6/30/2015 Public Agency Annual Valuations Results (Summary)

September 20, 2016

Table of Contents

Executive Summary

The Actuarial Office completed the June 30, 2015, Public Agency actuarial valuations in July 2016. These valuations set the employer contribution rates for Fiscal Year 2017-18. Overall, average employer rates increased by about 1.3 percent of payroll. Note that these average rate changes include all public agency plans, regardless of whether the employer has contracted for miscellaneous and/or safety.

Introduction

The valuations were performed to establish the employer contribution rates for Fiscal Year 2017-18. Note that the rates presented in this report reflect the costs to employers in their entirety instead of presenting by rate plans. It was believed that presenting the rates by rate plan would create a skewed result due to the large influx of PEPRA plans having very low rates, but very few employees.

This report is intended to assist the CalPERS Board of Administration in understanding the results of the June 30, 2015 Public Agency Annual Valuations. It does not address the other systems (the Judges Retirement Systems, the Legislators Retirement System, State, Schools or the non-pension programs) administered by the Board of Administration.

Employer Costs

Overall, the average employer contribution, when expressed as a percentage of payroll increased 1.3% from the June 30, 2014 annual valuations to the June 30, 2015 valuations. The costs to employers have been increasing mainly due to the impact of the lower than expected asset rates of return.
Please note that for purposes of direct comparison, the employer unfunded liability contributions were converted into a percentage of payroll for display instead of remaining as a specific dollar amount. Also, these rates have been presented by Miscellaneous and Safety classifications for each employer. So, for example, if an employer has more than one rate plan per employee classification, they were combined to reflect a clearer picture of the rate cost as a percentage of payroll. The average rate as shown in the chart was set by combining all of the payments and payroll for all member categories.

Average Total Employer Contributions for FY 2016-17 and FY 2017-18		
Contribution Fiscal Year	**2016-17**	**2017-18**
Miscellaneous Plans	**20.014%**	**20.997%**
Safety Plans	**38.112%**	**40.445%**
All Plans Combined	**24.785%**	**26.089%**

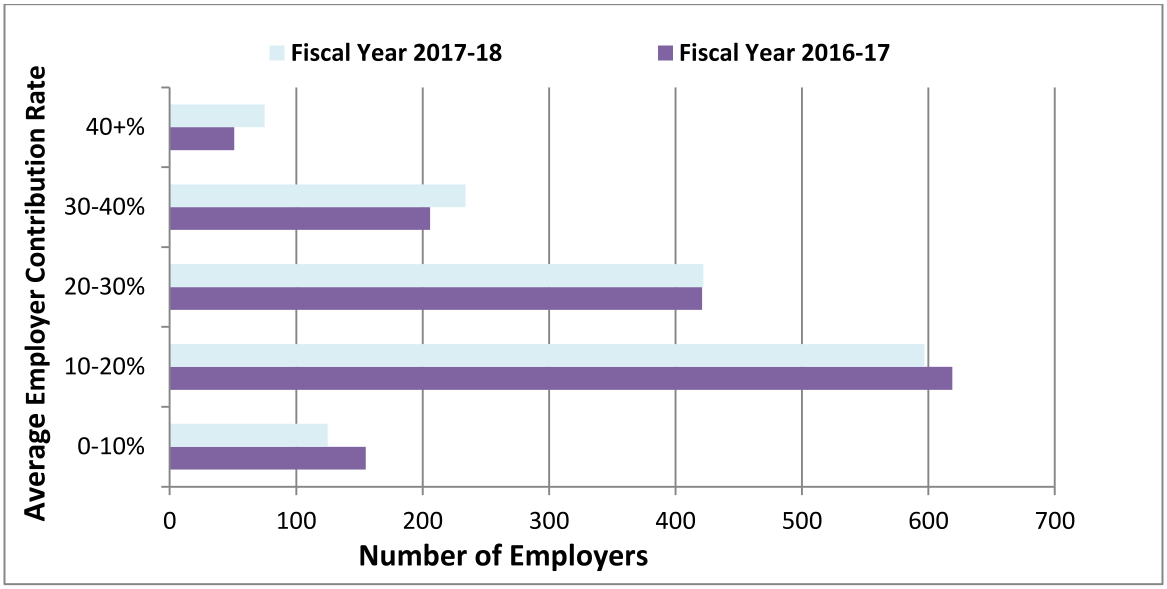
The following graphs display the combined rates of all member categories contracted by an employer. The display presents the number of employers whose combined required contribution rate falls into each percentage of total payroll. Thus, 125 employers, 9% of all employers, will have a total required contribution of less than 10% of their total payroll.

No plans have a zero rate due to the PEPRA requirement that plans contribute at a minimum the plan's normal cost.

From 6/30/2014 to 6/30/2015, it is observed that there is a shift in the employers having to contribute more as a percentage of payroll. The number of employers paying less than 20% of payroll decreased while the number paying greater than 20% increased. Despite the upward trend of required contributions, half of all employers are still paying less than 20% of payroll. Almost 80% of employers have contributions of less than 30% of payroll.

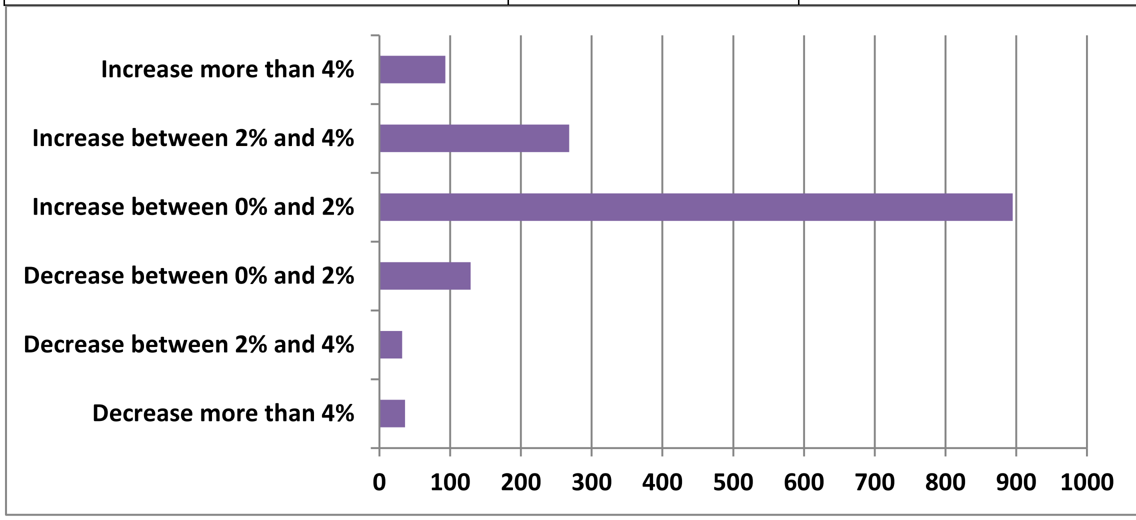
Fiscal Year 2017-18 Employer Contribution Rate All Employee Categories (Distribution of Employers)		
Average Employer Contribution Rate	**Number of Employers**	**Percentage of Employers**
0%	**0**	**0%**
0-10%	**125**	**9%**
10-20%	**597**	**41%**
20-30%	**422**	**29%**
30-40%	**234**	**16%**
40+%	**75**	**5%**
Total	**1453**	**100%**

Fiscal Year 2016-17 Employer Contribution Rate All Employee Categories (Distribution of Employers)		
Average Employer Contribution Rate	**Number of Employers**	**Percentage of Employers**
0%	**0**	**0%**
0-10%	**155**	**11%**
10-20%	**619**	**43%**
20-30%	**421**	**29%**
30-40%	**206**	**14%**
40+%	**51**	**4%**
Total	**1452**	**100%**



As can be seen by the following chart, over 70% of employers will see a total change in required contributions of less than 2% up or down from the previous year. 94% of the employers will see their rates either decrease or increase by less than 4% of payroll.

Total Change to Required Contributions for Employers Between FY 2016-17 and FY 2017-18 For All Member Categories Combined (Distribution of Employers)		
Percentage of change	**Number of Employers**	**Percentage of Employers**
Decrease more than 4%	36	2%
Decrease between 2% and 4%	32	2%
Decrease between 0% and 2%	129	9%
Increase between 0% and 2%	895	62%
Increase between 2% and 4%	268	18%
Increase more than 4%	93	6%
Total	**1453**	**100%**



A traditional look at the breakdown of rate changes by rate plans presents how the rates are felt by employers according to their member categories.
The overwhelming majority of all plans saw some increase in employer contributions. 87% of the combined Miscellaneous and Safety plans saw an increase in their contribution rates from the 6/30/14 valuations to 6/30/2015. The actual dollar impact to any specific employer will vary due to the number of employees that fall into each category and that category's subsequent salary. 87% of all Miscellaneous Plans and 90% of all Safety Plans saw an increase in contributions. 77% of Miscellaneous and 40% of all Safety Plans saw their rates stay within 2% of payroll of their 6/30/2014 valuation required contribution amount.

Total Change to Required Contributions for Employers Between FY 2016-17 and FY 2017-18 (Aggregated Miscellaneous Plans)		
Percent of Change	**Miscellaneous Plans**	**Percent of Miscellaneous Plans**
Decrease more than 4%	**34**	**2%**
Decrease between 2% and 4%	**25**	**2%**
Decrease between 0% and 2%	**131**	**9%**
Increase between 0% and 2%	**943**	**68%**
Increase between 2% and 4%	**189**	**14%**
Increase more than 4%	**75**	**5%**
Total	**1397**	**100%**

Total Change to Required Contributions for Employers Between FY 2016-17 and FY 2017-18 (Aggregated Safety Plans)		
Percent of Change	**Safety Plans**	**Percent of Safety Plans**
Decrease more than 4%	**18**	**3%**
Decrease between 2% and 4%	**5**	**1%**
Decrease between 0% and 2%	**35**	**7%**
Increase between 0% and 2%	**169**	**33%**
Increase between 2% and 4%	**189**	**37%**
Increase more than 4%	**101**	**20%**
Total	**517**	**100%**

Over 90% of Miscellaneous Plans, along with over 25% of Safety Plans, have a contribution rate of less than 30%. There is a slight decrease in the percentages from the 6/30/2014 valuations with the larger number of plans leaving this grouping being safety. Close to 100% of Miscellaneous Plans and over 60% of Safety Plans have a rate of less than 40% of payroll. Again, these statements were true of last year's valuations, but, more safety than miscellaneous saw their rates climb to the next higher percentage bracket. Combined, almost 90% of all contracted rate plans have a rate of less than 40% of payroll.

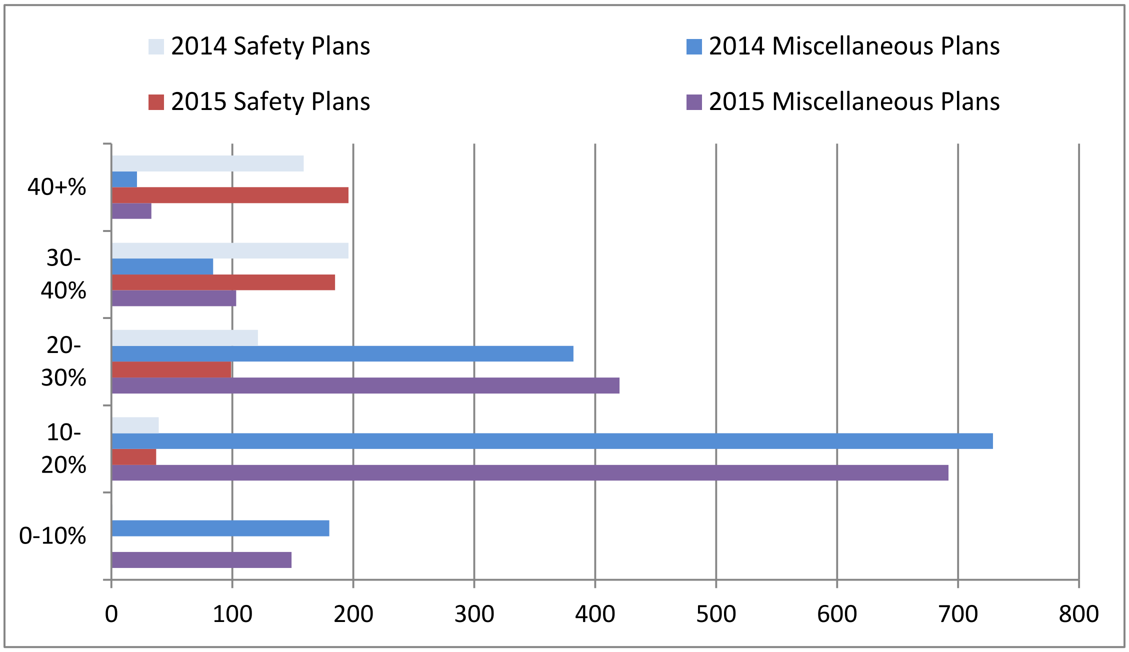
Distribution of Aggregated Employer Contribution Rates as a Percentage of Payroll for FY 2017-18 (Miscellaneous Plans)		
Contribution Rate	**Miscellaneous Plans**	**Percent of Miscellaneous Plans**
0-10%	**149**	**11%**
10-20%	**692**	**50%**
20-30%	**420**	**30%**
30-40%	**103**	**7%**
40+%	**33**	**2%**
Total	**1397**	**100%**

Distribution of Aggregated Employer Contribution Rates as a Percentage of Payroll for FY 2017-18 (Safety Plans)		
Contribution Rate	**Safety Plans**	**Percent of Safety Plans**
0-10%	**0**	**0%**
10-20%	**37**	**7%**
20-30%	**99**	**19%**
30-40%	**185**	**36%**
40+%	**196**	**38%**
Total	**517**	**100%**

Distribution of Aggregated Employer Contribution Rates as a Percentage of Payroll for FY 2016-17 (Miscellaneous Plans)		
Contribution Rate	**Miscellaneous Plans**	**Percent of Miscellaneous Plans**
0-10%	**180**	**13%**
10-20%	**729**	**52%**
20-30%	**382**	**27%**
30-40%	**84**	**6%**
40+%	**21**	**2%**
Total	**1396**	**100%**

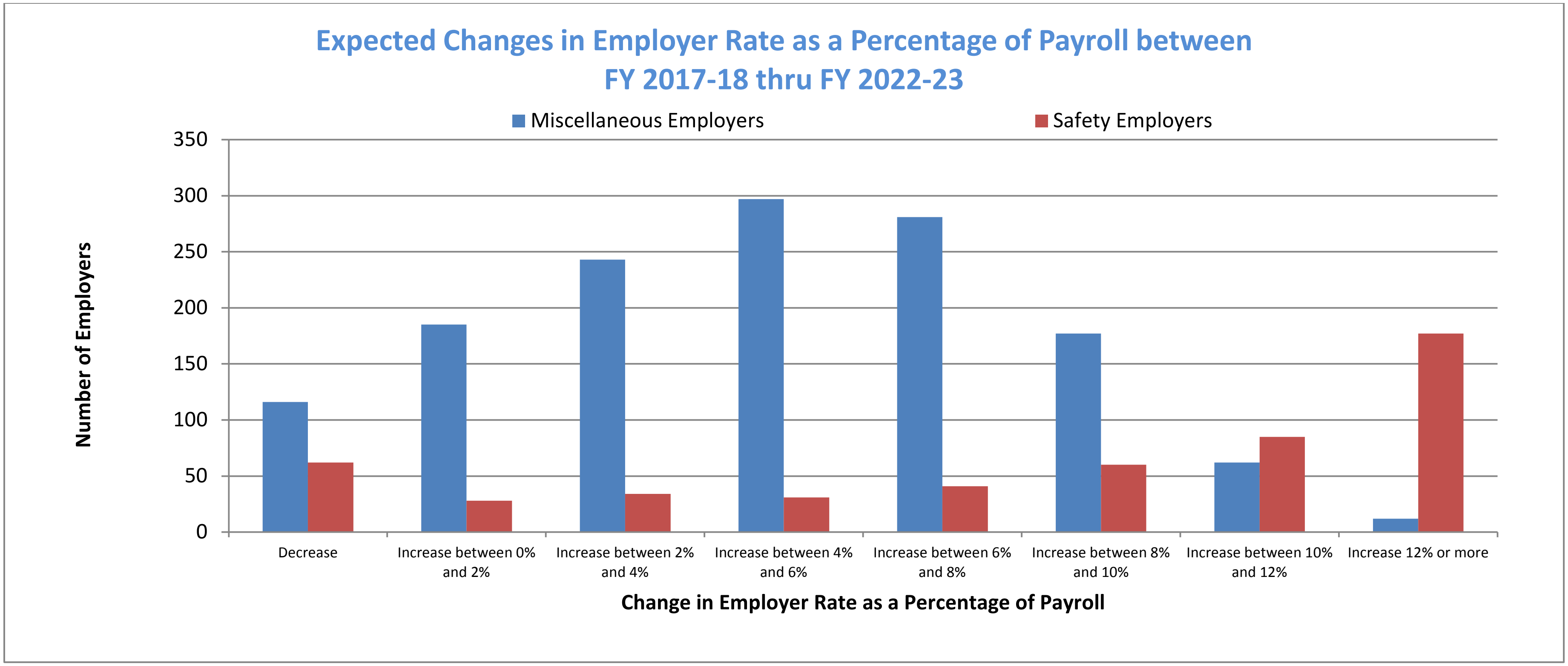
Distribution of Aggregated Employer Contribution Rates as a Percentage of Payroll for FY 2016-17 (Safety Plans)		
Contribution Rate	**Safety Plans**	**Percent of Safety Plans**
0-10%	**1**	**0%**
10-20%	**39**	**8%**
20-30%	**121**	**23%**
30-40%	**196**	**38%**
40+%	**159**	**31%**
Total	**516**	**100%**

Aggregated Employer Contribution Rates By Member Category for FY 2016-17 and FY 2017-18



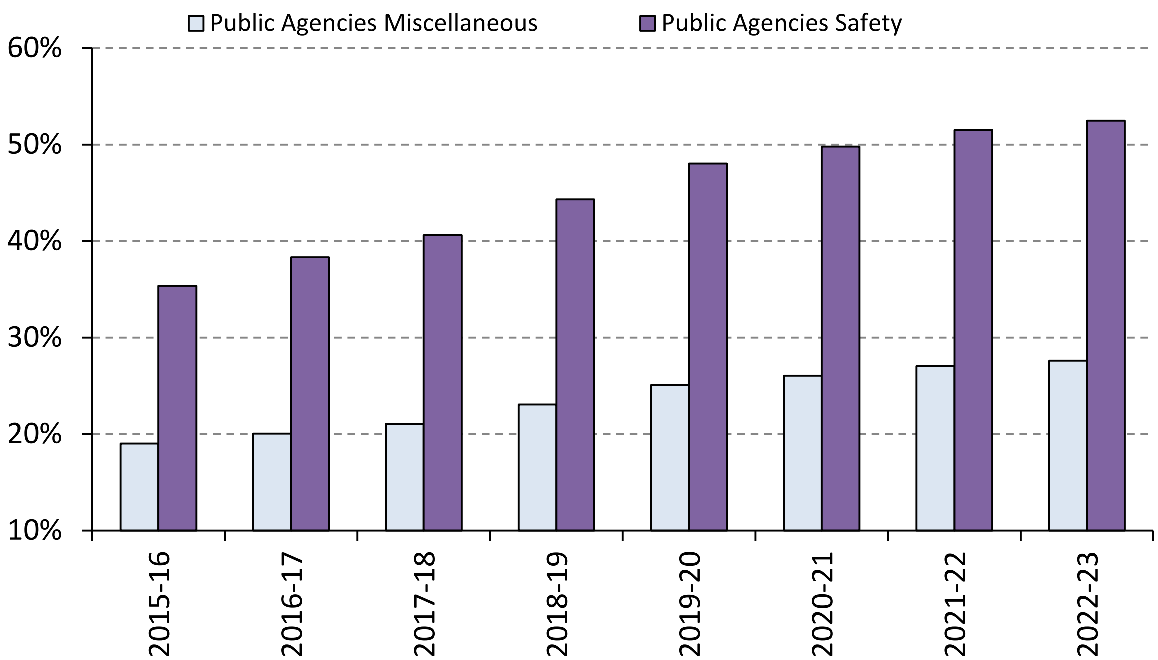
Projected Rates

Employers should expect contributions to continue to increase through the Fiscal Year 2022-23. Most Miscellaneous Plans should see their rates increase by less than 8% while the Safety Plans rates should increase by 6% or more.



Rates for public agencies should increase each year through Fiscal Year 2022-23. Most of the largest increases will occur earlier in the process with the increases reducing in scale beginning in Fiscal Year 2020-21.

Recent and Projected Employer Contribution Rates

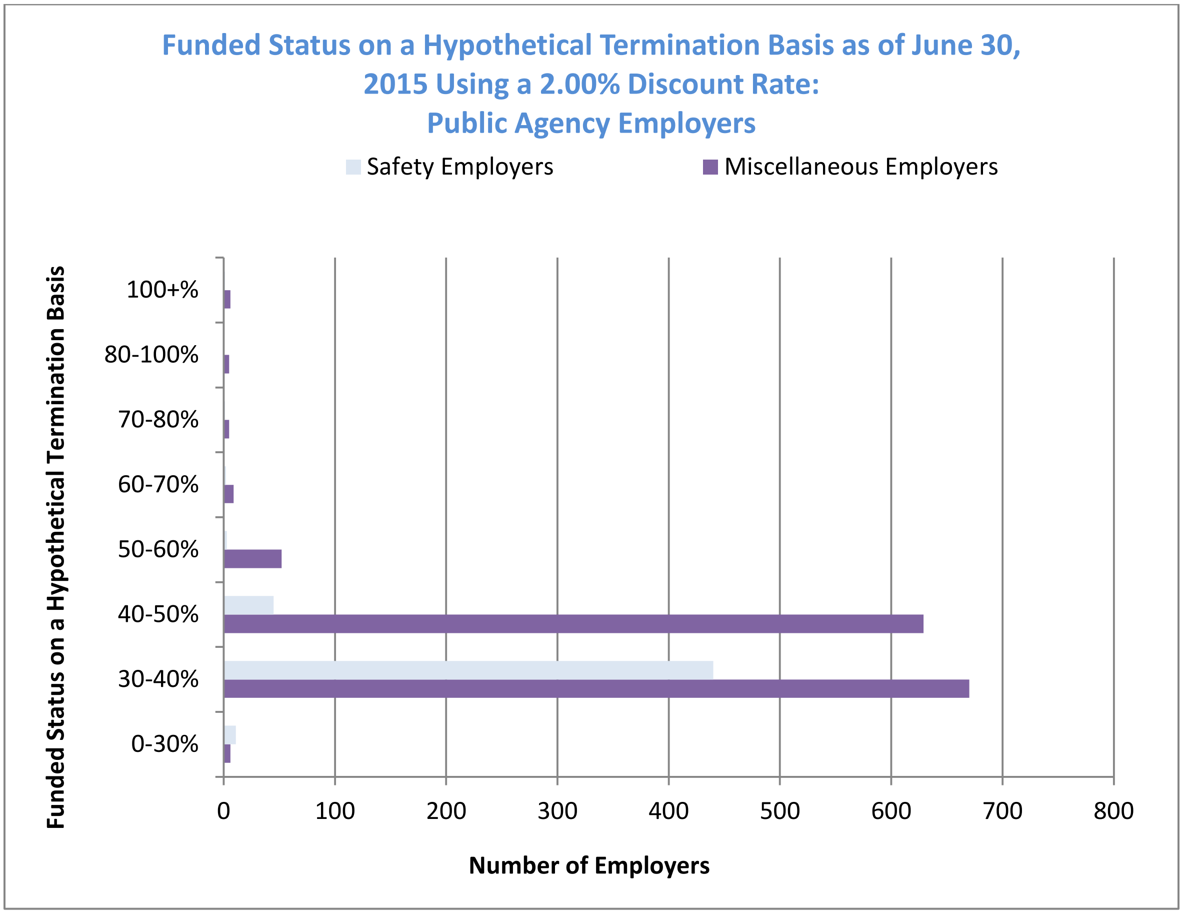


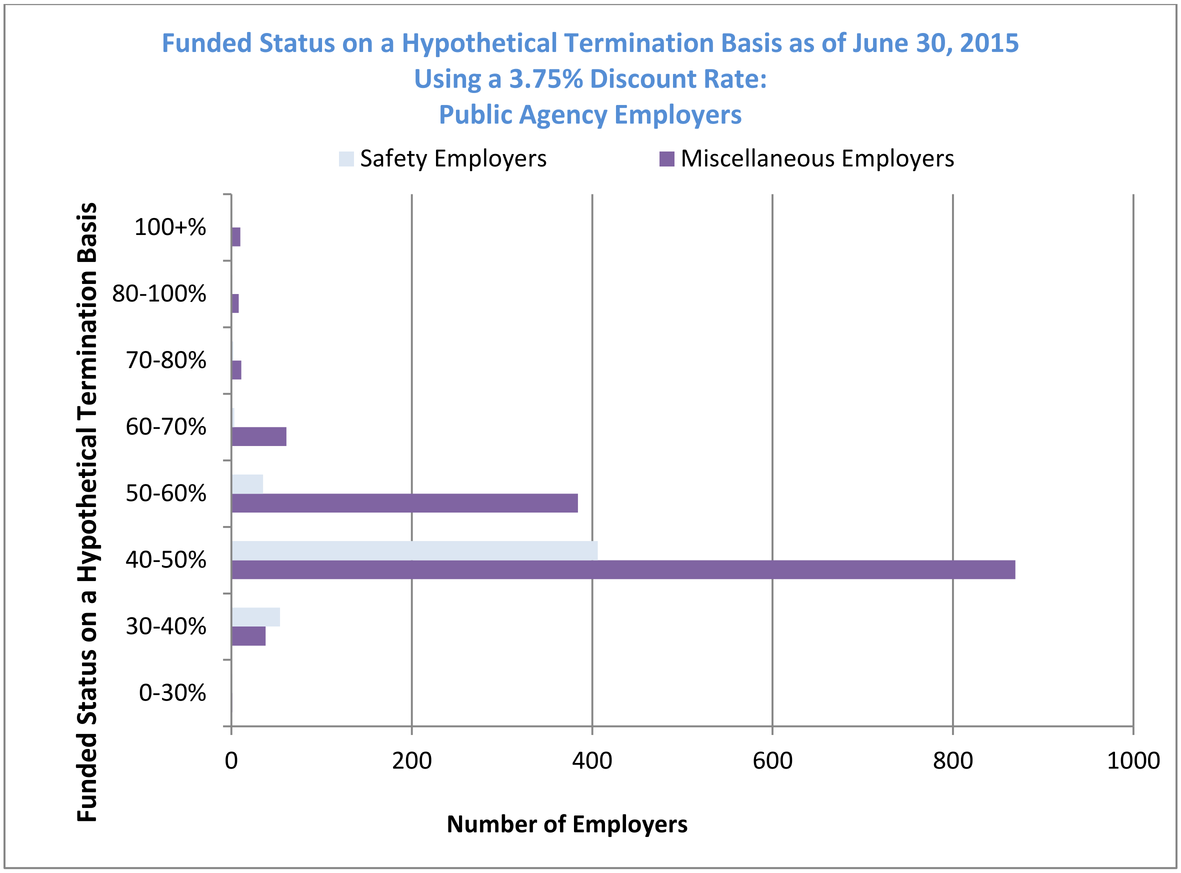
Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2015. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed.

A more conservative investment policy and asset allocation strategy was adopted by the CalPERS Board for the Terminated Agency Pool. The Terminated Agency Pool has limited funding sources since no future employer contributions will be made. Therefore, expected benefit payments are secured by risk-free assets and benefit security for members is increased while funding risk is limited. However, this asset allocation has a lower expected rate of return than the PERF and consequently, a lower discount rate is assumed. The lower discount rate for the Terminated Agency Pool results in higher liabilities for terminated plans.

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 2-year period centered around the valuation date.
The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.75 percent on June 30, 2015.


Funded Status on a Hypothetical Termination Basis as of June 30, 2015 Using a 2.00% Discount Rate:
Public Agency Employers
Safety Employers
Miscellaneous Employers
Funded Status on a Hypothetical Termination Basis
100+%
80-100%
70-80%
60-70%
50-60%
40-50%
30-40%
0-30%
0
100
200
300
400
500
600
700
800
Number of Employers



Conclusion

Overall, rates from the 6/30/2014 to 6/30/2015 Public Agency valuations increased year over year. Rate increases is a trend that is likely to continue for the next several years.

Appendix

Employer Contribution Rates as a Percentage of Plans shown by Benefit Formula as of June 30, 2015

Miscellaneous 2% at age 60		
	Number of Plans	Percent of 2% at 60 Plans
0%	0	0%
0% -10%	191	52%
10 - 20%	154	42%
20% - 30%	17	5%
30% - 40%	3	1%
40+%	5	1%
Totals	370	100%

Miscellaneous 2% at age 55		
	Number of Plans	Percent of 2% at 55 Plans
0%	0	0%
0% -10%	85	15%
10 - 20%	336	58%
20% - 30%	125	22%
30% - 40%	19	3%
40+%	14	2%
Totals	579	100%

Miscellaneous 2.5% at age 55		
	Number of Plans	Percent of 2.5% at 55 Plans
0%	0	0%
0% -10%	7	3%
10 - 20%	75	31%
20% - 30%	115	48%
30% - 40%	36	15%
40+%	9	4%
Totals	242	100%

[1] The numbers in this appendix do not align with the numbers in the report. In a desire to ensure that the contribution rates in the report were not artificially deflated due to PEPRA, all rate plans were aggregated into single records of either Miscellaneous or Safety. Thus, an employer that has 4 Miscellaneous plans and 7 Safety plans will have 11 records in the appendix, but only 2 in the report.

Miscellaneous 2.7% at age 55		
	Number of Plans	Percent of 2.7% at 55 Plans
0%	0	0%
0% -10%	0	0%
10 - 20%	45	16%
20% - 30%	147	53%
30% - 40%	66	24%
40+%	18	7%
Totals	276	100%

Miscellaneous 3% at age 60		
	Number of Plans	Percent of 3% at 60 Plans
0%	0	0%
0% -10%	0	0%
10 - 20%	21	19%
20% - 30%	60	54%
30% - 40%	16	14%
40+%	15	13%
Totals	112	100%

Miscellaneous 2% at age 62		
	Number of Plans	Percent of 2% at 62 Plans
0%	0	0%
0% -10%	871	100%
10 - 20%	1	0%
20% - 30%	1	0%
30% - 40%	0	0%
40+%	0	0%
Totals	873	100%

Safety 2% at age 55		
	Number of Plans	Percent of 2% at 55 Plans
0%	0	0%
0% -10%	0	0%
10 - 20%	35	69%
20% - 30%	9	18%
30% - 40%	5	10%
40+%	2	4%
Totals	51	100%

Safety 2% at age 50		
	Number of Plans	Percent of 2% at 50 Plans
0%	0	0%
0% -10%	0	0%
10 - 20%	41	41%
20% - 30%	31	31%
30% - 40%	16	16%
40+%	13	13%
Totals	101	100%

Safety 3% at age 55		
	Number of Plans	Percent of 3% at 55 Plans
0%	0	0%
0% -10%	0	0%
10 - 20%	115	48%
20% - 30%	36	15%
30% - 40%	54	23%
40+%	34	14%
Totals	239	100%

Safety 3% at age 50		
	Number of Plans	Percent of 3% at 50 Plans
0%	0	0%
0% -10%	0	0%
10 - 20%	0	0%
20% - 30%	35	9%
30% - 40%	109	29%
40+%	227	61%
Totals	371	100%

Safety 1/2% at age 55		
	Number of Plans	Percent of 1/2% at 55 Plans
0%	0	0%
0% -10%	1	100%
10 - 20%	0	0%
20% - 30%	0	0%
30% - 40%	0	0%
40+%	0	0%
Totals	1	100%

Safety 2% at age 57		
	Number of Plans	Percent of 2% at 57 Plans
0%	0	0%
0% -10%	31	74%
10 - 20%	11	26%
20% - 30%	0	0%
30% - 40%	0	0%
40+%	0	0%
Totals	42	100%

Safety 2.5% at age 57		
	Number of Plans	Percent of 2.5% at 57 Plans
0%	0	0%
0% -10%	0	0%
10 - 20%	1	100%
20% - 30%	0	0%
30% - 40%	0	0%
40+%	0	0%
Totals	1	100%

Safety 2.7% at age 57		
	Number of Plans	Percent of 2.7% at 57 Plans
0%	0	0%
0% -10%	0	0%
10 - 20%	378	100%
20% - 30%	0	0%
30% - 40%	0	0%
40+%	0	0%
Totals	378	100%