



Finance and Administration Committee

Agenda Item 6b

September 16, 2025

Item Name: Asset Liability Management: First Reading PERF Actuarial Assumptions

Program: Actuarial Office

Item Type: Information

Executive Summary

In accordance with the CalPERS Board of Administration's Actuarial Assumptions Policy, the Actuarial Office (ACTO) has completed its statutorily mandated investigation (experience study) of the actuarial assumptions. The assumptions reviewed include both the economic assumptions and the demographic assumptions. This agenda item contains the preliminary recommendation for new actuarial assumptions as well as a draft copy of the experience study report. The final recommendation for the adoption of new actuarial assumptions by the board is currently scheduled to occur in November 2025.

One primary economic assumption, the discount rate, is determined in conjunction with the Asset Liability Management (ALM) process. Based upon the recommendations from that process, there is no change to the current discount rate.

Cost increases are expected for all groups due to changes in the Salary Scale and Inflation. Aside from these two assumption sets, all other recommended assumptions are not expected to have a material impact on contribution rates for most plans; contribution rates would vary positively or negatively by a minor amount. If adopted, these proposed assumptions would become effective with the June 30, 2025 actuarial valuations. Contribution rates for the state and schools plans would be impacted in the 2026-27 fiscal year. Contribution rates for public agencies would be impacted in the 2027-28 fiscal year.

See Attachment 1 for a copy of the draft experience study report.

Strategic Plan

This item is presented as part of the regular ongoing workload of the Actuarial Office and supports the fund sustainability goal of the CalPERS 2022-2027 Strategic Plan.

Background

An experience study is a summarization of actual experience over a defined period and, along with future expectations, is used in setting actuarial assumptions. Experience studies which

include reviews of both economic and demographic assumptions are required every four years under the Board's Actuarial Assumptions Policy and Government Code §20133. The previous experience study was completed in 2021. Note that actuarial standards of practice require the actuary to evaluate whether assumptions are reasonable for every valuation, so some change in assumptions could be recommended in the intervening years between mandated experience studies.

Not all demographic assumptions have the same relative impact on the results of the actuarial valuations (and hence on employer contribution rates). In almost all cases, retirement benefits make up most of the liabilities of a retirement system such as CalPERS. Accordingly, assumptions that affect retirement benefits will have more of an impact than assumptions that only affect death, disability, or termination benefits. Since retirement rates, salary increases and post-retirement mortality all affect the valuation of retirement benefits, these assumptions generally have a much greater impact on contribution rates than do other demographic assumptions.

Economic assumptions affect all benefits as well as the expected return on plan assets and tend to have a significant impact on contribution rates.

Analysis

COVID-19 Impacts

The COVID-19 pandemic has had an impact on the operation of public retirement systems across the nation and the world. Based on the timing of this study, the member data used for our analysis, which runs through June 30, 2023, does include impacts of COVID-19. Due to the anomalies of COVID-19, some of the COVID-19 data was excluded. Regarding mortality, we did see spikes in 2020 and 2021. However, after 2021 mortality appeared to be reverting to normal pre-pandemic levels. For retirement, some members did not want to return to work and decided to retire due to COVID-19. At this time, we do not believe that the demographic impacts of COVID-19 will have a material impact on system experience going forward.

Review of Economic Assumptions

Actuaries use certain economic assumptions to set a contribution schedule of employee and employer contributions designed to accumulate with interest to an amount sufficient to provide for all benefits expected to be paid to members and their beneficiaries. The economic assumptions used to determine liabilities and set contribution rates are the discount rate, price inflation, wage inflation and payroll growth assumption.

The summary of the result of the review of economic assumptions is as follows:

- **Discount Rate Assumption:** The primary economic assumption is the discount rate assumption. This is the sum of assumed price inflation and the expected long-term real rate of return. The current discount rate assumption is 6.8%. As part of the ALM process, the board will consider various options presented by the CalPERS team. Based on the current recommendations, there is no change to the current discount rate of 6.8%. The board is expected to finalize their decision during the November board meeting.
- **Price Inflation Assumption:** Currently, the Board has approved an annual price inflation assumption of 2.30%. Inflation data from many sources was analyzed: Historical inflation, inflation forecasts of investment professionals, the Cleveland Fed, Social

Security, and the Fed target. Going forward, market indicators today point to an expectation that future price inflation may be in the range of 2.30% to 2.50% per year. We recommend that the inflation assumption be increased from 2.30% to 2.50% per year. This would place the assumption closer to the levels expected in the financial markets and predicted by economic models.

- **Wage Inflation Assumption:** Currently, the real wage inflation assumption is 0.50%. Historical data shows that national increases in total compensation have generally outpaced price inflation by between 0.50% to 1%. Even though this difference may be somewhat smaller in the public sector, we recommend maintaining our assumed real wage inflation assumption of 0.5%. This results in a total wage inflation of 3.00%.
- **Payroll Growth Assumption:** The payroll growth assumption is used as the payment escalation rate when amortizing unfunded liability (of open plans) established before June 30, 2019 in accordance with the current Board policy. The current assumption is that the aggregated payroll of open plans will grow at a rate of 2.80% per year. Generally, we believe payroll will grow in the future at a rate roughly equal to wage inflation. However, we recommend keeping this assumption at 2.80%. Using a payroll growth assumption that is lower than the wage inflation guards against contribution rate increases if overall payroll does not increase as quickly as expected.

Review of Demographic Assumptions

In addition to the economic assumptions, several demographic assumptions are used to set the contribution schedule of employee and employer contributions. These demographic assumptions include mortality rates, retirement rates, disability rates (both work and non-work related), and rates of salary increases due to seniority and promotion.

After performing the review of demographic assumptions, we recommend several changes to these assumptions. We believe the new assumptions will result in an improvement for predicting long-term future experience over the current assumptions.

Life expectancies in the developed world are improving and this is consistent with the data in the experience study. ACTO believes that proper funding of the system requires the continued inclusion of mortality improvements in the mortality assumption. This is consistent with best practices and changing actuarial standards.

The summary of the results of the review of demographic assumptions is as follows:

- **Mortality:** A significant change to the methodology used for projecting future mortality was implemented in the 2021 study. The key changes were adding generational mortality improvements and adopting benefit weighted mortality rates. In this study no changes are being recommended to the male base rates and only minor changes to the female base rates. However, we recommend replacing the MP-2020 mortality projection table with the MP-2021 mortality projection table. We will also continue to use 80% of the mortality projection table, as it best represented the future expectations for the mortality improvement of the system in our last study.
- **Retirement Probabilities:** Some groups experienced lower numbers of retirements than expected while other groups experienced more retirements than expected. In general, the proposed rates are a better fit to the actual experience of the plans compared to the current assumptions.
- **Salary scale:** Due to recent high inflation from effects of COVID-19, higher than expected salary increases were observed for all groups except State Industrial.
- **Disability Retirement:** Our analysis indicated that in general there have been fewer disability retirements for Public Agency Sheriff and School Police members than expected based on the current assumptions. We are recommending reduced industrial disability retirement rates for these groups. For all other groups, actual experience was generally close to expected.
- **Other assumptions:** Mixed results for other assumptions that have minimal overall impact on cost. These are described in detail in the experience study report.

See Attachment 1 for the draft Experience Study report detailing the development of all actuarial assumptions.

External Review of Experience Study

As in the prior experience study, an external actuarial audit is underway. The final audit report will be presented in November.

Impact on Employer Contribution Rates

The estimated impact of the recommended assumption changes on the total employer contribution rate and the total normal cost are listed in Attachment 2. Under the current amortization policy, changes to the unfunded liability for each plan will be amortized over a level-dollar 20-year period. Impacts to PEPPRA employee contribution rates are also included in attachment 2.

Budget and Fiscal Impacts

The experience study and review of assumptions was prepared internally and will be reviewed externally. Funding was already identified within existing budgetary resources.

Benefits and Risks

Actuarial assumptions determine the expected costs of the plan. The actual long-term costs of the plan will be revealed as the plan's experience is realized. Assumptions that align with future expectations are necessary if costs are to remain stable. Assumptions that are overly optimistic produce artificially low current costs but lead to significantly higher future costs. The opposite is true for assumptions that are overly pessimistic.

By adopting the proposed assumptions, CalPERS ensures that the resulting contribution requirements reflect, to the extent possible, the true cost of the plan under the actuarial methodology and policies adopted by the Board.

Attachments

Attachment 1 – Draft Experience Study Report

Attachment 2 – Impact on Contribution Rates

Attachment 3 – Review of PERF Actuarial Assumptions PowerPoint Presentation

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