Loss for the Year			
1.	Unfunded Liability/(Surplus) as of June 30, 2012	$	388,231,090
2.	Expected Payment on the Unfunded Liability during 2012-13		33,558,805
3.	Interest through June 30, 2013 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]		27,881,627
4.	Change in Unfunded Liability as of June 30, 2013 due to New Assumptions		144,812,015
5.	Expected Unfunded Liability as of June 30, 2013 after all changes [(A1)–(A2)+(A3)+(A4)]		527,365,927
6.	Actual Unfunded Liability as of June 30, 2013		496,845,348
7.	Total (Gain)/Loss for 2012-13 [(A6) – (A5)]	$	(30,520,579)
B. Contribution (Gain)/Loss for the Year			
1.	Expected Contribution for 2012-13	$	129,294,324
2.	Actual Contribution for 2012-13		130,153,418
3.	Contribution (Gain)/Loss for 2012-13 [(B1) – (B2)]	$	(859,094)
C. Asset (Gain)/Loss for the Year			
1.	Actuarial Value of Assets before receivables as of June 30, 2012	$	2,561,048,527
2.	Contributions Received during 2012-13		130,153,418
3.	Benefits and Refunds Paid during 2012-13		(135,614,262)
4.	Transfers In/Out during 2012-13		1,459,878
5.	Expected Interest for 2012-13 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3)+(C4))]		191,931,316
6.	Receivables for AER and Past Service Benefits		19,123,725
7.	Expected Actuarial Value of Assets as of June 30, 2013 [(C1) + (C2) + (C3) + (C4) + (C5)+(C6)]	$	2,768,102,602
8.	Actual Actuarial Value of Assets as of June 30, 2013		2,739,376,081
9.	Asset (Gain)/Loss for 2012-13 [(C7) – (C8)]	$	28,726,521
D. Liability (Gain)/Loss for the Year			
1.	Total (Gain)/Loss for 2012-13 (A7)	$	(30,520,579)
2.	Contribution (Gain)/Loss for 2012-13 (B3)		(859,094)
3.	Asset (Gain)/Loss for 2012-13 (C9)		28,726,521
4.	Liability (Gain)/Loss for 2012-13 [(D1) – (D2) – (D3)]	$	(58,388,005)
E. Development of the (Gain)/Loss Balance as of June 30, 2013			
1.	(Gain)/Loss Balance as of June 30, 2012	$	124,082,572
2.	Payment Made on the Balance during 2012-13		8,375,750
3.	Interest through 6/30/13 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]		8,997,780
4.	Scheduled (Gain)/Loss Balance as of June 30, 2013 [(E1) – (E2) + (E3)]	$	124,704,602
5.	(Gain)/Loss for 2012-13 [(A7) above]		(30,520,579)
6.	Final (Gain)/Loss Balance as of June 30, 2013 [(E4) + (E5)]	$	94,184,023

Gain and Loss Analysis (Continued)

STATE SAFETY

A. Total (Gain)/Loss for the Year			
1.	Unfunded Liability/(Surplus) as of June 30, 2012	$	1,383,793,000
2.	Expected Payment on the Unfunded Liability during 2012-13		100,857,246
3.	Interest through June 30, 2013 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]		100,070,703
4.	Change in Unfunded Liability as of June 30, 2013 due to New Assumptions		456,577,135
5.	Expected Unfunded Liability as of June 30, 2013 after all changes [(A1)–(A2)+(A3)+(A4)]		1,839,583,592
6.	Actual Unfunded Liability as of June 30, 2013		1,780,615,277
7.	Total (Gain)/Loss for 2012-13 [(A6) – (A5)]	$	(58,968,315)
B. Contribution (Gain)/Loss for the Year			
1.	Expected Contribution for 2012-13	$	494,165,479
2.	Actual Contribution for 2012-13		512,706,245
3.	Contribution (Gain)/Loss for 2012-13 [(B1) – (B2)]	$	(18,540,766)
C. Asset (Gain)/Loss for the Year			
1.	Actuarial Value of Assets before receivables as of June 30, 2012	$	6,430,231,535
2.	Contributions Received during 2012-13		512,706,245
3.	Benefits and Refunds Paid during 2012-13		(354,287,587)
4.	Transfers In/Out during 2012-13		492,351
5.	Expected Interest for 2012-13 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3)+(C4))]		488,118,797
6.	Receivables for AER and Past Service Benefits		13,229,298
7.	Expected Actuarial Value of Assets as of June 30, 2013 [(C1) + (C2) + (C3) + (C4) + (C5)+(C6)]	$	7,090,490,639
8.	Actual Actuarial Value of Assets as of June 30, 2013		7,053,145,412
9.	Asset (Gain)/Loss for 2012-13 [(C7) – (C8)]	$	37,345,227
D. Liability (Gain)/Loss for the Year			
1.	Total (Gain)/Loss for 2012-13 (A7)	$	(58,968,315)
2.	Contribution (Gain)/Loss for 2012-13 (B3)		(18,540,766)
3.	Asset (Gain)/Loss for 2012-13 (C9)		37,345,227
4.	Liability (Gain)/Loss for 2012-13 [(D1) – (D2) – (D3)]	$	(77,772,776)
E. Development of the (Gain)/Loss Balance as of June 30, 2013			
1.	(Gain)/Loss Balance as of June 30, 2012	$	846,148,176
2.	Payment Made on the Balance during 2012-13		47,940,913
3.	Interest through 6/30/13 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]		61,695,830
4.	Scheduled (Gain)/Loss Balance as of June 30, 2013 [(E1) – (E2) + (E3)]	$	859,903,093
5.	(Gain)/Loss for 2012-13 [(A7) above]		(58,968,315)
6.	Final (Gain)/Loss Balance as of June 30, 2013 [(E4) + (E5)]	$	800,934,778

Gain and Loss Analysis (Continued)

STATE PEACE OFFICERS AND FIREFIGHTERS

A.	**Total (Gain)/Loss for the Year**		
1.	Unfunded Liability/(Surplus) as of June 30, 2012	$	6,798,858,573
2.	Expected Payment on the Unfunded Liability during 2012-13		449,430,249
3.	Interest through June 30, 2013 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]		493,365,442
4.	Change in Unfunded Liability as of June 30, 2013 due to New Assumptions		2,117,583,407
5.	Expected Unfunded Liability as of June 30, 2013 after all changes [(A1)–(A2)+(A3)+(A4)]		8,960,377,173
6.	Actual Unfunded Liability as of June 30, 2013		9,257,277,383
7.	Total (Gain)/Loss for 2012-13 [(A6) – (A5)]	$	296,900,210
B.	**Contribution (Gain)/Loss for the Year**		
1.	Expected Contribution for 2012-13	$	1,210,895,583
2.	Actual Contribution for 2012-13		1,288,807,296
3.	Contribution (Gain)/Loss for 2012-13 [(B1) – (B2)]	$	(77,911,713)
C.	**Asset (Gain)/Loss for the Year**		
1.	Actuarial Value of Assets before receivables as of June 30, 2012	$	24,490,580,796
2.	Contributions Received during 2012-13		1,288,807,296
3.	Benefits and Refunds Paid during 2012-13		(1,473,106,929)
4.	Transfers In/Out during 2012-13		(39,121)
5.	Expected Interest for 2012-13 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3)+(C4))]		1,830,005,826
6.	Receivables for AER and Past Service Benefits		46,149,291
7.	Expected Actuarial Value of Assets as of June 30, 2013 [(C1) + (C2) + (C3) + (C4) + (C5)+(C6)]	$	26,182,397,159
8.	Actual Actuarial Value of Assets as of June 30, 2013		26,013,704,078
9.	Asset (Gain)/Loss for 2012-13 [(C7) – (C8)]	$	168,693,081
D.	**Liability (Gain)/Loss for the Year**		
1.	Total (Gain)/Loss for 2012-13 (A7)	$	296,900,210
2.	Contribution (Gain)/Loss for 2012-13 (B3)		(77,911,713)
3.	Asset (Gain)/Loss for 2012-13 (C9)		168,693,081
4.	Liability (Gain)/Loss for 2012-13 [(D1) – (D2) – (D3)]	$	206,118,842
E.	**Development of the (Gain)/Loss Balance as of June 30, 2013**		
1.	(Gain)/Loss Balance as of June 30, 2012	$	4,071,670,291
2.	Payment Made on the Balance during 2012-13		253,520,780
3.	Interest through 6/30/13 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]		296,040,113
4.	Scheduled (Gain)/Loss Balance as of June 30, 2013 [(E1) – (E2) + (E3)]	$	4,114,189,624
5.	(Gain)/Loss for 2012-13 [(A7) above]		296,900,210
6.	Final (Gain)/Loss Balance as of June 30, 2013 [(E4) + (E5)]	$	4,411,089,834

Gain and Loss Analysis (Continued)

CALIFORNIA HIGHWAY PATROL

A. Total (Gain)/Loss for the Year			
1.	Unfunded Liability/(Surplus) as of June 30, 2012	$	2,400,744,308
2.	Expected Payment on the Unfunded Liability during 2012-13		156,119,367
3.	Interest through June 30, 2013 [0.075 x (A1) – ((1+ 0.075)½ – 1) x (A2)]		174,307,185
4.	Change in Unfunded Liability as of June 30, 2013 due to New Assumptions		752,188,074
5.	Expected Unfunded Liability as of June 30, 2013 after all changes [(A1)–(A2)+(A3)+(A4)]		3,171,120,200
6.	Actual Unfunded Liability as of June 30, 2013		3,197,130,030
7.	Total (Gain)/Loss for 2012-13 [(A6) – (A5)]	$	26,009,830
B. Contribution (Gain)/Loss for the Year			
1.	Expected Contribution for 2012-13	$	320,192,140
2.	Actual Contribution for 2012-13		338,414,426
3.	Contribution (Gain)/Loss for 2012-13 [(B1) – (B2)]	$	(18,222,286)
C. Asset (Gain)/Loss for the Year			
1.	Actuarial Value of Assets before receivables as of June 30, 2012	$	6,246,064,929
2.	Contributions Received during 2012-13		338,414,426
3.	Benefits and Refunds Paid during 2012-13		(428,257,972)
4.	Transfers In/Out during 2012-13		(64,255)
5.	Expected Interest for 2012-13 [0.075 x (C1) + ((1+0.075)½ – 1) x ((C2) + (C3)+(C4))]		465,144,279
6.	Receivables for AER and Past Service Benefits		12,333,869
7.	Expected Actuarial Value of Assets as of June 30, 2013 [(C1) + (C2) + (C3) + (C4) + (C5)+(C6)]	$	6,633,635,276
8.	Actual Actuarial Value of Assets as of June 30, 2013		6,577,464,339
9.	Asset (Gain)/Loss for 2012-13 [(C7) – (C8)]	$	56,170,937
D. Liability (Gain)/Loss for the Year			
1.	Total (Gain)/Loss for 2012-13 (A7)	$	26,009,830
2.	Contribution (Gain)/Loss for 2012-13 (B3)		(18,222,286)
3.	Asset (Gain)/Loss for 2012-13 (C9)		56,170,937
4.	Liability (Gain)/Loss for 2012-13 [(D1) – (D2) – (D3)]	$	(11,938,821)
E. Development of the (Gain)/Loss Balance as of June 30, 2013			
1.	(Gain)/Loss Balance as of June 30, 2012	$	167,354,810
2.	Payment Made on the Balance during 2012-13		0
3.	Interest through 6/30/13 [0.075 x (E1) – ((1+ 0.075)½ – 1) x (E2)]		12,551,611
4.	Scheduled (Gain)/Loss Balance as of June 30, 2013 [(E1) – (E2) + (E3)]	$	179,906,421
5.	(Gain)/Loss for 2012-13 [(A7) above]		26,009,830
6.	Final (Gain)/Loss Balance as of June 30, 2013 [(E4) + (E5)]	$	205,916,251

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, 2012	$ 3,943,413	$ 1,357,546	$ 4,125,424	$ 3,053,070	$ 237,170
2. Contributions Received for GTLI During Fiscal Year 2012-13	7,245,954	17,360	443,121	753,354	184,526
3. Benefits Paid for GTLI During Fiscal Year 2012-13	(2,602,075)	(107,073)	(1,043,559)	(1,026,585)	(262,596)
4. Investment Return During Fiscal Year 2012-13	(2,288,166)	154,695	(2,536,363)	(1,695,961)	36,365
5. GTLI Market Value of Assets as of June 30, 2013	$ 6,299,126	$ 1,422,528	$ 988,623	$ 1,083,878	$ 195,465
6. Plan's Actuarial Value of Assets As a Percentage of Market Value of Assets	114.369%	113.376%	111.528%	113.563%	114.223%
7. GTLI Actuarial Value of Assets as of June 30, 2013	$ 7,204,247	$ 1,612,805	$ 1,102,591	$ 1,230,884	$ 223,266
8. Expected GTLI Benefit Payments for Fiscal Year 2013-14	$ 5,682,573	$ 322,870	$ 1,440,535	$ 1,750,929	$ 342,643
9. Closed Group Projected Payroll for Fiscal Year 2013-14	$ 9,461,046,768	$ 510,022,136	$ 1,774,594,896	$ 2,964,323,805	$ 738,951,938
10. Required GTLI Contribution Rate [(1.5 x (8) - 7, but not less than zero) / (9)]	0.014%	0.000%	0.060%	0.047%	0.039%
11. Projected Payroll for Contributions	$ 10,014,027,511	$ 532,353,535	$ 1,880,931,144	$ 3,087,245,849	$ 766,796,610
12. Required GTLI Contribution for Fiscal Year 2014-15* [(10) x (11)]	$ 1,401,964	$ 0	$ 1,128,559	$ 1,451,006	$ 299,051

* 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 2013-14 to 2014-15 for the Retirement Program

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2013-14 Normal Cost Rate	8.089%	7.960%	10.325%	12.007%	15.489%	12.895%
Effect of Change in Assumptions	0.671%	0.497%	0.405%	0.492%	2.251%	3.319%
Effect of Change in Employee Contribution Rate	0.000%	-0.364%	-0.084%	-0.482%	-0.822%	0.000%
Effect of (Gain)/Loss	0.411%	0.390%	0.163%	0.181%	-0.069%	0.100%
2014-15 Normal Cost Rate	9.171%	8.483%	10.809%	12.198%	16.849%	16.314%

Change in Unfunded Liability Amortization Rate from 2013-14 to 2014-15 for the Retirement Program

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2013-14 Rate to Amortize the Unfunded Liability	12.961%	12.961%	5.357%	5.198%	15.006%	21.683%
Effect of Change in Assumptions	1.433%	1.433%	0.833%	0.747%	2.136%	3.058%
Effect of (Gain)/Loss	0.619%	0.619%	0.287%	-0.047%	1.142%	1.081%
2014-15 Rate to Amortize the Unfunded Liability	15.013%	15.013%	6.477%	5.898%	18.284%	25.822%

Reconciliation of Employer Contribution Rates (Continued)

Change in Group Term Life Rate from 2013-14 to 2014-15

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2013-14 Group Term Life Rate	0.071%	0.071%	0.000%	0.000%	0.000%	0.038%
Effect of Change in Assumptions	-0.028%	-0.028%	0.000%	-0.036%	-0.014%	-0.009%
Effect of (Gain)/Loss	-0.029%	-0.029%	0.000%	0.096%	0.061%	0.010%
2014-15 Group Term Life Rate	0.014%	0.014%	0.000%	0.060%	0.047%	0.039%

Change in Total Rate from 2013-14 to 2014-15

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2013-14 Employer Rates	21.121%	20.992%	15.682%	17.205%	30.495%	34.616%
Effect of Change in Employee Contribution Rate	0.000%	-0.364%	-0.084%	-0.482%	-0.822%	0.000%
Effect of Change in Assumptions	2.076%	1.902%	1.238%	1.203%	4.373%	6.368%
Effect of (Gain)/Loss	1.001%	0.980%	0.450%	0.230%	1.134%	1.191%
2014-15 Employer Rates	24.198%	23.510%	17.286%	18.156%	35.180%	42.175%

Reconciliation of Employer Contributions

Change in Normal Cost Contribution from 2013-14 to 2014-15 for the Retirement Program

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2013-14 Normal Cost Contribution	$801,621,956	$27,360,066	$59,710,475	$227,988,072	$485,053,570	$99,656,559
Effect of Change in Payroll	(15,873,298)	(3,461,342)	(4,744,972)	(2,144,669)	(6,870,061)	(778,136)
Effect of Change in Assumptions	65,179,546	1,492,169	2,156,032	9,254,181	69,493,904	25,449,979
Effect of Change in Employee Contribution Rate	0	(1,092,856)	(447,177)	(9,066,088)	(25,377,161)	0
Effect of (Gain)/Loss	39,923,686	1,170,917	867,736	3,404,485	(2,130,199)	766,797
2014-15 Normal Cost Contribution	$890,851,890	$25,468,954	$57,542,094	$229,435,981	$520,170,053	$125,095,199

Change in Unfunded Liability Amortization Contribution from 2013-14 to 2014-15 for the Retirement Program

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
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
Effect of Progression of Amortization of Prior Unfunded Liability	42,561,155	(3,503,173)	805,500	2,110,372	9,829,154	4,868,742
Effect of Change in Assumption	139,250,611	4,272,943	4,436,731	14,058,055	65,952,486	23,448,668
Effect of (Gain)/Loss	(7,842,722)	(242,404)	(1,739,831)	(3,914,307)	18,758,737	2,108,376
2014-15 Amortization of the Unfunded Liability	$1,458,358,866	$45,075,156	$34,482,210	$110,944,965	$564,481,103	$197,998,860

Reconciliation of Employer Contributions (Continued)

Change in Group Term Life Contribution from 2013-14 to 2014-15

	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2013-14 Group Term Life Contribution	$7,036,118	$244,041	$0	$0	$0	$293,676
Effect of Change in Payroll	(139,326)	(30,874)	0	0	0	(2,293)
Effect of Change in Assumption	(2,719,769)	(84,159)	0	(677,135)	(432,214)	(69,011)
Effect of (Gain)/Loss	(2,817,092)	(86,975)	0	1,805,694	1,883,220	76,679
2014-15 Group Term Life Contribution	$1,359,931	$42,033	$0	$1,128,559	$1,451,006	$299,051

Change in Total Contribution from 2013-14 to 2014-15

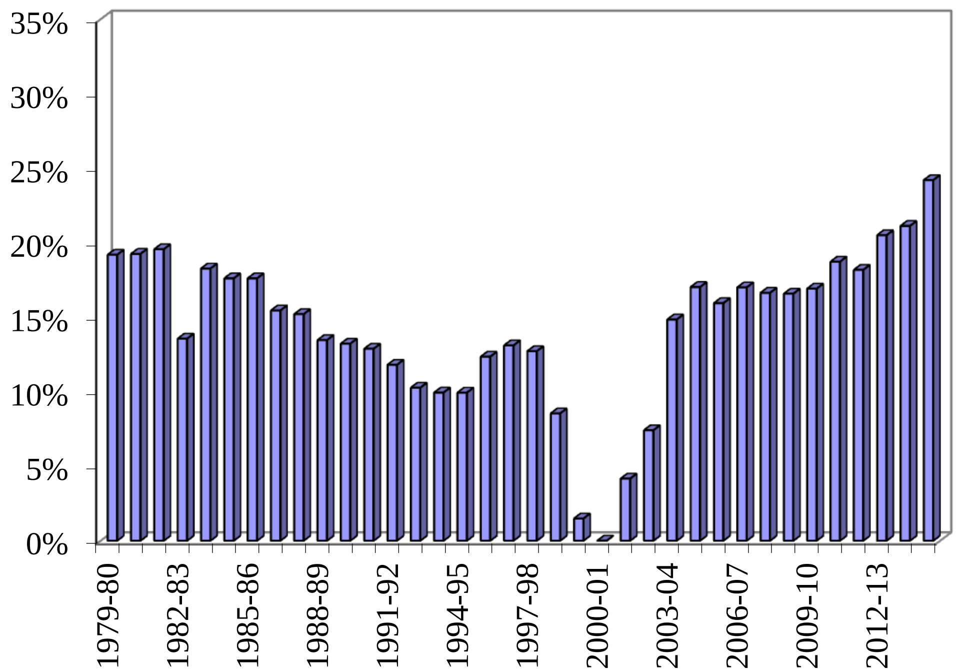
	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2013-14 Employer Contribution	$2,093,047,896	$72,151,897	$90,690,285	$326,678,917	$954,994,296	$267,523,309
Effect of Change in Payroll and Progression of Amortization of Prior Unfunded Liability	26,548,531	(6,995,389)	(3,939,472)	(34,297)	2,959,093	4,088,313
Effect of Change in Assumption	201,710,388	5,680,953	6,592,763	22,635,101	135,014,176	48,829,636
Effect of Change in Employee Contribution Rate	0	(1,092,856)	(447,177)	(9,066,088)	(25,377,161)	0
Effect of (Gain)/Loss	29,263,872	841,538	(872,095)	1,295,872	18,511,758	2,951,852
2014-15 Employer Contribution	$2,350,570,687	$70,586,143	$92,024,304	$341,509,505	$1,086,102,162	$323,393,110

Employer Contribution Rate History

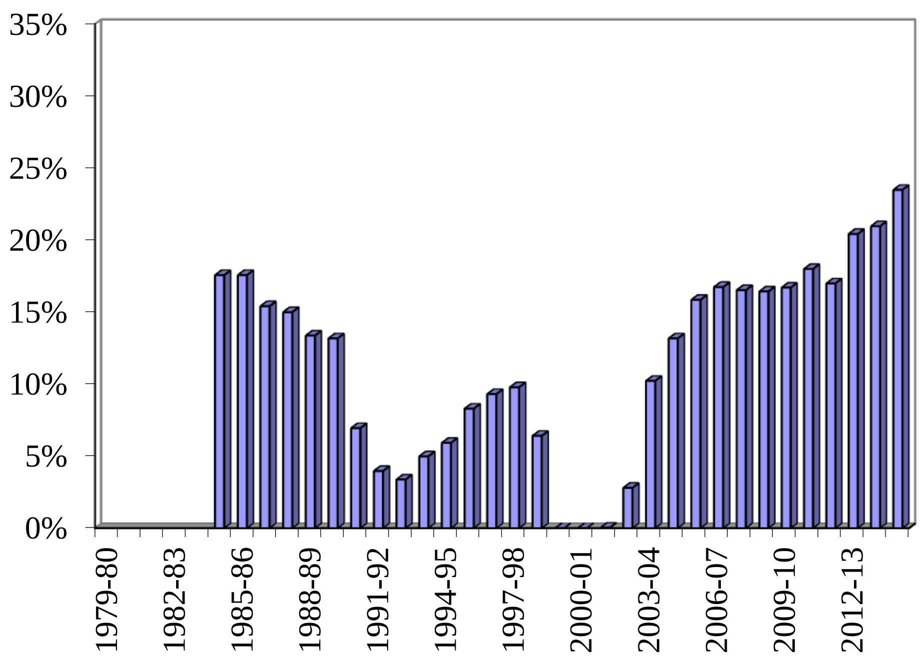
The table below provides a history of the contribution rates for the various State plans. In cases where the contribution rate changed during the course of a fiscal year, the entry shown is the weighted average of the rates effective during the fiscal year.

Fiscal Year	State Miscellaneous Tier 1	State Miscellaneous Tier 2	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
1979-80	19.188%		20.040%	20.106%		31.373%
1980-81	19.247%		20.047%	20.145%		31.440%
1981-82	19.563%		20.263%	20.409%		31.995%
1982-83	13.559%		15.013%	16.381%		19.555%
1983-84	18.262%		18.884%	20.615%		24.306%
1984-85	17.604%	17.604%	19.976%	20.518%		25.292%
1985-86	17.604%	17.604%	19.749%	20.518%	24.310%	24.868%
1986-87	15.450%	15.450%	16.638%	22.522%	20.578%	22.150%
1987-88	15.202%	15.038%	15.332%	19.229%	17.171%	20.859%
1988-89	13.464%	13.413%	16.626%	17.296%	16.431%	18.453%
1989-90	13.224%	13.218%	16.783%	17.424%	16.200%	18.318%
1990-91	12.878%	6.975%	16.720%	17.916%	15.702%	18.090%
1991-92	11.804%	3.986%	13.399%	17.376%	17.386%	21.721%
1992-93	10.266%	3.391%	11.995%	15.698%	15.560%	17.074%
1993-94	9.939%	5.005%	11.765%	15.485%	15.202%	16.940%
1994-95	9.934%	5.947%	10.597%	13.927%	12.817%	15.552%
1995-96	12.350%	8.326%	8.981%	14.228%	14.350%	14.778%
1996-97	13.106%	9.345%	9.260%	14.656%	15.401%	15.851%
1997-98	12.721%	9.822%	9.048%	13.754%	15.270%	15.515%
1998-99	8.541%	6.437%	4.583%	9.440%	9.591%	13.541%
1999-00	1.491%	0.000%	0.026%	7.487%	0.000%	13.345%
2000-01	0.000%	0.000%	0.026%	6.808%	2.729%	13.711%
2001-02	4.166%	0.036%	0.350%	12.923%	9.638%	16.897%
2002-03	7.413%	2.813%	2.858%	17.055%	13.925%	23.076%
2003-04	14.843%	10.265%	11.099%	21.930%	20.325%	32.653%
2004-05	17.022%	13.216%	16.386%	20.773%	23.841%	33.434%
2005-06	15.942%	15.890%	17.147%	19.026%	23.563%	26.396%
2006-07	16.997%	16.778%	17.861%	19.294%	24.505%	31.463%
2007-08	16.633%	16.565%	17.345%	18.835%	25.552%	32.212%
2008-09	16.574%	16.470%	17.236%	18.411%	26.064%	32.149%
2009-10	16.917%	16.737%	17.251%	18.099%	25.848%	28.438%
2010-11	18.725%	18.032%	16.433%	18.187%	28.722%	31.291%
2011-12	18.175%	17.025%	14.934%	16.428%	27.415%	31.264%
2012-13	20.503%	20.457%	16.302%	17.503%	30.297%	33.728%
2013-14	21.121%	20.992%	15.682%	17.205%	30.495%	34.616%
2014-15	24.198%	23.510%	17.286%	18.156%	35.180%	42.175%

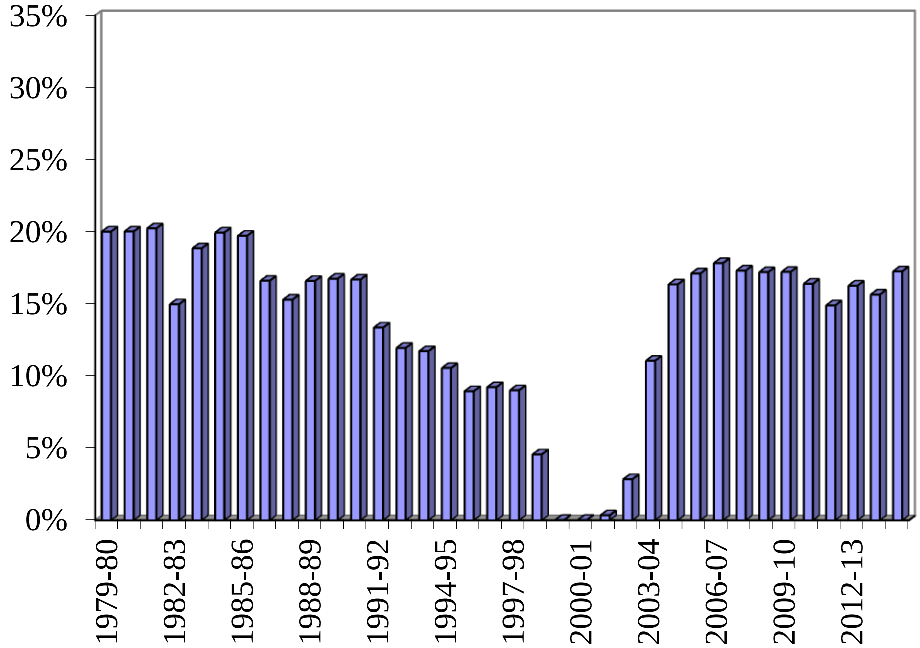
State Miscellaneous Tier 1 Rates



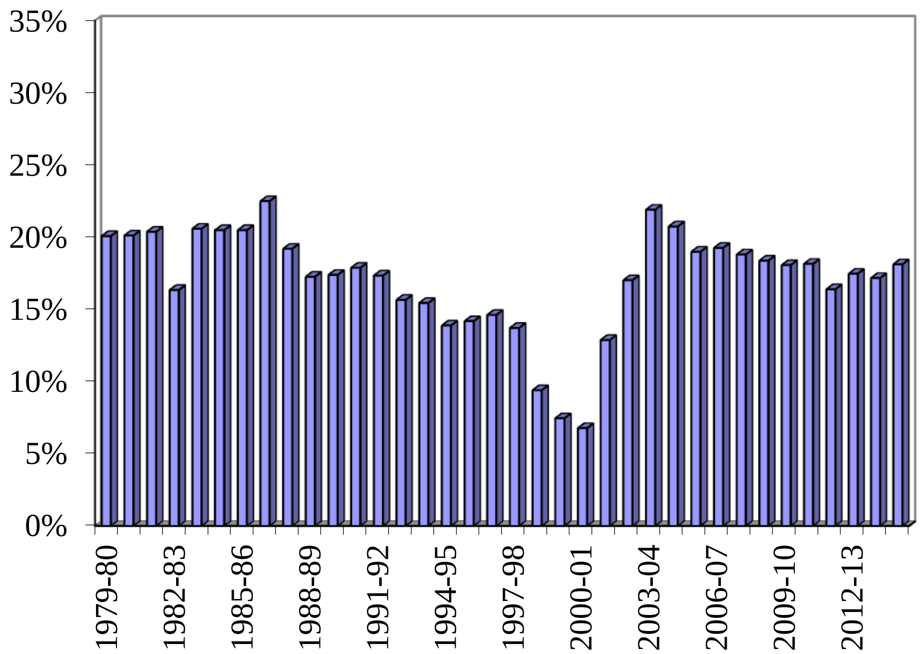
State Miscellaneous Tier 2 Rates



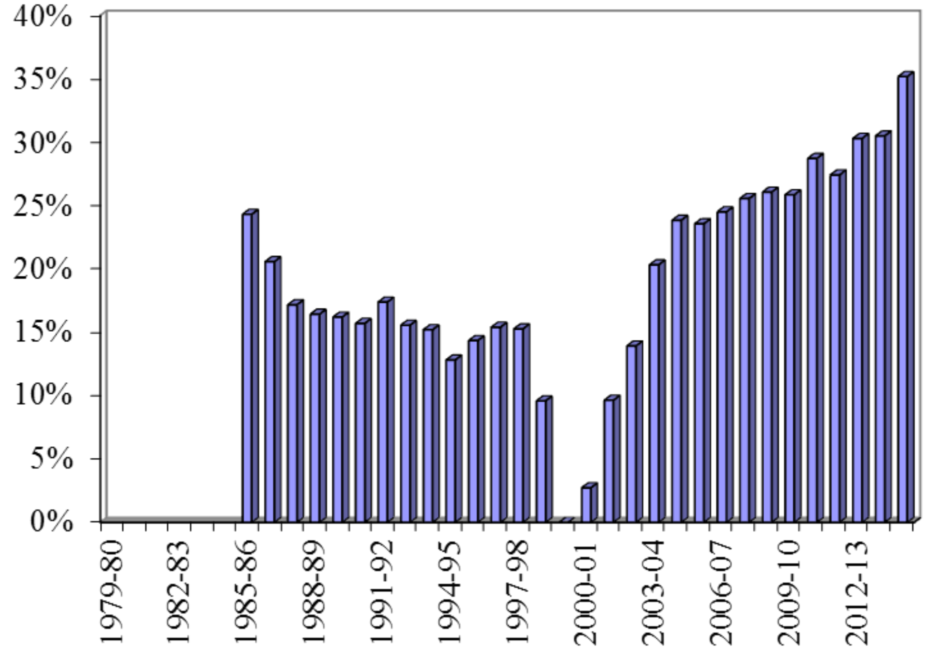
State Industrial Rates



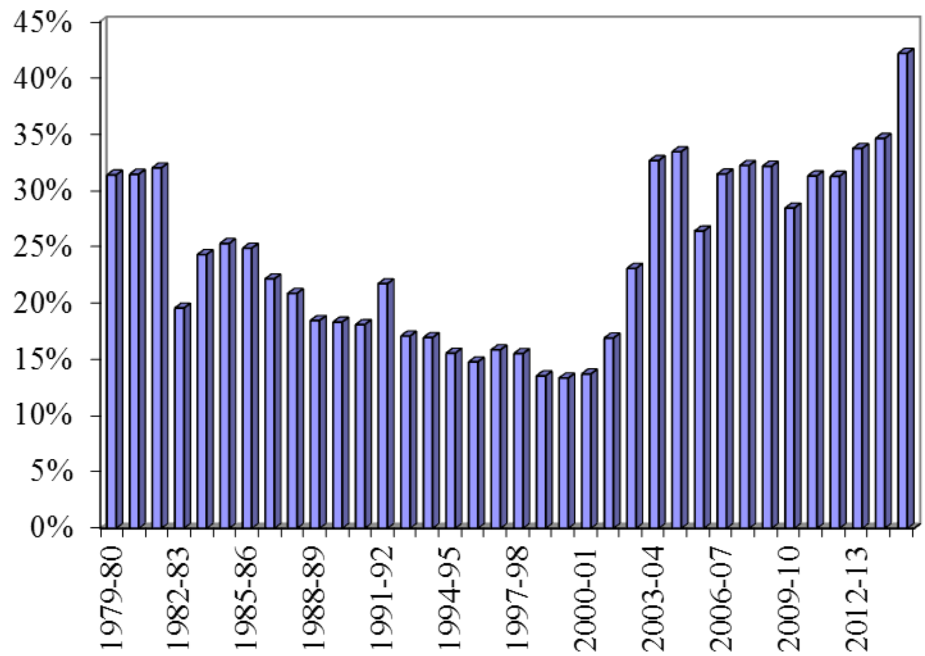
State Safety Rates



State Peace Officers and Firefighters Rates



California Highway Patrol Rates



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%
6/30/13	90,277.02	60,029.03	66.5%	30,248.00	10,014.03	302.1%

History of Funded Status and Funding Progress (Continued)

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%
6/30/13	3,236.22	2,417.77	74.7%	818.45	532.35	153.7%

History of Funded Status and Funding Progress (Continued)

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%
6/30/13	8,833.76	6,326.95	71.6%	2,506.81	1,880.93	133.3%

History of Funded Status and Funding Progress (Continued)

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%
6/30/13	35,270.98	22,918.57	65.0%	12,352.41	3,087.25	400.1%

History of Funded Status and Funding Progress (Continued)

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%
6/30/13	9,774.59	5,760.25	58.9%	4,014.34	766.80	523.5%

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. 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, a measure of the plan's current rate volatility. 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	59,688,192,070	9,439,181,366	6.3	90,277,023,739	9.6
State Industrial	2,404,402,962	501,794,264	4.8	3,236,221,429	6.4
State Safety	6,299,195,784	1,772,958,002	3.6	8,833,760,689	5.0
POFF	22,820,030,301	2,910,025,308	7.8	35,270,981,461	12.1
CHP	5,745,716,842	722,779,348	7.9	9,774,594,369	13.5

The above analysis shows that the CHP, POFF and Miscellaneous plans are expected to have more volatile contributions than the 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 35 percent to 70 percent greater if the plans were 100 percent 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 18 percent for fiscal year 2013-14 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 methods. These projections take into account the positive impact PEPRA is expected to gradually have on the normal cost.

	New Rate	Projected Future Employer Contribution Rates					
Plan	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
State Miscellaneous Tier 1	24.198%	25.9%	27.6%	27.8%	28.1%	28.3%	28.2%
State Miscellaneous Tier 2	23.510%	25.2%	27.1%	27.5%	27.9%	28.4%	28.4%
State Industrial	17.286%	18.1%	19.0%	19.0%	19.1%	19.1%	18.9%
State Safety	18.156%	18.6%	19.0%	18.7%	18.4%	18.1%	17.8%
POFF	35.180%	37.5%	39.8%	39.9%	40.1%	40.2%	39.9%
CHP	42.175%	45.6%	49.0%	49.3%	49.7%	50.0%	49.8%

Analysis of Future Investment Return Scenarios

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2014-15, 2015-16 and 2016-17 on the 2016-17, 2017-18 and 2018-19 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, 2014 through June 30, 2017. The 5th percentile return corresponds to a -3.8 percent return for each of the 2014-15, 2015-16 and 2016-17 fiscal years.

- The second scenario is what one would expect if the markets were to give us a 25th percentile return from July 1, 2014 through June 30, 2017. The 25th percentile return corresponds to a 2.8 percent return for each of the 2014-15, 2015-16 and 2016-17 fiscal years.

- The third scenario assumed the return for 2014-15, 2015-16 and 2016-17 would be our assumed 7.5 percent 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, 2014 through June 30, 2017. The 75th percentile return corresponds to a 12.0 percent return for each of the 2014-15, 2015-16 and 2016-17 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, 2014 through June 30, 2017. The 95th percentile return corresponds to a 18.9 percent return for each of the 2014-15, 2015-16 and 2016-17 fiscal years.

The tables below show the projected contribution rates for 2016-17 through 2018-19 for the various State Plans under the five different scenarios.

Estimated: 2016-17 Rates as a % of Payroll

	Investment Scenario				
	1st Scenario	2nd Scenario	3rd Scenario	4th Scenario	5th Scenario
Plan	**-3.8%**	**2.8%**	**7.50%**	**12.0%**	**18.9%**
State Miscellaneous Tier 1	28.6%	28.0%	27.6%	27.1%	26.5%
State Miscellaneous Tier 2	28.2%	27.5%	27.1%	26.6%	26.0%
State Industrial	19.8%	19.4%	19.0%	18.7%	18.1%
State Safety	19.6%	19.3%	19.0%	18.7%	18.3%
POFF	41.1%	40.3%	39.8%	39.2%	38.4%
CHP	50.4%	49.6%	49.0%	48.4%	47.6%

Estimated: 2017-18 Rates as a % of Payroll

	Investment Scenario				
	1st Scenario	2nd Scenario	3rd Scenario	4th Scenario	5th Scenario
Plan	**-3.8%**	**2.8%**	**7.50%**	**12.0%**	**18.9%**
State Miscellaneous Tier 1	30.9%	29.1%	27.8%	26.5%	24.4%
State Miscellaneous Tier 2	30.6%	28.8%	27.5%	26.2%	24.1%
State Industrial	21.5%	20.1%	19.0%	18.0%	16.3%
State Safety	20.6%	19.5%	18.7%	17.9%	16.6%
POFF	44.0%	41.6%	39.9%	38.2%	35.5%
CHP	53.4%	51.1%	49.3%	47.6%	44.9%

Estimated: 2018-19 Rates as a % of Payroll

	Investment Scenario				
	1st Scenario	2nd Scenario	3rd Scenario	4th Scenario	5th Scenario
Plan	**-3.8%**	**2.8%**	**7.50%**	**12.0%**	**18.9%**
State Miscellaneous Tier 1	34.1%	30.7%	28.1%	25.4%	21.0%
State Miscellaneous Tier 2	34.0%	30.6%	27.9%	25.3%	20.9%
State Industrial	23.9%	21.2%	19.1%	16.9%	13.4%
State Safety	22.1%	20.0%	18.4%	16.7%	14.0%
POFF	47.9%	43.5%	40.1%	36.6%	30.9%
CHP	57.6%	53.1%	49.7%	46.2%	40.5%

Analysis of Discount Rate Sensitivity & Government Code Section 20229

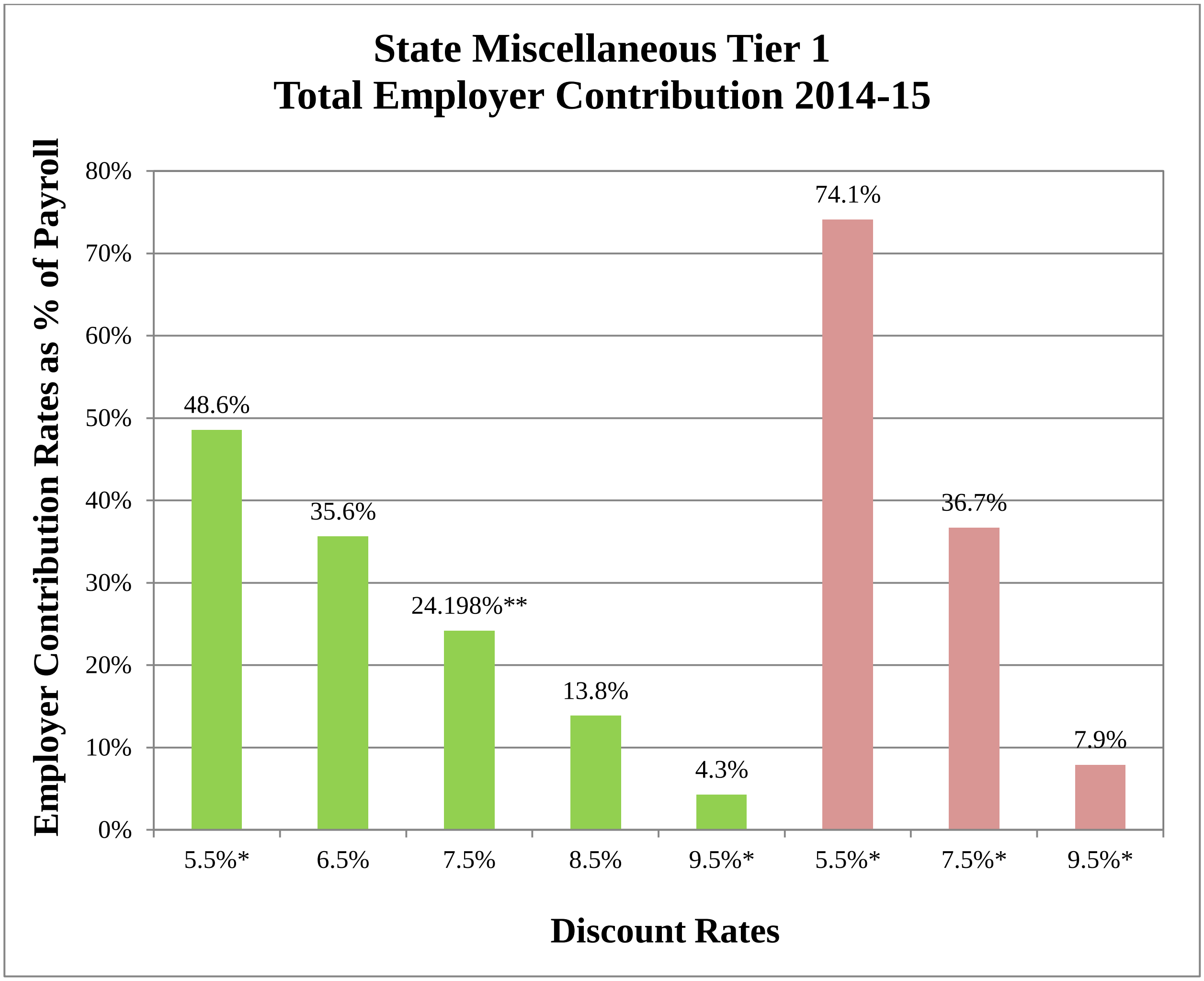
The discount rate reflects expectations of what the markets will deliver in the future and it is calculated based on two components: expected price inflation and real rate of return. A change in either of those components over the long term would necessitate further evaluation of the discount rate.

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.

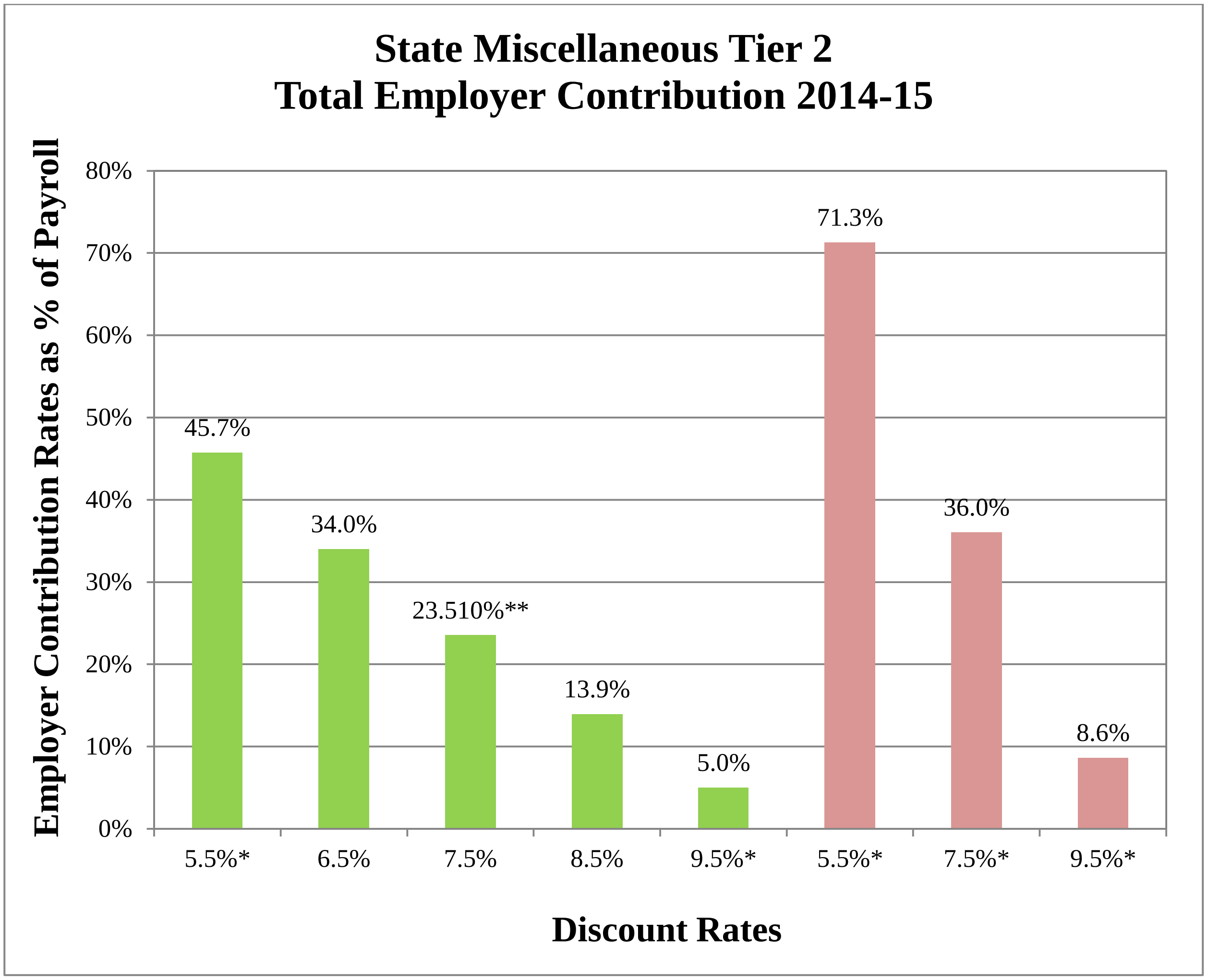
The first section shows the impact on employer contribution rates assuming discount rates that are 1 percentage point above and 1 percentage point below the current valuation discount rate and under current unfunded liability amortization methods. This analysis gives an indication of the potential required employer contribution rates if the discount rate was changed to 6.50 percent or 8.50 percent 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 percent, 7.50 percent and 9.50 percent) 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.

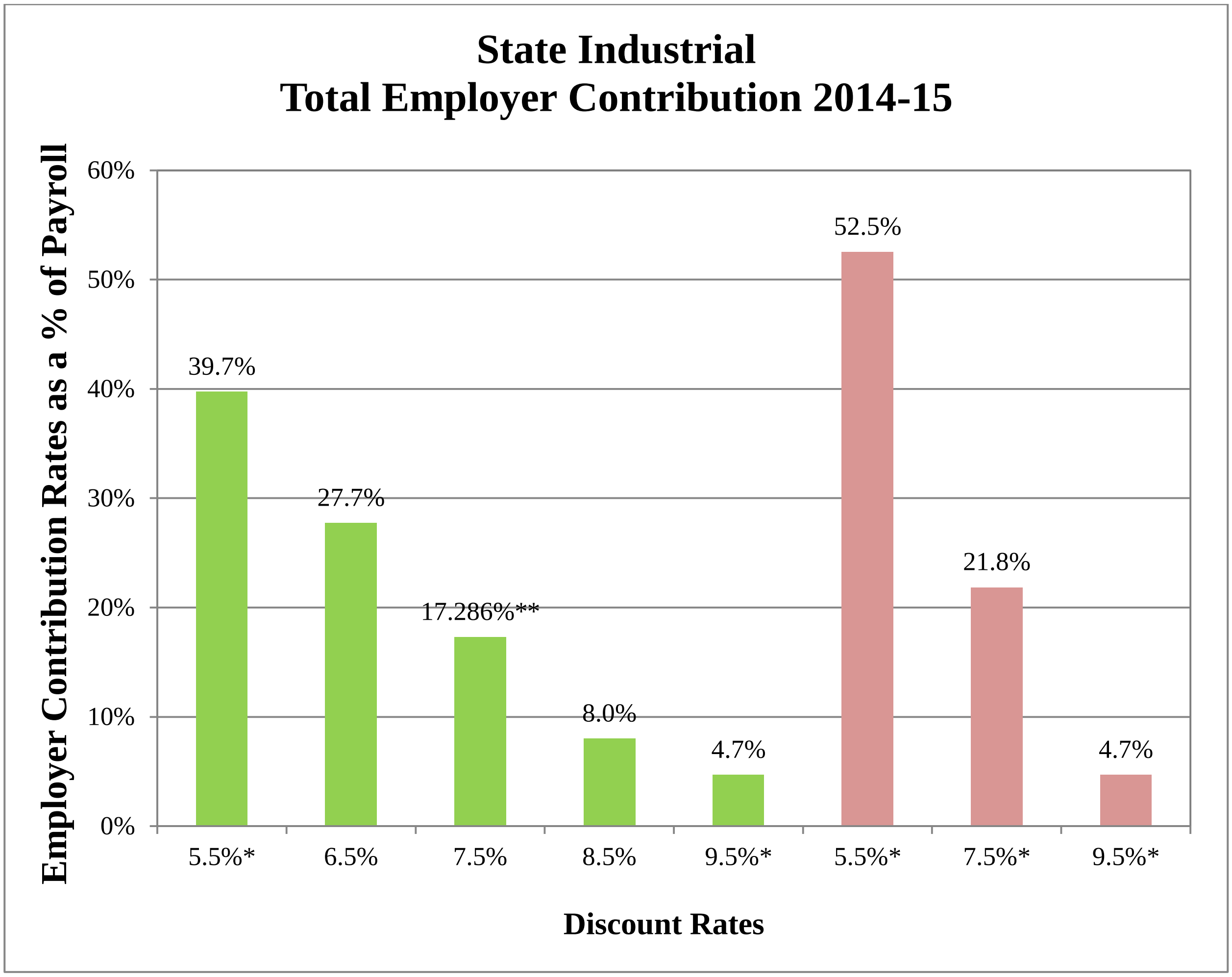
The results of the analysis are presented in three sections. The first section is a graphical representation of the impact on employer rates for both +/- 1 percent change in discount rate, and +/- 2 percent change in discount rate due to G.C. 20229. The second and third sections are the numeric representations.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



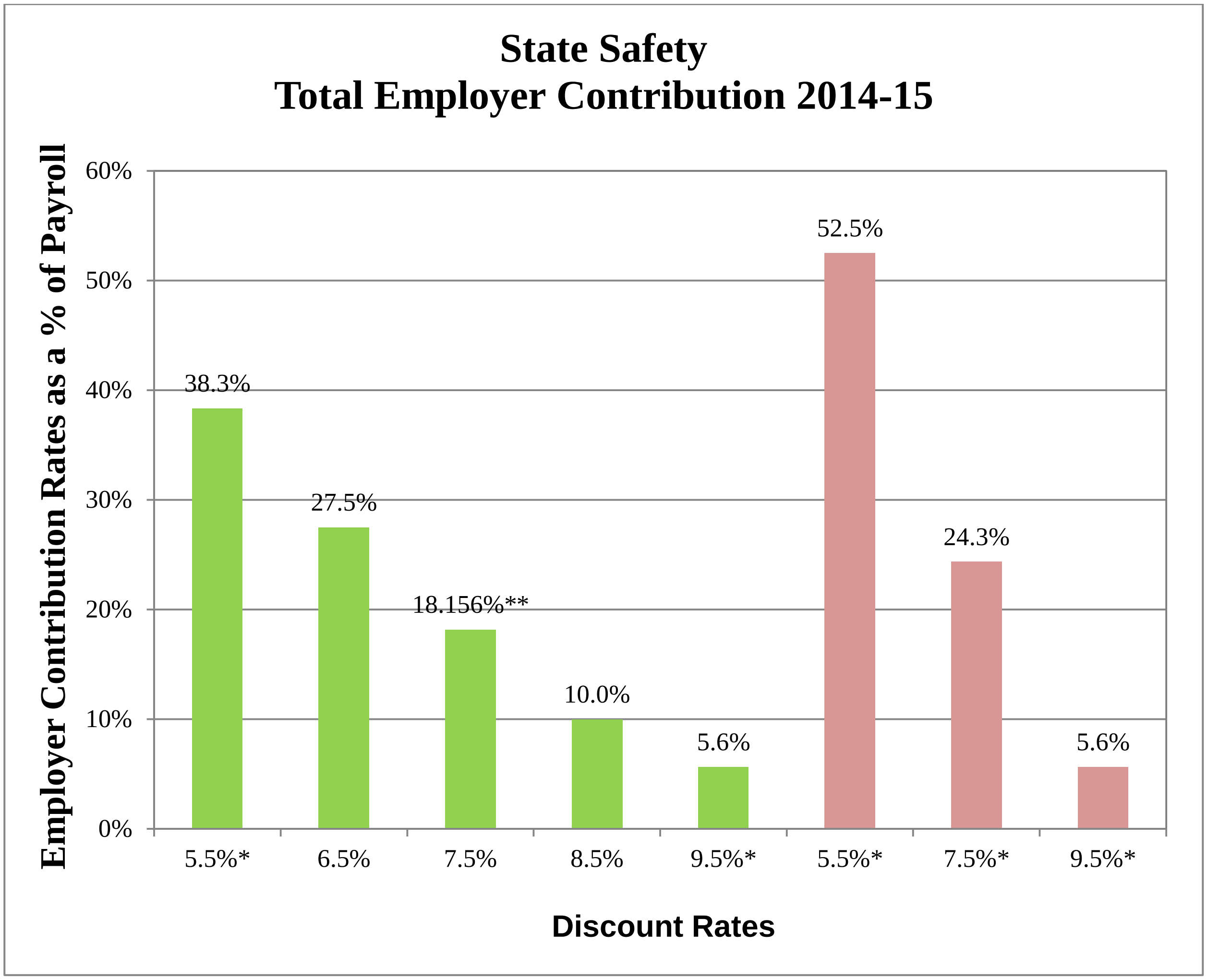
(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 10 to 30 years) or normal cost if in a surplus position
(pink)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (10 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2014-15 adopted by the CalPERS Board



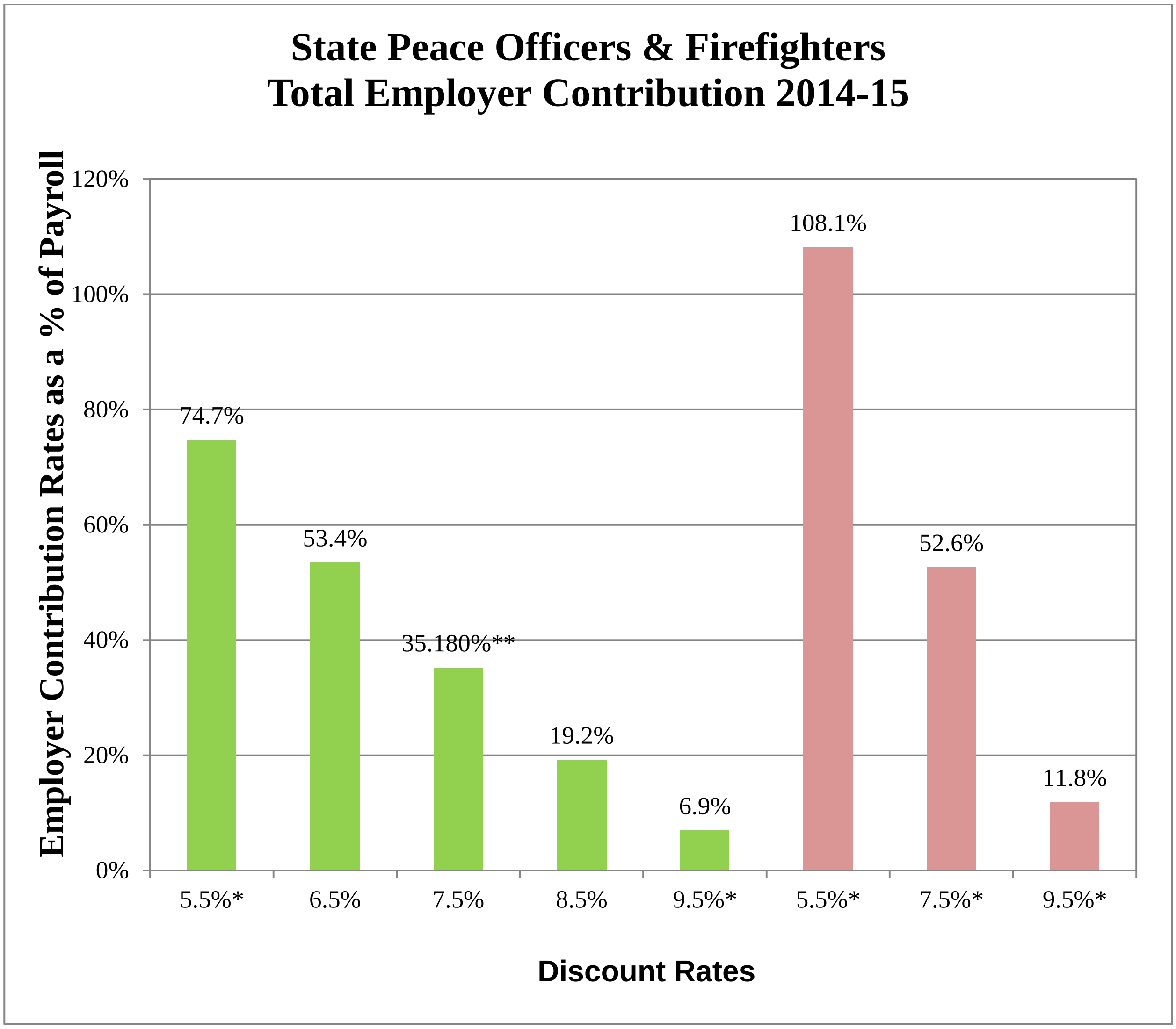
(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 10 to 30 years) or normal cost if in a surplus position
(red)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (10 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2014-15 adopted by the CalPERS Board



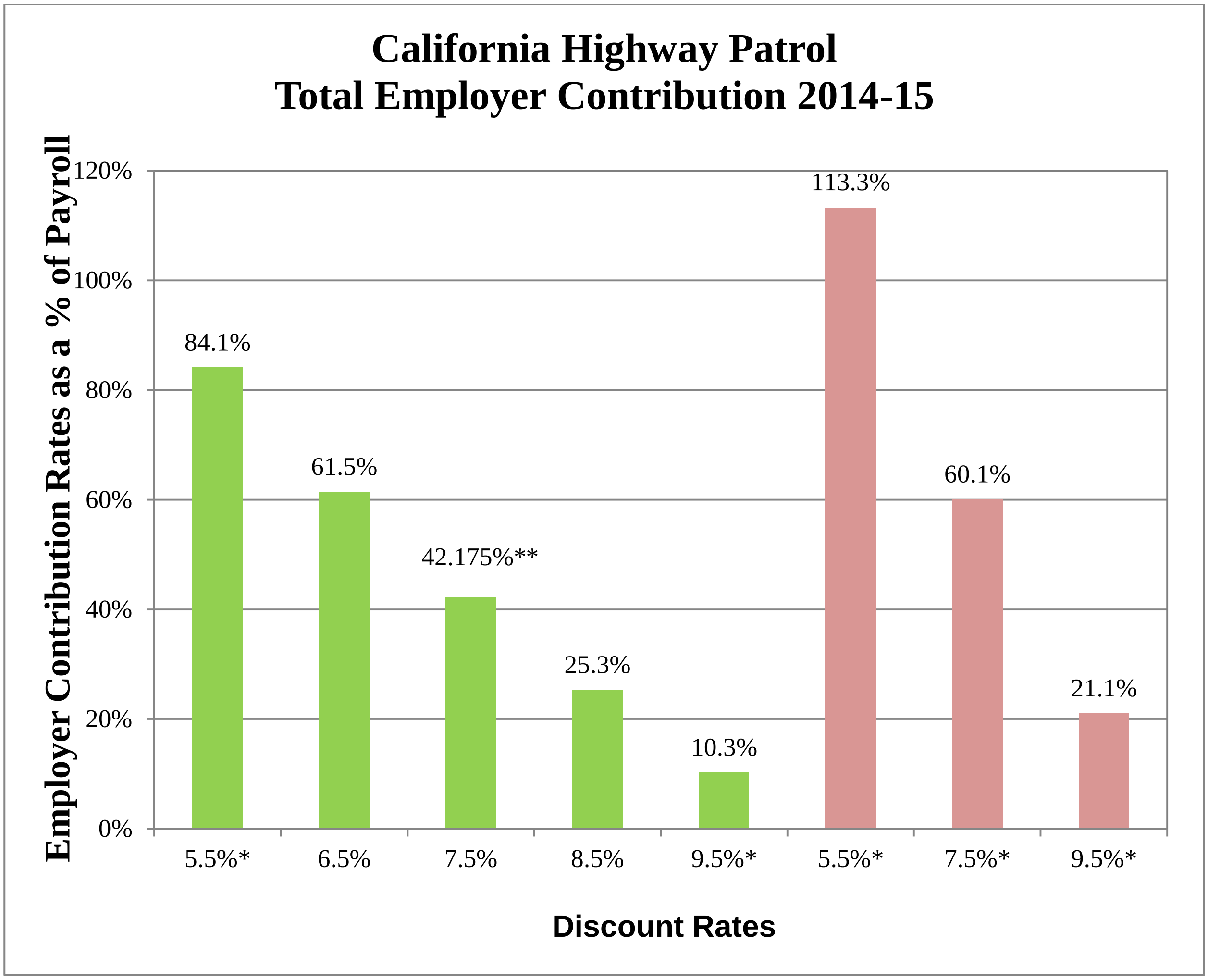
(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 10 to 30 years) or normal cost if in a surplus position
(pink)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (11 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2014-15 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
(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 2014-15 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 (11 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2014-15 adopted by the CalPERS Board



(green)	Analysis of discount rate sensitivity based on current amortization method (varies from 8 to 30 years) or normal cost if in a surplus position
(pink)	Analysis of discount rate sensitivity based on amortization of UL over EARSP (13 years)
*	Required by Government Code Section 20229
**	Actuarially required contribution rate for 2014-15 adopted by the CalPERS Board

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

Discount Rate		6.50%	7.50%	8.50%
State Miscellaneous Tier 1	Normal Cost	13.4%	9.171%	6.0%
	UAL Payment	22.3%	15.013%	7.8%
	GTLI	0.0%	0.014%	0.0%
	Total	35.6%	24.198%	13.8%
	Funded Status	59.2%	66.5%	74.1%
State Miscellaneous Tier 2	Normal Cost	11.7%	8.483%	6.1%
	UAL Payment	22.3%	15.013%	7.8%
	GTLI	0.0%	0.014%	0.0%
	Total	34.0%	23.510%	13.9%
	Funded Status	59.2%	66.5%	74.1%
State Industrial	Normal Cost	15.3%	10.809%	7.4%
	UAL Payment	12.5%	6.477%	0.6%
	GTLI	0.0%	0.000%	0.0%
	Total	27.7%	17.286%	8.0%
	Funded Status	65.7%	74.7%	84.2%
State Safety	Normal Cost	16.9%	12.198%	8.5%
	UAL Payment	10.5%	5.898%	1.4%
	GTLI	0.1%	0.060%	0.1%
	Total	27.5%	18.156%	10.0%
	Funded Status	63.0%	71.6%	80.8%
POFF	Normal Cost	24.3%	16.849%	11.2%
	UAL Payment	29.1%	18.284%	7.9%
	GTLI	0.0%	0.047%	0.0%
	Total	53.4%	35.180%	19.2%
	Funded Status	56.9%	65.0%	73.5%
CHP	Normal Cost	24.1%	16.314%	10.5%
	UAL Payment	37.3%	25.822%	14.8%
	GTLI	0.0%	0.039%	0.0%
	Total	61.5%	42.175%	25.3%
	Funded Status	51.6%	58.9%	66.6%

* The change in accrued liability due to the +/-1% discount rate change was amortized over 20 years as a level percentage of pay.
** 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 percent 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	114,702,571,411	90,277,023,739	73,168,649,772
Market Value of Assets (MVA)	60,029,027,274	60,029,027,274	60,029,027,274
Funded Status MVA basis	52.3%	66.5%	82.0%
Unfunded Liability MVA basis	54,673,544,137	30,247,996,465	13,139,622,498
State Miscellaneous Tier 1			
Current Amortization Method			
Payment on Normal Cost	18.9%	9.171%	3.5%
Payment on UL	29.6%	15.013%	0.7%
Group Term Life Insurance	0.0%	0.014%	0.0%
Total ER Contribution 2014-15	48.6%	24.198%	4.3%
State Miscellaneous Tier 1			
Amortization of UL over EARSP			
Payment on Normal Cost	18.9%	9.2%	3.5%
Payment on UL (over EARSP=10 years)	55.2%	27.5%	4.4%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2014-15	74.1%	36.7%	7.9%
State Miscellaneous Tier 2			
Current Amortization Method			
Payment on Normal Cost	16.1%	8.483%	4.2%
Payment on UL	29.6%	15.013%	0.7%
Group Term Life Insurance	0.0%	0.014%	0.0%
Total ER Contribution 2014-15	45.7%	23.510%	5.0%
State Miscellaneous Tier 2			
Amortization of UL over EARSP			
Payment on Normal Cost	16.1%	8.5%	4.2%
Payment on UL (over EARSP=10 years)	55.2%	27.5%	4.4%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2014-15	71.3%	36.0%	8.6%

State Industrial			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	4,222,244,273	3,236,221,429	2,565,043,546
Market Value of Assets (MVA)	2,417,771,894	2,417,771,894	2,417,771,894
Funded Status MVA basis	57.3%	74.7%	94.3%
Unfunded Liability MVA basis	1,804,472,379	818,449,535	147,271,652
Current Amortization Method			
Payment on Normal Cost	21.1%	10.809%	4.7%
Payment on UL	18.6%	6.477%	0.0%
Group Term Life Insurance	0.0%	0.000%	0.0%
Total ER Contribution 2014-15	39.7%	17.286%	4.7%
Amortization of UL over EARSP			
Payment on Normal Cost	21.1%	10.8%	4.7%
Payment on UL (over EARSP=11 years)	31.4%	11.0%	0.0%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2014-15	52.5%	21.8%	4.7%

State Safety			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	11,535,400,953	8,833,760,689	6,986,818,258
Market Value of Assets (MVA)	6,326,950,892	6,326,950,892	6,326,950,892
Funded Status MVA basis	54.8%	71.6%	90.6%
Unfunded Liability MVA basis	5,208,450,061	2,506,809,797	659,867,366
Current Amortization Method			
Payment on Normal Cost	23.0%	12.198%	5.6%
Payment on UL	15.2%	5.898%	0.0%
Group Term Life Insurance	0.1%	0.060%	0.1%
Total ER Contribution 2014-15	38.3%	18.156%	5.6%
Amortization of UL over EARSP			
Payment on Normal Cost	23.0%	12.2%	5.6%
Payment on UL (over EARSP=10 years)	29.4%	12.1%	0.0%
Group Term Life Insurance	0.1%	0.1%	0.1%
Total ER Contribution 2014-15	52.5%	24.3%	5.6%

State Peace Officers and Firefighters			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	46,499,768,307	35,270,981,461	27,781,934,809
Market Value of Assets (MVA)	22,918,567,682	22,918,567,682	22,918,567,682
Funded Status MVA basis	49.3%	65.0%	82.5%
Unfunded Liability MVA basis	23,581,200,625	12,352,413,779	4,863,367,127
Current Amortization Method			
Payment on Normal Cost	34.2%	16.849%	6.9%
Payment on UL	40.4%	18.284%	0.0%
Group Term Life Insurance	0.0%	0.047%	0.0%
Total ER Contribution 2014-15	74.7%	35.180%	6.9%
Amortization of UL over EARSP			
Payment on Normal Cost	34.2%	16.8%	6.9%
Payment on UL (over EARSP=11 years)	73.9%	35.7%	4.9%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2014-15	108.1%	52.6%	11.8%

California Highway Patrol			
Discount Rate	**5.50%**	**7.50%**	**9.50%**
Accrued Liability	12,871,148,029	9,774,594,369	7,708,608,634
Market Value of Assets (MVA)	5,760,252,078	5,760,252,078	5,760,252,078
Funded Status MVA basis	44.8%	58.9%	74.7%
Unfunded Liability MVA basis	7,110,895,951	4,014,342,291	1,948,356,556
Current Amortization Method			
Payment on Normal Cost	34.6%	16.314%	6.0%
Payment on UL	49.5%	25.822%	4.2%
Group Term Life Insurance	0.0%	0.039%	0.0%
Total ER Contribution 2014-15	84.1%	42.175%	10.3%
Amortization of UL over EARSP			
Payment on Normal Cost	34.6%	16.3%	6.0%
Payment on UL (over EARSP=13 years)	78.7%	43.7%	15.0%
Group Term Life Insurance	0.0%	0.0%	0.0%
Total ER Contribution 2014-15	113.3%	60.1%	21.1%

* The change in accrued liability due to the +/-2% discount rate change was amortized over 20 years as a level percentage of pay.

** 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 officials. Therefore, salary information in these cases may not be accurate. These situations are relatively infrequent, however, and when they do occur, they generally do not have a material impact on the employer contribution rates.

Actuarial Methods

FUNDING METHOD

The actuarial funding method used for 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 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 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 percent by June 30, 2042; or
- Reach a level of 75 percent 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.

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 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.

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

In this way, those plans for which future PPPA costs equal or exceed a 1.1 percent return on current and future employee assets are charged an employer rate that replaces the 1.1 percent return on employee assets. Those plans that require less than the 1.1 percent return on current and future employee assets to maintain 75 percent purchasing power are charged the rate necessary to maintain the 75 percent 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 are disclosed below.

ASSET VALUATION METHOD

In order to dampen the effect of short-term market value fluctuations on employer contribution rates, the following asset smoothing technique is used. First, an Expected Value of Assets is computed by bringing forward the prior year's Actuarial Value of Assets and the contributions received and benefits paid during the year at the assumed actuarial rate of return. The Actuarial Value of Assets is then computed as the Expected Value of Assets plus one-fifteenth of the difference between the actual Market Value of Assets and the Expected Value of Assets as of the valuation date. Finally, the Actuarial Value of Assets is restricted to no less than 80 percent and no more than 120 percent 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 percent 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 percent - 140 percent in the 2009 valuation and 70 percent - 130 percent in the 2010 valuation. In this valuation, the corridor limits are back to 80 percent - 120 percent.

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 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. The expected impact is included in the projected contribution rates shown in this report. 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:

Discount Rate

7.5% compounded annually (net of administrative expenses).

Salary Growth

Annual increases vary by entry age and duration of service. A sample of assumed increases is shown below.

Annual Percentage Increase

	State Miscellaneous Tier 1 & Tier 2			Industrial		
	Entry Age			Entry Age		
Duration of Service	20	30	40	20	30	40
0	9.50%	8.60%	7.30%	10.00%	10.00%	9.20%
3	7.50%	6.80%	5.60%	7.70%	7.40%	6.60%
5	6.90%	6.20%	5.20%	7.00%	6.60%	5.80%
10	5.20%	4.70%	4.10%	5.90%	5.30%	4.60%
15	4.30%	4.10%	3.70%	5.00%	4.70%	4.30%
20	3.80%	3.70%	3.50%	4.40%	4.30%	4.10%
25	3.50%	3.50%	3.40%	3.90%	3.90%	3.80%
30	3.50%	3.50%	3.40%	3.60%	3.60%	3.60%

	Safety			POFF		
	Entry Age			Entry Age		
Duration of Service	20	30	40	20	30	40
0	11.20%	10.00%	8.30%	17.30%	18.20%	18.60%
3	6.50%	6.10%	5.60%	9.70%	9.70%	9.40%
5	5.10%	4.90%	4.80%	7.50%	7.20%	6.70%
10	3.60%	3.60%	3.60%	4.20%	4.00%	3.70%
15	3.60%	3.50%	3.40%	4.20%	4.00%	3.70%
20	3.60%	3.50%	3.20%	4.20%	4.00%	3.70%
25	3.60%	3.50%	3.20%	4.20%	4.00%	3.70%
30	3.60%	3.50%	3.20%	4.20%	4.00%	3.70%

Duration of Service	CHP Entry Age 20	30	40
0	8.00%	8.00%	8.00%
3	6.50%	6.50%	6.50%
5	5.40%	5.40%	5.40%
10	3.80%	3.80%	3.80%
15	3.80%	3.80%	3.80%
20	4.50%	4.50%	4.50%
25	4.50%	4.50%	4.50%
30	3.80%	3.80%	3.80%

Overall Payroll Growth

3 percent 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 percent.

Inflation

2.75 percent compounded annually.

DEMOGRAPHIC ASSUMPTIONS:

Post-retirement Mortality

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

	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
50	0.00501	0.00466	0.01680	0.01158	0.00501	0.00466
55	0.00599	0.00416	0.01973	0.01149	0.00599	0.00416
60	0.00710	0.00436	0.02289	0.01235	0.00754	0.00518
65	0.00829	0.00588	0.02451	0.01607	0.01122	0.00838
70	0.01305	0.00993	0.02875	0.02211	0.01635	0.01395
75	0.02205	0.01722	0.03990	0.03037	0.02834	0.02319
80	0.03899	0.02902	0.06083	0.04725	0.04899	0.03910
85	0.06969	0.05243	0.09731	0.07762	0.07679	0.06251
90	0.12974	0.09887	0.14804	0.12890	0.12974	0.09887
95	0.22444	0.18489	0.22444	0.21746	0.22444	0.18489
100	0.32536	0.30017	0.32536	0.30017	0.32536	0.30017

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, 2013 valuation. For purposes of the post-retirement mortality rates, the revised rates include 20 years of projected on-going mortality improvement using Scale BB published by the Society of Actuaries. For more details, please refer to the experience study report that can be found at the following link:

http://www.calpers.ca.gov/eip-docs/about/pubs/employer/2014-experience-study.pdf

Marital Status

For active members, a percentage who is 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%

Age of Spouse

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

Terminated Members

It is assumed that terminated members refund immediately if non-vested. Terminated members who are vested are assumed to follow the same service retirement pattern as 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:

	Load Factor	
Age	Miscellaneous Plans	Safety Plans
50	190%	310%
51	110%	190%
52	110%	105%
53 through 54	100%	105%
55	100%	140%
56 and above	100%	100%

MISCELLANEOUS LOADING FACTORS:

Credit for Unused Sick Leave

Total years of service is increased by 1 percent for those plans with the provision 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" in the calculation of optional benefit forms. This is due to a 1983 Supreme Court decision, known as the Norris decision, which required males and females to be treated equally in the determination of benefit amounts. Consequently, anyone already employed at that time is given the best possible conversion factor when optional benefits are determined. No loading is necessary for employees hired after July 1, 1982.

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 – Classic Members

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

Attained Age	Years of Service 5	10	15	20	25	30	35
50	0.002	0.008	0.014	0.017	0.024	0.036	0.041
52	0.002	0.009	0.013	0.016	0.024	0.036	0.040
54	0.007	0.022	0.031	0.038	0.052	0.068	0.077
56	0.014	0.039	0.057	0.070	0.090	0.113	0.129
58	0.017	0.048	0.069	0.086	0.108	0.134	0.155
60	0.027	0.074	0.105	0.130	0.163	0.198	0.228
62	0.050	0.136	0.192	0.238	0.295	0.353	0.406
65	0.054	0.146	0.207	0.255	0.316	0.378	0.435
70	0.047	0.128	0.181	0.223	0.278	0.332	0.383
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members

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

Attained Age	Years of Service 5	10	15	20	25	30	35
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	0.003	0.008	0.011	0.014	0.018	0.020	0.023
54	0.006	0.015	0.021	0.026	0.032	0.038	0.043
56	0.010	0.027	0.038	0.046	0.057	0.067	0.076
58	0.014	0.038	0.053	0.065	0.080	0.093	0.108
60	0.021	0.056	0.078	0.097	0.118	0.138	0.160
62	0.038	0.100	0.141	0.174	0.213	0.249	0.287
65	0.049	0.131	0.184	0.225	0.276	0.323	0.374
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

STATE MISCELLANEOUS TIER 1 (CONTINUED)

Termination with Refund

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

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in the 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	0.0171	-
15	0.0335	0.0275	0.0216	-	-
19	0.0277	0.0213	0.0150	-	-
20	0.0262	0.0198	-	-	-
24	0.0196	0.0130	-	-	-
25	0.0179	-	-	-	-
29	0.0103	-	-	-	-
30	-	-	-	-	-

STATE MISCELLANEOUS TIER 1 (CONTINUED)

Non-Industrial Death

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

Non-Industrial Disability

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

	Male		Female	
Attained Age	Non-Industrial Death	Non-Industrial Disability	Non-Industrial Death	Non-Industrial Disability
20	0.00031	0.0002	0.00020	0.0004
25	0.00040	0.0002	0.00023	0.0004
30	0.00049	0.0002	0.00025	0.0005
35	0.00057	0.0004	0.00035	0.0010
40	0.00075	0.0010	0.00050	0.0021
45	0.00106	0.0020	0.00071	0.0035
50	0.00155	0.0027	0.00100	0.0042
55	0.00228	0.0024	0.00138	0.0033
60	0.00308	0.0020	0.00182	0.0026

STATE MISCELLANEOUS TIER 2

Service Retirement

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

Attained Age	Years of Service 5	10	15	20	25	30	35
50	0.002	0.008	0.014	0.017	0.024	0.036	0.041
52	0.002	0.009	0.013	0.016	0.024	0.036	0.040
54	0.007	0.022	0.031	0.038	0.052	0.068	0.077
56	0.014	0.039	0.057	0.070	0.090	0.113	0.129
58	0.017	0.048	0.069	0.086	0.108	0.134	0.155
60	0.027	0.074	0.105	0.130	0.163	0.198	0.228
62	0.050	0.136	0.192	0.238	0.295	0.353	0.406
65	0.054	0.146	0.207	0.255	0.316	0.378	0.435
70	0.047	0.128	0.181	0.223	0.278	0.332	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 the 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

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in the 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	-	-	-	-	-

STATE MISCELLANEOUS TIER 2 (CONTINUED)

Non-Industrial Death

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

Non-Industrial Disability

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

	Male		Female	
Attained Age	Non-Industrial Death	Non-Industrial Disability	Non-Industrial Death	Non-Industrial Disability
20	0.00031	0.0001	0.00020	0.0001
25	0.00040	0.0002	0.00023	0.0004
30	0.00049	0.0003	0.00025	0.0006
35	0.00057	0.0003	0.00035	0.0017
40	0.00075	0.0023	0.00050	0.0041
45	0.00106	0.0042	0.00071	0.0068
50	0.00155	0.0058	0.00100	0.0099
55	0.00228	0.0073	0.00138	0.0123
60	0.00308	0.0081	0.00182	0.0134

STATE INDUSTRIAL TIER 1

Service Retirement – Classic Members

Rates vary by age and service. See sample rates in the 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

Service Retirement – PEPRA Members

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

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	0.004	0.008	0.013	0.018	0.022	0.023	0.027
54	0.011	0.020	0.032	0.047	0.055	0.059	0.070
56	0.014	0.026	0.040	0.060	0.070	0.074	0.088
58	0.019	0.035	0.053	0.080	0.094	0.099	0.118
60	0.030	0.056	0.087	0.130	0.153	0.162	0.192
62	0.061	0.111	0.174	0.257	0.302	0.322	0.381
65	0.075	0.138	0.214	0.318	0.374	0.398	0.471
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

STATE INDUSTRIAL TIER 1 (CONTINUED)

Termination with Refund

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

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in the 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	-	-	-	-	-

STATE INDUSTRIAL TIER 1 (CONTINUED)

Non-Industrial Death

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

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in the 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	0.00031	0.00020	0.00043	0.00015	0.00003
25	0.00040	0.00023	0.00085	0.00015	0.00007
30	0.00049	0.00025	0.00136	0.00015	0.00010
35	0.00057	0.00035	0.00204	0.00029	0.00012
40	0.00075	0.00050	0.00315	0.00029	0.00013
45	0.00106	0.00071	0.00468	0.00044	0.00014
50	0.00155	0.00100	0.00621	0.00044	0.00015
55	0.00228	0.00138	0.00791	0.00058	0.00016
60	0.00308	0.00182	0.00918	0.00058	0.00017

STATE INDUSTRIAL TIER 2

Service Retirement

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

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in the 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	0.00031	0.00020	0.00043	0.00015	0.00003
25	0.00040	0.00023	0.00085	0.00015	0.00007
30	0.00049	0.00025	0.00136	0.00015	0.00010
35	0.00057	0.00035	0.00204	0.00029	0.00012
40	0.00075	0.00050	0.00315	0.00029	0.00013
45	0.00106	0.00071	0.00468	0.00044	0.00014
50	0.00155	0.00100	0.00621	0.00044	0.00015
55	0.00228	0.00138	0.00791	0.00058	0.00016
60	0.00308	0.00182	0.00918	0.00058	0.00017

STATE SAFETY

Service Retirement – Classic Members

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

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.005	0.012	0.018	0.035	0.039	0.067	0.075
52	0.003	0.009	0.014	0.032	0.034	0.061	0.067
54	0.017	0.032	0.046	0.067	0.075	0.113	0.131
56	0.031	0.056	0.077	0.105	0.117	0.167	0.195
58	0.035	0.062	0.087	0.115	0.128	0.182	0.212
60	0.042	0.073	0.102	0.134	0.148	0.208	0.243
62	0.067	0.115	0.158	0.199	0.222	0.305	0.357
65	0.086	0.148	0.203	0.252	0.281	0.382	0.448
70	0.083	0.143	0.196	0.244	0.271	0.368	0.433
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Service Retirement – PEPRA Members

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

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.010	0.018	0.024	0.028	0.031	0.041	0.048
52	0.007	0.012	0.016	0.020	0.021	0.028	0.033
54	0.018	0.031	0.041	0.048	0.054	0.070	0.083
56	0.029	0.048	0.065	0.076	0.085	0.110	0.131
58	0.032	0.054	0.074	0.086	0.096	0.124	0.147
60	0.039	0.065	0.088	0.104	0.115	0.149	0.177
62	0.056	0.094	0.127	0.149	0.166	0.216	0.256
65	0.086	0.144	0.195	0.229	0.256	0.332	0.393
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 the 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 the 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 the table below.

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in the 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	0.00031	0.00020	0.00036	0.00002	0.00003
25	0.00040	0.00023	0.00054	0.00076	0.00007
30	0.00049	0.00025	0.00063	0.00170	0.00010
35	0.00057	0.00035	0.00072	0.00264	0.00012
40	0.00075	0.00050	0.00072	0.00360	0.00013
45	0.00106	0.00071	0.00108	0.00457	0.00014
50	0.00155	0.00100	0.00216	0.00557	0.00015
55	0.00228	0.00138	0.00306	0.00658	0.00016
60	0.00308	0.00182	0.00387	0.00762	0.00017

STATE PEACE OFFICERS AND FIREFIGHTERS

Service Retirement – Classic Members

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

Attained Age	Years of Service						
	5	**10**	**15**	**20**	**25**	**30**	**35**
50	0.016	0.052	0.070	0.091	0.146	0.213	0.247
52	0.014	0.044	0.060	0.080	0.125	0.180	0.209
54	0.019	0.064	0.087	0.110	0.176	0.261	0.302
56	0.022	0.074	0.100	0.126	0.203	0.301	0.350
58	0.025	0.081	0.109	0.137	0.220	0.328	0.381
60	0.026	0.088	0.120	0.149	0.241	0.360	0.418
62	0.030	0.099	0.133	0.164	0.267	0.401	0.467
65	0.030	0.103	0.139	0.171	0.277	0.418	0.486
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members – 2.5% @ 57

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

Attained Age	Years of Service						
	5	**10**	**15**	**20**	**25**	**30**	**35**
50	0.011	0.036	0.049	0.064	0.102	0.149	0.173
52	0.010	0.031	0.042	0.056	0.088	0.126	0.146
54	0.014	0.048	0.065	0.083	0.132	0.196	0.227
56	0.018	0.059	0.080	0.101	0.162	0.241	0.280
58	0.023	0.073	0.098	0.123	0.198	0.295	0.343
60	0.025	0.084	0.114	0.142	0.229	0.342	0.397
62	0.030	0.099	0.133	0.164	0.267	0.401	0.467
65	0.030	0.103	0.139	0.171	0.277	0.418	0.486
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members – 2.7% @ 57

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

Attained Age	Years of Service						
	5	**10**	**15**	**20**	**25**	**30**	**35**
50	0.011	0.036	0.049	0.064	0.102	0.149	0.173
52	0.011	0.033	0.045	0.060	0.094	0.135	0.157
54	0.015	0.051	0.070	0.088	0.141	0.209	0.242
56	0.019	0.063	0.085	0.107	0.173	0.256	0.298
58	0.025	0.081	0.109	0.137	0.220	0.328	0.381
60	0.026	0.088	0.120	0.149	0.241	0.360	0.418
62	0.030	0.099	0.133	0.164	0.267	0.401	0.467
65	0.030	0.103	0.139	0.171	0.277	0.418	0.486
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

STATE PEACE OFFICERS AND FIREFIGHTERS (CONTINUED)

Termination with Refund

Rates vary by service. See sample rates in the 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 the 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

Non-Industrial Death

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

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in the 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	0.00031	0.00020	0.00010	0.00039	0.00003
25	0.00040	0.00023	0.00010	0.00087	0.00007
30	0.00049	0.00025	0.00010	0.00167	0.00010
35	0.00057	0.00035	0.00020	0.00289	0.00012
40	0.00075	0.00050	0.00040	0.00464	0.00013
45	0.00106	0.00071	0.00060	0.00706	0.00014
50	0.00155	0.00100	0.00098	0.01027	0.00015
55	0.00228	0.00138	0.00143	0.01442	0.00016
60	0.00308	0.00182	0.00188	0.01966	0.00017

CALIFORNIA HIGHWAY PATROL

Service Retirement – Classic Members

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

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.050	0.050	0.050	0.050	0.149	0.283	0.326
52	0.040	0.040	0.040	0.040	0.121	0.230	0.265
54	0.051	0.051	0.051	0.051	0.153	0.290	0.334
56	0.051	0.051	0.051	0.051	0.152	0.288	0.332
58	0.049	0.049	0.049	0.049	0.146	0.277	0.319
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members

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

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.035	0.035	0.035	0.035	0.104	0.198	0.228
52	0.030	0.030	0.030	0.030	0.091	0.173	0.199
54	0.041	0.041	0.041	0.041	0.122	0.232	0.267
56	0.043	0.043	0.043	0.043	0.129	0.245	0.282
58	0.044	0.044	0.044	0.044	0.131	0.249	0.287
60	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 the 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 the 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 the table below.

Non-Industrial Disability, Industrial Disability & Industrial Death

Rates vary by age. See sample rates in the 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	0.00031	0.00020	0.00014	0.00026	0.00003
25	0.00040	0.00023	0.00014	0.00058	0.00007
30	0.00049	0.00025	0.00014	0.00114	0.00010
35	0.00057	0.00035	0.00014	0.00204	0.00012
40	0.00075	0.00050	0.00014	0.00337	0.00013
45	0.00106	0.00071	0.00028	0.00527	0.00014
50	0.00155	0.00100	0.00028	0.02023	0.00015
55	0.00228	0.00138	0.00028	0.09011	0.00016
60	0.00308	0.00182	0.00028	0.34051	0.00017

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 are reflected in the June 30, 2013 valuations. Included in this valuation is any change to member contributions effective July 1, 2014.

Service Retirement

Eligibility
CalPERS Classic and Safety PEPRA members become 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). PEPRA Miscellaneous members become eligible for Service Retirement upon attainment of age 52 with at least 5 years of service.

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. New Classic members hired on or after January 15, 2011 are subject to the **2% at 60** benefit factor table. New PEPRA members hired on or after January 1, 2013 are subject to the **2% at 62** 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	Retirement Age	2% at 62 Factor
50	1.100%	50	1.092%	50	N/A
51	1.280%	51	1.156%	51	N/A
52	1.460%	52	1.224%	52	1.000%
53	1.640%	53	1.296%	53	1.100%
54	1.820%	54	1.376%	54	1.200%
55	2.000%	55	1.460%	55	1.300%
56	2.064%	56	1.552%	56	1.400%
57	2.126%	57	1.650%	57	1.500%

58	2.188%	58	1.758%	58	1.600%
59	2.250%	59	1.874%	59	1.700%
60	2.314%	60	2.000%	60	1.800%
61	2.376%	61	2.134%	61	1.900%
62	2.438%	62	2.272%	62	2.000%
63 & Up	2.500%	63 & Up	2.418%	63	2.100%
				64	2.200%
				65	2.300%
				66	2.400%
				67 & 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. PEPRA members have a cap on the annual salary that can be used to calculate final compensation for all new members based on the Social Security Contribution and Benefit Base. For employees that participate in Social Security this cap is $113,700 for 2013 and for those employees that do not participate in social security the cap for 2013 is $136,440, the equivalent of 120 percent of the 2013 Contribution and Benefit Base. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.

- 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). For some PEPRA members, the final compensation is not offset.

- 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 Classic and Safety PEPRA members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRA Miscellaneous members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 52.

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 percent 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 percent 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. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 25 percent 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 percent 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 percent 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. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*.

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 percent 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 percent 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

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 percent 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 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W 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 2W Death Benefit

Eligibility

An employee’s *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. 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 percent. 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 percent 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 percent of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75 percent 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 26 percent of the active population is subject to the following schedule:

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

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

The percent contributed below the monthly compensation breakpoint is 0 percent.
The percent contributed above the monthly compensation breakpoint is 6 percent.

Approximately 64 percent of the active population is subject to the following schedule:

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

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

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

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

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

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

For some new PEPRA members, the monthly compensation breakpoint is $0 and contributions are as follows:

The percent contributed below the monthly compensation breakpoint is 0 percent.
The percent contributed above the monthly compensation breakpoint is 6 percent.

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 percent 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 are reflected in the June 30, 2013 valuations. Included in this valuation is any change to member contributions effective July 1, 2014.

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
CalPERS members become 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 Classic employees comes from the **1.25% at 65** Tier 2 benefit factor table. New PEPRA members hired on or after January 1, 2013 are subject to the **1.25% at 67** 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 67 Tier 2 Factor
50	0.5000%	50	N/A
51	0.5500%	51	N/A
52	0.6000%	52	0.6500%
53	0.6500%	53	0.6900%

54	0.7000%	54	0.7300%
55	0.7500%	55	0.7700%
56	0.8000%	56	0.8100%
57	0.8500%	57	0.8500%
58	0.9000%	58	0.8900%
59	0.9500%	59	0.9300%
60	1.0000%	60	0.9700%
61	1.0500%	61	1.0100%
62	1.1000%	62	1.0500%
63	1.1500%	63	1.0900%
64	1.2000%	64	1.1300%
65 & Up	1.2500%	65	1.1700%
		66	1.2100%
		67 & 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. PEPRA members have a cap on the annual salary that can be used to calculate final compensation for all new members based on the Social Security Contribution and Benefit Base. For employees that participate in Social Security this cap is $113,700 for 2013 and for those employees that do not participate in social security the cap for 2013 is $136,440, the equivalent of 120 percent of the 2013 Contribution and Benefit Base. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers

- 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

<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 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 percent 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 percent 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. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member’s death.

For retirement allowances with respect to service earned by employment in this group, 25 percent 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 percent 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 percent 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. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*.

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 percent 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 percent 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

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 percent 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 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 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 2W 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 2W Death Benefit

Eligibility
An employee's *eligible survivor* may receive the Optional Settlement 2W 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 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. 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 percent.

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 percent 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 percent of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75 percent 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 3 percent.
The monthly compensation breakpoint is $0.
The percent contributed below the monthly compensation breakpoint is 0 percent.

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 percent 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 are reflected in the June 30, 2013 valuations. Included in this valuation is any change to member contributions effective July 1, 2014.

Service Retirement

Eligibility
CalPERS Classic and Safety PEPRA members become 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). PEPRA Miscellaneous members become eligible for Service Retirement upon attainment of age 52 with at least 5 years of service.

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. New Classic members hired on or after January 15, 2011 are subject to the **2% at 60** benefit factor table. New PEPRA members hired on or after January 1, 2013 are subject to the **2% at 62** 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	Retirement Age	2% at 62 Factor
50	1.100%	50	1.092%	50	N/A
51	1.280%	51	1.156%	51	N/A
52	1.460%	52	1.224%	52	1.000%
53	1.640%	53	1.296%	53	1.100%
54	1.820%	54	1.376%	54	1.200%
55	2.000%	55	1.460%	55	1.300%
56	2.064%	56	1.552%	56	1.400%
57	2.126%	57	1.650%	57	1.500%
58	2.188%	58	1.758%	58	1.600%
59	2.250%	59	1.874%	59	1.700%

60	2.314%	60	2.000%	60	1.800%
61	2.376%	61	2.134%	61	1.900%
62	2.438%	62	2.272%	62	2.000%
63 & Up	2.500%	63 & Up	2.418%	63	2.100%
				64	2.200%
				65	2.300%
				66	2.400%
				67 & 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. PEPRA members have a cap on the annual salary that can be used to calculate final compensation for all new members based on the Social Security Contribution and Benefit Base. For employees that participate in Social Security this cap is $113,700 for 2013 and for those employees that do not participate in social security the cap for 2013 is $136,440, the equivalent of 120 percent of the 2013 Contribution and Benefit Base. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.

- 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). For some PEPRA members, the final compensation is not offset.

- 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).

Eligibility to Start Receiving Benefits

The CalPERS Classic and Safety PEPRA members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRA Miscellaneous members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 52.

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 percent 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 percent 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 percent 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. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 25 percent 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 percent 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 percent 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. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*.

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 percent 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 percent 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 percent 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 percent 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 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. 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 percent. 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 percent 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 percent of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75 percent 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 96 percent of the active population is subject to the following schedule:

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

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

The percent contributed below the monthly compensation breakpoint is 0 percent.
The percent contributed above the monthly compensation breakpoint is 6 percent.

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

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

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 percent.
The percent contributed above the monthly compensation breakpoint is 1 percent 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 percent 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 are reflected in the June 30, 2013 valuations. Included in this valuation is any change to member contributions effective July 1, 2014.

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
CalPERS members become 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 Classic employees comes from the **1.25% at 65** Tier 2 benefit factor table. New PEPRA members hired on or after January 1, 2013 are subject to the **1.25% at 67** 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 67 Tier 2 Factor
50	0.5000%	50	N/A
51	0.5500%	51	N/A
52	0.6000%	52	0.6500%
53	0.6500%	53	0.6900%

54	0.7000%	54	0.7300%
55	0.7500%	55	0.7700%
56	0.8000%	56	0.8100%
57	0.8500%	57	0.8500%
58	0.9000%	58	0.8900%
59	0.9500%	59	0.9300%
60	1.0000%	60	0.9700%
61	1.0500%	61	1.0100%
62	1.1000%	62	1.0500%
63	1.1500%	63	1.0900%
64	1.2000%	64	1.1300%
65 & Up	1.2500%	65	1.1700%
		66	1.2100%
		67 & 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. PEPRA members have a cap on the annual salary that can be used to calculate final compensation for all new members based on the Social Security Contribution and Benefit Base. For employees that participate in Social Security this cap is $113,700 for 2013 and for those employees that do not participate in social security the cap for 2013 is $136,440, the equivalent of 120 percent of the 2013 Contribution and Benefit Base. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.

- The employees in this group 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

<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 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. 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 percent 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 percent 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 percent 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. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 25 percent 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 percent 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 percent 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. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*.

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 percent 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 percent 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 percent 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 percent 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 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 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 2W Death Benefit

Eligibility
An employee's *eligible survivor* may receive the Optional Settlement 2W 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 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. 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 percent.

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 percent 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 percent of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75 percent 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 3 percent.
The monthly compensation breakpoint is $0.
The percent contributed below the monthly compensation breakpoint is 0 percent.

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 percent 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 are reflected in the June 30, 2013 valuations. Included in this valuation is any change to member contributions effective July 1, 2014.

Service Retirement

Eligibility

CalPERS Classic and Safety PEPRA members become 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). PEPRA Miscellaneous members become eligible for Service Retirement upon attainment of age 52 with at least 5 years of service.

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. New Classic 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. New PEPRA members hired on or after January 1, 2013 are subject to the **2% at 57** 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 Factor	Retirement Age	2% at 55 Factor
50	1.700%	50	1.426%
51	1.800%	51	1.522%
52	1.900%	52	1.628%
53	2.000%	53	1.742%
54	2.250%	54	1.866%
55 & Up	2.500%	55 & Up	2.000%

Retirement Age	2.5% at 60 Factor	Retirement Age	2% at 57 Factor
50	1.426%	50	1.426%
51	1.522%	51	1.508%
52	1.628%	52	1.590%
53	1.742%	53	1.672%
54	1.866%	54	1.754%
55	2.000%	55	1.836%
56	2.100%	56	1.918%
57	2.200%	57 & Up	2.000%
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. PEPRA members have a cap on the annual salary that can be used to calculate final compensation for all new members based on the Social Security Contribution and Benefit Base. For employees that participate in Social Security this cap is $113,700 for 2013 and for those employees that do not participate in social security the cap for 2013 is $136,440, the equivalent of 120 percent of the 2013 Contribution and Benefit Base. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.

- 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 percent 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 Classic and Safety PEPRA members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRA Miscellaneous members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 52.

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 percent 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 percent 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 percent 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. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 50 percent 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 percent 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 percent 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. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*.

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 percent 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 percent 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 percent 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 percent 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 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. 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 percent. 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 percent 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 percent of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75 percent 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 active population is subject to the following schedule:

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

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 percent 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 are reflected in the June 30, 2013 valuations. Included in this valuation is any change to member contributions effective July 1, 2014.

Service Retirement

Eligibility
CalPERS Classic and Safety PEPRA members become 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). PEPRA Miscellaneous members become eligible for Service Retirement upon attainment of age 52 with at least 5 years of service.

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. New Classic members, except firefighters, hired on or after January 15, 2011 are subject to the **2.5% at 55 Safety** benefit factor table. New Classic 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. New PEPRA members hired on or after January 1, 2013 are subject to the **2.5% at 57** or **2.7% at 57** benefit factor table. 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%

Retirement Age	2.5% at 57 Factor	Retirement Age	2.7% at 57 Factor
50	2.000%	50	2.000%
51	2.071%	51	2.100%
52	2.143%	52	2.200%
53	2.214%	53	2.300%
54	2.286%	54	2.400%
55	2.357%	55	2.500%
56	2.429%	56	2.600%
57 & Up	2.500%	57 & Up	2.700%

- 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. PEPRA members have a cap on the annual salary that can be used to calculate final compensation for all new members based on the Social Security Contribution and Benefit Base. For employees that participate in Social Security this cap is $113,700 for 2013 and for those employees that do not participate in social security the cap for 2013 is $136,440, the equivalent of 120 percent of the 2013 Contribution and Benefit Base. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.

- 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 percent 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 Classic and Safety PEPRA members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRA Miscellaneous members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 52.

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 percent 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 percent 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 percent 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. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 50 percent 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 percent 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 percent 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. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*.

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 percent 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 percent 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 percent 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 percent 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 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. 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 percent. 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 percent 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 percent of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75 percent 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 90 percent of the active population has a monthly compensation breakpoint of $863 and is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0 percent.
The percent contributed above the monthly compensation breakpoint is 13 percent.

Approximately 9 percent of the active population has a monthly compensation breakpoint of $513 and is subject to the following schedule:

The percent contributed below the monthly compensation breakpoint is 0 percent.
The percent contributed above the monthly compensation breakpoint is 13 percent.

Approximately 1 percent of the active population has a monthly compensation breakpoint of $238 and is subject to the following schedule:

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

For some new PEPRA members, the monthly compensation breakpoint is $0 and contributions are as follows:

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

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 percent 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 are reflected in the June 30, 2013 valuations. Included in this valuation is any change to member contributions effective July 1, 2014.

Service Retirement

Eligibility

CalPERS Classic and Safety PEPRA members become 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). PEPRA Miscellaneous members become eligible for Service Retirement upon attainment of age 52 with at least 5 years of service.

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. New Classic members hired on or after October 31, 2010 are subject to the **3% at 55** benefit factor table. New PEPRA members hired on or after January 1, 2013 are subject to the **2.7% at 57** benefit factor table.

Retirement Age	3% at 55 Factor	Retirement Age	2.7% at 57 Factor
50	2.400%	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	2.500%
		56	2.600%
		57 & Up	2.700%

- 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. PEPRA members have a cap on the annual salary that can be used to calculate final compensation for all new members based on the Social Security Contribution and Benefit Base. For employees that participate in Social Security this cap is $113,700 for 2013 and for those employees that do not participate in social security the cap for 2013 is $136,440, the equivalent of 120 percent of the 2013 Contribution and Benefit Base. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.

- 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 percent 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 Classic and Safety PEPRA members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRA Miscellaneous members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 52.

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 percent 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 percent 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 percent 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 percent 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. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 50 percent 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 percent 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 percent 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. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*.

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 percent 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 percent 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 percent 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 percent 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 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, 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 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. 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 percent. 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 percent 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 percent of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75 percent 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 percent.
The monthly compensation breakpoint is $863.
The percent contributed above the monthly compensation breakpoint is 11.5 percent.

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 percent 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 plans.

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

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 percent 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, 2013

State Miscellaneous Tier 1

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2012	**149,384**	**23,430**	**44,785**	**163,905**	**381,504**
Retirements	(5,999)	(1,219)	(546)	7,764	0
Industrial Disabilities	(2)	(33)	(6)	41	0
Ordinary Disabilities	(169)	(12)	(28)	209	0
Deaths[2]	(279)	(34)	(194)	(6,036)	(6,543)
New Survivors	n/a	n/a	n/a	2,639	2,639
Non-vested Terminations[1]	(2,552)	(143)	2,695	0	0
Vested Terminations	(1,851)	(289)	2,144	(4)	0
Refunds of Contributions	(427)	(79)	(1,029)	(11)	(1,546)
Transfers	(1,210)	1,739	(504)	(25)	0
Redeposits/Rehires	2,203	(493)	(1,641)	(69)	0
First Year in Status	7,553	451	447	186	8,637
Moved from Tier 2	404	754	123	56	1,337
Data Corrections[3]	(320)	(2,321)	(560)	197	(3,004)
As of June 30, 2013	**146,735**	**21,751**	**45,686**	**168,852**	**383,024**

State Miscellaneous Tier 2

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2012	**6,948**	**11,424**	**1,562**	**5,043**	**24,977**
Retirements	(164)	(308)	(91)	563	0
Industrial Disabilities	0	(1)	(1)	2	0
Ordinary Disabilities	(19)	(25)	(8)	52	0
Deaths[2]	(15)	(19)	(67)	(131)	(232)
New Survivors	n/a	n/a	n/a	94	94
Non-vested Terminations[1]	(21)	(37)	58	0	0
Vested Terminations	(101)	(172)	273	0	0
Refunds of Contributions	(4)	(18)	(32)	0	(54)
Transfers	(190)	404	(212)	(2)	0
Redeposits/Rehires	41	(13)	(28)	0	0
First Year in Status	30	44	24	40	138
Moved to Tier 1	(404)	(754)	(123)	(56)	(1,337)
Data Corrections[3]	(2)	(135)	239	(13)	89
As of June 30, 2013	**6,099**	**10,390**	**1,594**	**5,592**	**23,675**

[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, 2013

State Industrial

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2012	**10,838**	**7,573**	**2,985**	**10,654**	**32,050**
Retirements	(419)	(401)	(39)	859	0
Industrial Disabilities	(1)	(8)	(3)	12	0
Ordinary Disabilities	(29)	(18)	(6)	53	0
Deaths[2]	(24)	(10)	(13)	(249)	(296)
New Survivors	n/a	n/a	n/a	120	120
Non-vested Terminations[1]	(225)	(84)	309	0	0
Vested Terminations	(206)	(114)	320	0	0
Refunds of Contributions	(79)	(23)	(95)	0	(197)
Transfers	(720)	834	(99)	(15)	0
Redeposits/Rehires	389	(316)	(68)	(5)	0
First Year in Status	384	150	51	12	597
Data Corrections[3]	(53)	434	53	102	536
As of June 30, 2013	**9,855**	**8,017**	**3,395**	**11,543**	**32,810**

State Safety

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2012	**23,729**	**4,991**	**5,351**	**19,295**	**53,366**
Retirements	(976)	(282)	(74)	1,332	0
Industrial Disabilities	(84)	(24)	(12)	120	0
Ordinary Disabilities	(14)	(12)	(4)	30	0
Deaths[2]	(37)	(4)	(36)	(574)	(651)
New Survivors	n/a	n/a	n/a	376	376
Non-vested Terminations[1]	(246)	(48)	295	(1)	0
Vested Terminations	(140)	(81)	222	(1)	0
Refunds of Contributions	(227)	(24)	(277)	0	(528)
Transfers	(366)	465	(94)	(10)	0
Redeposits/Rehires	439	(219)	(196)	(24)	0
First Year in Status	1,644	71	106	61	1,882
Data Corrections[3]	(100)	119	(70)	(70)	(126)
As of June 30, 2013	**23,622**	**4,952**	**5,211**	**20,534**	**54,319**

[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, 2013

State Peace Officers and Firefighters

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2012	**41,250**	**5,237**	**6,074**	**28,842**	**81,403**
Retirements	(1,845)	(125)	(96)	2,066	0
Industrial Disabilities	(273)	(5)	(22)	300	0
Ordinary Disabilities	(17)	(6)	(6)	29	0
Deaths[2]	(67)	(10)	(18)	(396)	(491)
New Survivors	n/a	n/a	n/a	368	368
Non-vested Terminations[1]	(323)	(83)	406	0	0
Vested Terminations	(312)	(44)	358	(2)	0
Refunds of Contributions	(168)	(23)	(180)	(2)	(373)
Transfers	(357)	496	(135)	(4)	0
Redeposits/Rehires	349	(198)	(146)	(5)	0
First Year in Status	731	48	135	43	957
Data Corrections[3]	7	418	25	(114)	336
As of June 30, 2013	**38,975**	**5,705**	**6,395**	**31,125**	**82,200**

California Highway Patrol

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2012	**7,312**	**295**	**325**	**8,140**	**16,072**
Retirements	(237)	(10)	(9)	256	0
Industrial Disabilities	(34)	(3)	(5)	42	0
Ordinary Disabilities	0	0	0	0	0
Deaths[2]	(9)	(1)	(2)	(169)	(181)
New Survivors	n/a	n/a	n/a	134	134
Non-vested Terminations[1]	(4)	0	4	0	0
Vested Terminations	(19)	(5)	25	(1)	0
Refunds of Contributions	(5)	0	(16)	0	(21)
Transfers	(2)	8	(4)	(2)	0
Redeposits/Rehires	12	(4)	(7)	(1)	0
First Year in Status	311	21	22	5	359
Data Corrections[3]	0	(11)	13	(16)	(14)
As of June 30, 2013	**7,325**	**290**	**346**	**8,388**	**16,349**

[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, 2013

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	1,051	8	0	0	0	0	1,059	33,563,092
25-29	6,022	1,196	56	0	0	0	7,274	308,751,164
30-34	6,573	4,477	1,326	50	0	0	12,426	633,316,464
35-39	4,953	4,692	4,071	707	47	0	14,470	841,526,448
40-44	4,495	4,823	5,868	2,304	948	90	18,528	1,152,337,530
45-49	3,907	4,123	5,915	2,930	3,299	1,436	21,610	1,390,663,069
50-54	3,659	3,860	6,048	3,219	4,137	5,648	26,571	1,739,852,145
55-59	3,034	3,314	4,944	2,758	3,443	6,744	24,237	1,606,605,366
60-64	1,849	2,194	2,973	1,726	2,052	3,582	14,376	974,969,369
65 and Over	963	1,065	1,407	751	730	1,268	6,184	422,276,036
Total	**36,506**	**29,752**	**32,608**	**14,445**	**14,656**	**18,768**	**146,735**	**$ 9,103,860,682**

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, 2013

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	31,650	37,398	0	0	0	0	$31,693
25-29	41,429	47,070	53,003	0	0	0	42,446
30-34	48,100	53,288	56,681	68,512	0	0	50,967
35-39	52,105	58,179	63,148	70,086	81,913	0	58,157
40-44	51,942	60,016	66,011	72,611	71,343	79,045	62,194
45-49	50,783	58,860	65,209	72,499	73,512	75,851	64,353
50-54	50,802	57,630	64,543	71,659	72,511	72,683	65,479
55-59	50,659	58,087	63,600	70,121	73,384	74,126	66,287
60-64	53,073	58,990	64,395	70,947	75,770	77,620	67,819
65 and Over	48,848	58,857	67,067	71,076	79,712	84,087	68,285
Average	**$48,585**	**$57,386**	**$64,367**	**$71,484**	**$73,711**	**$75,187**	**$62,043**

Distribution of Active Members By Age and Service

As of June 30, 2013

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	1	0	0	0	0	0	1	48,212
25-29	17	1	0	0	0	0	18	821,362
30-34	38	12	39	4	0	0	93	4,940,456
35-39	28	31	226	104	2	0	391	21,372,654
40-44	35	48	308	344	159	2	896	49,393,836
45-49	35	43	327	417	385	63	1,270	68,935,635
50-54	32	35	272	379	373	226	1,317	73,960,601
55-59	26	29	229	307	281	291	1,163	62,796,566
60-64	12	28	116	149	152	187	644	36,278,637
65 and Over	14	15	69	80	75	53	306	16,772,724
Total	**238**	**242**	**1,586**	**1,784**	**1,427**	**822**	**6,099**	**$ 335,320,684**

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, 2013

State Miscellaneous Tier 2

Attained	Years of Service at Valuation Date						Average
Age	0-4	5-9	10-14	15-19	20-24	25+	Salary
15-24	48,212	0	0	0	0	0	$48,212
25-29	46,155	36,729	0	0	0	0	45,631
30-34	60,392	48,255	47,307	55,387	0	0	53,123
35-39	53,145	50,304	54,565	56,589	54,136	0	54,662
40-44	42,749	47,452	53,903	57,470	57,184	77,925	55,127
45-49	39,521	51,594	52,080	53,787	57,676	58,245	54,280
50-54	44,392	43,208	52,706	55,247	60,115	58,984	56,158
55-59	38,265	42,221	49,590	53,570	54,669	59,839	53,995
60-64	46,203	36,996	54,706	53,963	57,236	62,043	56,333
65 and Over	36,375	52,829	52,567	55,892	57,771	57,353	54,813
Average	**$46,111**	**$46,432**	**$52,632**	**$55,046**	**$57,620**	**$59,867**	**$54,980**

Distribution of Active Members By Age and Service

As of June 30, 2013

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	77	3	0	0	0	0	80	2,506,580
25-29	552	141	1	0	0	0	694	27,031,526
30-34	525	411	82	1	0	0	1,019	44,713,742
35-39	454	382	214	53	1	0	1,104	53,384,405
40-44	453	418	317	156	48	1	1,393	71,241,339
45-49	426	486	345	203	114	38	1,612	85,570,615
50-54	370	463	343	262	191	123	1,752	95,024,307
55-59	264	337	233	201	103	85	1,223	66,499,288
60-64	166	180	154	113	49	31	693	38,922,948
65 and Over	63	87	52	55	16	12	285	16,899,515
Total	**3,350**	**2,908**	**1,741**	**1,044**	**522**	**290**	**9,855**	**$ 501,794,264**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2013

State Industrial

Attained			Years of Service at Valuation Date				Average
Age	0-4	5-9	10-14	15-19	20-24	25+	Salary
15-24	31,165	35,627	0	0	0	0	$31,332
25-29	38,213	41,635	67,465	0	0	0	38,950
30-34	42,195	45,142	48,386	40,140	0	0	43,880
35-39	47,489	47,363	50,868	52,726	51,686	0	48,355
40-44	48,830	50,733	51,686	55,691	57,921	62,680	51,142
45-49	51,606	51,151	54,307	55,835	54,927	63,023	53,084
50-54	52,649	52,743	51,502	55,011	58,415	64,138	54,238
55-59	56,290	54,314	49,997	54,965	53,380	60,464	54,374
60-64	59,325	55,080	53,307	53,912	57,473	65,905	56,166
65 and Over	55,546	55,815	59,858	69,599	57,526	56,938	59,297
Average	**$47,462**	**$50,269**	**$52,084**	**$55,783**	**$56,486**	**$62,801**	**$50,918**

Distribution of Active Members By Age and Service

As of June 30, 2013

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	216	4	0	0	0	0	220	9,970,740
25-29	1,005	286	4	0	0	0	1,295	68,634,572
30-34	1,214	875	84	0	0	0	2,173	132,151,892
35-39	1,127	1,245	236	26	0	0	2,634	191,743,594
40-44	1,053	1,461	453	145	13	0	3,125	238,108,621
45-49	954	1,536	522	327	82	11	3,432	256,575,689
50-54	880	1,598	661	510	224	89	3,962	301,290,011
55-59	682	1,389	663	506	197	74	3,511	278,653,528
60-64	382	903	446	355	109	49	2,244	193,981,309
65 and Over	144	377	234	180	62	29	1,026	101,848,047
Total	**7,657**	**9,674**	**3,303**	**2,049**	**687**	**252**	**23,622**	**$ 1,772,958,002**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2013

State Safety

Attained Age	**0-4**	**5-9**	**Years of Service at Valuation Date** **10-14**	**15-19**	**20-24**	**25+**	**Average Salary**
15-24	45,086	58,058	0	0	0	0	$45,322
25-29	52,017	56,304	63,610	0	0	0	53,000
30-34	59,296	62,886	61,209	0	0	0	60,815
35-39	70,186	75,908	69,375	67,924	0	0	72,796
40-44	73,087	78,105	77,750	75,498	66,773	0	76,195
45-49	73,523	74,612	76,669	76,242	73,065	80,546	74,760
50-54	73,454	74,892	81,575	79,527	72,814	69,481	76,045
55-59	79,684	78,196	77,884	83,313	77,969	88,395	79,366
60-64	91,263	85,136	86,187	88,011	77,415	84,067	86,444
65 and Over	97,858	101,276	98,487	104,389	84,942	85,280	99,267
Average	**$68,975**	**$76,280**	**$79,944**	**$83,159**	**$76,032**	**$80,173**	**$75,055**

Distribution of Active Members By Age and Service

As of June 30, 2013

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	433	0	0	0	0	0	433	11,507,445
25-29	1,489	1,196	0	0	0	0	2,685	141,854,244
30-34	1,310	3,235	818	3	0	0	5,366	353,599,497
35-39	770	2,544	2,815	573	5	0	6,707	492,800,801
40-44	558	1,789	2,323	2,661	442	5	7,778	605,103,737
45-49	382	1,206	1,514	2,193	1,631	855	7,781	634,105,560
50-54	213	729	919	1,316	956	774	4,907	401,953,272
55-59	124	339	406	691	416	323	2,299	186,048,354
60-64	44	104	179	252	121	114	814	66,266,830
65 and Over	12	30	45	62	30	26	205	16,785,569
Total	**5,335**	**11,172**	**9,019**	**7,751**	**3,601**	**2,097**	**38,975**	**$ 2,910,025,308**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2013

State Peace Officers and Firefighters

Attained	Years of Service at Valuation Date						Average
Age	0-4	5-9	10-14	15-19	20-24	25+	Salary
15-24	26,576	0	0	0	0	0	$26,576
25-29	41,176	67,344	0	0	0	0	52,832
30-34	48,792	70,048	76,783	89,285	0	0	65,896
35-39	56,873	71,894	77,740	81,717	89,678	0	73,476
40-44	62,568	73,119	77,948	82,334	87,464	111,443	77,797
45-49	68,520	74,266	78,232	81,474	87,158	92,510	81,494
50-54	70,294	75,634	78,131	80,975	85,855	92,249	81,914
55-59	71,670	75,590	79,046	80,025	85,100	88,992	80,926
60-64	76,671	78,089	78,404	80,928	84,679	88,577	81,409
65 and Over	84,560	73,888	81,138	79,967	85,148	91,944	81,881
Average	**$50,584**	**$71,744**	**$77,918**	**$81,547**	**$86,515**	**$91,696**	**$74,664**

Distribution of Active Members By Age and Service

As of June 30, 2013

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	32	0	0	0	0	0	32	2,343,784
25-29	447	296	0	0	0	0	743	64,630,147
30-34	446	600	226	0	0	0	1,272	115,885,507
35-39	245	425	726	215	1	0	1,612	153,774,885
40-44	55	167	598	733	150	0	1,703	169,576,128
45-49	3	15	99	433	440	267	1,257	135,302,396
50-54	2	0	2	73	193	292	562	64,129,174
55-59	0	1	1	17	33	92	144	17,137,327
60-64	0	0	0	0	0	0	0	0
65 and Over	0	0	0	0	0	0	0	0
Total	**1,230**	**1,504**	**1,652**	**1,471**	**817**	**651**	**7,325**	**$ 722,779,348**

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Distribution of Average Annual Salaries By Age and Service

As of June 30, 2013

California Highway Patrol

Attained Age	Years of Service at Valuation Date						**Average Salary**
	0-4	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	
15-24	73,243	0	0	0	0	0	$73,243
25-29	82,712	93,439	0	0	0	0	86,985
30-34	82,997	94,845	97,178	0	0	0	91,105
35-39	83,326	94,571	97,932	102,177	100,763	0	95,394
40-44	84,288	94,308	97,263	102,640	105,282	0	99,575
45-49	51,374	96,107	97,974	101,113	112,014	115,876	107,639
50-54	88,420	0	62,697	105,168	110,373	119,342	114,109
55-59	0	103,420	125,626	107,625	115,311	122,537	119,009
60-64	0	0	0	0	0	0	0
65 and Over	0	0	0	0	0	0	0
Average	**$82,695**	**$94,449**	**$97,563**	**$102,306**	**$110,510**	**$118,372**	**$98,673**

Terminated and Transferred Participants

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2013

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	109	1	0	0	0	0	110	43,885
25-29	937	26	0	0	0	0	963	54,255
30-34	1,669	245	16	0	0	0	1,930	59,124
35-39	1,889	424	85	8	0	0	2,406	65,070
40-44	1,828	679	208	42	9	1	2,767	68,506
45-49	1,906	752	422	202	66	10	3,358	71,282
50-54	2,052	861	475	364	185	79	4,016	72,280
55-59	1,805	688	384	239	150	96	3,362	70,558
60-64	1,118	426	206	130	73	32	1,985	70,507
65 and Over	582	162	59	34	11	6	854	65,671
Total	**13,895**	**4,264**	**1,855**	**1,019**	**494**	**224**	**21,751**	**68,052**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2013

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	235	1	0	0	0	0	255	28,177
25-29	2,090	40	1	0	0	0	2,302	34,372
30-34	4,499	496	57	1	0	0	5,458	38,007
35-39	4,843	893	199	18	1	0	6,432	43,532
40-44	4,467	1,193	388	80	20	0	6,641	47,981
45-49	3,885	1,412	606	219	78	13	6,711	49,629
50-54	3,758	1,351	608	263	116	56	6,645	48,424
55-59	3,314	1,049	423	166	60	25	5,441	44,585
60-64	2,519	616	241	82	27	19	3,785	43,070
65 and Over	1,567	200	66	22	7	4	2,016	42,091
Total	**31,177**	**7,251**	**2,589**	**851**	**309**	**117**	**45,686**	**44,602**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2013

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	2	0	0	0	0	0	2	39,331
30-34	122	11	0	0	0	0	133	58,628
35-39	752	121	33	3	0	0	909	64,426
40-44	1,397	554	128	29	2	0	2,110	66,280
45-49	1,322	743	379	76	22	1	2,543	65,255
50-54	1,162	495	394	135	53	12	2,251	62,635
55-59	731	300	256	102	91	20	1,500	63,428
60-64	340	158	105	33	34	26	696	63,451
65 and Over	143	52	26	8	8	9	246	64,525
Total	**5,971**	**2,434**	**1,321**	**386**	**210**	**68**	**10,390**	**64,331**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2013

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	0
30-34	0	0	3	0	0	0	3	26,331
35-39	0	0	34	3	0	0	37	28,910
40-44	0	0	136	30	6	0	172	31,616
45-49	0	0	267	56	13	0	336	33,016
50-54	0	0	284	103	26	9	422	32,206
55-59	0	0	237	69	24	3	333	31,626
60-64	0	0	148	49	14	3	214	30,994
65 and Over	0	0	51	19	4	3	77	31,601
Total	**0**	**0**	**1,162**	**329**	**87**	**18**	**1,594**	**31,639**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2013

State Industrial

Attained Age	0-4	5-9	Years of Service at Valuation Date 10-14	15-19	20-24	25+	Total	Average Salary
15-24	29	0	0	0	0	0	29	37,891
25-29	289	18	0	0	0	0	307	44,861
30-34	519	71	4	0	0	0	594	53,558
35-39	640	124	27	2	0	0	793	59,514
40-44	896	280	88	16	3	0	1,283	61,318
45-49	1,065	329	118	37	17	1	1,567	63,805
50-54	1,066	312	146	51	12	6	1,593	64,951
55-59	766	223	89	27	18	2	1,125	64,360
60-64	392	105	34	17	6	3	557	63,853
65 and Over	128	25	11	5	0	0	169	73,464
Total	**5,790**	**1,487**	**517**	**155**	**56**	**12**	**8,017**	**61,917**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2013

State Industrial

Attained Age	0-4	5-9	Years of Service at Valuation Date 10-14	15-19	20-24	25+	Total	Average Salary
15-24	25	0	0	0	0	0	25	29,385
25-29	175	5	0	0	0	0	180	35,465
30-34	289	32	1	0	0	0	322	36,778
35-39	317	59	8	2	0	0	386	37,677
40-44	428	82	27	3	0	0	540	39,926
45-49	434	93	51	14	5	1	598	42,652
50-54	361	99	30	12	5	1	508	40,003
55-59	267	61	14	4	0	0	346	39,059
60-64	185	45	5	3	1	1	240	38,666
65 and Over	220	28	1	1	0	0	250	39,196
Total	**2,701**	**504**	**137**	**39**	**11**	**3**	**3,395**	**39,318**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2013

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	9	0	0	0	0	0	9	43,789
25-29	136	4	0	0	0	0	140	51,398
30-34	351	32	1	0	0	0	384	60,891
35-39	479	66	3	0	0	0	548	67,591
40-44	575	110	18	2	0	0	705	71,074
45-49	647	127	44	18	7	0	843	71,680
50-54	690	192	60	32	11	1	986	78,014
55-59	567	146	49	21	8	3	794	77,657
60-64	315	54	23	11	2	0	405	76,558
65 and Over	108	21	7	1	1	0	138	76,047
Total	**3,877**	**752**	**205**	**85**	**29**	**4**	**4,952**	**72,421**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2013

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	21	0	0	0	0	0	21	36,909
25-29	198	7	0	0	0	0	205	46,267
30-34	529	46	0	0	0	0	575	52,927
35-39	540	64	6	0	0	0	610	61,326
40-44	687	98	18	5	1	0	809	62,726
45-49	629	108	25	10	0	0	772	61,410
50-54	642	128	26	10	2	0	808	59,814
55-59	600	74	13	3	1	0	691	61,521
60-64	412	43	7	2	2	0	466	65,126
65 and Over	235	15	4	0	0	0	254	63,608
Total	**4,493**	**583**	**99**	**30**	**6**	**0**	**5,211**	**60,181**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2013

State Peace Officers and Fire Fighters

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	48,817
25-29	375	8	0	0	0	0	383	57,438
30-34	767	55	3	0	0	0	825	71,960
35-39	809	105	20	2	0	0	936	79,715
40-44	935	162	36	5	1	0	1,139	81,170
45-49	908	166	63	15	6	2	1,160	85,813
50-54	589	108	46	9	6	2	760	82,363
55-59	227	55	23	6	4	1	316	74,201
60-64	87	21	11	5	1	1	126	71,920
65 and Over	17	6	0	1	0	0	24	71,104
Total	**4,750**	**686**	**202**	**43**	**18**	**6**	**5,705**	**78,272**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2013

State Peace Officers and Firefighters

Attained Age	Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	149	0	0	0	0	0	142	30,016
25-29	711	14	0	0	0	0	692	33,796
30-34	1,084	95	4	0	0	0	1,133	36,504
35-39	925	111	32	0	0	0	1,025	38,637
40-44	860	146	71	30	3	0	1,070	41,804
45-49	721	181	91	54	20	2	1,035	47,455
50-54	456	91	33	5	5	1	570	41,162
55-59	234	37	12	0	3	2	277	39,204
60-64	123	20	10	1	3	0	151	41,895
65 and Over	47	1	5	2	0	0	53	40,823
Total	**5,310**	**696**	**258**	**92**	**34**	**5**	**6,395**	**39,894**

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2013

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	48,727
25-29	12	0	0	0	0	0	12	46,229
30-34	24	3	0	0	0	0	27	73,188
35-39	37	12	2	0	0	0	51	78,866
40-44	56	13	10	1	0	0	80	78,882
45-49	41	11	4	4	0	0	60	84,378
50-54	22	9	3	1	0	0	35	76,101
55-59	11	4	0	0	0	0	15	64,398
60-64	4	1	1	0	0	0	6	89,224
65 and Over	2	1	0	0	0	0	3	76,503
Total	**210**	**54**	**20**	**6**	**0**	**0**	**290**	**77,136**

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2013

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	0	0	0	0	0	0	0	0
25-29	11	1	0	0	0	0	12	61,563
30-34	28	6	0	0	0	0	33	76,016
35-39	45	26	5	0	0	0	72	69,502
40-44	52	18	21	1	0	0	88	67,565
45-49	37	25	7	14	3	0	83	68,385
50-54	7	13	5	0	2	1	28	68,587
55-59	5	5	2	0	0	0	12	66,211
60-64	5	1	0	0	0	0	6	46,559
65 and Over	0	0	0	0	0	0	0	0
Total	**190**	**95**	**40**	**15**	**5**	**1**	**346**	**68,465**

Retired Members and Beneficiaries

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2013

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	1	2	13	4	185	0
30-34	0	10	3	1	0	132	0
35-39	0	30	19	7	5	146	3
40-44	0	147	33	18	3	201	63
45-49	0	379	111	41	9	311	220
50-54	1,868	1,038	288	99	17	561	1,494
55-59	11,306	1,742	434	199	9	879	6,759
60-64	24,221	2,095	461	312	6	1,417	14,316
65-69	28,453	1,847	369	308	7	2,025	16,044
70-74	21,749	1,396	247	281	9	2,615	11,993
75-79	15,992	911	169	241	8	3,274	8,838
80-84	12,543	568	86	214	4	4,075	7,140
85 and Over	14,178	529	48	264	2	7,677	8,261
Total	**130,310**	**10,693**	**2,270**	**1,998**	**83**	**23,498**	**168,852**

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, 2013

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	$6,280	$154	$116,886	$10,357	$2,438,418	$2,572,095
30-34	0	63,929	19,244	35,096	0	1,887,471	2,005,740
35-39	0	220,798	4,898	221,211	62,729	2,357,953	2,867,589
40-44	0	1,415,595	90,222	410,327	1,458	3,447,931	5,365,533
45-49	0	4,654,723	295,476	768,212	88,108	4,947,060	10,753,579
50-54	21,241,941	14,751,250	894,505	2,024,938	28,991	8,507,291	47,448,916
55-59	310,064,273	26,698,604	1,298,444	4,869,891	6,920	14,713,048	357,651,180
60-64	773,245,664	32,000,106	1,647,816	7,681,651	79,754	26,403,364	841,058,355
65-69	934,118,448	27,702,646	1,510,109	7,726,317	1,676	44,078,927	1,015,138,123
70-74	708,412,231	22,232,711	1,265,979	7,201,074	27,628	61,058,272	800,197,895
75-79	502,256,032	13,565,295	509,588	6,378,007	8,556	78,315,777	601,033,255
80-84	382,579,849	7,301,620	303,010	5,155,753	3,344	94,408,036	489,751,612
85 and Over	342,458,277	5,752,722	94,347	5,816,993	901	134,344,271	488,467,511
Total	**$3,974,376,715**	**$156,366,279**	**$7,933,792**	**$48,406,356**	**$320,422**	**$476,907,819**	**$4,664,311,383**

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, 2013

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	38,815	1,484	246	374	10	735	41,664
5-9	30,429	1,737	396	355	11	1,700	34,628
10-14	22,461	2,304	500	321	6	2,407	27,999
15-19	14,294	2,107	381	258	15	3,024	20,079
20-24	12,050	1,325	402	223	7	4,387	18,394
25-29	7,295	794	170	213	16	4,667	13,155
30 and Over	4,966	942	175	254	18	6,578	12,933
Total	**130,310**	**10,693**	**2,270**	**1,998**	**83**	**23,498**	**168,852**

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, 2013

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	$1,307,324,278	$22,710,586	$1,326,001	$9,625,217	$126,348	$15,691,784	$1,356,804,214
5-9	978,837,141	27,739,119	2,335,110	8,610,362	32,102	38,923,440	1,056,477,274
10-14	740,289,724	36,191,189	2,092,722	8,365,306	9,470	63,820,743	850,769,154
15-19	394,851,314	32,056,418	1,084,097	6,959,162	134,183	76,480,283	511,565,457
20-24	343,310,902	19,624,477	766,364	5,751,013	3,579	120,800,294	490,256,629
25-29	147,239,318	9,574,196	222,731	5,162,810	8,484	95,633,775	257,841,314
30 and Over	62,524,038	8,470,294	106,767	3,932,486	6,256	65,557,500	140,597,341
Total	**$3,974,376,715**	**$156,366,279**	**$7,933,792**	**$ 48,406,356**	**$320,422**	**$476,907,819**	**$ 4,664,311,383**

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, 2013

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	1	0	26	27
30-34	0	1	0	0	0	13	14
35-39	0	5	0	1	0	13	19
40-44	0	27	4	1	0	20	52
45-49	0	76	8	5	0	26	115
50-54	110	190	14	15	0	52	381
55-59	437	290	10	17	0	68	822
60-64	781	340	9	32	2	103	1,267
65-69	718	258	12	15	0	126	1,129
70-74	501	138	6	11	0	88	744
75-79	395	68	2	8	0	90	563
80-84	234	18	1	2	0	62	317
85 and Over	93	3	0	1	0	45	142
Total	**3,269**	**1,414**	**66**	**109**	**2**	**732**	**5,592**

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, 2013

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	$2,137	$0	$136,025	$138,162
30-34	0	4,194	0	0	0	70,069	74,263
35-39	0	49,846	0	90	0	75,095	125,031
40-44	0	278,260	104,741	12	0	116,066	499,079
45-49	0	773,038	199,020	14,123	0	211,284	1,197,465
50-54	310,400	2,336,358	267,412	104,317	0	486,461	3,504,948
55-59	2,437,499	3,833,104	176,852	102,130	0	685,697	7,235,282
60-64	5,287,467	5,035,458	210,652	342,582	48,603	1,114,954	12,039,716
65-69	4,853,364	3,827,129	237,329	167,708	0	1,351,232	10,436,762
70-74	4,064,631	2,189,160	73,454	107,904	0	915,470	7,350,619
75-79	3,741,672	1,029,520	50,356	150,129	0	979,753	5,951,430
80-84	2,856,256	268,312	32,403	73,653	0	727,670	3,958,294
85 and Over	1,107,603	59,240	0	49,014	0	440,550	1,656,407
Total	**$24,658,892**	**$19,683,619**	**$1,352,219**	**$1,113,799**	**$48,603**	**$7,310,326**	**$54,167,458**

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, 2013

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	1,421	180	6	29	0	51	1,687
5-9	417	151	6	35	0	58	667
10-14	592	397	25	19	0	171	1,204
15-19	594	400	19	17	2	238	1,270
20-24	193	221	10	4	0	151	579
25-29	51	65	0	5	0	56	177
30 and Over	1	0	0	0	0	7	8
Total	**3,269**	**1,414**	**66**	**109**	**2**	**732**	**5,592**

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, 2013

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	$10,171,107	$1,735,098	$57,411	$176,156	$0	$309,388	$12,449,160
5-9	2,349,000	1,685,952	152,845	261,717	0	408,393	4,857,907
10-14	3,573,281	5,109,293	429,362	197,329	0	1,347,385	10,656,650
15-19	6,208,915	6,434,500	451,792	357,774	48,603	2,870,901	16,372,485
20-24	1,937,791	3,837,919	260,809	62,880	0	1,768,632	7,868,031
25-29	415,517	880,857	0	57,943	0	549,753	1,904,070
30 and Over	3,281	0	0	0	0	55,874	59,155
Total	**$24,658,892**	**$19,683,619**	**$1,352,219**	**$1,113,799**	**$48,603**	**$7,310,326**	**$54,167,458**

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, 2013

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	1	1	16	18
30-34	0	0	1	0	0	10	11
35-39	0	6	1	0	0	15	22
40-44	0	36	13	0	0	10	59
45-49	0	98	27	1	0	23	149
50-54	283	165	60	10	1	33	552
55-59	1,450	236	87	12	0	63	1,848
60-64	2,167	242	81	17	0	96	2,603
65-69	2,088	207	69	15	1	117	2,497
70-74	1,190	122	36	19	2	120	1,489
75-79	784	58	24	10	2	124	1,002
80-84	469	33	14	5	1	124	646
85 and Over	381	19	9	6	6	226	647
Total	**8,812**	**1,222**	**422**	**96**	**14**	**977**	**11,543**

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.

Annual Allowance Amounts for

Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2013

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	$4,911	$1,432	$41,456	$47,799
30-34	0	0	66	0	0	43,008	43,074
35-39	0	36,252	9	0	0	103,620	139,881
40-44	0	222,123	68,443	0	0	57,530	348,096
45-49	0	828,130	180,028	8,609	0	116,992	1,133,759
50-54	1,647,771	1,310,548	316,812	64,013	1,077	193,924	3,534,145
55-59	16,428,377	2,036,691	457,233	98,617	0	504,234	19,525,152
60-64	27,526,689	1,914,307	445,103	103,242	0	719,978	30,709,319
65-69	27,571,636	1,886,435	533,559	141,040	18,291	919,458	31,070,419
70-74	16,861,405	1,131,738	256,907	321,698	1,487	906,833	19,480,068
75-79	11,418,283	601,507	181,136	266,398	51,269	1,288,557	13,807,150
80-84	7,663,159	509,559	93,556	40,434	21,684	1,598,014	9,926,406
85 and Over	6,062,183	255,076	257,465	145,136	166,835	3,608,039	10,494,734
Total	**$115,179,503**	**$10,732,366**	**$2,790,317**	**$1,194,098**	**$262,075**	**$10,101,643**	**$140,260,002**

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, 2013

State Industrial

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	3,782	274	67	25	1	70	4,219
5-9	2,272	232	104	21	1	116	2,746
10-14	1,397	356	111	18	0	170	2,052
15-19	672	176	65	15	1	162	1,091
20-24	375	123	39	11	0	164	712
25-29	188	33	19	3	1	114	358
30 and Over	126	28	17	3	10	181	365
Total	**8,812**	**1,222**	**422**	**96**	**14**	**977**	**11,543**

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.

Annual Allowance Amounts for Retirees and Beneficiaries

By Years Retired and Retirement Type

As of June 30, 2013

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	$50,823,763	$2,351,917	$486,583	$342,789	$1,432	$560,114	$54,566,598
5-9	29,785,332	2,099,360	831,525	258,649	1,077	866,889	33,842,832
10-14	18,405,273	3,276,957	565,640	189,286	0	1,646,682	24,083,838
15-19	7,056,364	1,403,715	266,485	184,908	73	1,205,690	10,117,235
20-24	5,073,627	1,002,239	297,124	163,303	0	2,218,412	8,754,705
25-29	2,496,325	283,418	56,387	21,201	1,414	1,670,303	4,529,048
30 and Over	1,538,819	314,760	286,573	33,962	258,079	1,933,553	4,365,746
Total	**$115,179,503**	**$10,732,366**	**$2,790,317**	**$1,194,098**	**$262,075**	**$10,101,643**	**$140,260,002**

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, 2013

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	1	2	26	36
30-34	0	0	15	0	0	15	30
35-39	0	1	42	0	0	14	57
40-44	0	13	86	1	1	24	125
45-49	0	28	155	6	2	33	224
50-54	455	71	302	22	6	72	928
55-59	2,080	106	598	40	10	138	2,972
60-64	3,204	135	798	64	15	226	4,442
65-69	3,309	131	730	39	12	289	4,510
70-74	2,023	77	456	28	12	307	2,903
75-79	1,131	31	273	24	17	359	1,835
80-84	588	30	198	12	12	389	1,229
85 and Over	489	15	124	15	11	589	1,243
Total	**13,279**	**638**	**3,784**	**252**	**100**	**2,481**	**20,534**

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, 2013

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	$179,632	$1,686	$24,920	$244,556	$450,794
30-34	0	0	339,436	0	0	149,029	488,465
35-39	0	3,636	1,030,612	0	0	84,687	1,118,935
40-44	0	76,528	2,213,935	26,271	27,572	185,745	2,530,051
45-49	0	185,871	4,184,258	127,117	70,017	355,350	4,922,613
50-54	4,619,914	518,633	7,008,278	368,336	220,994	957,326	13,693,481
55-59	42,204,793	985,525	13,990,875	598,768	325,157	2,082,337	60,187,455
60-64	66,110,660	1,499,964	18,506,975	917,888	413,934	3,052,195	90,501,616
65-69	66,358,400	1,445,671	17,393,606	490,837	303,266	4,294,996	90,286,776
70-74	40,603,501	962,887	11,392,562	458,101	319,886	4,587,732	58,324,669
75-79	19,802,494	493,703	7,238,059	493,598	475,791	4,989,482	33,493,127
80-84	9,927,453	448,886	5,107,858	196,366	334,234	5,916,938	21,931,735
85 and Over	10,038,710	217,964	3,310,601	320,120	283,916	8,360,425	22,531,736
Total	**$259,665,925**	**$6,839,268**	**$91,896,687**	**$3,999,088**	**$2,799,687**	**$35,260,798**	**$400,461,453**

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, 2013

State Safety

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	6,064	185	674	54	5	144	7,126
5-9	3,527	125	738	85	7	283	4,765
10-14	2,028	147	724	41	13	330	3,283
15-19	785	93	390	28	7	245	1,548
20-24	352	42	333	13	5	220	965
25-29	234	11	295	10	10	255	815
30 and Over	289	35	630	21	53	1,004	2,032
Total	**13,279**	**638**	**3,784**	**252**	**100**	**2,481**	**20,534**

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, 2013

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	$146,770,182	$2,938,696	$21,182,094	$987,749	$342,728	$2,536,025	$174,757,474
5-9	61,085,483	1,271,655	18,698,356	1,355,645	154,727	4,547,482	87,113,348
10-14	28,821,962	1,352,415	16,707,919	457,038	293,884	4,711,719	52,344,937
15-19	8,666,790	619,246	8,510,334	359,351	244,718	2,654,361	21,054,800
20-24	4,391,990	274,946	6,872,857	182,064	112,772	2,975,060	14,809,689
25-29	3,857,911	43,683	6,128,489	193,419	215,540	3,728,316	14,167,358
30 and Over	6,071,607	338,627	13,796,638	463,822	1,435,318	14,107,835	36,213,847
Total	**$259,665,925**	**$6,839,268**	**$91,896,687**	**$3,999,088**	**$2,799,687**	**$35,260,798**	**$400,461,453**

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, 2013

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	5	5	5	51	66
30-34	0	3	61	0	2	27	93
35-39	0	6	195	0	4	23	228
40-44	0	24	490	4	8	35	561
45-49	0	43	831	12	20	52	958
50-54	3,421	88	1,402	30	24	100	5,065
55-59	4,466	87	1,478	35	20	206	6,292
60-64	4,667	92	1,478	55	23	317	6,632
65-69	3,745	64	1,158	35	24	336	5,362
70-74	2,052	35	576	20	12	330	3,025
75-79	1,030	19	241	13	8	287	1,598
80-84	548	11	88	6	0	192	845
85 and Over	235	4	38	3	0	120	400
Total	**20,164**	**476**	**8,041**	**218**	**150**	**2,076**	**31,125**

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, 2013

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	$134,174	$56,376	$197,955	$565,001	$953,506
30-34	0	33,713	1,857,653	0	66,317	399,773	2,357,456
35-39	26,828	80,363	6,115,785	0	161,421	478,362	6,835,931
40-44	261,745	329,892	16,128,089	227,334	323,543	823,664	17,832,522
45-49	419,841	588,144	27,199,700	530,764	866,501	1,412,157	30,597,266
50-54	209,947,846	1,714,610	48,906,936	1,324,067	1,001,244	2,566,007	265,460,710
55-59	270,720,664	2,007,956	55,331,224	1,295,741	648,266	6,518,462	336,522,313
60-64	262,471,082	2,315,756	60,260,056	2,141,146	854,770	11,077,917	339,120,727
65-69	193,094,113	1,527,781	46,971,256	1,369,902	686,917	11,849,312	255,499,281
70-74	94,665,887	891,895	22,249,998	747,373	396,795	11,820,307	130,772,255
75-79	42,913,011	548,366	8,811,462	347,483	309,973	9,313,525	62,243,820
80-84	21,170,452	236,840	3,181,817	156,315	0	6,206,742	30,952,166
85 and Over	8,201,110	61,982	1,322,068	111,085	0	3,566,053	13,262,298
Total	**$1,103,184,165**	**$10,337,298**	**$298,470,218**	**$8,307,586**	**$5,513,702**	**$66,597,282**	**$1,492,410,251**

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, 2013

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	9,032	116	1,345	44	18	111	10,666
5-9	5,430	98	1,659	66	30	268	7,551
10-14	3,015	127	2,106	45	39	402	5,734
15-19	1,362	84	1,353	41	29	358	3,227
20-24	832	40	1,084	16	11	438	2,421
25-29	493	10	493	6	23	498	1,523
30 and Over	0	1	1	0	0	1	3
Total	**20,164**	**476**	**8,041**	**218**	**150**	**2,076**	**31,125**

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, 2013

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	$526,049,942	$3,188,865	$58,070,726	$1,894,471	$889,487	$3,762,991	$593,856,482
5-9	316,802,388	2,283,807	72,002,675	2,721,023	1,163,045	10,287,832	405,260,770
10-14	150,755,535	2,523,321	76,616,097	1,508,054	1,293,377	13,628,020	246,324,404
15-19	54,908,465	1,517,073	45,399,391	1,515,479	1,058,972	10,793,009	115,192,389
20-24	36,906,936	629,412	33,677,989	481,907	449,411	14,082,344	86,227,999
25-29	17,760,899	194,068	12,703,262	186,652	659,410	14,043,004	45,547,295
30 and Over	0	752	78	0	0	82	912
Total	**$1,103,184,165**	**$10,337,298**	**$298,470,218**	**$8,307,586**	**$5,513,702**	**$66,597,282**	**$1,492,410,251**

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, 2013

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	5	4	9
30-34	0	0	7	0	2	3	12
35-39	0	0	17	0	5	7	29
40-44	0	1	56	1	9	4	71
45-49	0	1	111	2	14	7	135
50-54	556	3	286	2	21	28	896
55-59	754	6	404	6	8	39	1,217
60-64	508	5	442	9	10	78	1,052
65-69	585	5	741	5	22	165	1,523
70-74	515	8	731	7	15	206	1,482
75-79	237	3	435	3	17	201	896
80-84	144	4	236	3	7	191	585
85 and Over	133	1	107	0	5	235	481
Total	**3,432**	**37**	**3,573**	**38**	**140**	**1,168**	**8,388**

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, 2013

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	$117,514	$55,844	$173,358
30-34	0	0	278,720	0	123,170	49,739	451,629
35-39	0	0	775,969	0	283,684	37,324	1,096,977
40-44	0	6,954	2,443,930	82,213	572,345	7,414	3,112,856
45-49	0	8,286	4,214,454	52,547	852,443	348,015	5,475,745
50-54	50,397,629	54,993	14,725,727	97,572	1,257,576	1,284,464	67,817,961
55-59	66,024,913	97,314	24,241,025	448,944	372,183	1,628,945	92,813,324
60-64	37,883,600	251,674	26,352,841	516,049	334,336	2,691,042	68,029,542
65-69	33,985,407	206,599	42,029,003	294,034	531,472	5,077,726	82,124,241
70-74	24,147,802	126,250	31,116,101	264,303	408,250	6,431,174	62,493,880
75-79	9,370,553	61,827	16,962,168	105,533	431,000	5,552,717	32,483,798
80-84	5,492,786	109,773	8,981,706	65,459	179,691	4,575,085	19,404,500
85 and Over	4,858,544	23,562	3,608,143	0	134,387	4,913,951	13,538,587
Total	**$232,161,234**	**$947,232**	**$175,729,787**	**$1,926,654**	**$5,598,051**	**$32,653,440**	**$449,016,398**

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, 2013

California Highway Patrol

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	1,111	0	258	2	16	15	1,402
5-9	808	5	479	6	23	32	1,353
10-14	560	6	657	13	6	86	1,328
15-19	461	9	547	6	15	110	1,148
20-24	207	5	554	4	8	151	929
25-29	133	4	402	5	10	196	750
30 and Over	152	8	676	2	62	578	1,478
Total	**3,432**	**37**	**3,573**	**38**	**140**	**1,168**	**8,388**

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, 2013

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	$100,255,253	$0	$21,086,844	$100,871	$944,970	$902,538	$123,290,476
5-9	60,376,309	330,377	35,701,267	374,731	1,350,746	1,838,008	99,971,438
10-14	31,839,465	172,912	42,621,760	871,364	232,151	4,064,721	79,802,373
15-19	21,459,624	190,318	25,535,168	259,248	700,015	4,750,337	52,894,710
20-24	8,012,712	48,813	21,337,254	145,345	314,922	4,975,971	34,835,017
25-29	5,012,842	110,799	12,619,101	136,887	471,896	5,511,773	23,863,298
30 and Over	5,205,029	94,013	16,828,393	38,208	1,583,351	10,610,092	34,359,086
Total	**$232,161,234**	**$947,232**	**$175,729,787**	**$1,926,654**	**$5,598,051**	**$32,653,440**	**$449,016,398**

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, 2013

State Miscellaneous Tier 1

Years Retired	Total Retirement	Total Benefits	Average Benefits
2013	2,758[1]	$72,313,931	$26,220
2012	8,238	253,010,234	30,713
2011	8,449	257,513,846	30,479
2010	9,343	309,751,071	33,153
2009	8,211	283,813,730	34,565
2008	6,983	230,295,155	32,979
2007	6,650	204,959,114	30,821
2006	6,445	180,448,727	27,998
2005	7,305	219,537,844	30,053
2004	8,635	274,591,586	31,800
2003	6,108	175,160,120	28,677
2002	6,044	178,821,682	29,587
2001	6,228	203,676,357	32,703
2000	8,770	273,315,888	33,544
1999	3,040	64,203,605	21,120
1998	4,403	108,069,296	24,544
1997	4,477	111,504,235	24,906
1996	4,220	108,490,320	25,709
1995	3,889	101,179,933	26,017
1994	3,884	99,724,506	25,676
1993	2,964	61,055,826	20,599
1992	4,700	130,501,438	27,766
1991	5,270	168,972,482	32,063
1990	2,929	69,375,972	23,686
1989	2,684	56,653,568	21,108
1988	2,952	68,377,455	23,163
1987	3,203	71,233,741	22,240
1986	2,543	51,909,029	20,413
1985	2,526	44,937,165	17,790
1984	2,153	35,758,348	16,609
1983	2,786	50,059,992	17,968
1982 and Earlier	12,550	145,095,188	12,164
Totals	168,852	$4,664,311,383	$27,422

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 2013 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, 2013

State Miscellaneous Tier 2

Years Retired	Total Retirement	Total Benefits	Average Benefits
2013	218[1]	$1,646,019	$7,551
2012	621	4,938,679	7,953
2011	385	2,816,986	7,317
2010	202	1,238,644	6,132
2009	179	1,158,708	6,473
2008	143	1,129,302	7,897
2007	133	1,021,513	7,681
2006	128	793,269	6,197
2005	148	1,092,224	7,380
2004	124	910,968	7,347
2003	134	1,158,724	8,647
2002	165	1,285,513	7,791
2001	212	1,453,025	6,854
2000	259	2,178,462	8,411
1999	293	2,857,525	9,753
1998	370	3,995,288	10,798
1997	350	4,215,609	12,045
1996	289	3,547,441	12,275
1995	238	3,404,812	14,306
1994	156	2,384,963	15,288
1993	147	2,034,734	13,842
1992	142	1,894,898	13,344
1991	147	2,041,421	13,887
1990	81	1,068,084	13,186
1989	93	1,241,530	13,350
1988	88	1,108,166	12,593
1987	57	633,988	11,123
1986	50	518,230	10,365
1985	30	306,475	10,216
1984	2	33,103	16,552
1983	0	0	0
1982 and Earlier	8	59,155	7,394
Totals	5,592	$54,167,458	$9,687

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 2013 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, 2013

State Industrial

Years Retired	Total Retirement	Total Benefits	Average Benefits
2013	338[1]	$3,705,173	$10,962
2012	904	11,667,310	12,906
2011	825	9,995,381	12,116
2010	950	13,092,180	13,781
2009	781	10,583,543	13,551
2008	607	7,732,961	12,740
2007	510	6,425,163	12,598
2006	556	6,379,728	11,474
2005	548	7,148,149	13,044
2004	661	8,323,698	12,593
2003	462	5,252,783	11,370
2002	461	5,328,212	11,558
2001	455	5,999,317	13,185
2000	569	7,254,747	12,750
1999	200	1,781,912	8,910
1998	301	2,695,666	8,956
1997	278	2,701,378	9,717
1996	226	1,973,569	8,733
1995	212	1,958,244	9,237
1994	181	1,807,024	9,984
1993	142	1,407,692	9,913
1992	193	2,677,385	13,872
1991	179	2,687,535	15,014
1990	114	1,057,118	9,273
1989	118	1,126,994	9,551
1988	78	930,698	11,932
1987	98	1,327,313	13,544
1986	59	872,259	14,784
1985	73	874,371	11,978
1984	60	674,199	11,237
1983	73	810,039	11,096
1982 and Earlier	331	4,008,261	12,110
Totals	11,543	$140,260,002	$12,151

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 2013 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, 2013

State Safety

Years Retired	Total Retirement	Total Benefits	Average Benefits
2013	539[1]	$12,535,285	$23,257
2012	1,491	34,484,919	23,129
2011	1,423	34,514,949	24,255
2010	1,608	42,352,957	26,339
2009	1,354	33,881,355	25,023
2008	1,032	23,294,956	22,573
2007	955	19,104,712	20,005
2006	937	15,760,279	16,820
2005	1,015	17,985,196	17,719
2004	1,051	19,020,720	18,098
2003	794	13,699,910	17,254
2002	762	12,398,811	16,271
2001	717	11,971,909	16,697
2000	859	14,677,370	17,087
1999	389	5,214,255	13,404
1998	425	5,579,589	13,128
1997	379	5,408,516	14,270
1996	330	4,735,623	14,350
1995	268	3,422,659	12,771
1994	277	3,544,564	12,796
1993	187	2,859,524	15,292
1992	256	4,317,830	16,867
1991	243	3,488,265	14,355
1990	152	2,331,251	15,337
1989	170	2,604,766	15,322
1988	118	1,739,605	14,742
1987	137	2,271,367	16,579
1986	100	1,664,677	16,647
1985	152	2,340,201	15,396
1984	205	3,670,117	17,903
1983	333	6,518,572	19,575
1982 and Earlier	1,876	33,066,744	17,626
Totals	20,534	$400,461,453	$19,502

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 2013 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, 2013

State Peace Officers and Firefighters

Years Retired	Total Retirement	Total Benefits	Average Benefits
2013	791[1]	$37,237,142	$47,076
2012	2,371	126,740,579	53,454
2011	2,102	110,338,177	52,492
2010	2,313	130,102,106	56,248
2009	2,089	127,089,895	60,838
2008	1,516	90,818,191	59,906
2007	1,712	104,860,482	61,250
2006	1,963	114,508,968	58,334
2005	1,225	60,285,362	49,213
2004	1,415	64,794,195	45,791
2003	1,208	53,346,883	44,161
2002	1,337	60,046,606	44,911
2001	1,241	54,821,411	44,175
2000	1,653	78,939,474	47,755
1999	616	18,992,735	30,832
1998	714	22,765,987	31,885
1997	754	26,105,424	34,623
1996	687	25,857,398	37,638
1995	607	22,797,311	37,557
1994	550	18,838,732	34,252
1993	508	17,736,732	34,915
1992	639	24,433,690	38,237
1991	619	25,448,006	41,111
1990	347	10,618,599	30,601
1989	383	11,483,475	29,983
1988	375	11,538,887	30,770
1987	469	14,864,016	31,693
1986	375	10,951,449	29,204
1985	291	8,330,973	28,629
1984	252	7,716,454	30,621
1983	0	0	0
1982 and Earlier	3	912	304
Totals	31,125	$1,492,410,251	$47,949

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 2013 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, 2013

California Highway Patrol

Years Retired	Total Retirement	Total Benefits	Average Benefits
2013	71[1]	$5,618,062	$79,128
2012	299	25,605,014	85,635
2011	310	27,217,430	87,798
2010	330	29,329,486	88,877
2009	298	27,854,663	93,472
2008	240	20,558,619	85,661
2007	239	18,557,098	77,645
2006	284	20,699,895	72,887
2005	318	24,562,528	77,241
2004	257	17,194,854	66,906
2003	182	10,626,606	58,388
2002	260	16,924,208	65,093
2001	301	20,078,998	66,708
2000	429	26,119,835	60,885
1999	145	6,605,256	45,553
1998	194	8,956,592	46,168
1997	242	11,152,340	46,084
1996	268	13,622,523	50,830
1995	236	10,811,696	45,812
1994	190	7,725,927	40,663
1993	240	10,081,495	42,006
1992	187	6,976,457	37,307
1991	211	8,599,285	40,755
1990	139	5,026,039	36,159
1989	176	6,088,000	34,591
1988	189	6,849,413	36,240
1987	144	4,966,881	34,492
1986	172	5,536,188	32,187
1985	139	4,308,418	30,996
1984	135	4,067,924	30,133
1983	164	4,388,937	26,762
1982 and Earlier	1,399	32,751,085	23,092
Totals	8,388	$449,016,398	$53,531

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 2013 are for the first 6 months of the calendar year only.

APPENDIX D

NORMAL COST INFORMATION

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.

	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	13.0%	6% - 11%	$317 - $513	N/A	N/A
P	State Industrial - 2% @ 62	15.4%	6% - 11%	$317 - $513	N/A	N/A
E	State Safety - 2% @ 57	18.4%	9% - 11%	$317	N/A	N/A
P	POFF (90% of current members) - 2.5% @ 57	22.0%	10.5% - 13%	$238 - $863	N/A	N/A
R	POFF (10% of current members) - 2.7% @ 57	23.1%	13.0%	$863	N/A	N/A
A	CHP - 2.7% @ 57	21.3%	11.5%	$863	N/A	N/A
	State Miscellaneous - 2% @ 60 & 3 Year FAC	15.2%	5% - 11%	$317 - $513	5.4%	9.8%
C	State Miscellaneous - 2% @ 55[1]	15.9%	5% - 11%	$317 - $513	6.7%	9.2%
L	State Industrial - 2% @ 60 & 3 Year FAC	17.3%	5% - 11%	$317 - $513	7.2%	10.1%
A	State Industrial - 2% @ 55[1]	18.7%	5% - 11%	$317 - $513	7.9%	10.8%
S	State Safety - 2% @ 55 & 3 Year FAC	18.9%	11%	$317	10.3%	8.6%
S	State Safety - 2.5% @ 60 & 3 Year FAC	20.2%	11%	$317	10.5%	9.7%
I	State Safety - 2.5% @ 55[1]	23.0%	11%	$317	10.5%	12.5%
C	State POFF - 2.5% @ 55 & 3 Year FAC	25.7%	8% - 13%	$238 - $863	10.5%	15.2%
	State POFF - 3% @ 55 & 3 Year FAC	29.7%	8% - 13%	$238 - $863	10.6%	19.1%
	State POFF - 3% @ 50[1]	28.1%	8% - 13%	$238 - $863	11.2%	16.9%
	CHP - 3% @ 55 & 3 Year FAC	26.2%	11.5%	$863	9.9%	16.3%
	CHP - 3% @ 50[1]	26.6%	11.5%	$863	10.3%	16.3%
	State Miscellaneous - 2nd Tier	11.5%	3.0%	$0	3.0%	8.5%

Notes:

1-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 2014-15 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, 2013 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 percent contribution rate and a breakpoint of $513 will pay $438.96 and have an effective contribution rate of 7.316 percent 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, 2013 to calculate an average effective member rate. The average effective member rate and employer normal cost depend on the distribution of member contribution rates and salaries.

Development of PEPRA Member Contribution Rates

The Public Employees' Pension Reform Act of 2013 requires that some new State members pay at least 50 percent of the Total Normal Cost.

The table below shows the determination of the Member contribution rates based on 50 percent of the Total Normal Cost for each respective plan on June 30, 2013.

	Basis for Current Rate		Rates Effective July 1, 2014			
Plan	Total Normal Cost[1]	Member Rate	Total Normal Cost[2]	Change	Change Needed	Member Rate
State Miscellaneous - CSU, Legislature and Judicial	12.11%	6.00%	12.95%	0.84%	No	6.00%
POFF- CSU, Legislature and Judicial	20.80%	10.50%	22.04%	1.24%	Yes	11.00%

[1]As of June 30, 2012 valuation date

[2]As of June 30, 2013 valuation date

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 percent means the plan or risk pool has more assets than liabilities and a ratio less than 100 percent 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.