



State Actuarial Valuation

As of June 30, 2014

Establishing Required Contributions

for the Fiscal Year

July 1, 2015 through June 30, 2016

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

State
Actuarial Valuation
as of June 30, 2014

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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, 2014 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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HIGHLIGHTS AND EXECUTIVE SUMMARY

- **INTRODUCTION**
- **PURPOSE OF THE REPORT**
- **EMPLOYER REQUIRED CONTRIBUTION RATES**
- **EXPECTED FUTURE CHANGES**
- **HISTORY OF THE EXPECTED CONTRIBUTION REQUIREMENTS**
- **FUNDED STATUS OF THE PLANS**
- **CHANGES SINCE THE PRIOR YEAR'S VALUATION**

Introduction

This is the actuarial valuation report as of June 30, 2014 for the State plans. This actuarial valuation was used to set the 2015-16 required employer contribution rates.

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. The legislation associated with pension reform (AB 340) also included member contribution rate changes for some State employees. The impact of the changes in employee contribution rates effective July 1, 2013, July 1, 2014, and July 1, 2015 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 this valuation, the June 30, 2014 valuation, CalPERS will no longer use an actuarial value of assets and will employ an amortization and smoothing policy that 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.

Purpose of the Report

This actuarial valuation was performed by the CalPERS Actuarial Office using data as of June 30, 2014. The purpose of the report is to:

- Set forth the assets and accrued liabilities of these plans as of June 30, 2014
- Determine the required employer contribution rates of these plans for the fiscal year July 1, 2015 through June 30, 2016
- Provide actuarial information as of June 30, 2014 to the CalPERS Board of Administration and other interested parties

The pension funding information presented in this report should not be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 68 for an Agent Employer Defined Benefit Pension Plan.

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 Fiscal Year July 1, 2015 through June 30, 2016 are shown in the table below. For comparison purposes, the corresponding contribution rates for Fiscal Year July 1, 2014 through June 30, 2015 are also provided. The expected contribution amounts that these rates are/were expected to generate are also shown.

	Fiscal Year 2014-15		Fiscal Year 2015-16	
	Expected Employer Contribution	Required Employer Rate ¹	Expected Employer Contribution	Required Employer Rate ¹
State Miscellaneous Tier 1	\$2,350,570,687	24.198%	\$2,649,621,776	25.068%
State Miscellaneous Tier 2	70,586,143	23.510%	69,272,826	24.389%
State Industrial	92,024,304	17.286%	103,292,663	17.775%
State Safety	341,509,505	18.156%	368,444,080	18.082%
State Peace Officers & Firefighters	1,086,102,162	35.180%	1,197,159,805	37.338%
California Highway Patrol	323,393,110	42.175%	363,634,308	45.406%
Total State	\$4,264,185,911		\$4,751,425,458	

¹ Excludes additional contributions pursuant to Government Code Section 20683.2. See “Additional Contributions Section” on page 8 for more information about that requirement.

Note that the payroll used to calculate the expected dollar contributions is the payroll used in the valuation incorporating two years of payroll growth using the payroll growth assumption of 3 percent. To the extent that payroll in the contribution year is different than the projected payroll, the actual contribution amounts will be different than the expected contributions shown in the table above.

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 Fiscal Year 2014-15 to Fiscal Year 2015-16.

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 \$487.2 million between Fiscal Year 2014-15 and Fiscal Year 2015-16. This change is mainly driven by the factors listed below.

On April 17, 2013, the CalPERS Board of Administration approved a change to 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 this valuation, CalPERS no longer uses an actuarial value of assets and employs an amortization and smoothing policy that spreads rate increases or decreases over a 5-year period, and amortizes all experience gains and losses over a fixed 30-year period. The increase in contribution caused by this change has been partially offset by strong investment returns during Fiscal Year 2013-14.

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. The change in liability due to the new actuarial assumptions was amortized over 20 years and phased in over 3 years, beginning with the contribution requirement for Fiscal Year 2014-15. The rates for Fiscal Year 2015-16 reflect the impact of the second year of the phase-in of the change in accrued liability due to new actuarial assumptions.

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits for new members as defined by PEPRA, that are hired after January 1, 2013. The normal cost for all of the plans is lower than in the prior year due to the enrollment of new hires into the lower benefit level.

The total payroll over all State plans increased by 7 percent from the prior year. This is greater than the payroll growth assumption of 3 percent used in our valuation. This is caused by an increase in active counts in many of the plans and also is due to individual salary increases. PEPRA closed the Alternate Retirement Program (ARP) to new entrants effective July 1, 2013. For the June 30, 2014 valuation, the active counts in State Miscellaneous and State Industrial increased due to new entrants hired between July 1, 2013 and June 30, 2014 as well as those who attained two years of service under the ARP.

There are other events that affected the overall change in contributions for the State plans between Fiscal Year 2014-15 and 2015-16. The table below highlights all major contributors to the change in required contributions.

Reason for Change	Change in Required Contribution (millions)
Change due to normal progression of existing amortization bases	\$72.3
Second year of phase-in of change in assumptions	259.0
Change due to increase in overall payroll	127.4
Decrease in normal cost due to new hires in lower benefit level	(59.3)
First installment of the 5-year phase in 30-year amortization of the following gains and losses:	
• Impact of investment experience and amortization and smoothing policy change	74.0
• Impact of greater than expected contributions received in 2013-14	(5.7)
• Impact of greater than expected retirements in 2013-14	7.6
• Impact of greater than expected individual salary increases in 2013-14	17.3
• Impact of greater than expected mortality experience in 2013-14	(3.1)
• All other gains and losses	(2.4)
Total Change in Required Contributions	\$487.2

Additional Contributions

One of the provisions of pension reform added Government Code Section 20683.2 which changed the contribution rates of many State members that were effective July 1, 2013 and July 1, 2014. Effective July 1, 2015, State Miscellaneous Tier 2 and Industrial Tier 2 will see an increase in member contribution from 3 percent to 3.75 percent. Government Code Section 20683.2 also 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 CalPERS will generally accept these payments. Government Code Section 20683.2 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 (these are the rates that staff is recommending 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
- The total contributions that the State is to make for each plan

Plan	Actuarially Required Employer Contribution for 2015-16	Additional Statutory Contribution to Offset Increased Member Contributions	Total Contribution 2015-16
State Miscellaneous Tier 1	25.068%	0.082%	25.150%
State Miscellaneous Tier 2	24.389%	0.889%	25.278%
State Industrial	17.775%	0.881%	18.656%
State Safety	18.082%	1.182%	19.264%
State Peace Officers & Firefighters	37.338%	1.647%	38.985%
California Highway Patrol	45.406%	1.319%	46.725%

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 2015 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 2015 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 2016-17 employer rates for the State plans based on a 2.4 percent investment return for fiscal year 2014-15. Note that the projected rates assume that all other actuarial assumptions will be realized, reflect member contribution changes effective July 1, 2015 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 2016-17 Employer Rates Assuming a 2.4% Investment Return for 2014-15
State Miscellaneous Tier 1	27.3%
State Miscellaneous Tier 2	26.8%
State Industrial	19.0%
State Safety	18.8%
State Police Officers & Firefighters	40.4%
California Highway Patrol	49.6%

A scenario analysis was performed to determine the effects of various investment returns on future employer contribution rates for three years beyond the estimated 2016-17 employer rates shown above. That information is available in the “Risk Analysis” section of this report.

History of the Expected Contribution Requirements

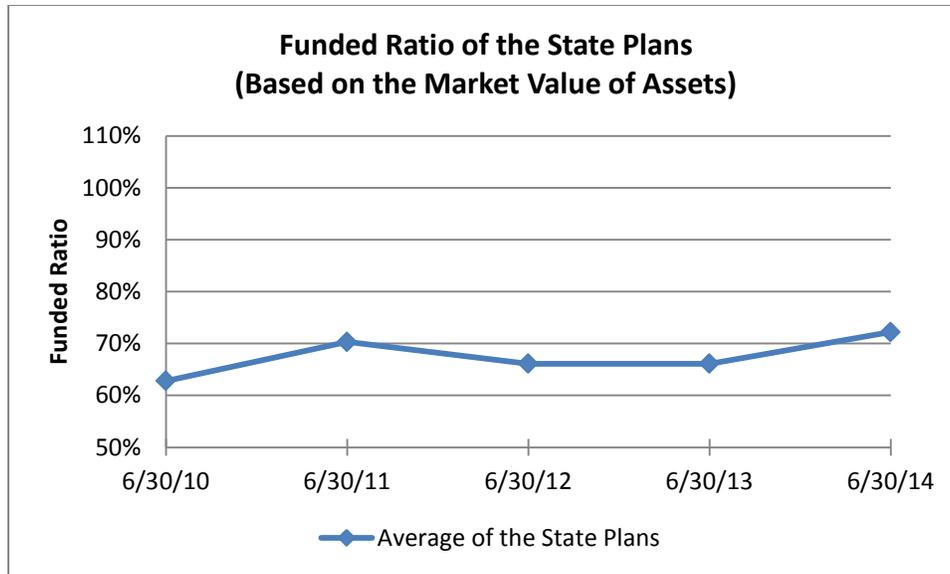
The following table shows the history of the employer contributions set by CalPERS based on projected payroll for the State plans going back to fiscal year 1996-97.

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
2015-16	\$4,751,425,458

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, 2013 to June 30, 2014 the funded status for the State plans, on average, increased by 6 percent. This was due to the investment return for 2013-14 being greater than expected. The graph below shows the average funded status for the past five years for the State plans.

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, 2014.

Funded Status and Unfunded Liability on June 30, 2014

Plan	Entry Age Normal Accrued Liability	Market Value of Assets	Unfunded Liability	Funded Ratio
State Miscellaneous	\$94,442,394,521	\$68,358,591,216	\$26,083,803,305	72.4%
State Industrial	3,458,104,222	2,825,325,889	632,778,333	81.7%
State Safety	9,551,207,082	7,561,646,144	1,989,560,938	79.2%
State Peace Officers and Firefighters	37,466,390,118	26,591,349,889	10,875,040,229	71.0%
California Highway Patrol	10,329,332,235	6,645,481,580	3,683,850,655	64.3%
Total for the State	\$155,247,428,178	\$111,982,394,718	\$43,265,033,460	72.1%

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, 2010	June 30, 2011	June 30, 2012	June 30, 2013	June 30, 2014
State Miscellaneous	63.2%	70.7%	66.3%	66.5%	72.4%
State Industrial	68.3%	77.0%	73.0%	74.7%	81.7%
State Safety	65.2%	74.6%	70.6%	71.6%	79.2%
State Police Officers & Firefighters	62.1%	69.0%	65.5%	65.0%	71.0%
California Highway Patrol	57.6%	65.1%	60.3%	58.9%	64.3%
Total for the State	62.8%	70.3%	66.1%	66.1%	72.1%

Changes Since the Prior Year's Valuation

Actuarial Assumptions

No changes were made since the prior valuation. A complete description of the actuarial assumptions used in the June 30, 2014 may be found in Appendix A of this report.

Actuarial Methods

On April 17, 2013, the CalPERS Board of Administration approved a change to 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 this valuation, CalPERS no longer uses an actuarial value of assets and employs an amortization and smoothing policy that spreads rate increases or decreases over a 5-year period, and amortizes all experience gains and losses over a fixed 30-year period. A complete description of the actuarial methods used in the June 30, 2014 valuation may be found in Appendix A of this report.

Plan Provisions

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. 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, July 1, 2014, and July 1, 2015 are reflected in this valuation. For more information on pension reform, please refer to the CalPERS website.

ASSETS

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

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

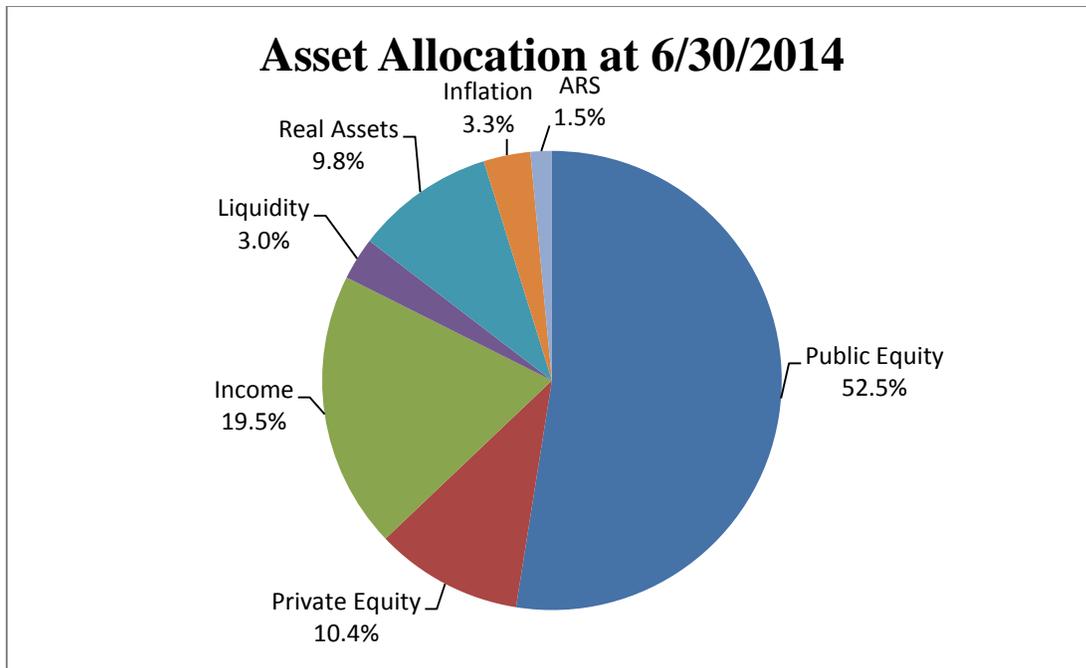
	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
1. Market Value of Assets as of June 30, 2013 Including Receivables for Tier 1 Conversion and Service Buybacks	\$ 60,029,027,274	\$ 2,417,771,894	\$ 6,326,950,892	\$ 22,918,567,682	\$ 5,760,252,078
2. 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
3. Market Value of Assets as of June 30, 2013 Excluding 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
4. Adjustment	(56,332,227)	(432,736)	23,010,503	(34,522,788)	(13,340,072)
5. Employer Contributions Received in 2013-14	2,156,311,702	88,516,602	339,231,860	959,741,284	277,701,592
6. Employee Contributions Received in Fiscal Year 2013-14	766,896,202	44,458,841	196,147,570	331,955,672	83,160,906
7. Benefit Payments in 2013-14	(4,823,876,744)	(145,375,046)	(390,314,567)	(1,590,858,762)	(459,908,456)
8. Refunds in 2013-14	(20,754,197)	(1,601,731)	(7,319,949)	(9,597,907)	(1,082,369)
9. Administrative Expense	(86,472,914)	(3,583,362)	(9,944,524)	(33,333,600)	(8,416,734)
10. Investment Return	<u>10,370,831,183</u>	<u>423,069,636</u>	<u>1,083,351,255</u>	<u>4,043,447,267</u>	<u>1,005,006,752</u>
11. Market Value of Assets as of June 30, 2014 Excluding Receivables for Tier 1 Conversion and Service Buybacks [(3) + (4) + (5) + (6) + (7) + (8) + (9) + (10)]	\$ 67,994,795,075	\$ 2,809,455,166	\$ 7,533,357,932	\$ 26,486,861,467	\$ 6,628,838,461
12. Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2014	363,796,141	15,870,723	28,288,212	104,488,422	16,643,119
13. Market Value of Assets as of June 30, 2014 Including Receivables for Tier 1 Conversion and Service Buybacks	\$ 68,358,591,216	\$ 2,825,325,889	\$ 7,561,646,144	\$ 26,591,349,889	\$ 6,645,481,580

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 Investment Belief No. 6 recognizes that strategic asset allocation is the dominant determinant of portfolio risk and return. On February 19, 2014 the CalPERS Board of Administration adopted changes to the current asset allocation as shown in the Policy Target Allocation below expressed as a percentage of total assets. The asset allocation has an expected long term blended rate of return of 7.5 percent.

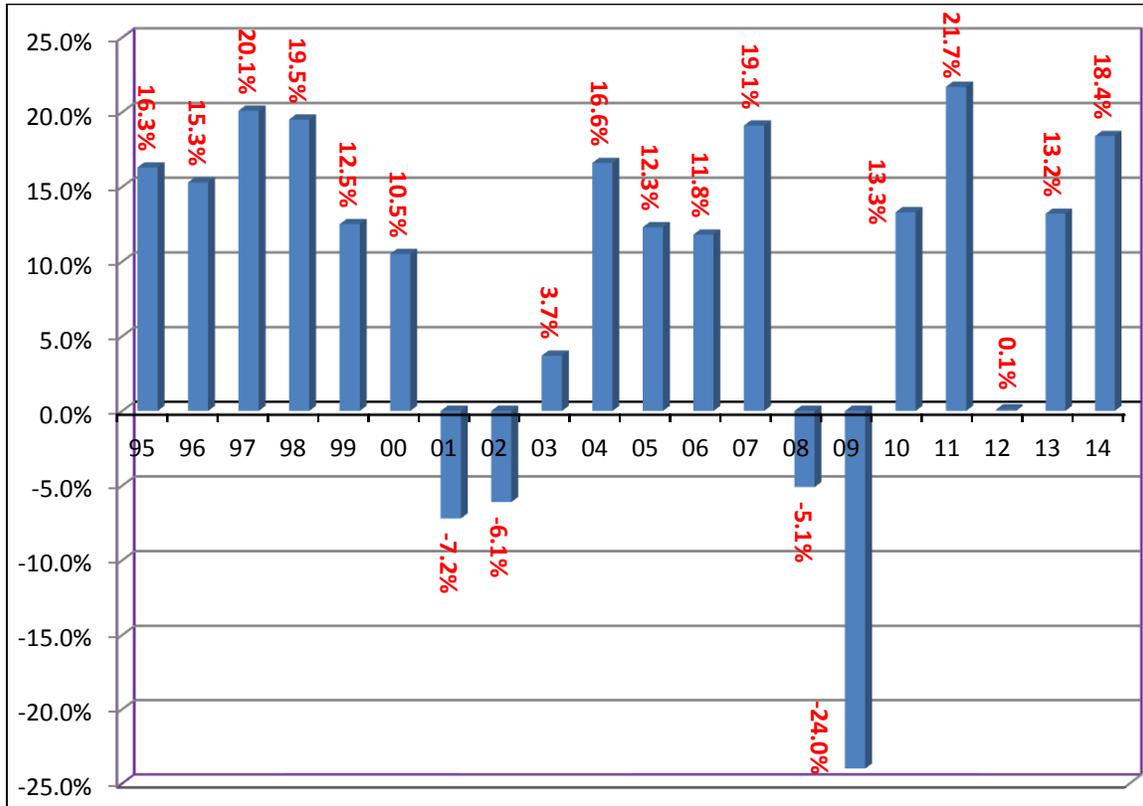
The asset allocation and market value of assets shown below reflect the values of the Public Employees Retirement Fund (PERF) in its entirety as of June 30, 2014. The assets of the State plans are part of the Public Employees Retirement Fund (PERF) and are invested accordingly.

(A) Asset Class	(B) Market Value (\$ Billion)	(C) Policy Target Allocation
1) Public Equity	158.2	50.0%
2) Private Equity	31.5	14.0%
3) Global Fixed Income	58.8	17.0%
4) Liquidity	9.0	4.0%
5) Real Assets	29.6	11.0%
6) Inflation Sensitive Assets	9.9	4.0%
7) Absolute Return Strategy (ARS)	4.5	0.0%
Total Fund	\$301.5	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, 2014, (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 volatility 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 Rates of Return and Volatilities					
	1 year	5 year	10 year	20 year	30 year
Geometric Return	18.4%	13.1%	7.2%	8.4%	10.1%
Volatility	–	8.2%	14.0%	11.9%	11.4%

LIABILITIES AND RATES

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

Comparison of Current and Prior Year

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

STATE MISCELLANEOUS

Participant Information

	June 30, 2013	June 30, 2014
Members Included in the Valuation ¹		
Active Members Tier 1	146,735	154,708
Active Members Tier 2	<u>6,099</u>	<u>5,521</u>
Subtotal Active Members	152,834	160,229
Transfers from Tier 1	21,751	25,227
Transfers from Tier 2	<u>10,390</u>	<u>10,105</u>
Subtotal Transfers	32,141	35,332
Vested Terminations Tier 1	45,686	48,200
Vested Terminations Tier 2	<u>1,594</u>	<u>1,517</u>
Subtotal Vested Terminations ²	47,280	49,717
Receiving Payments Tier 1	168,852	172,195
Receiving Payments Tier 2	<u>5,592</u>	<u>5,630</u>
Subtotal Receiving Payments	174,444	177,825
Subtotal Tier 1	383,024	400,330
Subtotal Tier 2	<u>23,675</u>	<u>22,773</u>
Grand Total	406,699	423,103
Average Entry Age of Active Members Tier 1	34.6	34.6
Average Entry Age of Active Members Tier 2	32.1	31.9
Average Age of Active Members Tier 1	48.4	48.0
Average Age of Active Members Tier 2	51.5	52.0
Average Pay Tier 1	\$ 62,043	\$ 64,058
Average Pay Tier 2	<u>54,980</u>	<u>58,005</u>
Average Pay Total	\$ 61,761	\$ 63,850
Covered Payroll Prior Fiscal Year		
Tier 1	\$ 9,103,860,682	\$ 9,910,307,823
Tier 2	<u>335,320,684</u>	<u>320,246,687</u>
Total	\$ 9,439,181,366	\$ 10,230,554,510
Projected Payroll for Contribution Rate		
Tier 1	\$ 9,713,792,285	\$ 10,569,566,914
Tier 2	<u>300,235,226</u>	<u>284,028,366</u>
Total	\$ 10,014,027,511	\$ 10,853,595,280

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, 2013	June 30, 2014
Present Value of Benefits	\$ 101,707,156,774	\$ 106,666,018,383
Accrued Liability	\$ 90,277,023,739	\$ 94,442,394,521
Market Value of Assets	\$ 60,029,027,274	\$ 68,358,591,216
Unfunded Liability/(Surplus)	\$ 30,247,996,465	\$ 26,083,803,305
Funded Status	66.5%	72.4%

Employer Contribution

	June 30, 2013	June 30, 2014
Tier 1 Contribution Required in Dollars		
Total Normal Cost	\$ 1,536,236,250	\$ 1,647,795,482
Employee Contribution	645,384,359	707,315,418
Employer Normal Costs	890,851,890	940,480,064
Amortization of Unfunded Liability	1,458,358,866	1,709,141,712
Group Term Life Benefits	<u>1,359,931</u>	<u>0</u>
Total	\$ 2,350,570,687	\$ 2,649,621,776
Tier 1 Contribution Required (Percent of Payroll)		
Total Normal Cost	15.815%	15.590%
Employee Contribution	6.644%	6.692%
Employer Normal Costs	9.171%	8.898%
Amortization of Unfunded Liability	15.013%	16.170%
Group Term Life Benefits	<u>0.014%</u>	<u>0.000%</u>
Total	24.198%	25.068%

Tier 2 Contribution Required in Dollars		
Total Normal Cost	\$ 34,476,011	\$ 33,995,355
Employee Contribution	9,007,057	10,651,064
Employer Normal Costs	25,468,954	23,344,291
Amortization of Unfunded Liability	45,075,156	45,928,535
Group Term Life Benefits	<u>42,033</u>	<u>0</u>
Total	\$ 70,586,143	\$ 69,272,826
Tier 2 Contribution Required (Percent of Payroll)		
Total Normal Cost	11.483%	11.969%
Employee Contribution	3.000%	3.750%
Employer Normal Costs	8.483%	8.219%
Amortization of Unfunded Liability	15.013%	16.170%
Group Term Life Benefits	<u>0.014%</u>	<u>0.000%</u>
Total	23.510%	24.389%

STATE INDUSTRIAL

Participant Information

	June 30, 2013	June 30, 2014
Members Included in the Valuation ¹		
Active Members	9,855	10,524
Transfers from Industrial	8,017	8,852
Vested Terminations ²	3,395	3,137
Receiving Payments	11,543	12,065
Total	32,810	34,578
Average Entry Age of Active Members	36.0	36.1
Average Age of Active Members	46.3	46.0
Average Pay	\$ 50,918	\$ 52,047
Covered Payroll Prior Fiscal Year	\$ 501,794,264	\$ 547,741,659
Projected Payroll for Contribution Rate	\$ 532,353,535	\$ 581,099,126

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, 2013	June 30, 2014
Present Value of Benefits	\$ 4,009,647,994	\$ 4,306,799,758
Accrued Liability	\$ 3,236,221,429	\$ 3,458,104,222
Market Value of Assets	\$ 2,417,771,894	\$ 2,825,325,889
Unfunded Liability/(Surplus)	\$ 818,449,535	\$ 632,778,333
Funded Status	74.7%	81.7%

Employer Contribution

	June 30, 2013	June 30, 2014
Contribution Required in Dollars		
Total Normal Cost	\$ 97,846,580	\$ 106,317,896
Employee Contribution	40,304,486	44,948,017
Employer Normal Costs	57,542,094	61,369,879
Amortization of Unfunded Liability	34,482,210	41,922,784
Group Term Life Benefits	0	0
Total	\$ 92,024,304	\$ 103,292,663
Contribution Required (Percent of Payroll)		
Total Normal Cost	18.380%	18.296%
Employee Contribution	7.571%	7.735%
Employer Normal Costs	10.809%	10.561%
Amortization of Unfunded Liability	6.477%	7.214%
Group Term Life Benefits	0.000%	0.000%
Total	17.286%	17.775%

STATE SAFETY

Participant Information

	June 30, 2013	June 30, 2014
Members Included in the Valuation ¹		
Active Members	23,622	25,589
Transfers From State Safety	4,952	5,076
Vested Terminations ²	5,211	5,601
Receiving Payments	20,534	21,547
Total	54,319	57,813
Average Entry Age of Active Members	39.4	39.2
Average Age of Active Members	47.7	47.3
Average Pay	\$ 75,055	\$ 75,057
Covered Payroll Prior Fiscal Year	\$ 1,772,958,002	\$ 1,920,630,117
Projected Payroll for Contribution Rate	\$ 1,880,931,144	\$ 2,037,596,491

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

Funded Status of the Retirement Program

	June 30, 2013	June 30, 2014
Present Value of Benefits	\$ 11,716,262,319	\$ 12,603,436,272
Accrued Liability	\$ 8,833,760,689	\$ 9,551,207,082
Market Value of Assets	\$ 6,326,950,892	\$ 7,561,646,144
Unfunded Liability/(Surplus)	\$ 2,506,809,797	\$ 1,989,560,938
Funded Status	71.6%	79.2%

Employer Contribution

	June 30, 2013	June 30, 2014
Contribution Required in Dollars		
Total Normal Cost	\$ 425,447,816	\$ 448,862,131
Employee Contribution	196,011,835	212,949,209
Employer Normal Costs	229,435,981	235,912,922
Amortization of Unfunded Liability	110,944,965	131,064,089
Group Term Life Benefits	1,128,559	1,467,069
Total	\$ 341,509,505	\$ 368,444,080
Contribution Required (Percent of Payroll)		
Total Normal Cost	22.619%	22.029%
Employee Contribution	10.421%	10.451%
Employer Normal Costs	12.198%	11.578%
Amortization of Unfunded Liability	5.898%	6.432%
Group Term Life Benefits	0.060%	0.072%
Total	18.156%	18.082%

STATE PEACE OFFICERS AND FIREFIGHTERS

Participant Information

	June 30, 2013	June 30, 2014
Members Included in the Valuation ¹		
Active Members	38,975	39,418
Transfers from State POFF	5,705	5,902
Vested Terminations ²	6,395	6,390
Receiving Payments	<u>31,125</u>	<u>32,925</u>
Total	82,200	84,635
Average Entry Age of Active Members	30.0	29.9
Average Age of Active Members	42.7	42.6
Average Pay	\$ 74,664	\$ 76,671
Covered Payroll Prior Fiscal Year	\$ 2,910,025,308	\$ 3,022,204,251
Projected Payroll for Contribution Rate	\$ 3,087,245,849	\$ 3,206,256,490

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

Funded Status of the Retirement Program

	June 30, 2013	June 30, 2014
Present Value of Benefits	\$ 42,233,640,215	\$ 44,602,358,902
Accrued Liability	\$ 35,270,981,461	\$ 37,466,390,118
Market Value of Assets	\$ 22,918,567,682	\$ 26,591,349,889
Unfunded Liability/(Surplus)	\$ 12,352,413,779	\$ 10,875,040,229
Funded Status	65.0%	71.0%

Employer Contribution

	June 30, 2013	June 30, 2014
Contribution Required in Dollars		
Total Normal Cost	\$ 867,546,956	\$ 893,968,435
Employee Contribution	347,376,903	368,655,371
Employer Normal Costs	520,170,053	525,313,063
Amortization of Unfunded Liability	564,481,103	669,442,050
Group Term Life Benefits	<u>1,451,006</u>	<u>2,404,692</u>
Total	\$ 1,086,102,162	\$ 1,197,159,805
Contribution Required (Percent of Payroll)		
Total Normal Cost	28.101%	27.882%
Employee Contribution	11.252%	11.498%
Employer Normal Costs	16.849%	16.384%
Amortization of Unfunded Liability	18.284%	20.879%
Group Term Life Benefits	<u>0.047%</u>	<u>0.075%</u>
Total	35.180%	37.338%

CALIFORNIA HIGHWAY PATROL

Participant Information

	June 30, 2013	June 30, 2014
Members Included in the Valuation ¹		
Active Members	7,325	7,183
Transfers from CHP	290	282
Vested Terminations ²	346	355
Receiving Payments	8,388	8,523
Total	16,349	16,343
Average Entry Age of Active Members	26.8	26.7
Average Age of Active Members	40.0	40.5
Average Pay	\$ 98,673	\$ 105,092
Covered Payroll Prior Fiscal Year	\$ 722,779,348	\$ 754,876,371
Projected Payroll for Contribution Rate	\$ 766,796,610	\$ 800,848,342

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, 2013	June 30, 2014
Present Value of Benefits	\$ 11,651,578,658	\$ 12,232,096,406
Accrued Liability	\$ 9,774,594,369	\$ 10,329,332,235
Market Value of Assets	\$ 5,760,252,078	\$ 6,645,481,580
Unfunded Liability/(Surplus)	\$ 4,014,342,291	\$ 3,683,850,655
Funded Status	58.9%	64.3%

Employer Contribution

	June 30, 2013	June 30, 2014
Contribution Required in Dollars		
Total Normal Cost	\$ 204,220,941	\$ 212,513,116
Employee Contribution	79,125,742	83,192,126
Employer Normal Costs	125,095,199	129,320,990
Amortization of Unfunded Liability	197,998,860	233,896,877
Group Term Life Benefits	299,051	416,441
Total	\$ 323,393,110	\$ 363,634,308
Contribution Required (Percent of Payroll)		
Total Normal Cost	26.633%	26.536%
Employee Contribution	10.319%	10.388%
Employer Normal Costs	16.314%	16.148%
Amortization of Unfunded Liability	25.822%	29.206%
Group Term Life Benefits	0.039%	0.052%
Total	42.175%	45.406%

Development of Accrued and Unfunded Liabilities

The following table shows the development of the accrued liabilities and the unfunded liabilities.

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
1. Present Value of Benefits					
a. Actives and Inactives	\$ 52,010,389,381	\$ 2,556,949,729	\$ 7,499,180,399	\$ 21,982,522,321	\$ 5,900,332,145
b. Retired	<u>54,655,629,002</u>	<u>1,749,850,029</u>	<u>5,104,255,873</u>	<u>22,619,836,581</u>	<u>6,331,764,261</u>
c. Total	\$ 106,666,018,383	\$ 4,306,799,758	\$ 12,603,436,272	\$ 44,602,358,902	\$ 12,232,096,406
2. Present Value of Future Employee Contributions	\$ 5,381,379,563	\$ 380,491,495	\$ 1,540,686,284	\$ 3,030,400,517	\$ 746,696,993
3. Present Value of Future Employer Normal Costs	\$ 6,842,244,299	\$ 468,204,041	\$ 1,511,542,906	\$ 4,105,568,267	\$ 1,156,067,178
4. Accrued Liability [(1c) - (2) - (3)]	\$ 94,442,394,521	\$ 3,458,104,222	\$ 9,551,207,082	\$ 37,466,390,118	\$ 10,329,332,235
5. Market Value of Assets (MVA)	\$ 68,358,591,216	\$ 2,825,325,889	\$ 7,561,646,144	\$ 26,591,349,889	\$ 6,645,481,580
6. Unfunded Liability/(Surplus) [(4) - (5)]	\$ 26,083,803,305	\$ 632,778,333	\$ 1,989,560,938	\$ 10,875,040,229	\$ 3,683,850,655
7. Funded Status [(5)/(4)]	72.4%	81.7%	79.2%	71.0%	64.3%

Development of Employer Contribution Rates

The following table shows the development of the unfunded liabilities.

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
Accrued Liability	\$ 94,442,394,521	\$ 3,458,104,222	\$ 9,551,207,082	\$37,466,390,118	\$ 10,329,332,235
Market Value of Assets (MVA)	<u>68,358,591,216</u>	<u>2,825,325,889</u>	<u>7,561,646,144</u>	<u>26,591,349,889</u>	<u>6,645,481,580</u>
Unfunded Liability/(Surplus)	\$ 26,083,803,305	\$ 632,778,333	\$ 1,989,560,938	\$ 10,875,040,229	\$ 3,683,850,655

The following table shows the development of the employer contribution rates.

	State Miscellaneous		State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
	Tier 1	Tier 2				
Employer Contribution Amount						
Normal Cost	\$ 940,480,064	\$ 23,344,291	\$ 61,369,879	\$ 235,912,922	\$ 525,313,063	\$ 129,320,990
Payment on the Unfunded Liability	1,709,141,712	45,928,535	41,922,784	131,064,089	669,442,050	233,896,877
Payment for Term Life Benefits (Sec. 21600-21605)	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,467,069</u>	<u>2,404,692</u>	<u>416,441</u>
Total Employer Contribution Amount	\$ 2,649,621,776	\$ 69,272,826	\$ 103,292,663	\$ 368,444,080	\$ 1,197,159,805	\$ 363,634,308
Projected Payroll	\$10,569,566,914	\$ 284,028,366	\$ 581,099,126	\$ 2,037,596,491	\$ 3,206,256,490	\$ 800,848,342
Employer Contribution (as a percent of payroll)						
Normal Cost	8.898%	8.219%	10.561%	11.578%	16.384%	16.148%
Payment on the Unfunded Liability	16.170%	16.170%	7.214%	6.432%	20.879%	29.206%
Payment for Term Life Benefits (Sec. 21600-21605)	<u>0.000%</u>	<u>0.000%</u>	<u>0.000%</u>	<u>0.072%</u>	<u>0.075%</u>	<u>0.052%</u>
Total Employer Contribution Rate	25.068%	24.389%	17.775%	18.082%	37.338%	45.406%

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 2015-16. 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 6/30/2014	Expected Payment in 2014-15	Amount Remaining on 6/30/2015	Scheduled Payment for Fiscal Year 2015-16	Payment as Percentage of Payroll
Assumption Change	6/30/2013	19	\$5,106,060,765	\$ 143,523,554	\$5,340,206,934	\$ 295,658,521	2.724%
Assumption Change	6/30/2011	17	1,750,132,121	141,489,016	1,734,693,096	145,733,686	1.343%
Assumption Change	6/30/2009	15	2,101,534,500	184,077,253	2,068,294,229	189,599,571	1.747%
Reclass of BU 7 Members	6/30/2005	11	(85,239,234)	(9,216,860)	(82,075,933)	(9,493,366)	(0.087%)
New Rate Stabilization Policies	6/30/2004	10	(176,280,303)	(20,389,576)	(168,360,963)	(21,001,263)	(0.193%)
Actuarial Equivalent Reduction Benefits	6/30/2004	10	244,513,187	28,281,776	233,528,507	29,130,230	0.268%
Benefit Change (SB 1801)	6/30/2003	9	(2,235,781)	(278,890)	(2,114,305)	(287,257)	(0.003%)
Assumption Change	6/30/2003	9	765,976,071	95,547,474	724,358,547	98,413,898	0.907%
(Gain)/Loss Prior to 2009	Various	18	10,627,473,891	829,229,516	10,564,770,971	854,106,402	7.869%
(Gain)/Loss in 2009	6/30/2009	25	1,129,678,407	73,066,280	1,138,647,556	75,258,268	0.693%
(Gain)/Loss in 2010	6/30/2010	26	(43,584,404)	(2,762,302)	(43,989,219)	(2,845,171)	(0.026%)
(Gain)/Loss in 2011	6/30/2011	27	22,851,607	1,420,918	23,092,238	1,463,545	0.013%
(Gain)/Loss	Various	29	302,829,392	18,185,065	306,686,920	18,730,617	0.173%
Payment (Gain)/Loss	Various	29	354,048,492	21,260,800	358,558,462	21,898,623	0.202%
(Gain)/Loss	6/30/2014	30	3,986,044,594	107,296,714	4,173,750,337	58,703,944	0.541%
Total			\$26,083,803,305	\$1,610,730,738	\$26,370,047,378	\$ 1,755,070,248	16.170%

Schedule of Amortization Bases for the Retirement Program (Continued)

State Industrial

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2014	Expected Payment in 2014-15	Amount Remaining on 6/30/2015	Scheduled Payment for Fiscal Year 2015-16	Payment as Percentage of Payroll
Assumption Change	6/30/2013	19	\$ 157,843,228	\$ 4,436,732	\$ 165,081,368	\$ 9,139,668	1.573%
Assumption Change	6/30/2011	17	64,262,488	5,195,286	63,695,587	5,351,144	0.921%
Assumption Change	6/30/2009	15	69,587,569	6,095,303	68,486,892	6,278,162	1.080%
New Rate Stabilization Policies	6/30/2004	10	(6,051,633)	(699,966)	(5,779,765)	(720,965)	(0.124%)
Actuarial Equivalent Reduction Benefits	6/30/2004	10	10,991,985	1,271,395	10,498,173	1,309,537	0.225%
Assumption Change	6/30/2003	9	82,050,775	10,234,973	77,592,737	10,542,022	1.814%
(Gain)/Loss in 2009	6/30/2009	25	39,066,398	2,526,769	39,376,568	2,602,572	0.448%
(Gain)/Loss in 2010	6/30/2010	26	5,325,235	337,504	5,374,696	347,629	0.060%
(Gain)/Loss in 2011	6/30/2011	27	(7,152,503)	(444,744)	(7,227,820)	(458,086)	(0.079%)
(Gain)/Loss	Various	29	93,483,502	5,613,734	94,674,321	5,782,146	0.995%
Payment (Gain)/Loss	Various	29	(1,411,705)	(84,774)	(1,429,687)	(87,317)	(0.015%)
(Gain)/Loss	6/30/2014	30	124,782,994	3,458,483	130,555,887	1,836,273	0.316%
Total			\$ 632,778,333	\$ 37,940,695	\$ 640,898,957	\$ 41,922,784	7.214%

State Safety

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2014	Expected Payment in 2014-15	Amount Remaining on 6/30/2015	Scheduled Payment for Fiscal Year 2015-16	Payment as Percentage of Payroll
Assumption Change	6/30/2013	19	\$ 500,135,895	\$ 14,058,055	\$ 523,070,385	\$ 28,959,593	1.421%
Assumption Change	6/30/2011	17	176,269,035	14,250,428	174,714,054	14,677,941	0.720%
Assumption Change	6/30/2009	15	269,050,657	23,566,639	264,795,045	24,273,639	1.191%
New Rate Stabilization Policies	6/30/2004	10	(6,827,574)	(789,716)	(6,520,847)	(813,407)	(0.040%)
Assumption Change	6/30/2003	9	(2,975,167)	(371,121)	(2,813,518)	(382,254)	(0.019%)
Benefit Change (Arnett)	6/30/2002	8	90,604,901	12,309,900	84,637,093	12,679,197	0.622%
(Gain)/Loss in 2009	6/30/2009	25	147,024,931	9,509,401	148,192,244	9,794,683	0.481%
(Gain)/Loss in 2010	6/30/2010	26	(109,592,102)	(6,945,753)	(110,610,000)	(7,154,126)	(0.351%)
(Gain)/Loss in 2011	6/30/2011	27	(9,946,262)	(618,461)	(10,050,998)	(637,014)	(0.031%)
(Gain)/Loss	Various	29	807,465,846	48,488,751	817,751,577	49,943,413	2.451%
Payment (Gain)/Loss	Various	29	(41,850,737)	(2,513,158)	(42,383,845)	(2,588,554)	(0.127%)
(Gain)/Loss	6/30/2014	30	170,201,515	17,997,306	164,306,625	2,310,978	0.113%
Total			\$ 1,989,560,938	\$ 128,942,271	\$2,005,087,816	\$ 131,064,089	6.432%

Schedule of Amortization Bases for the Retirement Program (Continued)

State Peace Officers and Firefighters

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2014	Expected Payment in 2014-15	Amount Remaining on 6/30/2015	Scheduled Payment for Fiscal Year 2015-16	Payment as Percentage of Payroll
Assumption Change	6/30/2013	19	\$ 2,346,356,350	\$ 65,952,486	\$2,453,952,083	\$ 135,862,121	4.237%
Assumption Change	6/30/2011	17	742,051,585	59,990,984	735,505,478	61,790,714	1.927%
Assumption Change	6/30/2009	15	697,836,044	61,124,736	686,798,272	62,958,478	1.964%
Benefit Change (SB 65)	6/30/2006	12	270,637,842	27,544,328	262,377,113	28,370,658	0.885%
New Rate Stabilization Policies	6/30/2004	10	(50,500,793)	(5,841,207)	(48,232,060)	(6,016,443)	(0.188%)
Benefit Change (SB 183)	6/30/2004	10	16,480,150	1,906,187	15,739,785	1,963,373	0.061%
Assumption Change	6/30/2003	9	321,377,414	40,088,459	303,916,121	41,291,112	1.288%
(Gain)/Loss in 2009	6/30/2009	25	366,272,582	23,690,083	369,180,625	24,400,785	0.761%
(Gain)/Loss in 2010	6/30/2010	26	43,241,717	2,740,583	43,643,349	2,822,801	0.088%
(Gain)/Loss in 2011	6/30/2011	27	290,463,169	18,061,059	293,521,802	18,602,891	0.580%
(Gain)/Loss	Various	29	4,485,765,080	269,372,560	4,542,906,046	277,453,737	8.654%
Payment (Gain)/Loss	Various	29	(2,483,852)	(149,157)	(2,515,492)	(153,631)	(0.005%)
(Gain)/Loss	6/30/2014	30	1,347,542,941	19,150,966	1,428,752,517	20,095,454	0.627%
Total			\$ 10,875,040,229	\$ 583,632,067	\$11,085,545,639	\$ 669,442,050	20.879%

Schedule of Amortization Bases for the Retirement Program (Continued)

California Highway Patrol

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2014	Expected Payment in 2014-15	Amount Remaining on 6/30/2015	Scheduled Payment for Fiscal Year 2015-16	Payment as Percentage of Payroll
Assumption Change	6/30/2013	19	\$ 834,220,724	\$ 23,448,668	\$ 872,475,182	\$ 48,304,256	6.032%
Assumption Change	6/30/2011	17	192,414,541	15,555,708	190,717,130	16,022,379	2.001%
Assumption Change	6/30/2009	15	170,595,155	14,942,742	167,896,827	15,391,024	1.922%
Benefit Change (AB 2936)	6/30/2008	14	(202,910,299)	(18,600,693)	(198,842,962)	(19,158,714)	(2.392%)
Benefit Change (SB 439)	6/30/2005	11	160,761,791	17,383,063	154,795,782	17,904,555	2.236%
New Rate Stabilization Policies	6/30/2004	10	(17,221,562)	(1,991,943)	(16,447,889)	(2,051,701)	(0.256%)
Assumption Change	6/30/2003	9	52,786,090	6,584,511	49,918,080	6,782,046	0.847%
Benefit Change (SB 1801)	6/30/2003	9	8,362,821	1,043,174	7,908,447	1,074,469	0.134%
Benefit Change (Arnett)	6/30/2002	8	1,683,482	228,724	1,572,597	235,585	0.029%
Benefit Change (AB 2621)	6/30/2001	7	2,254,983	337,811	2,073,857	347,946	0.043%
(Gain)/Loss Prior to 2009	Various	23	1,551,509,515	104,943,355	1,559,065,142	108,091,656	13.497%
(Gain)/Loss in 2009	6/30/2009	25	296,533,408	19,179,434	298,887,753	19,754,817	2.467%
(Gain)/Loss in 2010	6/30/2010	26	98,336,148	6,232,371	99,249,499	6,419,342	0.802%
(Gain)/Loss in 2011	6/30/2011	27	(43,304,734)	(2,692,697)	(43,760,741)	(2,773,478)	(0.346%)
(Gain)/Loss	Various	29	210,158,686	12,620,140	212,835,748	12,998,744	1.623%
Payment (Gain)/Loss	Various	29	(20,241,416)	(1,215,508)	(20,499,257)	(1,251,973)	(0.156%)
(Gain)/Loss	6/30/2014	30	387,911,322	4,063,729	412,791,307	5,805,924	0.725%
Total			\$ 3,683,850,655	\$ 202,062,589	\$ 3,750,636,502	\$ 233,896,877	29.206%

Gain and Loss Analysis

STATE MISCELLANEOUS

A. Total (Gain)/Loss for the Year

1. Unfunded Liability/(Surplus) as of June 30, 2013	\$ 21,671,666,238
2. Expected Payment on the Unfunded Liability during 2013-14	1,156,690,750
3. Interest through June 30, 2014 $[0.075 \times (A1) - ((1 + 0.075)^{\frac{1}{2}} - 1) \times (A2)]$	1,582,783,223
4. Expected Unfunded Liability as of June 30, 2014 after all changes $[(A1) - (A2) + (A3)]$	\$ 22,097,758,711
5. Actual Unfunded Liability as of June 30, 2014	<u>26,083,803,305</u>
6. Total (Gain)/Loss for 2013-14 $[(A5) - (A4)]$	\$ 3,986,044,594

B. Contribution (Gain)/Loss for the Year

1. Expected Contribution for 2013-14	\$ 2,691,082,378
2. Actual Contribution for 2013-14	<u>2,923,207,904</u>
3. Contribution (Gain)/Loss for 2013-14 $[(B1) - (B2)]$	\$ (232,125,526)

C. Asset (Gain)/Loss for the Year

1. Actuarial Value of Assets before receivables as of June 30, 2013	\$ 68,264,522,297
2. Contributions Received during 2013-14	2,923,207,904
3. Benefits, Refunds, and Administrative Expenses Paid during 2013-14	(4,931,103,855)
4. Expected Interest for 2013-14 $[0.075 \times (C1) + ((1 + 0.075)^{\frac{1}{2}} - 1) \times ((C2) + (C3))]$	5,045,904,292
5. Receivables for AER and Past Service Benefits	<u>363,796,141</u>
6. Expected Assets as of June 30, 2014 $[(C1) + (C2) + (C3) + (C4) + (C5)]$	\$ 71,666,326,779
7. Actual Market Value of Assets as of June 30, 2014	<u>68,358,591,216</u>
8. Asset (Gain)/Loss for 2013-14 $[(C6) - (C7)]$	\$ 3,307,735,563

D. Liability (Gain)/Loss for the Year

1. Total (Gain)/Loss for 2013-14 (A6)	\$ 3,986,044,594
2. Contribution (Gain)/Loss for 2013-14 (B3)	(232,125,526)
3. Asset (Gain)/Loss for 2013-14 (C8)	<u>3,307,735,563</u>
4. Liability (Gain)/Loss for 2013-14 $[(D1) - (D2) - (D3)]$	\$ 910,434,557

Gain and Loss Analysis (Continued)

STATE INDUSTRIAL

A. Total (Gain)/Loss for the Year

1. Unfunded Liability/(Surplus) as of June 30, 2013	\$ 496,845,348
2. Expected Payment on the Unfunded Liability during 2013-14	25,186,008
3. Interest through June 30, 2014 $[0.075 \times (A1) - ((1 + 0.075)^{\frac{1}{2}} - 1) \times (A2)]$	36,336,000
4. Expected Unfunded Liability as of June 30, 2014 after all changes $[(A1) - (A2) + (A3)]$	\$ 507,995,340
5. Actual Unfunded Liability as of June 30, 2014	<u>632,778,333</u>
6. Total (Gain)/Loss for 2013-14 $[(A5) - (A4)]$	\$ 124,782,993

B. Contribution (Gain)/Loss for the Year

1. Expected Contribution for 2013-14	\$ 120,120,665
2. Actual Contribution for 2013-14	<u>132,975,443</u>
3. Contribution (Gain)/Loss for 2013-14 $[(B1) - (B2)]$	\$ (12,854,778)

C. Asset (Gain)/Loss for the Year

1. Actuarial Value of Assets before receivables as of June 30, 2013	\$ 2,726,007,149
2. Contributions Received during 2013-14	132,975,443
3. Benefits, Refunds, and Administrative Expenses Paid during 2013-14	(150,560,139)
4. Expected Interest for 2013-14 $[0.075 \times (C1) + ((1 + 0.075)^{\frac{1}{2}} - 1) \times ((C2) + (C3))]$	203,803,031
5. Receivables for AER and Past Service Benefits	<u>15,870,723</u>
6. Expected Assets as of June 30, 2014 $[(C1) + (C2) + (C3) + (C4) + (C5)]$	\$ 2,928,096,207
7. Actual Market Value of Assets as of June 30, 2014	<u>2,825,325,889</u>
8. Asset (Gain)/Loss for 2013-14 $[(C6) - (C7)]$	\$ 102,770,318

D. Liability (Gain)/Loss for the Year

1. Total (Gain)/Loss for 2013-14 (A6)	\$ 124,782,993
2. Contribution (Gain)/Loss for 2013-14 (B3)	(12,854,778)
3. Asset (Gain)/Loss for 2013-14 (C8)	<u>102,770,318</u>
4. Liability (Gain)/Loss for 2013-14 $[(D1) - (D2) - (D3)]$	\$ 34,867,453

Gain and Loss Analysis (Continued)

STATE SAFETY

A. Total (Gain)/Loss for the Year

1. Unfunded Liability/(Surplus) as of June 30, 2013	\$ 1,780,615,277
2. Expected Payment on the Unfunded Liability during 2013-14	91,435,167
3. Interest through June 30, 2014 $[0.075 \times (A1) - ((1 + 0.075)^{\frac{1}{2}} - 1) \times (A2)]$	130,179,314
4. Expected Unfunded Liability as of June 30, 2014 after all changes $[(A1) - (A2) + (A3)]$	\$ 1,819,359,424
5. Actual Unfunded Liability as of June 30, 2014	<u>1,989,560,938</u>
6. Total (Gain)/Loss for 2013-14 $[(A5) - (A4)]$	\$ 170,201,514

B. Contribution (Gain)/Loss for the Year

1. Expected Contribution for 2013-14	\$ 498,154,570
2. Actual Contribution for 2013-14	<u>535,379,430</u>
3. Contribution (Gain)/Loss for 2013-14 $[(B1) - (B2)]$	\$ (37,224,860)

C. Asset (Gain)/Loss for the Year

1. Actuarial Value of Assets before receivables as of June 30, 2013	\$ 7,025,390,304
2. Contributions Received during 2013-14	535,379,430
3. Benefits, Refunds, and Administrative Expenses Paid during 2013-14	(407,579,040)
4. Expected Interest for 2013-14 $[0.075 \times (C1) + ((1 + 0.075)^{\frac{1}{2}} - 1) \times ((C2) + (C3))]$	531,610,147
5. Receivables for AER and Past Service Benefits	<u>28,288,212</u>
6. Expected Assets as of June 30, 2014 $[(C1) + (C2) + (C3) + (C4) + (C5)]$	\$ 7,713,089,053
7. Actual Market Value of Assets as of June 30, 2014	<u>7,561,646,144</u>
8. Asset (Gain)/Loss for 2013-14 $[(C6) - (C7)]$	\$ 151,442,909

D. Liability (Gain)/Loss for the Year

1. Total (Gain)/Loss for 2013-14 (A6)	\$ 170,201,514
2. Contribution (Gain)/Loss for 2013-14 (B3)	(37,224,860)
3. Asset (Gain)/Loss for 2013-14 (C8)	<u>151,442,909</u>
4. Liability (Gain)/Loss for 2013-14 $[(D1) - (D2) - (D3)]$	\$ 55,983,465

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, 2013	\$ 9,257,277,383
2. Expected Payment on the Unfunded Liability during 2013-14	409,015,115
3. Interest through June 30, 2014 $[0.075 \times (A1) - ((1 + 0.075)^{\frac{1}{2}} - 1) \times (A2)]$	679,235,021
4. Expected Unfunded Liability as of June 30, 2014 after all changes $[(A1) - (A2) + (A3)]$	\$ 9,527,497,289
5. Actual Unfunded Liability as of June 30, 2014	<u>10,875,040,229</u>
6. Total (Gain)/Loss for 2013-14 $[(A5) - (A4)]$	\$ 1,347,542,940

B. Contribution (Gain)/Loss for the Year

1. Expected Contribution for 2013-14	\$ 1,225,906,362
2. Actual Contribution for 2013-14	<u>1,291,696,956</u>
3. Contribution (Gain)/Loss for 2013-14 $[(B1) - (B2)]$	\$ (65,790,594)

C. Asset (Gain)/Loss for the Year

1. Actuarial Value of Assets before receivables as of June 30, 2013	\$ 25,915,166,697
2. Contributions Received during 2013-14	1,291,696,956
3. Benefits, Refunds, and Administrative Expenses Paid during 2013-14	(1,633,790,269)
4. Expected Interest for 2013-14 $[0.075 \times (C1) + ((1 + 0.075)^{\frac{1}{2}} - 1) \times ((C2) + (C3))]$	1,931,040,919
5. Receivables for AER and Past Service Benefits	<u>104,488,422</u>
6. Expected Assets as of June 30, 2014 $[(C1) + (C2) + (C3) + (C4) + (C5)]$	\$ 27,608,602,725
7. Actual Market Value of Assets as of June 30, 2014	<u>26,591,349,889</u>
8. Asset (Gain)/Loss for 2013-14 $[(C6) - (C7)]$	\$ 1,017,252,836

D. Liability (Gain)/Loss for the Year

1. Total (Gain)/Loss for 2013-14 (A6)	\$ 1,347,542,940
2. Contribution (Gain)/Loss for 2013-14 (B3)	(65,790,594)
3. Asset (Gain)/Loss for 2013-14 (C8)	<u>1,017,252,836</u>
4. Liability (Gain)/Loss for 2013-14 $[(D1) - (D2) - (D3)]$	\$ 396,080,698

Gain and Loss Analysis (Continued)

CALIFORNIA HIGHWAY PATROL

A. Total (Gain)/Loss for the Year

1. Unfunded Liability/(Surplus) as of June 30, 2013	\$ 3,197,130,030
2. Expected Payment on the Unfunded Liability during 2013-14	135,968,795
3. Interest through June 30, 2014 $[0.075 \times (A1) - ((1 + 0.075)^{\frac{1}{2}} - 1) \times (A2)]$	234,778,100
4. Expected Unfunded Liability as of June 30, 2014 after all changes $[(A1) - (A2) + (A3)]$	\$ 3,295,939,335
5. Actual Unfunded Liability as of June 30, 2014	<u>3,683,850,655</u>
6. Total (Gain)/Loss for 2013-14 $[(A5) - (A4)]$	\$ 387,911,320

B. Contribution (Gain)/Loss for the Year

1. Expected Contribution for 2013-14	\$ 334,330,889
2. Actual Contribution for 2013-14	<u>360,862,498</u>
3. Contribution (Gain)/Loss for 2013-14 $[(B1) - (B2)]$	\$ (26,531,609)

C. Asset (Gain)/Loss for the Year

1. Actuarial Value of Assets before receivables as of June 30, 2013	\$ 6,562,929,103
2. Contributions Received during 2013-14	360,862,498
3. Benefits, Refunds, and Administrative Expenses Paid during 2013-14	(469,407,559)
4. Expected Interest for 2013-14 $[0.075 \times (C1) + ((1 + 0.075)^{\frac{1}{2}} - 1) \times ((C2) + (C3))]$	488,222,829
5. Receivables for AER and Past Service Benefits	<u>16,643,119</u>
6. Expected Assets as of June 30, 2014 $[(C1) + (C2) + (C3) + (C4) + (C5)]$	\$ 6,959,249,990
7. Actual Market Value of Assets as of June 30, 2014	<u>6,645,481,580</u>
8. Asset (Gain)/Loss for 2013-14 $[(C6) - (C7)]$	\$ 313,768,410

D. Liability (Gain)/Loss for the Year

1. Total (Gain)/Loss for 2013-14 (A6)	\$ 387,911,320
2. Contribution (Gain)/Loss for 2013-14 (B3)	(26,531,609)
3. Asset (Gain)/Loss for 2013-14 (C8)	<u>313,768,410</u>
4. Liability (Gain)/Loss for 2013-14 $[(D1) - (D2) - (D3)]$	\$ 100,674,519

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, 2013	\$ 6,299,126	\$ 1,422,528	\$ 988,623	\$ 1,083,878	\$ 195,465
2. Adjustment	327,561	17,379	248,508	66,722	5
3. Contributions Received for GTLI During Fiscal Year 2013-14	7,149,757	461	8,569	6,068	291,752
4. Benefits Paid for GTLI During Fiscal Year 2013-14	(3,539,337)	(97,287)	(521,295)	(933,518)	(385,663)
5. Investment Return During Fiscal Year 2013-14	<u>1,513,804</u>	<u>239,598</u>	<u>188,278</u>	<u>153,754</u>	<u>35,722</u>
6. GTLI Market Value of Assets as of June 30, 2014	\$ 11,750,911	\$ 1,582,679	\$ 912,683	\$ 376,904	\$ 137,281
7. Expected GTLI Benefit Payments for Fiscal Year 2014-15	\$ 6,108,598	\$ 348,619	\$ 1,533,445	\$ 1,787,774	\$ 359,070
8. Closed Group Projected Payroll for Fiscal Year 2014-15	\$ 316,942,653	\$ 556,905,985	\$ 1,920,177,426	\$ 3,076,733,418	\$ 770,047,708
9. Required GTLI Contribution Rate [(1.5 x (7) - 6, but not less than zero) / (8)]	0.000%	0.000%	0.072%	0.075%	0.052%
10. Projected Payroll for Contributions	\$10,853,595,280	\$ 581,099,126	\$ 2,037,596,491	\$ 3,206,256,490	\$ 800,848,342
11. Required GTLI Contribution for Fiscal Year 2015-16* [(9) x (10)]	\$ 0	\$ 0	\$ 1,467,069	\$ 2,404,692	\$ 416,441

* 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

	State Miscellaneous		State	State	State Peace	California
	Tier 1	Tier 2	Industrial	Safety	Officers and	Highway
					Firefighters	Patrol
2014-15 Normal Cost Rate	9.171%	8.483%	10.809%	12.198%	16.849%	16.314%
Effect of Change in Employee Contribution Rate	0.000%	-0.162%	-0.033%	0.000%	0.000%	0.000%
Effect of (Gain)/Loss	-0.273%	-0.102%	-0.215%	-0.620%	-0.465%	-0.166%
2015-16 Normal Cost Rate	8.898%	8.219%	10.561%	11.578%	16.384%	16.148%

	State Miscellaneous		State	State	State Peace	California
	Tier 1	Tier 2	Industrial	Safety	Officers and	Highway
					Firefighters	Patrol
2014-15 Rate to Amortize the Unfunded Liability	15.013%	15.013%	6.477%	5.898%	18.284%	25.822%
Effect of Ramp in of Change in Assumptions	1.433%	1.433%	0.833%	0.747%	2.136%	3.058%
Effect of (Gain)/Loss	-0.276%	-0.276%	-0.096%	-0.213%	0.459%	0.326%
2015-16 Rate to Amortize the Unfunded Liability	16.170%	16.170%	7.214%	6.432%	20.879%	29.206%

Reconciliation of Employer Contribution Rates (Continued)

	Change in Group Term Life Rate from 2014-15 to 2015-16					
	State Miscellaneous		State	State	State Peace	California
	Tier 1	Tier 2	Industrial	Safety	Officers and Firefighters	Highway Patrol
2014-15 Group Term Life Rate	0.014%	0.014%	0.000%	0.060%	0.047%	0.039%
Effect of (Gain)/Loss	-0.014%	-0.014%	0.000%	0.012%	0.028%	0.013%
2015-16 Group Term Life Rate	0.000%	0.000%	0.000%	0.072%	0.075%	0.052%

	Change in Total Rate from 2014-15 to 2015-16					
	State Miscellaneous		State	State	State Peace	California
	Tier 1	Tier 2	Industrial	Safety	Officers and Firefighters	Highway Patrol
2014-15 Employer Rates	24.198%	23.510%	17.286%	18.156%	35.180%	42.175%
Effect of Change in Employee Contribution Rate	0.000%	-0.162%	-0.033%	0.000%	0.000%	0.000%
Effect of Ramp in of Change in Assumptions	1.433%	1.433%	0.833%	0.747%	2.136%	3.058%
Effect of (Gain)/Loss	-0.563%	-0.392%	-0.311%	-0.821%	0.022%	0.173%
2015-16 Employer Rates	25.068%	24.389%	17.775%	18.082%	37.338%	45.406%

Reconciliation of Employer Contributions

Change in Normal Cost Contribution from 2014-15 to 2015-16 for the Retirement Program						
	State Miscellaneous		State	State	State Peace	California
	Tier 1	Tier 2	Industrial	Safety	Officers and Firefighters	Highway Patrol
2014-15 Normal Cost Contribution	\$890,851,890	\$25,468,954	\$57,542,094	\$229,435,981	\$520,170,053	\$125,095,199
Effect of Change in Payroll	78,483,091	(1,374,828)	5,268,911	19,110,039	20,052,103	5,555,200
Effect of Change in Employee Contribution Rate	0	(460,126)	(191,763)	0	0	0
Effect of (Gain)/Loss	<u>(28,854,917)</u>	<u>(289,709)</u>	<u>(1,249,363)</u>	<u>(12,633,098)</u>	<u>(14,909,093)</u>	<u>(1,329,409)</u>
2015-16 Normal Cost Contribution	\$940,480,064	\$23,344,291	\$61,369,879	\$235,912,922	\$525,313,063	\$129,320,990

Change in Unfunded Liability Amortization Contribution from 2014-15 to 2015-16 for the Retirement Program						
	State Miscellaneous		State	State	State Peace	California
	Tier 1	Tier 2	Industrial	Safety	Officers and Firefighters	Highway Patrol
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
Effect of Progression of Amortization of Prior Unfunded Liability	50,218,006	(5,114,986)	1,034,467	3,328,349	16,934,432	5,939,965
Effect of Ramp in of Change in Assumptions	143,397,123	4,432,138	4,569,834	14,479,797	67,931,061	24,152,128
Effect of (Gain)/Loss	<u>57,167,717</u>	<u>1,536,227</u>	<u>1,836,273</u>	<u>2,310,978</u>	<u>20,095,454</u>	<u>5,805,924</u>
2015-16 Amortization of the Unfunded Liability	\$1,709,141,712	\$45,928,535	\$41,922,784	\$131,064,089	\$669,442,050	\$233,896,877

Reconciliation of Employer Contributions (Continued)

Change in Group Term Life Contribution from 2014-15 to 2015-16						
	<u>State Miscellaneous</u>		<u>State</u>	<u>State</u>	<u>State Peace</u>	<u>California</u>
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Industrial</u>	<u>Safety</u>	<u>Officers and</u>	<u>Highway</u>
					<u>Firefighters</u>	<u>Patrol</u>
2014-15 Group Term Life Contribution	\$1,359,931	\$42,033	\$0	\$1,128,559	\$1,451,006	\$299,051
Effect of Change in Payroll	119,808	(2,269)	0	93,999	55,935	13,280
Effect of (Gain)/Loss	<u>(1,479,739)</u>	<u>(39,764)</u>	<u>0</u>	<u>244,511</u>	<u>897,751</u>	<u>104,110</u>
2015-16 Group Term Life Contribution	\$0	\$0	\$0	\$1,467,069	\$2,404,692	\$416,441

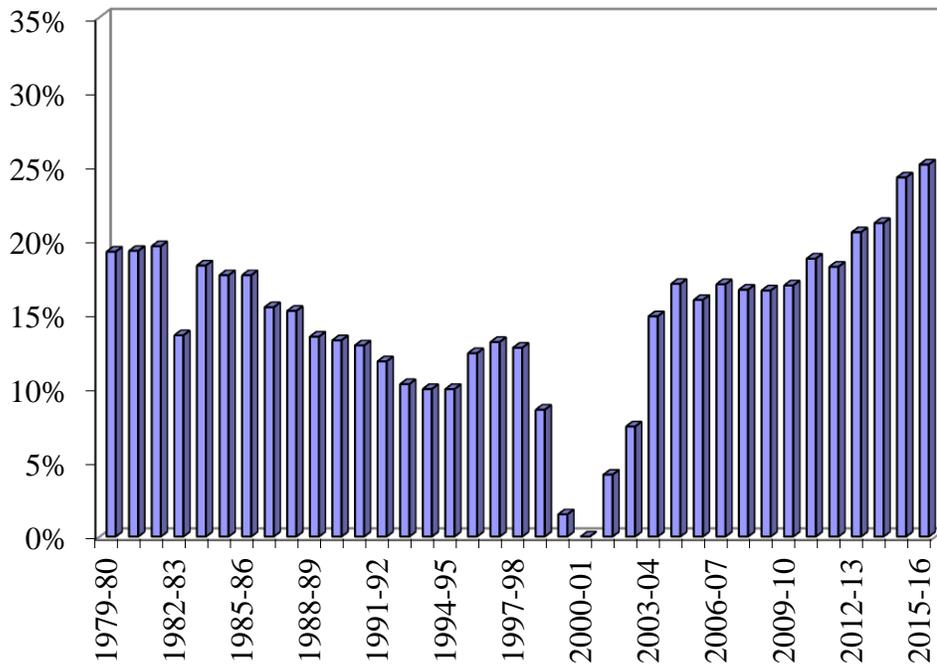
Change in Total Contribution from 2014-15 to 2015-16						
	<u>State Miscellaneous</u>		<u>State</u>	<u>State</u>	<u>State Peace</u>	<u>California</u>
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Industrial</u>	<u>Safety</u>	<u>Officers and</u>	<u>Highway</u>
					<u>Firefighters</u>	<u>Patrol</u>
2014-15 Employer Contribution	\$2,350,570,687	\$70,586,143	\$92,024,304	\$341,509,505	\$1,086,102,162	\$323,393,110
Effect of Change in Payroll and Progression of Amortization of Prior Unfunded Liability	128,820,905	(6,492,083)	6,303,378	22,532,387	37,042,470	11,508,445
Effect of Ramp in of Change in Assumptions	143,397,123	4,432,138	4,569,834	14,479,797	67,931,061	24,152,128
Effect of Change in Employee Contribution Rate	0	(460,126)	(191,763)	0	0	0
Effect of (Gain)/Loss	<u>26,833,061</u>	<u>1,206,754</u>	<u>586,910</u>	<u>(10,077,609)</u>	<u>6,084,112</u>	<u>4,580,625</u>
2015-16 Employer Contribution	\$2,649,621,776	\$69,272,826	\$103,292,663	\$368,444,080	\$1,197,159,805	\$363,634,308

Employer Contribution Rate History

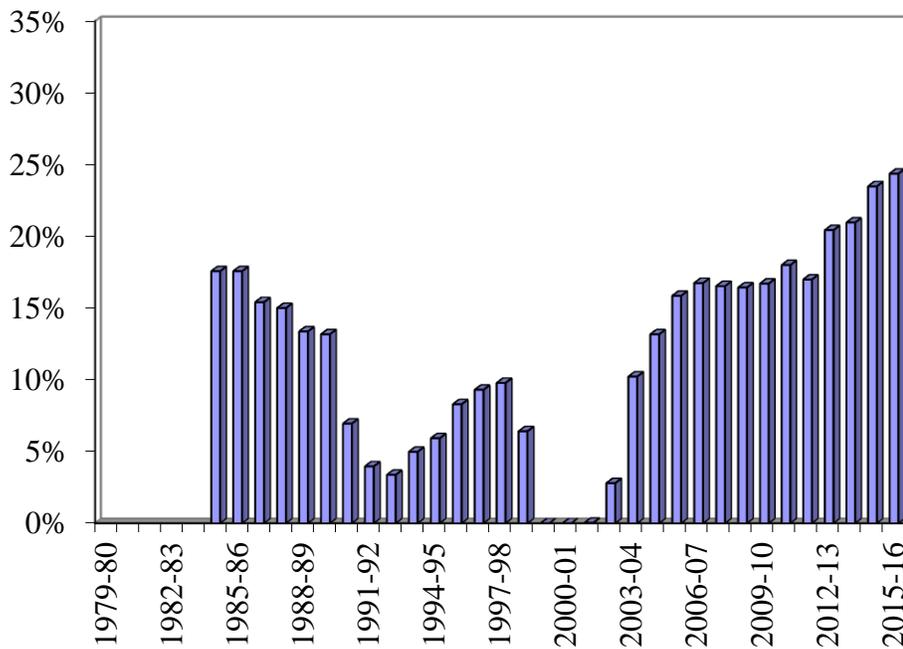
The table below provides a history of the contribution rates for the various State plans. In cases where the contribution rate changed during the course of a fiscal year, the entry shown is the weighted average of the rates effective during the fiscal year.

Fiscal Year	State Miscellaneous		State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
	Tier 1	Tier 2				
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%
2015-16	25.068%	24.389%	17.775%	18.082%	37.338%	45.406%

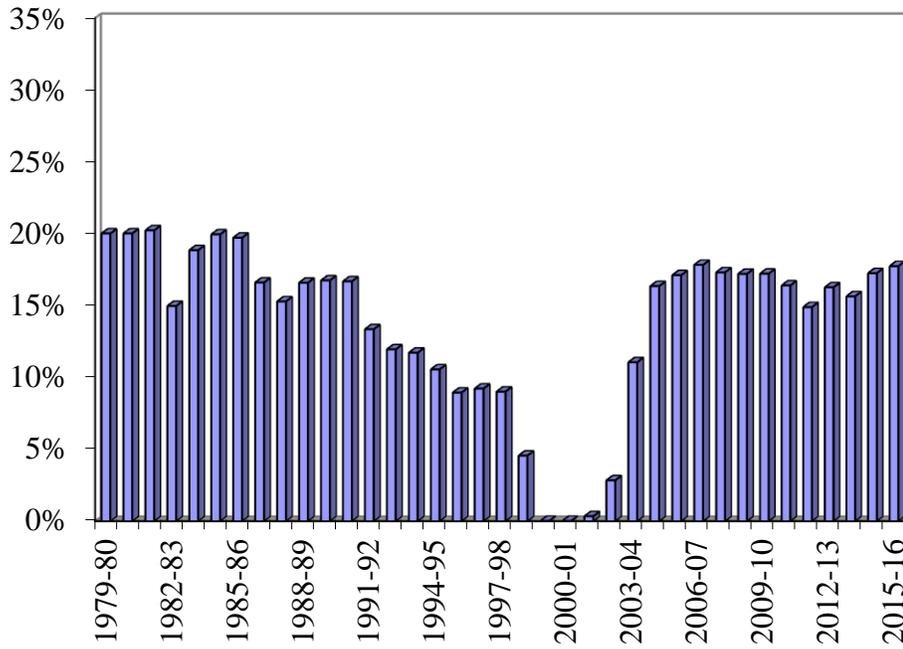
State Miscellaneous Tier 1 Rates



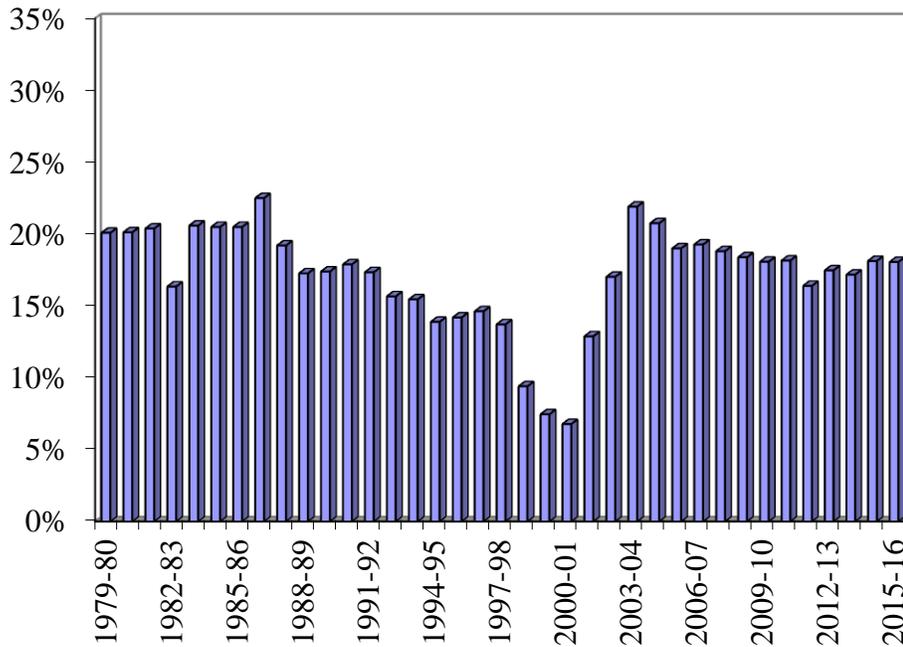
State Miscellaneous Tier 2 Rates



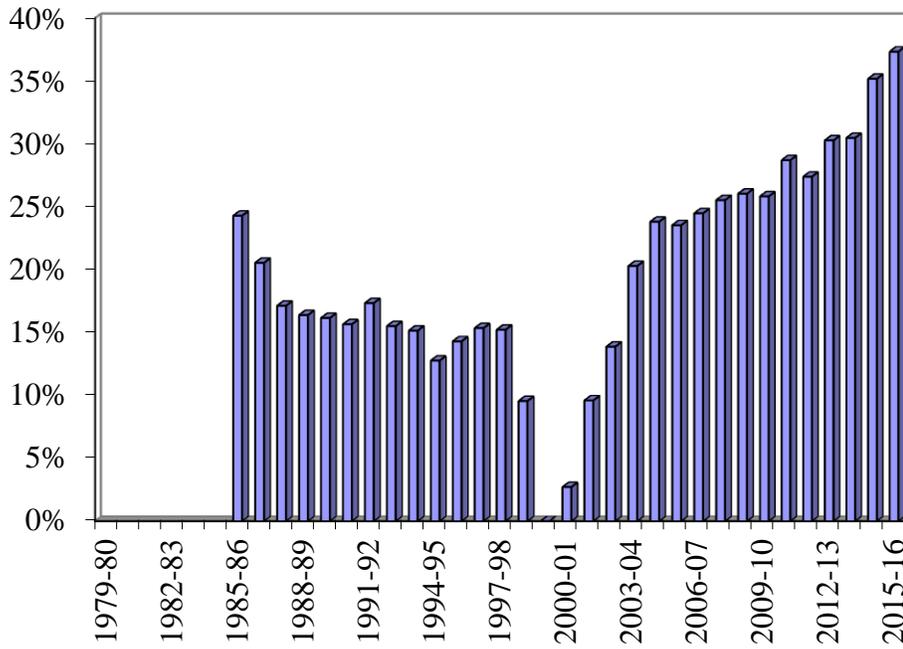
State Industrial Rates



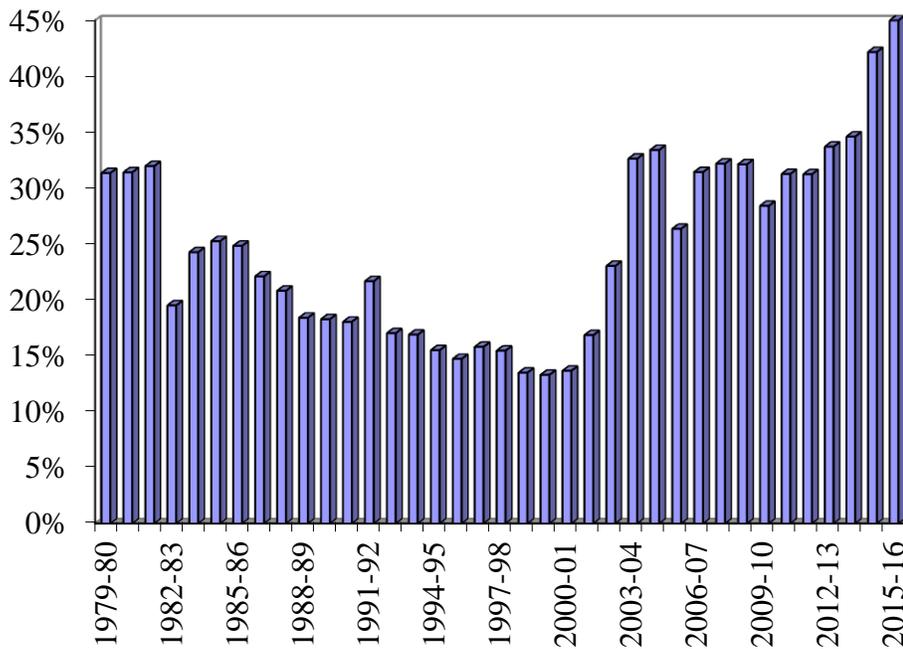
State Safety Rates



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%
6/30/14	\$94,442.39	\$68,358.59	72.4%	\$26,083.80	\$10,853.60	240.3%

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%
6/30/14	\$3,458.10	\$2,825.33	81.7%	\$632.78	\$581.10	108.9%

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%
6/30/14	\$9,551.21	\$7,561.65	79.2%	\$1,989.56	\$2,037.60	97.6%

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%
6/30/14	\$37,466.39	\$26,591.35	71.0%	\$10,875.04	\$3,206.26	339.2%

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%
6/30/14	\$10,329.33	\$6,645.48	64.3%	\$3,683.85	\$800.85	460.0%

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	67,994,795,075	10,230,554,510	6.6	94,442,394,521	9.2
State Industrial	2,809,455,166	547,741,659	5.1	3,458,104,222	6.3
State Safety	7,533,357,932	1,920,630,117	3.9	9,551,207,082	5.0
POFF	26,486,861,467	3,022,204,251	8.8	37,466,390,118	12.4
CHP	6,628,838,461	754,876,371	8.8	10,329,332,235	13.7

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 23 percent to 56 percent greater if the plans were 100 percent funded.

Projected Rates

The table below shows projected employer contribution rates for the next five fiscal years, assuming CalPERS earns 2.4 percent for fiscal year 2014-15 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 will occur during the projection period. These projections take into account the positive impact PEPR is expected to gradually have on the normal cost.

Plan	New Rate	Projected Future Employer Contribution Rates				
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
State Miscellaneous Tier 1	25.068%	27.3%	28.1%	28.9%	29.8%	30.1%
State Miscellaneous Tier 2	24.389%	26.8%	27.8%	28.8%	29.8%	30.2%
State Industrial	17.775%	19.0%	19.5%	19.9%	20.4%	20.5%
State Safety	18.082%	18.8%	18.8%	18.8%	18.8%	18.7%
POFF	37.338%	40.4%	41.2%	42.1%	43.0%	43.3%
CHP	45.406%	49.6%	50.7%	51.9%	53.0%	53.5%

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 2015-16, 2016-17 and 2017-18 on the 2017-18, 2018-19 and 2019-20 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.

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, 2015 through June 30, 2018. The 5th percentile return corresponds to a -3.8 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.
- The second scenario is what one would expect if the markets were to give us a 25th percentile return from July 1, 2015 through June 30, 2018. The 25th percentile return corresponds to a 2.8 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.
- The third scenario assumed the return for 2015-16, 2016-17 and 2017-18 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, 2015 through June 30, 2018. The 75th percentile return corresponds to a 12.0 percent return for each of the 2015-16, 2016-17 and 2017-18 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, 2015 through June 30, 2018. The 95th percentile return corresponds to an 18.9 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.

The tables below show the projected contribution rates for 2017-18 through 2019-20 for the various State Plans under the five different scenarios.

Estimated: 2017-18 Rates as a % of Payroll

Plan	Investment Scenario				
	1 st Scenario	2 nd Scenario	3 rd Scenario	4 th Scenario	5 th Scenario
	-3.8%	2.8%	7.50%	12.0%	18.9%
State Miscellaneous Tier 1	29.1%	28.5%	28.1%	27.7%	27.1%
State Miscellaneous Tier 2	28.8%	28.2%	27.8%	27.4%	26.8%
State Industrial	20.3%	19.8%	19.5%	19.2%	18.7%
State Safety	19.4%	19.0%	18.8%	18.5%	18.1%
POFF	42.6%	41.8%	41.2%	40.7%	39.9%
CHP	52.1%	51.3%	50.7%	50.2%	49.4%

Estimated: 2018-19 Rates as a % of Payroll

Plan	Investment Scenario				
	1 st Scenario	2nd Scenario	3rd Scenario	4th Scenario	5th Scenario
	-3.8%	2.8%	7.50%	12.0%	18.9%
State Miscellaneous Tier 1	31.8%	30.2%	28.9%	27.7%	25.8%
State Miscellaneous Tier 2	31.6%	30.0%	28.8%	27.6%	25.6%
State Industrial	22.2%	20.9%	19.9%	18.9%	17.4%
State Safety	20.6%	19.6%	18.8%	18.0%	16.8%
POFF	46.1%	43.8%	42.1%	40.5%	37.9%
CHP	55.8%	53.6%	51.9%	50.2%	47.6%

Estimated: 2019-20 Rates as a % of Payroll

Plan	Investment Scenario				
	1 st Scenario	2nd Scenario	3rd Scenario	4th Scenario	5th Scenario
	-3.8%	2.8%	7.50%	12.0%	18.9%
State Miscellaneous Tier 1	35.3%	32.2%	29.8%	27.3%	23.3%
State Miscellaneous Tier 2	35.3%	32.2%	29.8%	27.3%	23.3%
State Industrial	24.9%	22.3%	20.4%	18.4%	15.1%
State Safety	22.4%	20.4%	18.8%	17.2%	14.6%
POFF	50.7%	46.4%	43.0%	39.6%	34.1%
CHP	60.7%	56.4%	53.0%	49.7%	44.1%

Analysis of Discount Rate Sensitivity & Government Code Section 20229

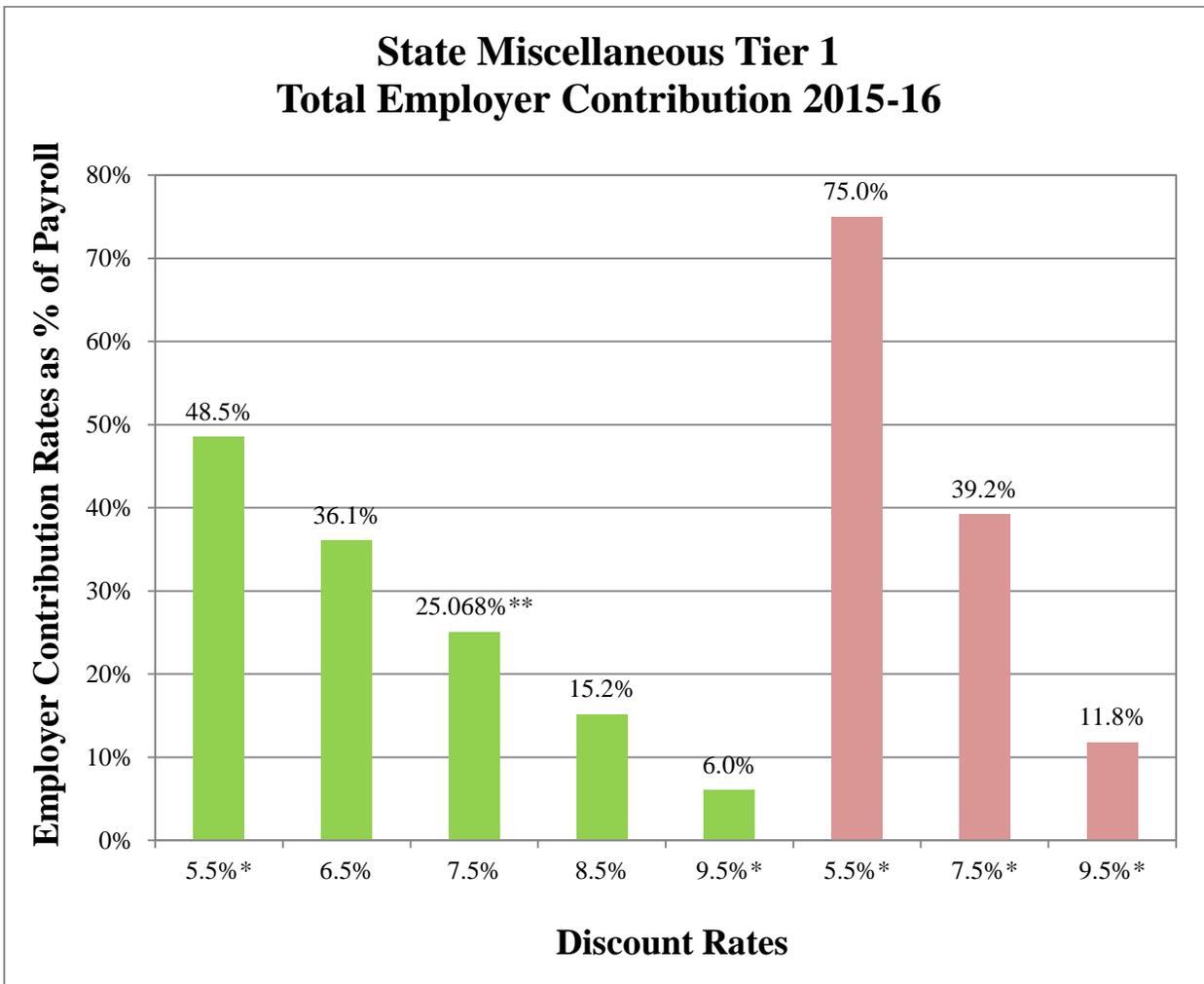
The discount rate reflects expectations of what the markets will deliver in the future and it is calculated based on two components: expected price inflation and real rate of return. A change in either of those components over the long term would necessitate further evaluation of the discount rate.

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.

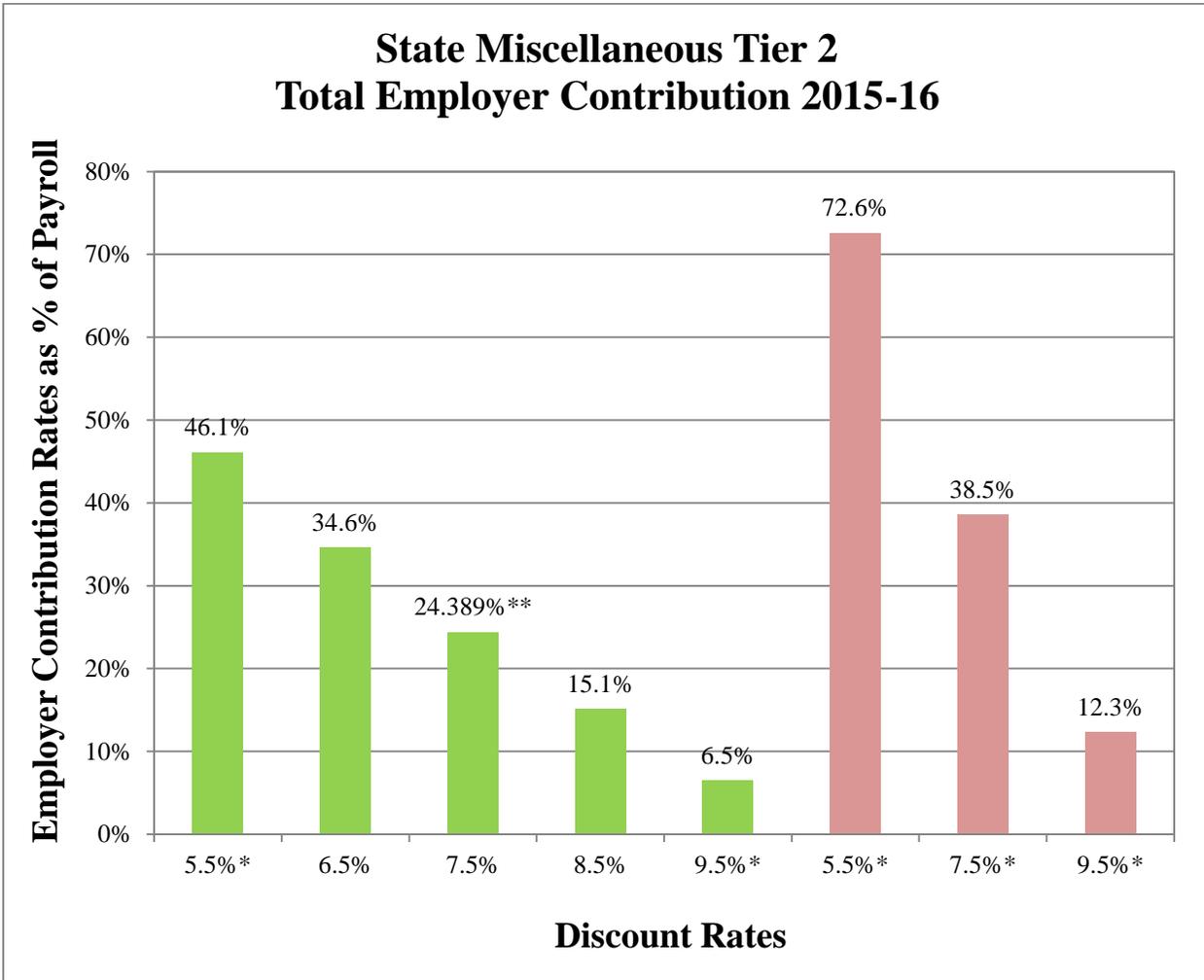
The first section shows the impact on employer contribution rates assuming discount rates that are 1 percentage point above and 1 percentage point below the current valuation discount rate and under current unfunded liability amortization methods. This analysis gives an indication of the potential required 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.

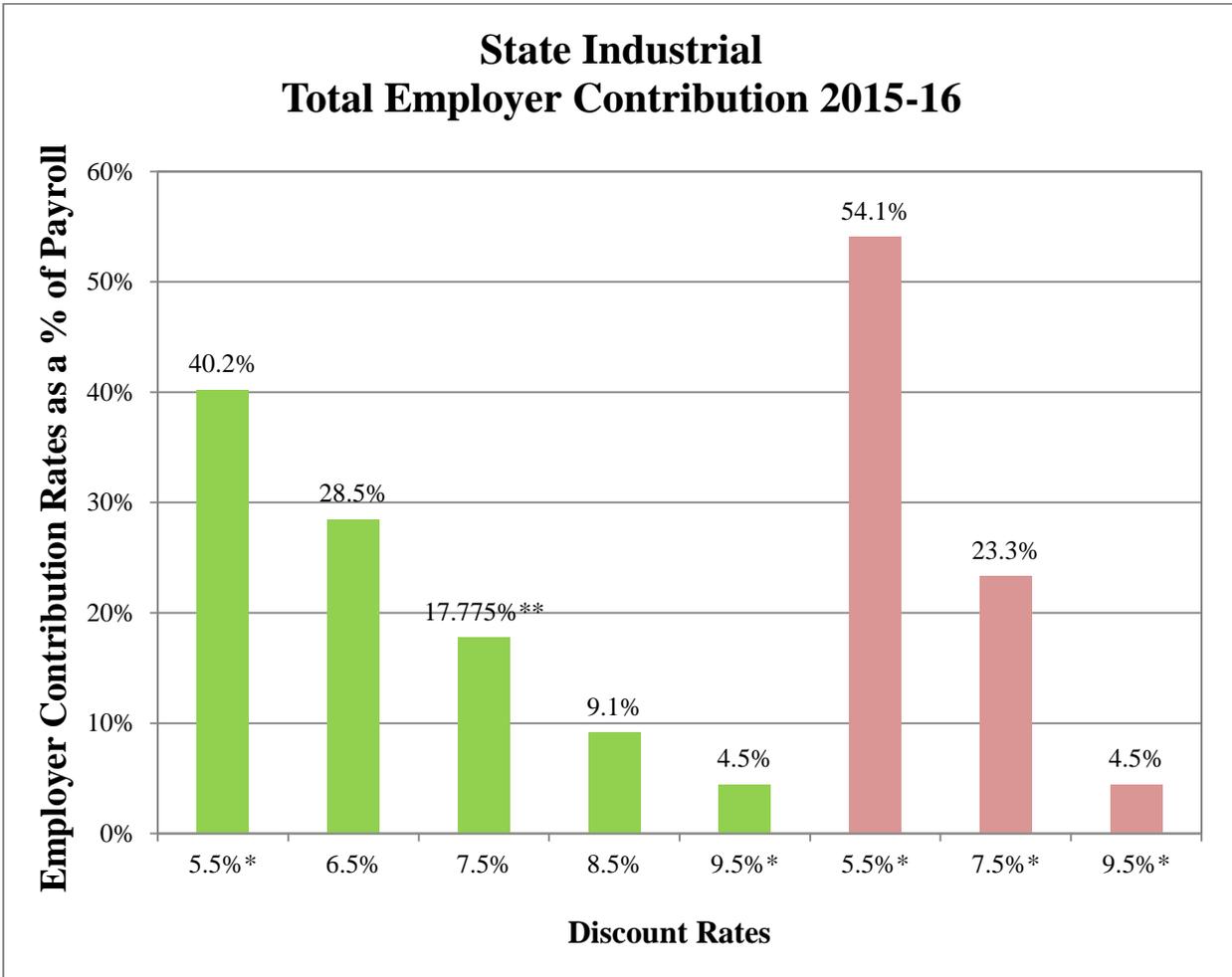
The results of the analysis are presented in three sections. The first section is a graphical representation of the impact on employer rates for both +/- 1 percent change in discount rate, and +/- 2 percent change in discount rate due to G.C. 20229. The second and third sections are the numeric representations.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



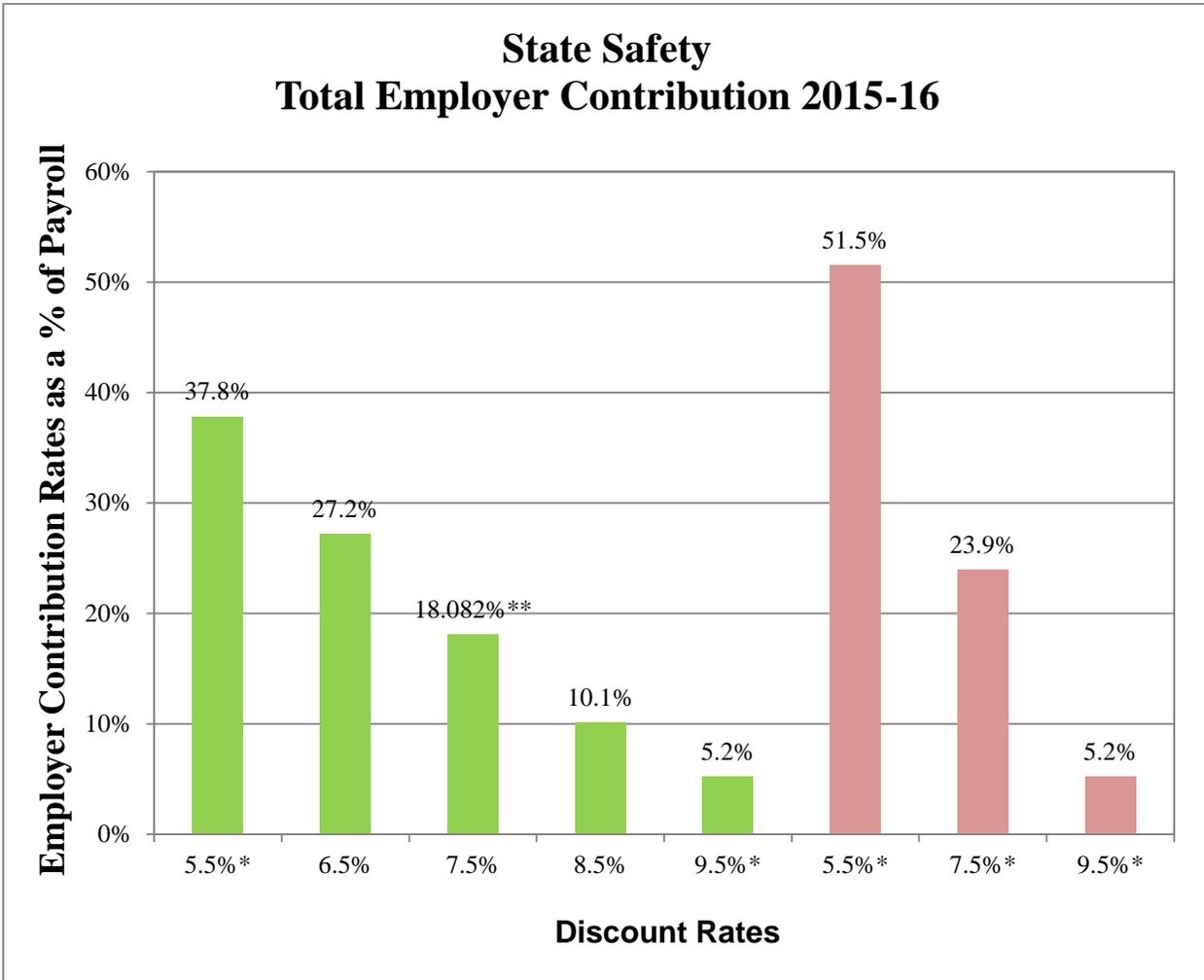
- Analysis of discount rate sensitivity based on current amortization method (varies from 9 to 30 years) or normal cost if in a surplus position
- Analysis of discount rate sensitivity based on amortization of UL over EARSP (10 years)
- * Required by Government Code Section 20229
- ** Actuarially required contribution rate for 2015-16 adopted by the CalPERS Board



- Analysis of discount rate sensitivity based on current amortization method (varies from 9 to 30 years) or normal cost if in a surplus position
- 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 2015-16 adopted by the CalPERS Board



- Analysis of discount rate sensitivity based on current amortization method (varies from 9 to 30 years) or normal cost if in a surplus position
- 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 2015-16 adopted by the CalPERS Board

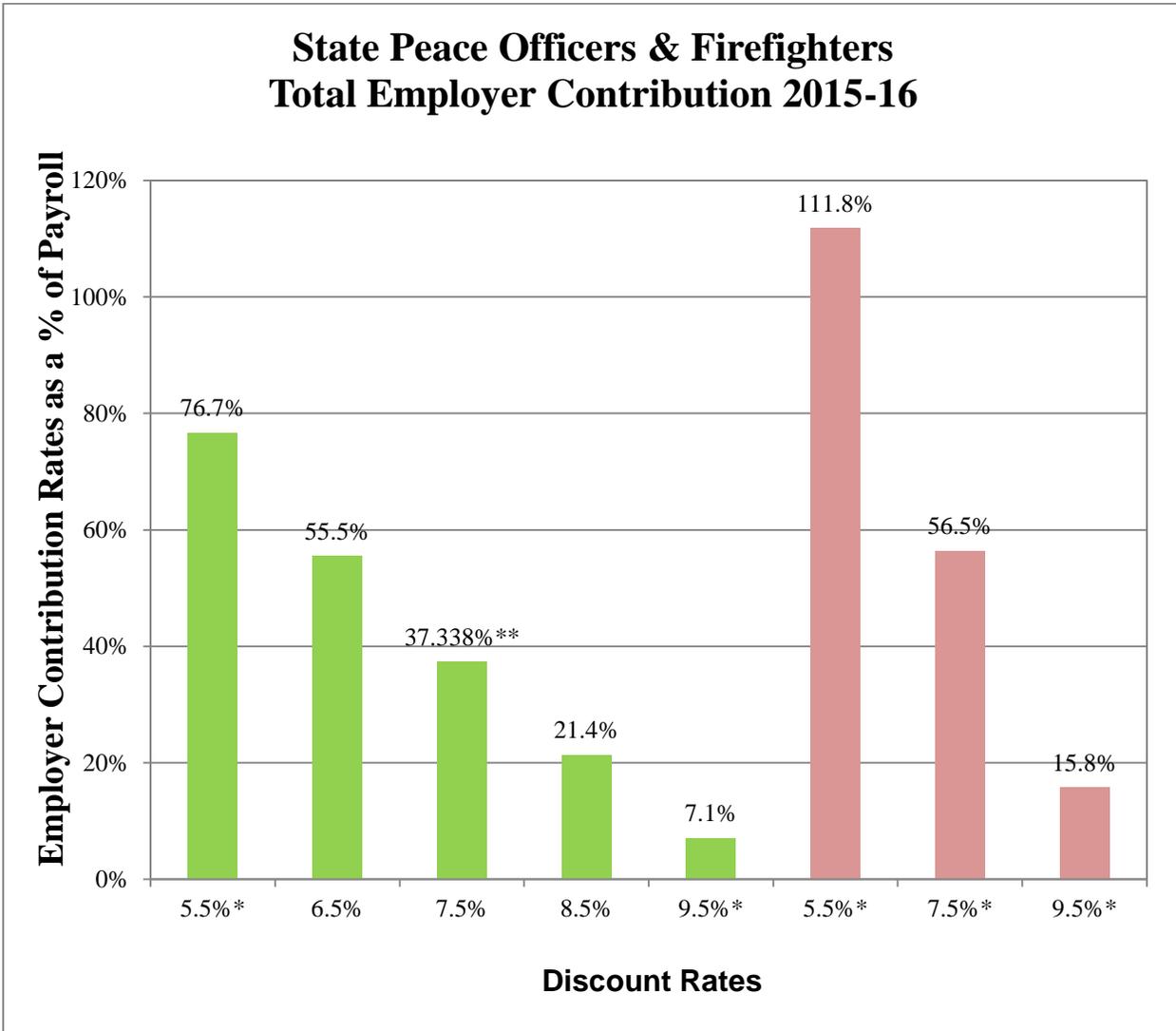


Analysis of discount rate sensitivity based on current amortization method (varies from 8 to 30 years) or normal cost if in a surplus position

Analysis of discount rate sensitivity based on amortization of UL over EARSP (10 years)

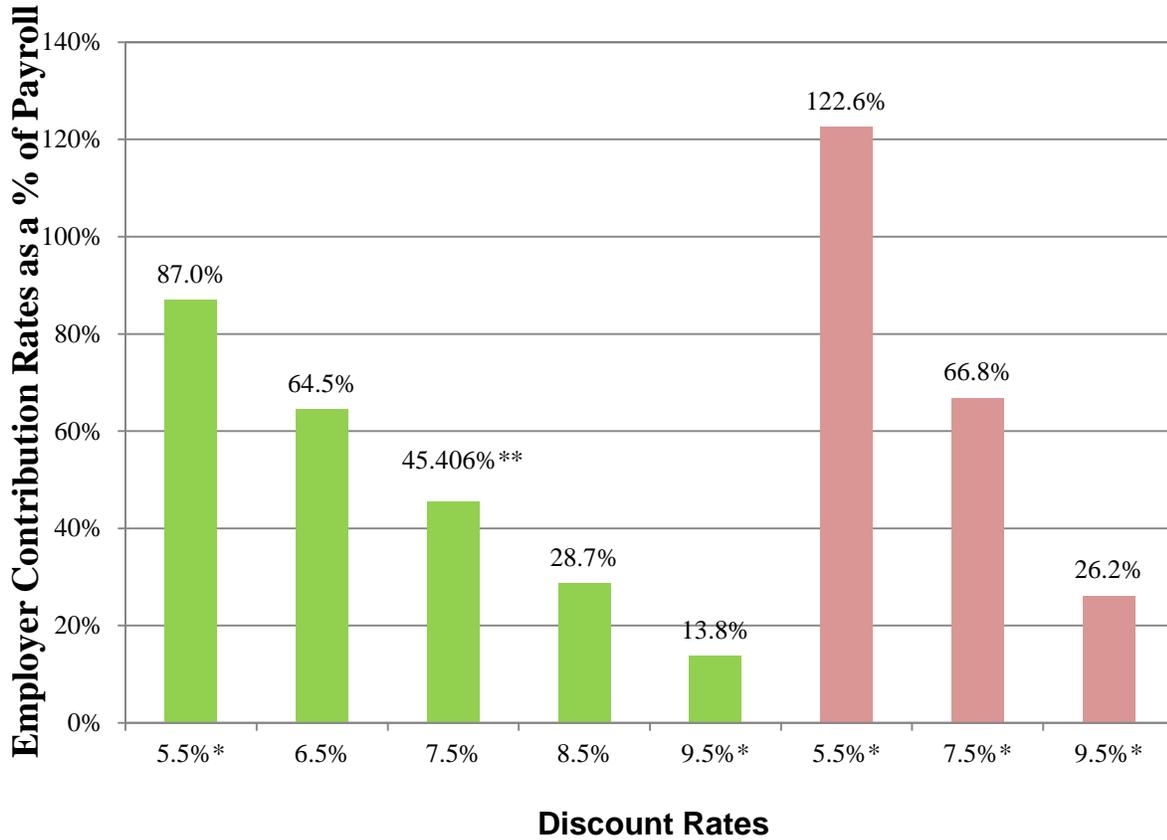
* Required by Government Code Section 20229

** Actuarially required contribution rate for 2015-16 adopted by the CalPERS Board



- Analysis of discount rate sensitivity based on current amortization method (varies from 9 to 30 years) or normal cost if in a surplus position
- 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 2015-16 adopted by the CalPERS Board

California Highway Patrol Total Employer Contribution 2015-16



- Analysis of discount rate sensitivity based on current amortization method (varies from 7 to 30 years) or normal cost if in a surplus position
- Analysis of discount rate sensitivity based on amortization of UL over EARSP (12 years)
- * Required by Government Code Section 20229
- ** Actuarially required contribution rate for 2015-16 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	13.0%	8.898%	5.8%
	UAL Payment	23.0%	16.170%	9.4%
	GTLI	<u>0.0%</u>	<u>0.000%</u>	<u>0.0%</u>
	Total	36.1%	25.068%	15.2%
	Funded Status	64.5%	72.4%	80.6%
State Miscellaneous Tier 2	Normal Cost	11.6%	8.219%	5.7%
	UAL Payment	23.0%	16.170%	9.4%
	GTLI	<u>0.0%</u>	<u>0.000%</u>	<u>0.0%</u>
	Total	34.6%	24.389%	15.1%
	Funded Status	64.5%	72.4%	80.6%
State Industrial	Normal Cost	15.0%	10.561%	7.1%
	UAL Payment	13.5%	7.214%	2.0%
	GTLI	<u>0.0%</u>	<u>0.000%</u>	<u>0.0%</u>
	Total	28.5%	17.775%	9.1%
	Funded Status	71.2%	81.7%	91.3%
State Safety	Normal Cost	16.2%	11.578%	8.0%
	UAL Payment	10.9%	6.432%	2.1%
	GTLI	<u>0.1%</u>	<u>0.072%</u>	<u>0.1%</u>
	Total	27.2%	18.082%	10.1%
	Funded Status	69.7%	79.2%	89.2%
POFF	Normal Cost	23.8%	16.384%	10.8%
	UAL Payment	31.6%	20.879%	10.6%
	GTLI	<u>0.1%</u>	<u>0.075%</u>	<u>0.1%</u>
	Total	55.5%	37.338%	21.4%
	Funded Status	62.2%	71.0%	80.2%
CHP	Normal Cost	23.9%	16.148%	10.3%
	UAL Payment	40.6%	29.206%	18.3%
	GTLI	<u>0.1%</u>	<u>0.052%</u>	<u>0.1%</u>
	Total	64.5%	45.406%	28.7%
	Funded Status	56.4%	64.3%	72.7%

* 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	119,846,341,807	94,442,394,521	76,611,858,544
Market Value of Assets (MVA)	68,358,591,216	68,358,591,216	68,358,591,216
Funded Status MVA basis	57.0%	72.4%	89.2%
Unfunded Liability MVA basis	51,487,750,591	26,083,803,305	8,253,267,328
<u>State Miscellaneous Tier 1</u>			
<i>Current Amortization Method</i>			
Payment on Normal Cost	18.5%	8.898%	3.4%
Payment on UL	30.0%	16.170%	2.7%
<u>Group Term Life Insurance</u>	<u>0.0%</u>	<u>0.000%</u>	<u>0.0%</u>
Total ER Contribution 2015-16	48.5%	25.068%	6.0%
<u>State Miscellaneous Tier 1</u>			
<i>Amortization of UL over EARSP</i>			
Payment on Normal Cost	18.5%	8.9%	3.4%
Payment on UL (over EARSP=10 years)	56.5%	30.3%	8.4%
<u>Group Term Life Insurance</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Total ER Contribution 2015-16	75.0%	39.2%	11.8%
<u>State Miscellaneous Tier 2</u>			
<i>Current Amortization Method</i>			
Payment on Normal Cost	16.1%	8.219%	3.8%
Payment on UL	30.0%	16.170%	2.7%
<u>Group Term Life Insurance</u>	<u>0.0%</u>	<u>0.000%</u>	<u>0.0%</u>
Total ER Contribution 2015-16	46.1%	24.389%	6.5%
<u>State Miscellaneous Tier 2</u>			
<i>Amortization of UL over EARSP</i>			
Payment on Normal Cost	16.1%	8.2%	3.8%
Payment on UL (over EARSP=10 years)	56.5%	30.3%	8.4%
<u>Group Term Life Insurance</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Total ER Contribution 2015-16	72.6%	38.5%	12.3%

State Industrial			
Discount Rate	5.50%	7.50%	9.50%
Accrued Liability	4,553,394,125	3,458,104,222	2,767,295,279
Market Value of Assets (MVA)	2,825,325,889	2,825,325,889	2,825,325,889
Funded Status MVA basis	62.0%	81.7%	102.1%
Unfunded Liability MVA basis	1,728,068,236	632,778,333	(58,030,610)
<i>Current Amortization Method</i>			
Payment on Normal Cost	20.8%	10.561%	4.5%
Payment on UL	19.5%	7.214%	0.0%
<u>Group Term Life Insurance</u>	<u>0.0%</u>	<u>0.000%</u>	<u>0.0%</u>
Total ER Contribution 2015-16	40.2%	17.775%	4.5%
<i>Amortization of UL over EARSP</i>			
Payment on Normal Cost	20.8%	10.6%	4.5%
Payment on UL (over EARSP=11 years)	33.3%	12.8%	0.0%
<u>Group Term Life Insurance</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Total ER Contribution 2015-16	54.1%	23.3%	4.5%

State Safety			
Discount Rate	5.50%	7.50%	9.50%
Accrued Liability	12,429,813,922	9,551,207,082	7,578,681,700
Market Value of Assets (MVA)	7,561,646,144	7,561,646,144	7,561,646,144
Funded Status MVA basis	60.8%	79.2%	99.8%
Unfunded Liability MVA basis	4,868,167,778	1,989,560,938	17,035,556
<i>Current Amortization Method</i>			
Payment on Normal Cost	22.2%	11.578%	5.1%
Payment on UL	15.5%	6.432%	0.0%
<u>Group Term Life Insurance</u>	<u>0.1%</u>	<u>0.072%</u>	<u>0.1%</u>
Total ER Contribution 2015-16	37.8%	18.082%	5.2%
<i>Amortization of UL over EARSP</i>			
Payment on Normal Cost	22.2%	11.6%	5.1%
Payment on UL (over EARSP=10 years)	29.2%	12.3%	0.0%
<u>Group Term Life Insurance</u>	<u>0.1%</u>	<u>0.1%</u>	<u>0.1%</u>
Total ER Contribution 2015-16	51.5%	23.9%	5.2%

State Peace Officers and Firefighters			
Discount Rate	5.50%	7.50%	9.50%
Accrued Liability	49,248,592,215	37,466,390,118	29,577,048,009
Market Value of Assets (MVA)	26,591,349,889	26,591,349,889	26,591,349,889
Funded Status MVA basis	54.0%	71.0%	89.9%
Unfunded Liability MVA basis	22,657,242,326	10,875,040,229	2,985,698,120
<i>Current Amortization Method</i>			
Payment on Normal Cost	33.7%	16.384%	6.5%
Payment on UL	42.9%	20.879%	0.5%
<u>Group Term Life Insurance</u>	<u>0.1%</u>	<u>0.075%</u>	<u>0.1%</u>
Total ER Contribution 2015-16	76.7%	37.338%	7.1%
<i>Amortization of UL over EARSP</i>			
Payment on Normal Cost	33.7%	16.4%	6.5%
Payment on UL (over EARSP=11 years)	78.1%	40.0%	9.2%
<u>Group Term Life Insurance</u>	<u>0.1%</u>	<u>0.1%</u>	<u>0.1%</u>
Total ER Contribution 2015-16	111.8%	56.5%	15.8%

California Highway Patrol			
Discount Rate	5.50%	7.50%	9.50%
Accrued Liability	13,580,604,808	10,329,332,235	8,154,717,168
Market Value of Assets (MVA)	6,645,481,580	6,645,481,580	6,645,481,580
Funded Status MVA basis	48.9%	64.3%	81.5%
Unfunded Liability MVA basis	6,935,123,228	3,683,850,655	1,509,235,588
<i>Current Amortization Method</i>			
Payment on Normal Cost	34.4%	16.148%	5.9%
Payment on UL	52.6%	29.206%	7.9%
<u>Group Term Life Insurance</u>	<u>0.1%</u>	<u>0.052%</u>	<u>0.1%</u>
Total ER Contribution 2015-16	87.0%	45.406%	13.8%
<i>Amortization of UL over EARSP</i>			
Payment on Normal Cost	34.4%	16.1%	5.9%
Payment on UL (over EARSP=12 years)	88.2%	50.6%	20.2%
<u>Group Term Life Insurance</u>	<u>0.1%</u>	<u>0.1%</u>	<u>0.1%</u>
Total ER Contribution 2015-16	122.6%	66.8%	26.2%

* 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**
- **ACTUARIAL METHODS**
- **ACTUARIAL ASSUMPTIONS APPLICABLE TO ALL PLANS**
 - **ECONOMIC ASSUMPTIONS**
 - **DEMOGRAPHIC ASSUMPTIONS**
 - **MISCELLANEOUS LOADING FACTORS**
 - **MISCELLANEOUS ASSUMPTIONS**
- **PLAN SPECIFIC ACTUARIAL ASSUMPTIONS**
 - **STATE MISCELLANEOUS TIER 1**
 - **STATE MISCELLANEOUS TIER 2**
 - **STATE INDUSTRIAL TIER 1**
 - **STATE INDUSTRIAL TIER 2**
 - **STATE SAFETY**
 - **STATE PEACE OFFICERS AND FIREFIGHTERS**
 - **CALIFORNIA HIGHWAY PATROL**

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 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 market value of plan assets is called the unfunded actuarial liability (UAL). Funding requirements are determined by adding the normal cost and an amortization of the unfunded liability as a level percentage of assumed future payrolls. Commencing with the June 30, 2014 valuation all new gains or losses are tracked and amortized over a fixed 30-year period with a 5-year ramp up at the beginning and a 5-year ramp down at the end of the amortization period. All changes in liability due to changes in actuarial assumptions or changes in actuarial methodology are amortized separately over a 20-year period with a 5-year ramp up at the beginning and a 5-year ramp down at the end of the amortization period. Changes in unfunded accrued liability due to a Golden Handshake will be amortized over a period of 5 years and changes in unfunded accrued liability due to a plan amendment will be amortized over a period of 20 years. If a plan's accrued liability exceeds the market value of assets, the annual contribution with respect to the total unfunded liability may not be less than the amount produced by a 30-year amortization of the unfunded liability.

An exception to the funding rules above is used whenever the application of such rules results in inconsistencies. In these cases, a "fresh start" approach is used. This simply means that the current unfunded actuarial liability/surplus is projected and amortized over a set number of years. This fresh start approach generally occurs when a total negative rate would result or a positive payment would be required on a negative unfunded actuarial liability (or conversely a negative payment on a positive unfunded actuarial liability). When the fresh start is being used to avoid a negative total rate and the

surplus is sufficient to offset at least 30 years of normal cost payments, the amortization period equals the number of years that the rate is projected to be zero. In addition, a fresh start may be used whenever the Chief Actuary feels that it would better achieve the intent of the Board's funding policy.

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

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

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

PURCHASING POWER PROTECTION ACT (PPPA) METHOD

PPPA benefits are cost-of-living adjustments intended to maintain the individual's current retirement benefit at 75 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 2.75 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 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. Different assumptions for these new PEPRA members are disclosed below.

ASSET VALUATION METHOD

It is the policy of the CalPERS Board of Administration to use professionally accepted amortization methods to eliminate unfunded accrued liabilities or surpluses in a manner that maintains benefit security for the members of the System while minimizing substantial variations in employer contribution rates. 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 employs an amortization and smoothing policy that pays 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. CalPERS will no longer use an actuarial value of assets and will use the market value of assets. This direct rate smoothing method is equivalent to a method using a 5-year asset smoothing period with no actuarial value of asset corridor and a 25-year amortization period for gains and losses. The change in asset value will also be amortized over 30 years with a 5-year ramp-up/ramp-down.

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

At its February 2014 meeting, the CalPERS Board reviewed the demographic and economic assumptions and adopted new demographic assumptions based on the January 2014 CalPERS Experience Study. For more details please refer to the experience study report available on the CalPERS website.

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.

Duration of Service	Annual Percentage Increase					
	State Miscellaneous Tier 1 & Tier 2			Industrial		
	Entry Age			Entry Age		
	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%

Duration of Service	Safety			POFF		
	Entry Age			Entry Age		
	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.

Age	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
	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 post-retirement mortality rates above include 20 years of projected on-going mortality improvement using Scale BB published by the Society of Actuaries.

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:

Age	Load Factor	
	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.

Attained Age	Male		Female	
	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 – 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 2 (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	0.1496	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.

Attained Age	Male		Female	
	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.

<u>Attained Age</u>	<u>Non-Industrial Death</u>		<u>Non-Industrial Disability</u>	<u>Industrial Disability</u>	<u>Industrial Death</u>
	<u>Male</u>	<u>Female</u>	<u>Male and Female</u>	<u>Male and Female</u>	<u>Male and Female</u>
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 – 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 2 (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 2 (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.

<u>Attained Age</u>	<u>Non-Industrial Death</u>		<u>Non-Industrial Disability</u>	<u>Industrial Disability</u>	<u>Industrial Death</u>
	<u>Male</u>	<u>Female</u>	<u>Male and Female</u>	<u>Male and Female</u>	<u>Male and Female</u>
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										
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
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										
<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>
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.

<u>Attained Age</u>	<u>Non-Industrial Death</u>		<u>Non-Industrial Disability</u>	<u>Industrial Disability</u>	<u>Industrial Death</u>
	<u>Male</u>	<u>Female</u>	<u>Male and Female</u>	<u>Male and Female</u>	<u>Male and Female</u>
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										
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
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										
<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>
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.

<u>Attained Age</u>	<u>Non-Industrial Death</u>		<u>Non-Industrial Disability</u>	<u>Industrial Disability</u>	<u>Industrial Death</u>
	<u>Male</u>	<u>Female</u>	<u>Male and Female</u>	<u>Male and Female</u>	<u>Male and Female</u>
			<u>Female</u>	<u>Female</u>	<u>Female</u>
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.

<u>Attained Age</u>	<u>Non-Industrial Death</u>		<u>Non-Industrial Disability</u>	<u>Industrial Disability</u>	<u>Industrial Death</u>
	<u>Male</u>	<u>Female</u>	<u>Male and Female</u>	<u>Male and Female</u>	<u>Male and Female</u>
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

- **STATE MISCELLANEOUS TIER 1**
- **STATE MISCELLANEOUS TIER 2**
- **STATE INDUSTRIAL TIER 1**
- **STATE INDUSTRIAL TIER 2**
- **STATE SAFETY**
- **STATE PEACE OFFICERS AND FIREFIGHTERS**
- **CALIFORNIA HIGHWAY PATROL**

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

Service Retirement

Eligibility

A CalPERS Classic and Safety PEPRAs 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). PEPRAs 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 PEPRAs 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:

<u>Retirement</u>	<u>2% at 55</u>	<u>Retirement</u>	<u>2% at 60</u>	<u>Retirement</u>	<u>2% at 62</u>
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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. PEPRAs 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 \$115,064 for 2014 and for those employees that do not participate in social security the cap for 2014 is \$138,077, the equivalent of 120 percent of the 2014 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 PEPRAs 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 PEPRAs members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRAs 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 PEPRAs and age 52 for Miscellaneous PEPRAs, 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

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2 percent. Annual adjustments are calculated by first determining the lesser of 1) 2 percent compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2 percent (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2 percent (when inflation is high after several years of low inflation).

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 23 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 3 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. Included in this valuation is any change to member contributions effective July 1, 2015. For more information on PEPRA, please refer to the CalPERS website.

Tier 2 Members electing Tier 1 benefits

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

Service Retirement

Eligibility

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

Benefit

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

- The benefit factor for 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:

	1.25% at 65		1.25% at 67
Retirement	Tier 2	Retirement	Tier 2
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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. PEPRAs 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 \$115,064 for 2014 and for those employees that do not participate in social security the cap for 2014 is \$138,077, the equivalent of 120 percent of the 2014 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

Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, and has earned

at least 10 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits

The CalPERS member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 55. Members with 5 years of service before January 1, 1985, are eligible at age 50.

Benefit

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

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes disabled and has at least 10 years of credited service (total service across all PERS employers, and with certain other Retirement Systems with which PERS has reciprocity agreements). There is no special age requirement. Disabled means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit. Members with 5 years of service before January 1, 1985 are also eligible.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.125 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 3.75 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

Service Retirement

Eligibility

A 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	2% at 55	Retirement	2% at 60	Retirement	2% at 62
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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. PEPPRA 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 \$115,064 for 2014 and for those employees that do not participate in social security the cap for 2014 is \$138,077, the equivalent of 120 percent of the 2014 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 PEPPRA 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 PEPPRA members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPPRA 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

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2 percent. Annual adjustments are calculated by first determining the lesser of 1) 2 percent compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2 percent (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2 percent (when inflation is high after several years of low inflation).

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 97 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 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. Included in this valuation is any change to member contributions effective July 1, 2015. For more information on PEPRA, please refer to the CalPERS website.

Tier 2 Members electing Tier 1 benefits

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

Service Retirement

Eligibility

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

Benefit

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

- The *benefit factor* for 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:

	1.25% at 65		1.25% at 67
Retirement	Tier 2	Retirement	Tier 2
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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. PEPRAs 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 \$115,064 for 2014 and for those employees that do not participate in social security the cap for 2014 is \$138,077, the equivalent of 120 percent of the 2014 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

Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, **and** has earned at least 10 years of credited service (total service across all CalPERS employers, and with certain

other Retirement Systems with which CalPERS has reciprocity agreements). Members with 5 years of service before January 1, 1985 are also eligible.

Eligibility to Start Receiving Benefits

The CalPERS member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 55. 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 3.75 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

Service Retirement

Eligibility

A 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	2.5% at 55	Retirement	2% at 55
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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	2.5% at 60	Retirement	2% at 57
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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 \$115,064 for 2014 and for those employees that do not participate in social security the cap for 2014 is \$138,077, the equivalent of 120 percent of the 2014 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

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2 percent. Annual adjustments are calculated by first determining the lesser of 1) 2 percent compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2 percent (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2 percent (when inflation is high after several years of low inflation).

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

Service Retirement

Eligibility

A CalPERS Classic and Safety PEPRAs 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). PEPRAs 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 PEPRAs 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	3% at 55	Retirement	3% at 50	Retirement	2.5% at 55
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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	2.5% at 57	Retirement	2.7% at 57
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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. PEPRAs 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 \$115,064 for 2014 and for those employees that do not participate in social security the cap for 2014 is \$138,077, the equivalent of 120 percent of the 2014 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 PEPRAs members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRAs 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

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2 percent. Annual adjustments are calculated by first determining the lesser of 1) 2 percent compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2 percent (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2 percent (when inflation is high after several years of low inflation).

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 91 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 8 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

Service Retirement

Eligibility

A 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	3% at 55	Retirement	2.7% at 57
<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
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. PEPRAs 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 \$115,064 for 2014 and for those employees that do not participate in social security the cap for 2014 is \$138,077, the equivalent of 120 percent of the 2014 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 PEPRAs members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRAs 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

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2 percent. Annual adjustments are calculated by first determining the lesser of 1) 2 percent compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2 percent (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2 percent (when inflation is high after several years of low inflation).

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**
- **DATA VALIDATION TESTS AND ADJUSTMENTS**
- **DATA STATEMENT**
- **RECONCILIATION OF PARTICIPANTS**
- **ACTIVE MEMBERS**
- **TERMINATED AND TRANSFERRED PARTICIPANTS**
- **RETIRED MEMBERS AND BENEFICIARIES**

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, 2014

State Miscellaneous Tier 1

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2013	146,735	21,751	45,686	168,852	383,024
Retirements	(4,419)	(1,000)	(557)	5,976	0
Industrial Disabilities	(1)	(45)	(2)	48	0
Ordinary Disabilities	(222)	(27)	(5)	254	0
Deaths ²	(263)	(37)	(179)	(5,522)	(6,001)
New Survivors	n/a	n/a	n/a	2,060	2,060
Non-vested Terminations ¹	(2,049)	(356)	2,405	0	0
Vested Terminations	(1,083)	(76)	1,162	(3)	0
Refunds of Contributions	(387)	(68)	(821)	0	(1,276)
Transfers	(1,613)	2,287	(628)	(46)	0
Redeposits/Rehires	1,143	(194)	(884)	(65)	0
First Year in Status	17,087	2,361	2,200	234	21,882
Moved from Tier 2	172	85	2	236	495
Data Corrections ³	(392)	546	(179)	171	146
As of June 30, 2014	154,708	25,227	48,200	172,195	400,330

State Miscellaneous Tier 2

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2013	6,099	10,390	1,594	5,592	23,675
Retirements	(69)	(172)	(70)	311	0
Industrial Disabilities	0	(2)	0	2	0
Ordinary Disabilities	(19)	(17)	(9)	45	0
Deaths ²	(19)	(28)	(29)	(135)	(211)
New Survivors	n/a	n/a	n/a	81	81
Non-vested Terminations ¹	(22)	(115)	138	(1)	0
Vested Terminations	(77)	(27)	104	0	0
Refunds of Contributions	(5)	(8)	(43)	0	(56)
Transfers	(380)	625	(237)	(8)	0
Redeposits/Rehires	187	(138)	(48)	(1)	0
First Year in Status	59	44	20	57	180
Moved to Tier 1	(172)	(85)	(2)	(236)	(495)
Data Corrections ³	(61)	(362)	99	(77)	(401)
As of June 30, 2014	5,521	10,105	1,517	5,630	22,773

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, 2014

State Industrial

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2013	9,855	8,017	3,395	11,543	32,810
Retirements	(265)	(270)	(49)	584	0
Industrial Disabilities	(2)	(19)	(5)	26	0
Ordinary Disabilities	(38)	(20)	(7)	65	0
Deaths ²	(9)	(8)	(46)	(201)	(264)
New Survivors	n/a	n/a	n/a	89	89
Non-vested Terminations ¹	(93)	(19)	113	(1)	0
Vested Terminations	(123)	(60)	183	0	0
Refunds of Contributions	(55)	(21)	(94)	0	(170)
Transfers	(668)	905	(225)	(12)	0
Redeposits/Rehires	359	(169)	(175)	(15)	0
First Year in Status	1,594	497	69	28	2,188
Data Corrections ³	(31)	19	(22)	(41)	(75)
As of June 30, 2014	10,524	8,852	3,137	12,065	34,578

State Safety

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2013	23,622	4,952	5,211	20,534	54,319
Retirements	(695)	(256)	(67)	1,018	0
Industrial Disabilities	(153)	(11)	(22)	186	0
Ordinary Disabilities	(34)	(15)	(5)	54	0
Deaths ²	(53)	(5)	(32)	(532)	(622)
New Survivors	n/a	n/a	n/a	266	266
Non-vested Terminations ¹	(466)	(31)	498	(1)	0
Vested Terminations	(305)	(53)	358	0	0
Refunds of Contributions	(138)	(20)	(202)	0	(360)
Transfers	(499)	641	(131)	(11)	0
Redeposits/Rehires	389	(183)	(176)	(30)	0
First Year in Status	3,956	72	194	91	4,313
Data Corrections ³	(35)	(15)	(25)	(28)	(103)
As of June 30, 2014	25,589	5,076	5,601	21,547	57,813

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, 2014

State Peace Officers and Firefighters

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2013	38,975	5,705	6,395	31,125	82,200
Retirements	(1,102)	(157)	(93)	1,352	0
Industrial Disabilities	(419)	(26)	(14)	459	0
Ordinary Disabilities	(27)	(4)	(10)	41	0
Deaths ²	(34)	(1)	(11)	(396)	(442)
New Survivors	n/a	n/a	n/a	258	258
Non-vested Terminations ¹	(231)	(51)	283	(1)	0
Vested Terminations	(311)	(57)	369	(1)	0
Refunds of Contributions	(82)	(8)	(171)	0	(261)
Transfers	(289)	464	(168)	(7)	0
Redeposits/Rehires	432	(102)	(320)	(10)	0
First Year in Status	2,573	192	176	98	3,039
Data Corrections ³	(67)	(53)	(46)	7	(159)
As of June 30, 2014	39,418	5,902	6,390	32,925	84,635

California Highway Patrol

	Active	Transfer	Terminated	Receiving	Total
As of June 30, 2013	7,325	290	346	8,388	16,349
Retirements	(149)	(8)	(15)	172	0
Industrial Disabilities	(54)	(3)	(2)	59	0
Ordinary Disabilities	0	0	(1)	1	0
Deaths ²	(7)	0	0	(203)	(210)
New Survivors	n/a	n/a	n/a	99	99
Non-vested Terminations ¹	(7)	(1)	8	0	0
Vested Terminations	(31)	(2)	33	0	0
Refunds of Contributions	(4)	(1)	(7)	0	(12)
Transfers	(6)	8	(2)	0	0
Redeposits/Rehires	4	(1)	(3)	0	0
First Year in Status	125	4	14	5	148
Data Corrections ³	(13)	(4)	(16)	2	(31)
As of June 30, 2014	7,183	282	355	8,523	16,343

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, 2014

State Miscellaneous Tier 1

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	1,958	3	0	0	0	0	1,961	\$ 65,557,761
25-29	7,371	1,393	38	0	0	0	8,802	382,331,803
30-34	7,455	5,134	1,129	61	0	0	13,779	727,885,040
35-39	5,584	5,424	3,795	849	73	0	15,725	940,426,427
40-44	4,706	5,284	5,346	2,498	865	93	18,792	1,212,514,270
45-49	4,142	4,607	5,529	3,159	2,968	1,446	21,851	1,466,546,736
50-54	3,774	4,406	5,559	3,468	3,844	5,624	26,676	1,828,461,171
55-59	3,146	3,665	4,713	3,016	3,143	7,155	24,838	1,716,207,000
60-64	1,907	2,544	2,977	1,931	1,987	4,020	15,366	1,078,407,986
65 and Over	988	1,289	1,401	935	809	1,496	6,918	491,969,631
Total	41,031	33,749	30,487	15,917	13,689	19,834	154,708	\$9,910,307,823

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, 2014

State Miscellaneous Tier 1

Attained Age	Years of Service at Valuation Date						Average Salary
	0-4	5-9	10-14	15-19	20-24	25+	
15-24	\$33,428	\$35,234	\$0	\$0	\$0	\$0	\$33,431
25-29	41,890	51,252	57,073	0	0	0	43,437
30-34	48,939	56,789	59,583	69,212	0	0	52,826
35-39	53,088	61,054	64,380	73,683	81,426	0	59,805
40-44	53,392	63,167	68,066	75,973	76,635	80,879	64,523
45-49	52,784	61,885	67,818	76,176	77,830	80,360	67,116
50-54	52,006	60,431	67,294	75,218	76,365	77,764	68,542
55-59	52,577	60,378	65,954	73,040	76,821	77,839	69,096
60-64	54,370	61,421	65,925	73,208	77,769	81,174	70,181
65 and Over	49,536	61,625	67,979	75,192	84,531	86,674	71,114
Average	\$49,224	\$60,337	\$66,554	\$74,764	\$77,518	\$79,358	\$64,058

Distribution of Active Members By Age and Service**As of June 30, 2014****State Miscellaneous Tier 2**

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	2	0	0	0	0	0	2	\$ 76,548
25-29	18	0	0	0	0	0	18	779,371
30-34	26	13	4	8	0	0	51	2,751,665
35-39	25	22	108	120	4	0	279	16,095,383
40-44	29	42	157	406	149	4	787	45,714,289
45-49	32	42	163	448	375	92	1,152	66,058,167
50-54	25	28	126	427	371	261	1,238	72,939,611
55-59	27	25	103	368	265	284	1,072	61,005,530
60-64	11	25	47	199	162	193	637	37,892,690
65 and Over	13	11	30	97	70	64	285	16,933,435
Total	208	208	738	2,073	1,396	898	5,521	\$ 320,246,687

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, 2014****State Miscellaneous Tier 2**

Attained Age	Years of Service at Valuation Date						Average Salary
	0-4	5-9	10-14	15-19	20-24	25+	
15-24	\$38,274	\$0	\$0	\$0	\$0	\$0	\$38,274
25-29	43,298	0	0	0	0	0	43,298
30-34	57,508	53,747	44,632	47,403	0	0	53,954
35-39	63,047	56,870	54,785	59,050	66,332	0	57,690
40-44	47,407	50,022	52,709	60,674	61,047	58,364	58,087
45-49	40,597	46,219	54,028	56,001	61,959	61,829	57,342
50-54	42,182	50,769	51,574	57,718	61,987	62,537	58,917
55-59	45,022	49,946	49,404	55,817	57,190	62,523	56,908
60-64	58,794	43,059	52,522	56,405	61,433	64,892	59,486
65 and Over	47,892	36,585	61,350	58,195	62,244	63,529	59,416
Average	\$48,753	\$48,755	\$52,945	\$57,522	\$60,930	\$63,019	\$58,005

Distribution of Active Members By Age and Service**As of June 30, 2014****State Industrial**

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	145	4	0	0	0	0	149	\$ 4,864,639
25-29	615	171	2	0	0	0	788	31,396,752
30-34	601	482	69	1	0	0	1,153	52,000,768
35-39	481	481	198	44	1	0	1,205	59,863,551
40-44	468	462	300	148	51	3	1,432	75,998,557
45-49	465	524	321	188	111	35	1,644	88,849,743
50-54	415	514	340	235	168	134	1,806	100,537,431
55-59	254	402	218	227	120	100	1,321	73,749,207
60-64	152	215	140	105	54	40	706	40,752,544
65 and Over	63	99	66	59	21	12	320	19,728,467
Total	3,659	3,354	1,654	1,007	526	324	10,524	\$ 547,741,659

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, 2014****State Industrial**

Attained Age	Years of Service at Valuation Date						Average Salary
	0-4	5-9	10-14	15-19	20-24	25+	
15-24	\$32,471	\$39,072	\$0	\$0	\$0	\$0	\$32,649
25-29	38,945	42,756	67,188	0	0	0	39,844
30-34	43,552	46,186	51,068	40,344	0	0	45,100
35-39	48,742	49,150	52,405	53,036	67,296	0	49,679
40-44	51,181	51,615	54,255	58,924	59,270	59,849	53,072
45-49	51,344	52,547	55,705	56,844	59,799	63,837	54,045
50-54	52,814	55,220	52,708	56,344	60,922	65,972	55,669
55-59	53,165	54,785	53,666	56,876	58,781	65,582	55,828
60-64	59,178	59,693	53,181	55,847	55,530	65,393	57,723
65 and Over	66,825	54,442	64,826	62,277	70,298	58,296	61,651
Average	\$47,755	\$51,694	\$54,133	\$57,072	\$59,869	\$65,209	\$52,047

Distribution of Active Members By Age and Service**As of June 30, 2014****State Safety**

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	299	3	0	0	0	0	302	\$ 13,525,491
25-29	1,359	279	5	0	0	0	1,643	90,535,569
30-34	1,549	833	95	1	0	0	2,478	150,862,613
35-39	1,361	1,203	326	24	0	0	2,914	206,630,338
40-44	1,245	1,406	528	162	15	0	3,356	258,950,455
45-49	1,144	1,368	708	331	85	15	3,651	273,632,455
50-54	988	1,425	814	525	229	110	4,091	315,872,343
55-59	791	1,199	858	504	220	90	3,662	290,858,549
60-64	403	832	527	416	130	64	2,372	207,677,370
65 and Over	151	372	294	191	70	42	1,120	112,084,936
Total	9,290	8,920	4,155	2,154	749	321	25,589	\$1,920,630,118

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, 2014****State Safety**

Attained Age	Years of Service at Valuation Date						Average Salary
	0-4	5-9	10-14	15-19	20-24	25+	
15-24	\$44,667	\$56,707	\$0	\$0	\$0	\$0	\$44,786
25-29	54,359	58,391	74,240	0	0	0	55,104
30-34	59,115	63,927	62,703	85,300	0	0	60,881
35-39	66,690	75,311	72,735	64,762	0	0	70,910
40-44	69,050	83,056	79,267	82,056	70,693	0	77,160
45-49	69,870	78,472	74,758	78,759	74,214	69,638	74,947
50-54	70,584	80,079	76,981	82,251	80,271	70,872	77,212
55-59	72,191	83,032	77,031	86,101	79,645	79,896	79,426
60-64	86,280	91,516	81,243	89,745	83,521	89,975	87,554
65 and Over	101,288	104,525	92,431	105,114	98,173	90,090	100,076
Average	\$65,917	\$79,947	\$77,874	\$85,882	\$81,445	\$79,668	\$75,057

Distribution of Active Members By Age and Service**As of June 30, 2014****State Peace Officers and Firefighters**

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	853	0	0	0	0	0	853	\$ 29,620,903
25-29	1,908	840	1	0	0	0	2,749	142,119,669
30-34	1,482	3,319	721	1	0	0	5,523	373,504,389
35-39	778	2,411	2,662	582	6	0	6,439	487,416,861
40-44	562	1,756	2,272	2,460	590	5	7,645	615,964,162
45-49	350	1,174	1,526	2,075	1,775	682	7,582	640,421,137
50-54	228	756	914	1,262	1,079	893	5,132	437,991,021
55-59	131	324	435	652	497	374	2,413	203,950,849
60-64	43	107	197	266	144	118	875	73,736,134
65 and Over	11	26	45	60	33	32	207	17,479,124
Total	6,346	10,713	8,773	7,358	4,124	2,104	39,418	\$3,022,204,251

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, 2014****State Peace Officers and Firefighters**

Attained Age	Years of Service at Valuation Date						Average Salary
	0-4	5-9	10-14	15-19	20-24	25+	
15-24	\$34,726	\$0	\$0	\$0	\$0	\$0	\$34,726
25-29	44,052	69,027	85,670	0	0	0	51,699
30-34	50,599	72,585	79,785	82,979	0	0	67,627
35-39	55,689	74,271	80,753	85,044	94,005	0	75,698
40-44	60,308	75,740	80,989	85,788	90,787	92,646	80,571
45-49	65,629	76,741	81,030	85,667	90,134	96,715	84,466
50-54	64,834	78,774	81,801	84,856	89,330	95,649	85,345
55-59	71,441	78,862	82,623	84,214	88,050	92,062	84,522
60-64	71,168	78,975	82,059	83,778	90,151	91,469	84,270
65 and Over	78,534	74,917	81,485	85,165	87,942	93,394	84,440
Average	\$49,939	\$74,354	\$81,018	\$85,317	\$89,754	\$95,081	\$76,671

Distribution of Active Members By Age and Service**As of June 30, 2014****California Highway Patrol**

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	24	0	0	0	0	0	24	\$1,535,244
25-29	265	337	0	0	0	0	602	55,307,214
30-34	288	801	137	1	0	0	1,227	119,291,954
35-39	142	552	652	183	1	0	1,530	155,017,995
40-44	42	235	561	717	174	0	1,729	182,921,770
45-49	1	23	143	465	390	308	1,330	150,591,494
50-54	0	0	0	94	151	347	592	71,168,658
55-59	0	0	0	9	28	111	148	18,932,351
60-64	0	0	0	0	0	1	1	109,690
65 and Over	0	0	0	0	0	0	0	0
Total	762	1,948	1,493	1,469	744	767	7,183	\$ 754,876,371

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, 2014****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	\$63,969	\$0	\$0	\$0	\$0	\$0	\$63,969
25-29	82,543	99,208	0	0	0	0	91,872
30-34	86,188	100,158	103,200	104,515	0	0	97,222
35-39	85,965	100,300	103,735	107,676	105,644	0	101,319
40-44	89,650	100,462	102,873	108,654	114,548	0	105,796
45-49	68,460	102,651	102,621	107,656	115,196	125,003	113,227
50-54	0	0	0	108,935	115,621	125,274	120,217
55-59	0	0	0	119,376	117,712	131,189	127,921
60-64	0	0	0	0	0	109,690	109,690
65 and Over	0	0	0	0	0	0	0
Average	\$84,347	\$100,100	\$103,255	\$108,297	\$115,213	\$126,001	\$105,092

Terminated and Transferred Participants

Distributions By Age and Service

Transfers to Other CalPERS Plans

As of June 30, 2014

State Miscellaneous Tier 1

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	158	0	0	0	0	0	158	\$38,840
25-29	1,510	47	2	0	0	0	1,559	52,068
30-34	2,256	303	30	0	0	0	2,589	59,264
35-39	2,430	480	104	6	1	0	3,021	66,544
40-44	2,179	705	214	41	11	0	3,150	70,030
45-49	2,149	789	407	179	66	18	3,608	73,634
50-54	2,283	864	500	346	173	83	4,249	75,742
55-59	2,075	720	408	269	144	98	3,714	73,965
60-64	1,274	445	212	111	75	38	2,155	73,422
65 and Over	698	183	68	45	17	13	1,024	71,884
Total	17,012	4,536	1,945	997	487	250	25,227	\$69,624

Distributions By Age and Service

Terminated Participants With Funds on Deposit

As of June 30, 2014

State Miscellaneous Tier 1

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	378	0	0	0	0	0	378	\$29,510
25-29	2,622	73	0	0	0	0	2,695	35,157
30-34	5,439	612	46	1	0	0	6,098	38,069
35-39	5,767	1,026	237	17	1	0	7,048	43,312
40-44	5,123	1,269	386	81	10	0	6,869	47,663
45-49	4,247	1,473	609	174	67	12	6,582	49,479
50-54	4,244	1,458	636	290	109	39	6,776	48,472
55-59	3,666	1,106	450	172	56	23	5,473	45,149
60-64	2,894	684	251	83	29	19	3,960	43,712
65 and Over	1,931	263	88	24	7	8	2,321	42,305
Total	36,311	7,964	2,703	842	279	101	48,200	\$44,465

Distributions By Age and Service**Transfers to Other CalPERS Plans****As of June 30, 2014****State Miscellaneous Tier 2**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	0	0	0	0	0	0	0	\$0
25-29	2	0	0	0	0	0	2	51,162
30-34	49	4	0	0	0	0	53	60,282
35-39	642	94	34	11	0	0	781	66,159
40-44	1,325	434	102	28	10	0	1,899	69,533
45-49	1,308	728	329	68	41	2	2,476	68,979
50-54	1,202	538	406	131	55	18	2,350	66,454
55-59	760	296	240	106	91	42	1,535	66,217
60-64	369	147	122	38	39	24	739	66,570
65 and Over	147	56	29	12	14	12	270	68,061
Total	5,804	2,297	1,262	394	250	98	10,105	\$67,609

Distributions By Age and Service**Terminated Participants With Funds on Deposit****As of June 30, 2014****State Miscellaneous Tier 2**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	0	0	0	0	0	0	0	\$0
25-29	0	0	0	0	0	0	0	0
30-34	0	0	4	0	0	0	4	27,826
35-39	0	0	17	3	0	0	20	28,532
40-44	0	0	109	25	4	1	139	30,897
45-49	0	0	244	55	13	0	312	32,601
50-54	0	0	267	95	22	6	390	31,883
55-59	0	0	263	61	19	4	347	31,470
60-64	0	0	152	57	16	3	228	30,382
65 and Over	0	0	53	17	4	3	77	31,799
Total	0	0	1,109	313	78	17	1,517	\$31,385

Distributions By Age and Service**Transfers to Other CalPERS Plans****As of June 30, 2014****State Industrial**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	20	0	0	0	0	0	20	\$34,596
25-29	342	27	0	0	0	0	369	45,259
30-34	596	92	2	0	0	0	690	54,416
35-39	674	142	30	5	0	0	851	62,156
40-44	933	255	82	20	5	0	1,295	64,244
45-49	1,157	349	133	35	17	1	1,692	65,988
50-54	1,186	348	143	64	23	7	1,771	69,337
55-59	890	237	99	37	24	3	1,290	68,064
60-64	454	120	49	23	6	5	657	68,550
65 and Over	172	29	13	3	0	0	217	77,846
Total	6,424	1,599	551	187	75	16	8,852	\$64,981

Distributions By Age and Service**Terminated Participants With Funds on Deposit****As of June 30, 2014****State Industrial**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	12	0	0	0	0	0	12	\$32,681
25-29	135	4	0	0	0	0	139	35,499
30-34	255	19	1	0	0	0	275	37,327
35-39	292	58	7	3	0	0	360	37,601
40-44	378	81	25	4	1	0	489	39,367
45-49	398	77	48	13	3	0	539	40,251
50-54	343	117	28	11	4	3	506	39,059
55-59	258	48	15	1	1	0	323	36,620
60-64	200	39	5	2	0	0	246	37,641
65 and Over	214	30	3	0	1	0	248	41,154
Total	2,485	473	132	34	10	3	3,137	\$38,614

Distributions By Age and Service**Transfers to Other CalPERS Plans****As of June 30, 2014****State Safety**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	6	0	0	0	0	0	6	\$39,203
25-29	134	7	0	0	0	0	141	54,072
30-34	355	49	2	0	0	0	406	61,228
35-39	492	102	1	0	0	0	595	71,802
40-44	579	141	22	3	1	0	746	75,744
45-49	605	154	42	10	6	0	817	77,824
50-54	687	202	52	34	10	2	987	80,756
55-59	574	153	53	20	7	3	810	81,040
60-64	302	73	18	12	2	0	407	81,858
65 and Over	122	29	8	2	0	0	161	86,253
Total	3,856	910	198	81	26	5	5,076	\$76,454

Distributions By Age and Service**Terminated Participants With Funds on Deposit****As of June 30, 2014****State Safety**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	26	0	0	0	0	0	26	\$41,274
25-29	222	6	0	0	0	0	228	46,050
30-34	540	70	0	0	0	0	610	53,243
35-39	590	88	7	0	0	0	685	62,735
40-44	709	119	21	6	2	0	857	65,060
45-49	657	137	37	10	0	0	841	65,028
50-54	675	129	24	11	3	1	843	61,828
55-59	621	78	20	5	2	1	727	62,368
60-64	461	48	10	1	2	0	522	64,635
65 and Over	248	13	1	0	0	0	262	61,924
Total	4,749	688	120	33	9	2	5,601	\$61,577

Distributions By Age and Service**Transfers to Other CalPERS Plans****As of June 30, 2014****State Peace Officers and Fire Fighters**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	34	0	0	0	0	0	34	\$41,646
25-29	385	11	0	0	0	0	396	58,495
30-34	761	79	3	0	0	0	843	72,694
35-39	865	94	19	1	0	0	979	81,247
40-44	934	184	33	7	0	0	1,158	83,939
45-49	907	164	54	16	9	1	1,151	89,375
50-54	657	121	44	6	7	6	841	87,539
55-59	235	56	19	5	6	0	321	78,312
60-64	107	22	9	4	1	0	143	73,064
65 and Over	27	5	3	1	0	0	36	80,910
Total	4,912	736	184	40	23	7	5,902	\$80,920

Distributions By Age and Service**Terminated Participants With Funds on Deposit****As of June 30, 2014****State Peace Officers and Firefighters**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	104	0	0	0	0	0	104	\$29,839
25-29	592	12	0	0	0	0	604	34,181
30-34	1,034	96	7	0	0	0	1,137	37,014
35-39	912	143	45	4	0	0	1,104	39,871
40-44	834	162	85	41	3	0	1,125	43,521
45-49	734	194	103	57	24	5	1,117	48,188
50-54	500	111	45	11	5	1	673	41,637
55-59	241	45	18	0	1	2	307	39,396
60-64	128	21	8	2	2	1	162	41,720
65 and Over	48	2	6	1	0	0	57	38,457
Total	5,127	786	317	116	35	9	6,390	\$40,955

Distributions By Age and Service**Transfers to Other CalPERS Plans****As of June 30, 2014****California Highway Patrol**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	0	0	0	0	0	0	0	\$0
25-29	13	0	0	0	0	0	13	55,041
30-34	19	1	0	0	0	0	20	69,683
35-39	38	11	0	0	0	0	49	81,963
40-44	61	13	9	1	0	0	84	83,597
45-49	38	11	5	3	0	0	57	90,893
50-54	27	5	2	1	0	0	35	80,358
55-59	10	5	1	1	0	0	17	71,013
60-64	2	1	1	0	0	0	4	112,350
65 and Over	2	1	0	0	0	0	3	58,275
Total	210	48	18	6	0	0	282	\$81,462

Distributions By Age and Service**Terminated Participants With Funds on Deposit****As of June 30, 2014****California Highway Patrol**

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0-4	5-9	10-14	15-19	20-24	25+		
15-24	1	0	0	0	0	0	1	\$51,507
25-29	13	2	0	0	0	0	15	73,402
30-34	15	7	0	0	0	0	22	78,298
35-39	42	22	7	0	0	0	71	73,464
40-44	48	27	16	5	1	0	97	73,232
45-49	45	23	13	14	4	2	101	69,422
50-54	11	12	4	2	0	0	29	72,818
55-59	8	4	2	0	0	0	14	60,083
60-64	3	0	0	0	1	0	4	62,996
65 and Over	0	1	0	0	0	0	1	99,722
Total	186	98	42	21	6	2	355	\$71,861

Retired Members and Beneficiaries

Number of Retirees and Beneficiaries

By Age and Retirement Type

As of June 30, 2014

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	1	11	3	188	204
30-34	0	7	5	1	0	130	143
35-39	0	34	16	5	4	165	224
40-44	0	136	33	21	2	208	400
45-49	0	353	96	35	9	304	797
50-54	1,637	1,015	277	102	16	555	3,602
55-59	10,566	1,802	462	195	12	911	13,948
60-64	23,788	2,151	460	286	7	1,427	28,119
65-69	30,510	1,958	429	329	7	2,107	35,340
70-74	22,740	1,441	262	291	7	2,700	27,441
75-79	16,611	965	174	246	7	3,274	21,277
80-84	12,705	599	93	208	5	3,959	17,569
85 and Over	14,636	552	53	265	4	7,621	23,131
Total	133,193	11,014	2,361	1,995	83	23,549	172,195

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, 2014****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	\$21	\$69,186	\$367	\$1,513,726	\$1,589,580
30-34	0	48,469	19,728	35,609	0	1,066,171	1,169,977
35-39	0	291,797	5,175	123,882	37,026	1,688,779	2,146,659
40-44	0	1,252,984	91,457	495,666	27,206	2,484,330	4,351,643
45-49	0	4,225,131	237,942	733,250	54,644	4,033,829	9,284,796
50-54	17,736,364	14,772,517	740,951	2,143,252	155,518	7,357,546	42,906,148
55-59	284,721,561	27,875,942	1,770,572	4,700,841	134,142	14,243,945	333,447,003
60-64	761,347,927	33,061,500	1,625,577	7,294,981	82,128	27,065,066	830,477,179
65-69	1,012,992,897	30,002,674	1,808,744	8,658,946	2,052	44,914,233	1,098,379,546
70-74	753,218,700	23,433,540	1,226,389	7,640,373	25,852	63,976,555	849,521,409
75-79	536,339,946	15,092,225	749,633	6,619,310	8,874	82,443,722	641,253,710
80-84	392,975,997	8,430,086	332,190	5,290,258	6,167	97,047,835	504,082,533
85 and Over	380,457,770	7,084,513	94,472	6,634,844	2,679	152,431,330	546,705,608
Total	\$4,139,791,162	\$165,577,658	\$8,702,851	\$50,440,398	\$536,655	\$500,267,067	\$4,865,315,791

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, 2014
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	38,417	1,784	308	382	11	753	41,655
5-9	31,029	1,548	357	356	11	1,687	34,988
10-14	24,523	2,213	488	313	8	2,568	30,113
15-19	14,758	2,268	388	257	17	3,102	20,790
20-24	11,869	1,384	418	228	7	4,246	18,152
25-29	7,087	835	207	191	13	4,326	12,659
30 and Over	5,510	982	195	268	16	6,867	13,838
Total	133,193	11,014	2,361	1,995	83	23,549	172,195

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, 2014

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	\$1,279,991,601	\$27,010,469	\$1,722,269	\$9,918,864	\$176,846	\$14,422,810	\$1,333,242,859
5-9	1,034,027,048	25,090,994	2,058,817	9,001,836	62,104	36,551,412	1,106,792,211
10-14	838,254,449	35,551,589	2,482,440	8,398,002	8,198	67,370,431	952,065,109
15-19	413,359,218	35,727,515	1,130,975	7,062,784	240,741	79,292,215	536,813,448
20-24	339,840,485	20,989,272	859,179	5,970,409	30,238	119,239,589	486,929,172
25-29	154,638,292	10,494,071	302,953	5,009,896	9,188	95,482,224	265,936,624
30 and Over	79,680,069	10,713,748	146,218	5,078,607	9,340	87,908,386	183,536,368
Total	\$4,139,791,162	\$165,577,658	\$8,702,851	\$50,440,398	\$536,655	\$500,267,067	\$4,865,315,791

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, 2014****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	28	29
30-34	0	0	0	0	0	12	12
35-39	0	6	0	1	0	12	19
40-44	0	28	3	2	0	22	55
45-49	0	72	9	6	0	24	111
50-54	99	173	13	9	0	50	344
55-59	356	286	13	18	0	72	745
60-64	657	359	9	39	2	109	1,175
65-69	796	275	12	16	0	137	1,236
70-74	537	151	6	9	0	104	807
75-79	401	78	1	11	0	87	578
80-84	259	24	1	1	0	68	353
85 and Over	109	3	1	2	0	51	166
Total	3,214	1,455	68	115	2	776	5,630

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, 2014****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	\$2,201	\$0	\$144,010	\$146,211
30-34	0	0	0	0	0	58,170	58,170
35-39	0	64,578	0	92	0	82,313	146,983
40-44	0	285,525	80,134	2,686	0	131,894	500,239
45-49	0	753,129	207,244	23,601	0	192,584	1,176,558
50-54	180,614	2,043,899	259,538	41,006	0	492,910	3,017,967
55-59	1,619,891	3,752,201	235,710	146,858	0	685,992	6,440,652
60-64	3,805,057	5,280,220	216,971	412,124	50,060	1,159,863	10,924,295
65-69	5,454,583	4,201,172	244,448	161,022	0	1,568,697	11,629,922
70-74	4,001,725	2,353,943	75,659	95,340	0	999,353	7,526,020
75-79	3,812,699	1,250,321	26,574	135,443	0	876,136	6,101,173
80-84	3,067,954	384,920	25,293	56,866	0	928,138	4,463,171
85 and Over	1,276,202	61,016	33,375	69,480	0	508,515	1,948,588
Total	\$23,218,725	\$20,430,924	\$1,404,946	\$1,146,719	\$50,060	\$7,828,575	\$54,079,949

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, 2014
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	1,303	227	7	34	0	62	1,633
5-9	467	128	3	33	0	62	693
10-14	446	340	22	20	0	130	958
15-19	720	442	24	18	1	265	1,470
20-24	202	221	9	6	1	161	600
25-29	75	97	3	4	0	90	269
30 and Over	1	0	0	0	0	6	7
Total	3,214	1,455	68	115	2	776	5,630

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, 2014

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	\$8,270,906	\$2,114,134	\$41,737	\$244,323	\$0	\$382,698	\$11,053,798
5-9	2,765,344	1,529,037	84,114	260,073	0	461,455	5,100,023
10-14	2,143,982	4,341,207	428,633	188,695	0	1,082,686	8,185,203
15-19	7,318,906	6,967,944	523,552	315,395	34,162	2,906,138	18,066,097
20-24	2,071,991	3,935,173	225,693	93,439	15,898	2,052,747	8,394,941
25-29	644,330	1,543,429	101,217	44,794	0	909,618	3,243,388
30 and Over	3,266	0	0	0	0	33,233	36,499
Total	\$23,218,725	\$20,430,924	\$1,404,946	\$1,146,719	\$50,060	\$7,828,575	\$54,079,949

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, 2014****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	0	17	18
30-34	0	0	0	0	0	8	8
35-39	0	9	3	0	0	17	29
40-44	0	33	13	0	0	14	60
45-49	0	94	27	1	0	21	143
50-54	244	169	61	9	1	35	519
55-59	1,356	261	78	15	0	68	1,778
60-64	2,219	270	113	15	0	93	2,710
65-69	2,254	216	76	15	1	127	2,689
70-74	1,347	141	46	18	2	135	1,689
75-79	844	75	23	13	2	122	1,079
80-84	482	33	19	4	1	124	663
85 and Over	415	22	8	6	6	223	680
Total	9,161	1,323	467	97	13	1,004	12,065

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, 2014****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	\$5,010	\$0	\$48,034	\$53,044
30-34	0	0	0	0	0	39,067	39,067
35-39	0	61,200	33,069	0	0	70,598	164,867
40-44	0	210,934	64,240	0	0	107,349	382,523
45-49	0	717,842	173,332	543	0	132,537	1,024,254
50-54	1,527,126	1,405,949	253,306	97,231	1,096	134,696	3,419,404
55-59	15,720,408	2,419,309	535,947	104,534	0	603,512	19,383,710
60-64	28,678,632	2,218,901	633,007	71,843	0	576,566	32,178,949
65-69	30,394,835	1,979,014	530,393	125,473	18,328	1,040,868	34,088,911
70-74	18,982,510	1,396,383	300,526	218,197	1,518	1,227,792	22,126,926
75-79	12,337,881	768,809	167,138	405,469	51,205	1,254,157	14,984,659
80-84	8,131,869	483,093	164,502	43,920	21,728	1,559,312	10,404,424
85 and Over	6,680,495	300,765	195,179	122,633	167,105	3,445,306	10,911,483
Total	\$122,453,756	\$11,962,199	\$3,050,639	\$1,194,853	\$260,980	\$10,239,794	\$149,162,221

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, 2014
State Industrial**

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	3,702	342	95	24	0	74	4,237
5-9	2,412	216	88	23	1	113	2,853
10-14	1,563	353	131	15	0	179	2,241
15-19	752	218	62	16	1	172	1,221
20-24	402	121	47	13	0	166	749
25-29	195	41	25	3	1	118	383
30 and Over	135	32	19	3	10	182	381
Total	9,161	1,323	467	97	13	1,004	12,065

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, 2014

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	\$51,029,884	\$3,039,079	\$680,520	\$187,647	\$0	\$552,871	\$55,490,001
5-9	32,634,277	2,061,014	710,651	430,506	1,096	852,519	36,690,063
10-14	21,321,658	3,352,750	768,799	145,705	0	1,859,041	27,447,953
15-19	7,892,481	1,828,640	202,920	193,769	75	1,326,975	11,444,860
20-24	5,244,019	1,002,467	281,200	181,009	0	2,131,672	8,840,367
25-29	2,713,244	342,653	182,191	21,626	1,443	1,687,954	4,949,111
30 and Over	1,618,193	335,596	224,358	34,591	258,366	1,828,762	4,299,866
Total	\$122,453,756	\$11,962,199	\$3,050,639	\$1,194,853	\$260,980	\$10,239,794	\$149,162,221

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, 2014****State Safety**

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	8	0	2	30	40
30-34	0	0	20	0	0	13	33
35-39	0	1	50	1	0	19	71
40-44	0	12	86	0	1	28	127
45-49	0	34	156	10	2	35	237
50-54	399	68	311	20	5	79	882
55-59	1,999	119	628	36	10	137	2,929
60-64	3,198	160	840	62	18	229	4,507
65-69	3,618	152	842	48	13	293	4,966
70-74	2,244	77	497	33	12	364	3,227
75-79	1,252	46	287	25	14	361	1,985
80-84	607	29	194	13	13	362	1,218
85 and Over	536	15	133	15	9	617	1,325
Total	13,853	713	4,052	263	99	2,567	21,547

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, 2014****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	\$210,875	\$0	\$25,418	\$255,486	\$491,779
30-34	0	0	489,884	0	0	117,874	607,758
35-39	0	13,232	1,284,747	24,916	0	153,973	1,476,868
40-44	0	59,517	2,290,013	0	28,122	187,038	2,564,690
45-49	0	282,510	4,337,759	197,528	71,417	397,580	5,286,794
50-54	3,388,983	558,101	7,847,739	386,723	224,692	1,061,309	13,467,547
55-59	39,907,802	1,023,321	15,334,526	589,971	279,045	2,094,903	59,229,568
60-64	68,587,016	1,929,365	21,134,039	941,965	529,392	3,244,790	96,366,567
65-69	75,904,343	1,867,996	20,640,237	892,287	332,679	4,435,762	104,073,304
70-74	45,922,172	927,967	12,976,421	531,211	322,891	5,635,325	66,315,987
75-79	23,613,331	700,156	7,855,388	487,459	393,407	5,072,425	38,122,166
80-84	10,647,678	457,827	4,943,338	249,200	364,821	5,584,576	22,247,440
85 and Over	10,759,037	261,434	3,612,679	316,810	242,147	8,980,575	24,172,682
Total	\$278,730,362	\$8,081,426	\$102,957,645	\$4,618,070	\$2,814,031	\$37,221,616	\$434,423,150

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, 2014
State Safety**

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	5,926	242	884	60	6	164	7,282
5-9	3,854	126	692	78	7	286	5,043
10-14	2,300	145	769	53	13	374	3,654
15-19	882	109	443	31	10	282	1,757
20-24	384	42	349	11	4	229	1,019
25-29	194	14	224	7	6	207	652
30 and Over	313	35	691	23	53	1,025	2,140
Total	13,853	713	4,052	263	99	2,567	21,547

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, 2014

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	\$145,524,743	\$3,802,944	\$28,717,078	\$1,362,783	\$385,406	\$2,893,746	\$182,686,700
5-9	73,254,009	1,473,309	18,598,356	1,369,213	177,876	4,737,550	99,610,313
10-14	36,230,509	1,341,328	18,641,540	658,522	267,726	5,797,863	62,937,488
15-19	9,719,427	786,782	10,058,742	438,489	335,158	3,140,059	24,478,657
20-24	4,733,510	288,346	7,235,195	157,162	114,926	3,098,466	15,627,605
25-29	2,919,898	53,120	4,624,670	87,424	107,818	2,922,008	10,714,938
30 and Over	6,348,266	335,597	15,082,064	544,477	1,425,121	14,631,924	38,367,449
Total	\$278,730,362	\$8,081,426	\$102,957,645	\$4,618,070	\$2,814,031	\$37,221,616	\$434,423,150

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, 2014****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	4	5	3	49	61
30-34	0	8	69	0	1	21	99
35-39	0	5	206	0	5	29	245
40-44	0	29	534	4	9	37	613
45-49	0	43	816	13	20	49	941
50-54	3,362	98	1,595	27	25	104	5,211
55-59	4,445	99	1,613	40	23	216	6,436
60-64	4,745	89	1,536	51	23	332	6,776
65-69	4,177	81	1,301	43	21	378	6,001
70-74	2,251	31	674	25	13	350	3,344
75-79	1,143	25	279	10	8	318	1,783
80-84	607	12	106	8	2	222	957
85 and Over	271	5	39	4	0	139	458
Total	21,001	525	8,772	230	153	2,244	32,925

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, 2014****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	\$115,730	\$57,552	\$54,389	\$542,468	\$770,139
30-34	0	87,328	2,134,006	0	37,129	346,873	2,605,336
35-39	0	39,142	6,865,211	0	209,910	521,652	7,635,915
40-44	0	470,687	18,029,973	195,455	451,776	865,163	20,013,054
45-49	0	583,462	27,582,951	626,089	867,759	1,228,478	30,888,739
50-54	210,439,863	2,036,342	59,523,124	1,224,806	997,462	3,009,176	277,230,773
55-59	275,068,761	2,303,248	62,078,609	1,536,200	836,630	7,687,272	349,510,720
60-64	275,184,579	2,336,676	63,494,629	2,155,028	852,740	11,644,997	355,668,649
65-69	224,497,423	1,991,747	54,102,770	1,711,526	703,669	14,067,813	297,074,948
70-74	106,803,915	872,887	26,876,762	948,720	413,372	12,765,653	148,681,309
75-79	49,870,529	759,882	10,634,299	287,063	326,917	11,141,922	73,020,612
80-84	24,453,389	229,488	3,679,332	227,816	71,823	7,299,610	35,961,458
85 and Over	9,624,968	86,874	1,442,956	161,481	0	4,268,298	15,584,577
Total	\$1,175,943,427	\$11,797,763	\$336,560,352	\$9,131,736	\$5,823,576	\$75,389,375	\$1,614,646,229

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, 2014
State Peace Officers and Firefighters**

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	8,783	153	1,845	49	18	119	10,967
5-9	5,909	96	1,478	53	34	277	7,847
10-14	3,478	117	2,204	59	29	445	6,332
15-19	1,426	99	1,409	40	37	375	3,386
20-24	836	41	1,163	21	10	450	2,521
25-29	569	18	672	8	25	576	1,868
30 and Over	0	1	1	0	0	2	4
Total	21,001	525	8,772	230	153	2,244	32,925

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, 2014

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	\$512,284,572	\$4,014,468	\$81,070,909	\$2,129,936	\$889,585	\$4,134,729	\$604,524,199
5-9	365,117,905	2,516,939	68,974,855	2,381,330	1,372,359	11,701,562	452,064,950
10-14	182,425,453	2,394,743	82,854,543	2,119,987	1,014,582	16,339,932	287,149,240
15-19	57,160,736	1,878,136	47,626,645	1,515,072	1,416,500	11,308,863	120,905,952
20-24	37,673,318	664,093	38,053,262	724,841	381,928	15,305,749	92,803,191
25-29	21,281,443	328,631	17,980,060	260,570	748,622	16,577,880	57,177,206
30 and Over	0	753	78	0	0	20,660	21,491
Total	\$1,175,943,427	\$11,797,763	\$336,560,352	\$9,131,736	\$5,823,576	\$75,389,375	\$1,614,646,229

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, 2014****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	2	6	5	13
30-34	0	0	5	0	4	3	12
35-39	0	0	14	0	8	6	28
40-44	0	1	63	1	6	3	74
45-49	0	2	101	2	19	8	132
50-54	531	2	294	1	23	25	876
55-59	765	8	421	6	9	33	1,242
60-64	555	4	417	8	8	81	1,073
65-69	534	4	678	6	23	159	1,404
70-74	558	7	786	8	14	212	1,585
75-79	276	6	458	3	14	216	973
80-84	127	3	270	3	9	189	601
85 and Over	142	2	111	0	7	248	510
Total	3,488	39	3,618	40	150	1,188	8,523

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, 2014****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	\$50,940	\$129,083	\$66,774	\$246,797
30-34	0	0	233,376	0	260,731	12,309	506,416
35-39	0	0	613,362	0	560,141	67,607	1,241,110
40-44	0	7,093	2,843,464	83,856	383,660	5,362	3,323,435
45-49	0	9,060	3,945,954	53,497	1,240,056	298,729	5,547,296
50-54	48,183,509	112,147	16,079,964	34,214	1,387,421	1,244,212	67,041,467
55-59	69,358,781	132,998	26,263,372	413,518	464,121	1,397,264	98,030,054
60-64	43,779,221	177,875	25,885,433	574,342	277,369	2,897,145	73,591,385
65-69	32,656,523	181,818	40,335,410	302,987	582,200	5,202,698	79,261,636
70-74	28,150,473	195,767	35,835,316	327,993	371,655	6,885,514	71,766,718
75-79	11,408,092	102,795	18,307,636	107,641	377,805	6,159,157	36,463,126
80-84	5,096,406	93,423	10,699,423	66,597	226,120	4,748,356	20,930,325
85 and Over	5,104,556	41,234	3,886,377	0	186,866	5,266,741	14,485,774
Total	\$243,737,561	\$1,054,210	\$184,929,087	\$2,015,585	\$6,447,228	\$34,251,868	\$472,435,539

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, 2014
California Highway Patrol

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	1,040	2	290	4	22	15	1,373
5-9	942	4	471	5	18	29	1,469
10-14	544	4	630	13	13	81	1,285
15-19	461	12	508	5	16	115	1,117
20-24	210	2	579	6	10	145	952
25-29	141	7	438	5	11	181	783
30 and Over	150	8	702	2	60	622	1,544
Total	3,488	39	3,618	40	150	1,188	8,523

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, 2014****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	\$92,810,054	\$90,402	\$23,369,741	\$153,727	\$1,382,300	\$905,031	\$118,711,255
5-9	77,803,396	329,517	37,911,987	293,617	1,197,048	1,785,293	119,320,858
10-14	32,032,934	146,867	42,414,332	924,481	637,004	4,361,717	80,517,335
15-19	21,777,900	230,718	25,300,991	214,514	823,067	4,688,970	53,036,160
20-24	8,635,439	605	23,601,226	250,822	351,276	5,309,664	38,149,032
25-29	5,543,897	162,198	14,710,587	139,622	521,411	5,383,666	26,461,381
30 and Over	5,133,941	93,903	17,620,223	38,802	1,535,122	11,817,527	36,239,518
Total	\$243,737,561	\$1,054,210	\$184,929,087	\$2,015,585	\$6,447,228	\$34,251,868	\$472,435,539

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, 2014****State Miscellaneous Tier 1**

Years Retired	Total Retirement	Total Benefits	Average Benefits
2014	2,516 ¹	\$65,752,997	\$26,134
2013	7,432	217,761,913	29,301
2012	8,330	261,047,367	31,338
2011	8,425	261,250,336	31,009
2010	9,271	314,086,222	33,878
2009	8,122	287,612,889	35,412
2008	6,859	231,836,451	33,800
2007	6,583	206,858,225	31,423
2006	6,359	182,055,594	28,630
2005	7,192	221,800,218	30,840
2004	8,517	277,742,079	32,610
2003	5,946	175,896,025	29,582
2002	5,875	179,798,678	30,604
2001	6,001	205,037,463	34,167
2000	8,026	275,276,117	34,298
1999	2,965	64,572,777	21,778
1998	4,328	108,253,207	25,012
1997	4,370	112,128,690	25,659
1996	4,116	108,369,684	26,329
1995	3,781	100,808,855	26,662
1994	3,777	98,490,446	26,076
1993	2,890	60,389,928	20,896
1992	4,561	129,791,887	28,457
1991	5,069	165,703,142	32,690
1990	2,805	67,665,965	24,123
1989	2,577	54,832,717	21,278
1988	2,779	66,223,796	23,830
1987	3,013	68,659,334	22,788
1986	2,386	49,451,502	20,726
1985	2,344	42,139,947	17,978
1984	1,967	33,289,662	16,924
1983 and Earlier	13,013	170,881,977	13,132
Totals	172,195	\$4,865,466,090	\$28,256

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 2014 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, 2014****State Miscellaneous Tier 2**

Years Retired	Total Retirement	Total Benefits	Average Benefits
2014	156 ¹	\$1,092,476	\$7,003
2013	397	2,696,312	6,792
2012	451	3,099,469	6,872
2011	321	2,169,605	6,759
2010	203	1,276,877	6,290
2009	176	1,159,381	6,587
2008	143	1,149,199	8,036
2007	133	1,052,260	7,912
2006	128	803,320	6,276
2005	148	1,124,791	7,600
2004	123	965,925	7,853
2003	134	1,180,070	8,806
2002	164	1,315,331	8,020
2001	209	1,448,466	6,930
2000	257	2,238,862	8,712
1999	288	2,918,000	10,132
1998	364	3,972,606	10,914
1997	347	4,266,607	12,296
1996	284	3,562,817	12,545
1995	231	3,390,223	14,676
1994	152	2,346,490	15,437
1993	142	2,015,028	14,190
1992	136	1,903,344	13,995
1991	145	2,034,814	14,033
1990	80	1,096,970	13,712
1989	91	1,225,058	13,462
1988	87	1,102,285	12,670
1987	54	590,006	10,926
1986	47	508,740	10,824
1985	31	314,057	10,131
1984	1	24,061	24,061
1983 and Earlier	7	36,499	5,214
Totals	5,630	\$54,079,949	\$9,606

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 2014 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, 2014****State Industrial**

Years Retired	Total Retirement	Total Benefits	Average Benefits
2014	241 ¹	\$2,821,246	\$11,706
2013	771	9,154,985	11,874
2012	899	12,034,636	13,387
2011	822	10,224,081	12,438
2010	948	13,388,203	14,123
2009	772	10,550,461	13,666
2008	605	7,914,165	13,081
2007	511	6,478,265	12,678
2006	550	6,489,041	11,798
2005	544	7,240,712	13,310
2004	660	8,484,701	12,856
2003	458	5,243,557	11,449
2002	456	5,420,725	11,888
2001	443	6,042,847	13,641
2000	564	7,321,960	12,982
1999	197	1,746,923	8,868
1998	295	2,683,269	9,096
1997	274	2,708,303	9,884
1996	223	1,992,586	8,935
1995	208	1,971,780	9,480
1994	174	1,709,914	9,827
1993	145	1,370,119	9,449
1992	192	2,738,413	14,263
1991	176	2,687,916	15,272
1990	109	965,972	8,862
1989	117	1,122,945	9,598
1988	76	935,232	12,306
1987	92	1,304,869	14,183
1986	54	765,969	14,185
1985	67	814,168	12,152
1984	59	682,376	11,566
1983 and Earlier	363	4,151,882	11,438
Totals	12,065	\$149,162,221	\$12,363

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 2014 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, 2014****State Safety**

Years Retired	Total Retirement	Total Benefits	Average Benefits
2014	454 ¹	\$10,250,014	\$22,577
2013	1,374	33,414,351	24,319
2012	1,505	36,031,457	23,941
2011	1,436	35,344,957	24,613
2010	1,606	43,411,635	27,031
2009	1,345	34,349,397	25,539
2008	1,032	23,720,611	22,985
2007	956	19,412,679	20,306
2006	934	16,018,214	17,150
2005	1,015	18,211,180	17,942
2004	1,049	19,300,602	18,399
2003	791	13,977,726	17,671
2002	747	12,620,458	16,895
2001	706	12,040,703	17,055
2000	852	14,839,258	17,417
1999	386	5,277,292	13,672
1998	415	5,452,193	13,138
1997	367	5,385,987	14,676
1996	326	4,773,140	14,642
1995	266	3,430,936	12,898
1994	273	3,593,605	13,163
1993	184	2,842,982	15,451
1992	249	4,313,281	17,322
1991	231	3,359,938	14,545
1990	150	2,334,023	15,560
1989	163	2,561,777	15,716
1988	115	1,695,587	14,744
1987	132	2,250,357	17,048
1986	95	1,650,008	17,369
1985	148	2,291,822	15,485
1984	200	3,630,747	18,154
1983 and Earlier	2,045	36,636,233	17,915
Totals	21,547	\$434,423,150	\$20,162

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 2014 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, 2014****State Peace Officers and Firefighters**

Years Retired	Total Retirement	Total Benefits	Average Benefits
2014	639 ¹	\$31,593,353	\$49,442
2013	2,029	102,893,991	50,712
2012	2,390	130,489,649	54,598
2011	2,115	112,935,219	53,397
2010	2,312	132,709,211	57,400
2009	2,089	129,346,395	61,918
2008	1,521	92,303,283	60,686
2007	1,714	106,539,819	62,159
2006	1,965	116,718,090	59,399
2005	1,231	61,583,765	50,027
2004	1,417	66,188,222	46,710
2003	1,209	54,330,988	44,939
2002	1,329	60,869,021	45,801
2001	1,240	55,821,844	45,018
2000	1,651	80,336,725	48,659
1999	620	19,585,027	31,589
1998	717	23,317,884	32,521
1997	749	26,471,764	35,343
1996	682	26,212,158	38,434
1995	603	23,162,590	38,412
1994	541	18,826,598	34,800
1993	505	17,947,330	35,539
1992	627	24,414,330	38,938
1991	613	25,607,019	41,773
1990	339	10,611,799	31,303
1989	378	11,556,778	30,573
1988	364	11,433,641	31,411
1987	455	14,662,992	32,226
1986	364	10,738,192	29,501
1985	272	7,956,865	29,253
1984	242	7,480,775	30,912
1983 and Earlier	3	912	304
Totals	32,925	\$1,614,646,229	\$49,040

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 2014 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, 2014****California Highway Patrol**

Years Retired	Total Retirement	Total Benefits	Average Benefits
2014	64 ¹	\$4,442,641	\$69,416
2013	246	20,245,527	82,299
2012	302	26,228,309	86,849
2011	310	27,512,479	88,750
2010	334	30,155,770	90,287
2009	298	28,438,292	95,431
2008	240	20,833,844	86,808
2007	239	18,909,629	79,120
2006	284	21,081,471	74,231
2005	318	25,027,586	78,703
2004	257	17,553,402	68,301
2003	183	10,841,616	59,244
2002	261	17,336,318	66,423
2001	300	20,431,355	68,105
2000	429	26,545,908	61,879
1999	144	6,673,960	46,347
1998	194	9,065,696	46,730
1997	241	11,287,453	46,836
1996	266	13,803,584	51,893
1995	234	10,956,962	46,825
1994	189	7,832,753	41,443
1993	237	10,161,759	42,877
1992	186	7,093,543	38,137
1991	208	8,661,970	41,644
1990	136	4,991,204	36,700
1989	177	6,224,657	35,168
1988	186	6,952,732	37,380
1987	141	4,926,852	34,942
1986	168	5,495,259	32,710
1985	133	4,127,852	31,036
1984	132	4,017,239	30,434
1983 and Earlier	1,486	34,577,917	23,269
Totals	8,523	\$472,435,539	\$55,431

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 2014 are for the first 6 months of the calendar year only.

APPENDIX D

NORMAL COST INFORMATION

- **NORMAL COST CHART**
- **DEVELOPMENT OF PEPRA MEMBER CONTRIBUTION RATES**

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	Employer Normal Cost
P	State Miscellaneous (Including CSU) - 2% @ 62	12.9%	6% - 11%	\$317 - \$513	6.3%	6.6%
E	State Industrial - 2% @ 62	15.4%	6% - 11%	\$317 - \$513	7.7%	7.7%
P	State Safety - 2% @ 57	18.2%	11%	\$317	10.3%	7.9%
R	POFF (90% of current members) - 2.5% @ 57	22.1%	11% - 13%	\$238 - \$863	10.2%	11.9%
A	POFF (10% of current members) - 2.7% @ 57	23.3%	13%	\$863	11.9%	11.4%
	CHP - 2.7% @ 57	21.2%	11.5%	\$863	9.6%	11.6%
C	State Miscellaneous - 2% @ 60 & 3 Year FAC	15.2%	5% - 11%	\$317 - \$513	6.1%	9.1%
L	State Miscellaneous - 2% @ 55 ¹	15.7%	5% - 11%	\$317 - \$513	6.6%	9.1%
A	State Industrial - 2% @ 60 & 3 Year FAC	17.0%	5% - 11%	\$317 - \$513	8.0%	9.0%
S	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%
I	State Safety - 2.5% @ 60 & 3 Year FAC	20.1%	11%	\$317	10.5%	9.6%
C	State Safety - 2.5% @ 55 ¹	22.9%	11%	\$317	10.5%	12.4%
	State POFF - 2.5% @ 55 & 3 Year FAC	25.4%	8% - 13%	\$238 - \$863	10.6%	14.8%
	State POFF - 3% @ 55 & 3 Year FAC	29.2%	8% - 13%	\$238 - \$863	11.0%	18.2%
	State POFF - 3% @ 50 ¹	28.1%	8% - 13%	\$238 - \$863	11.5%	16.6%
	CHP - 3% @ 55 & 3 Year FAC	26.3%	11.5%	\$863	10.0%	16.3%
	CHP - 3% @ 50 ¹	26.6%	11.5%	\$863	10.4%	16.2%
	State Miscellaneous - 2nd Tier ⁵	11.4%	3.75%	\$0	3.75%	7.7%

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 2015-16 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, 2014 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-The total normal cost for State Miscellaneous 2nd Tier shown in the chart is based on the assumption that all State Miscellaneous Tier 2 members will convert their Tier 2 service to Tier 1 service. The total normal cost for those members at the 1.25% @ 65 formula is 7.3 percent as of June 30, 2014.

Development of PEPRA Member Contribution Rates

With the enactment of PEPRA, new PEPRA members are required to contribute at least 50 percent of the total annual cost of their pension benefit as determined by the actuary. As per Government Code Section 7522.30, State employees are excluded from this requirement except for employees of the Legislature, California State University (CSU), and the judicial branch.

The table below shows the determination of the Member contribution rates based on 50 percent of the Total Normal Cost for each applicable plan on June 30, 2014.

Plan	Basis for Current Rate		Rates Effective July 1, 2015			
	Total Normal Cost	Member Rate	Total Normal Cost	Change	Change Needed	Member Rate
State Miscellaneous - CSU, Legislature and Judicial	12.11%	6.00%	12.90%	0.79%	No	6.00%
POFF- CSU, Legislature and Judicial	22.04%	11.00%	22.08%	0.04%	No	11.00%

APPENDIX E

GLOSSARY OF ACTUARIAL TERMS

- **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.

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.

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 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 PEPR)

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 Market 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.