



California Public Employees' Retirement System  
P.O. Box 942715 | Sacramento, CA 94229-2715  
888 CalPERS (or 888-225-7377) | TTY: (877) 249-7442  
[www.calpers.ca.gov](http://www.calpers.ca.gov)

---

## Actuarial Circular Letter

February 8, 2018

Circular Letter: 200-014-18

Distribution: VI

**To: All Public Agency Employers**

**Subject: Required Employer Contribution Impact due to Changes in Actuarial Assumptions**

### **Purpose**

The purpose of this Circular Letter is to inform you of recent action by the CalPERS Board to adopt new actuarial assumptions and a new strategic asset allocation and the impact these changes are expected to have on employer contribution requirements.

At the CalPERS Board of Administration meeting held in Sacramento on December 20, 2017, the Board approved new actuarial assumptions based on a recently completed experience study of CalPERS membership. The Board also adopted a strategic asset allocation that largely keeps its investment strategy unchanged, holding the fund's expected long-term rate of return at 7.0 percent per year.

### **Background**

The changes adopted by the Board represent the culmination of nearly two years of work on the asset liability management (ALM) process. The ALM process is an integral part of the CalPERS 2017-22 Strategic Plan to fund the System through an integrated view of pension assets and liabilities and to improve long-term pension and health benefit sustainability. This process was conducted as a joint effort by the Investment, Actuarial and Financial offices. Throughout the entire process, and particularly over the last year, CalPERS staff has engaged extensively with stakeholders to educate them on the process and the recommendations, and to obtain their input. This process included an examination of the risk and/return

characteristics of possible asset allocations as well as modeling the impact these asset allocations would have on the funding of the system.

In December 2016, the Board voted to reduce the discount rate from 7.5 percent to 7.0 percent over three years. That action was prompted by the conclusion that the asset allocation at that time was unlikely to produce a long-term average rate of return above 7.0 percent. Employers have since been provided with projections that show the impact of this reduction in the discount rate. The asset allocation chosen by the Board in December 2017 is comparable to the previous asset allocation and also has an expected long-term rate of return of 7.0 percent per year, which allows CalPERS to continue on its planned schedule to reduce the discount rate to 7.0 percent over a period of three years ending with the June 30, 2018 Actuarial Valuation.

The completion of the ALM cycle also coincided with a review of the actuarial assumptions used in the actuarial valuations through a process called an experience study. An experience study is a summarization of actual system experience over a defined period and, along with future expectations, is used in setting new actuarial assumptions. Experience studies which include reviews of both economic and demographic assumptions are required at least every four years under the Public Employees' Retirement Law. The last study was conducted in 2013.

## **Discussion**

The 2017 change in the strategic asset allocation did not result in a change in the discount rate. Therefore, the new strategic asset allocation does not result in a change in the employer contribution requirements projected in the June 30, 2016 Actuarial Valuation. The assumption changes resulting from the experience study, on the other hand, will impact employer contribution requirements. The experience study resulted in several assumption changes including: mortality, retirement rates (service and disability), salary scale and inflation. All changes will affect the calculation of the required employer contribution.

All other new assumptions will be implemented in the June 30, 2017 Public Agency actuarial valuation, setting employer contribution requirements effective July 1, 2019.

The annual inflation assumption will be reduced in two steps and will be 2.625 percent for the June 30, 2017 valuation and 2.50 percent for the June 30, 2018 valuation. This is consistent with the change in the discount rate assumption which will be 7.25 percent for the June 30, 2017 valuation and 7.00 percent for the June 30, 2018 valuation. Assumptions other than inflation, salary scale, and the discount rate will further be referred to as demographic assumptions.

Below is a table showing the estimated impact the new actuarial assumptions will have on the Public Agency employer contribution requirements beginning July 1, 2019.

<b>Category</b>	<b>Estimated Change in Total Normal Cost Rate (% of Payroll)</b>	<b>Estimated Relative Change in Employer Unfunded Actuarial Liability (UAL) Contribution Over 5 Years* (% of UAL Dollar Payment)</b>
Safety CPO	0.3% to 0.4%	(0.3%) to 2.0%
Safety Fire	(0.5%) to (0.2%)	0.3% to 1.4%
Safety Police	(0.3%) to 0.0%	0.5% to 2.0%
Misc. 3% at 60	(0.2%) to 0.6%	(2.2%) to (1.3%)
Misc. 2.7% at 55	0.0% to 0.6%	(1.3%) to 4.3%
Misc. 2.5% at 55	(0.2%) to 0.5%	(1.8%) to (1.0%)
Misc. 2% at 55	(0.1%) to 0.4%	(0.9%) to 1.7%
Misc. 2% at 60	(0.3%) to 0.0%	(5.5%) to (3.1%)

\* Assumes the increase in unfunded liability due to the assumption changes will be amortized in accordance with current Board policy, i.e. over a 20-year period and phased-in over five years.

With the enactment of the Public Employees' Pension Reform Act of 2013 (PEPRA) new benefits were put in place for new public employees in California hired on or after January 1, 2013. PEPRA requires all new members to contribute 50 percent of the total normal cost of their pension benefit as determined by the actuary. However, the PEPRA member rate is not adjusted unless the PEPRA total normal cost changes by 1 percent of payroll or more.

Below is a table which illustrates the estimated impact on the total normal cost from the change in demographic assumptions.

<b>Category</b>	<b>Estimated Change in PEPRA Total Normal Cost Rate (% of Payroll)</b>
Public Agencies Safety	(0.4%) to 0.1%
Public Agencies Miscellaneous	(0.1%) to 0.0%

The ranges listed above are expected to cover 90% of the Public Agency plans.

The actual impact of the new assumptions on employer contribution requirements will be implemented in the June 30, 2017 actuarial valuations which will set the employer contribution requirements effective on July 1, 2019. That valuation process will include additional information not available when this circular letter was prepared.

The results of the experience study are described in detail in the 2017 experience study report which can be found online at [www.calpers.ca.gov](http://www.calpers.ca.gov).

## **Questions**

If you have any questions, please call the CalPERS Customer Contact Center at **(888) CalPERS (or 888-225-7377)**.

Scott Terando, Chief Actuary  
Actuarial Office