Judges' Retirement System II

# 2025 JRS II Experience Study and Review of Actuarial Assumptions

DRAFT

CalPERS

California Public Employees' Retirement System
A Component Unit of the State of California

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# Executive Summary

## Executive Summary

The purpose of this experience study is to review actual experience of the Judges' Retirement System II (JRS II) in relation to the current actuarial assumptions, and to recommend changes in actuarial assumptions for the demographic and economic assumptions, as may be indicated by the review.

The 2025 JRS II Experience Study was completed in conjunction with the 2025 CalPERS Experience Study. The report is derived from data collected during fiscal years 2017 to 2023. This study reviewed retirement rates, withdrawal rates, mortality rates, and inflation rates and recommends new assumptions for use in actuarial valuations. A study of alternate investment portfolios as part of the Asset Liability Management (ALM) for JRS II is scheduled for completion in June 2026. That study will evaluate the recommended portfolio's performance, specifically regarding long-term expected returns and volatility. The discount rate and Monetary Credit Account crediting rate will also be reviewed as part of the ALM process.

Significant outcomes of this study include:

- Recommendation to modify the service retirement assumptions for active members.
- Recommendation to modify the withdrawal with cash-out assumptions.
- Recommendation to adopt the pre-retirement and post-retirement mortality assumptions from the 2025 CalPERS Experience Study for JRS II.
- Recommendation to retain the "percentage married" and "spouse age difference" assumptions.
- Recommendation to increase the price inflation assumption from 2.3% to 2.5% per year. Recommendation to increase the wage inflation assumption from 2.8% to 3.0% per year. These proposed changes are the same as those recommended in the 2025 CalPERS Experience Study.
- Recommendation to decrease the "percent male" assumption used to blend the mortality tables for use in calculating optional forms of benefits, from 65% to 60%.

This study analyzes data from multiple sources. While retirement assumptions were developed using JRS II-specific data, the mortality and inflation assumptions relied on the analysis and proposed rates from the 2025 CalPERS Experience Study. Final assessments of the discount rate and Monetary Credit Account crediting rate will be finalized upon the completion of the ALM process in June 2026.

# Introduction

## Background

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# Introduction

## Introduction

The purpose of this experience study was to investigate the actual experience of JRS II in relation to the current actuarial assumptions, and to recommend changes to the actuarial assumptions for rates of decrement and economic factors as may be indicated by such a review. The report has been prepared in conjunction with the 2025 CalPERS Experience Study. The report presents findings of demographic assumptions of the Judges' Retirement System II for the 7-year period from July 1, 2017 to June 30, 2023.

## Background

An experience study is a summarization of actual experience over a defined period of time. A study can be on past economic experience (such as past inflation, real rates of return on various asset classes, real salary growth, and payroll growth of the active population) and/or on past demographic experience (with an analysis of recent patterns of withdrawal, death, disability, and retirement).

Actuaries use the term decrement to describe the circumstances under which individuals leave a population under study. For example, an individual may decrement from the group of active members of the plan due to withdrawal, death, disability, or service retirement. Exposure is the term used by actuaries to represent the length of time that an individual was exposed to the possibility of leaving the population due to the decrement being studied.

We first compute the raw rates of decrement. The raw rate of decrement (for a given decrement and studied population) is defined as the total number of individuals that left the population due to that decrement divided by the total exposure to that decrement for the group. The rates are tabulated based on length of service and/or age. They do not necessarily become new actuarial assumptions about patterns of behavior for the future due to two major reasons. First, the raw rates may represent only a sample of what might be a smooth underlying formula that anticipates future behavior; an actuary frequently will smooth or graduate the raw rates to approximate the smoother underlying formula. Second, and more importantly, the future does not necessarily repeat the past; the actuary must use professional judgment to estimate possible future outcomes based on past experiences as well as future expectations and select assumptions based upon application of that professional judgment.

# Introduction

## Purpose of the Report

The purpose of this experience study is to review the actual experience of JRS II against the current assumptions and to recommend new actuarial rates of decrement and economic assumptions (other than the discount rate and Monetary Credit Account crediting rate) based on that experience.

## Scope of the Study

This study focused on demographic experience and economic assumptions. The study reviewed retirement rates (service retirement, deferred service retirement, and non-industrial related disability retirement), withdrawal with cash-out, the proportion of members who are married, and the age difference between a member and their spouse. Due to the limited amount of data for JRS II members, mortality rates (pre- and post-retirement) are based on the 2025 CalPERS Experience Study.

# Introduction

## Actuarial Certification

It is our opinion that the Study has been performed in accordance with generally accepted actuarial principles as well as the applicable Standards of Practice promulgated by the Actuarial Standards Board. While this report is intended to be complete, our office is available to answer questions as needed. All of the undersigned are actuaries who satisfy the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* of the American Academy of Actuaries with regard to pensions.

**Actuarial Assumptions**

It is our opinion that the assumptions contained herein, as recommended by the Chief Actuary to be adopted by the CalPERS Board of Administration, are both internally consistent and reasonable.

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# Demographic Experience Methodology

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# Demographic Experience Methodology

## Demographic Experience Methodology

A general discussion of the methodology used follows. Additional details about the methods used are included in the description of the findings for each decrement.

### Data Source

The source of the data used in this study was the data stored in the actuarial valuation system. This data consists of a series of snapshots of the member data taken as of the end of each fiscal year.

The data for the experience study was extracted from the actuarial database in the form of 7 annual snapshots as of June 30th of the years 2017 to 2023. The data represents the participants in the Judges' Retirement System II.

These consecutive snapshots were used to track individual members from the time they enter the study to the time that they exit or until the final year of data whichever applies. Those who exit are assigned an exit reason.

### Calculation of Exposures and Assignment of Decrements

In general, an individual's exposure to a particular decrement begins only after that individual is eligible to receive benefits should that decrement occur. To reflect this, the exposure of each individual in the study commenced at either the study start date (as outlined in each decrement section) or the eligibility date, whichever was later. Similarly, exposure ended at the study end date or the date at which the eligibility ceased, whichever was earlier. We excluded individuals who decremented before the study start date or were not eligible to receive a benefit by the study end date. The Balducci hypothesis was applied, so if the decrement under study occurred during the observation period, exposure continued to the end of the age and/or service interval in which the decrement occurred.

The calculation of exposures, decrements and rates was applied consistently for all assumptions and was consistent with the method used by the actuarial valuation software. For active members, decrement timing used for age was age nearest birthday on decrement date. The decrement timing used for service was calculated as rounded beginning-of-year attained age minus rounded CalPERS entry age. For post-retirement mortality, exact ages were used for exposure calculations and results were tabulated by age last birthdate consistent with the valuation software.

### Rates Studied

The following demographic assumptions were studied.

**Retirement Rates**

- Service Retirement
- Deferred Service Retirement
- Non-Industrial Disability Retirement
- Industrial Disability Retirement

# Demographic Experience Methodology

**Mortality Rates**

- Pre-retirement Mortality (Non-Industrial)
- Pre-retirement Mortality (Industrial)
- Post-retirement Mortality for Healthy Recipients
- Post-retirement Mortality for Non-Industrial Related Disability Retirees
- Post-retirement Mortality for Industrial Related Disability Retirees

**Withdrawal Rates**

- Withdrawal with Cash-Out

# Demographic Experience Methodology

## Grouping Factors

Actuarial assumptions are based on several factors, including, but not limited to age, gender, and service. For each decrement, different factors were examined for possible use in setting actuarial assumptions. The decision as to which factor to use was based on CalPERS actuaries' professional judgment.

The factors that were examined included:

- Age nearest birthday on decrement date
- Service (Computed as rounded Attained Age – rounded Entry Age)
- Entry Age (Rounded CalPERS Attained Age)
- Age at Retirement
- Gender
- Retirement Formula

## Graduation

Various methodologies were used to graduate the results depending on the decrement and the amount of data available ranging from a modified Whittaker-Henderson graduation formula, polynomial, a simple linear fit to a manual adjustment. Details are discussed in the sections dealing with the individual decrements.

## Margin

A margin is the difference between the assumption used for a calculation and the corresponding best estimate assumption. The actuarial assumptions recommended in this report represent our best estimate of future experience with no margins for adverse deviation.

# Demographic Experience Methodology

## Analysis

The analysis of the demographic experience for this study involved the following general steps:

1. First, the number of decrements and exposures for the decrement under study were calculated and tabulated.
2. Next, the number of members expected to decrement was calculated by multiplying the exposures by the expected rates of decrement (current assumptions).
3. Finally, the number of actual decrements was compared with the number of expected decrements over a given period. The comparison which was expressed as a percentage is called the actual to expected ratio (A/E Ratio).

If the actual experience, based on the A/E ratios, differed significantly from the overall expected results, whether by a pattern based on visual graphs, R Squared statistic, or Confidence Intervals (CI), then new assumptions were considered using these tools including using credibility statistics, otherwise, no changes to current rates were recommended.

The findings for each decrement are presented in the tables in the following section

# Findings

**Service Retirement for Active Members**

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**Gender Blending for Optional Forms of Benefits**

# Findings

## Findings

### Retirement Assumptions

### Service Retirement for Active Members

#### Summary

The experience over the study period shows that, in general, there were more retirements than expected based on the current retirement assumptions. The recommendation is to revise the retirement assumptions for certain ages so that the overall assumptions better align with the actual retirement experience observed during the experience study period for ages starting at age 65. For ages 66, 69, and 70, the proposed assumptions predict higher numbers of expected retirements as compared with the current assumptions. For ages 75 to 79, the proposed assumptions predict lower numbers of expected retirements as compared with the current assumptions. The proposed assumptions remain the same as the current assumptions for all other ages. The Classic and PEPRA members are assumed to follow the same retirement pattern.

#### Method

The retirement rates were based on data collected between June 30, 2017 to June 30, 2023. All current and proposed assumptions are based on attained age. Members of the same age are assigned the same retirement rate if their services meet the retirement eligibility requirements. Members may elect a service retirement if they are at least 65 with at least 20 years of service or at least 70 with at least 5 years of service. Members who were eligible for a service retirement and elected a monetary credit lump sum were considered retired rather than withdrawn with a cash out.

To assess whether the current assumptions continue to be appropriate, the actual number of retirements was compared to the expected number of retirements anticipated by the current assumptions and proposed assumptions (A/E ratio) for ages 65 and above. Based on this comparison, changes to the current assumptions were made where appropriate using adjustments to current retirement probabilities to achieve overall and age specific (i.e. each and every age) expected retirements that align with the recent actual experience.

#### Results

The service retirement rates display a strong and consistent pattern by age, which is attributable to the structure of the benefits. It has long been observed that members tend to display a preference for retiring at “milestone” ages such as ages 65 and 70 when the members first reach these normal retirement ages. In addition, retirement rates are also higher at age 67 which is the current Social Security full retirement age.

In general, the plan saw more retirements than expected using current assumptions. The proposed assumptions reflect adjustments to increase predictive accuracy. The rates at ages 66, 69, and 70 are

# Findings

proposed to increase by 5% while the rates age 75 to 79 are proposed to decrease by 2%. No changes are proposed to the current rates for other ages.

The table below details the current and proposed assumptions alongside the A/E ratios for the study period.

| Attained Age | Years of Service | Current Assumption | Proposed Assumption | A/E Ratio Current | A/E Ratio Proposed |
|---|---|---|---|---|---|
| 65 | At least 20 | 0.55 | 0.55 | 99% | 99% |
| 66 | At least 20 | 0.35 | 0.4 | 125% | 110% |
| 67 | At least 20 | 0.45 | 0.45 | 97% | 97% |
| 68 | At least 20 | 0.35 | 0.35 | 95% | 95% |
| 69 | At least 20 | 0.2 | 0.25 | 151% | 121% |
| 70 | At least 5 | 0.25 | 0.3 | 127% | 106% |
| 71 | At least 5 | 0.25 | 0.25 | 99% | 99% |
| 72 | At least 5 | 0.25 | 0.25 | 103% | 103% |
| 73 | At least 5 | 0.25 | 0.25 | 112% | 112% |
| 74 | At least 5 | 0.2 | 0.2 | 110% | 110% |
| 75 - 79 | At least 5 | 0.2 | 0.18 | 84% | 93% |
| 80+ | At least 5 | 1 | 1 | 13% | 13% |
| 65 - 80 | N/A | N/A | N/A | 102% | 98% |

# Findings

## Deferred Service Retirement

The current assumptions were first developed and used in the June 30, 2022 Actuarial Valuation when the deferred retirement option was set to become available starting January 1, 2024. No changes are proposed in this study.

| Age | Years of Service | | | |
|---|---|---|---|---|
| | 5-9 | 10-14 | 15-19 | At least 20 |
| Below 60 | 0.000 | 0.000 | 0.000 | 0.000 |
| 60 | 0.000 | 0.000 | 0.150 | 0.150 |
| 61 - 64 | 0.000 | 0.000 | 0.050 | 0.050 |
| 65 - 67 | 0.000 | 0.200 | 0.200 | 0.000 |
| 68 - 69 | 0.000 | 0.100 | 0.100 | 0.000 |
| 70 | 0.000 | 0.000 | 0.000 | 0.000 |

## Non-Industrial Disability Retirement

There have been no significant gains or losses attributable to this decrement over the years. Therefore, no changes are proposed in this study.

| Attained Age | Female | Male |
|---|---|---|
| 35 | 0.00000 | 0.00000 |
| 40 | 0.00100 | 0.00100 |
| 45 | 0.00190 | 0.00190 |
| 50 | 0.00320 | 0.00320 |
| 55 | 0.00540 | 0.00540 |
| 60 | 0.00850 | 0.00850 |
| 65 | 0.01220 | 0.01220 |
| 70 | 0.00000 | 0.00000 |

## Industrial Disability Retirement

Rates are zero. No changes are proposed to the current assumptions.

# Findings

## Withdrawal With Cash-Out

### Summary

When members withdraw with less than five years of service, the member is paid a refund of their member contribution account with interest and membership in JRS II is terminated. With five or more years of service, those not eligible for a service retirement are eligible to receive a lump sum equal to their Monetary Credit Account and are considered retirees for the purposes of retiree health coverage. Current assumptions generally underestimate actual withdrawal experience. The recommendation is to use a new set of rates for withdrawals to align overall expectations with the actual experience observed during the study period across all entry ages and years of service. The proposed rates are higher than current rates.

### Method

The withdrawal rates were based on data collected between June 30, 2017 to June 30, 2023. Proposed assumptions are based on entry age and years of service. As noted in the retirement section, members eligible for service retirement who chose a monetary credit lump-sum were classified as retired rather than withdrawal.

To ensure data credibility and smooth results, the following steps were taken:

- Entry ages were banded and service years were grouped in five-year increments to consolidate data into credible blocks.
- Exposure and decrement counts were used to calculate raw rates at aggregated levels, rounded to the nearest 0.005.
- Rates for entry ages under 35 follow the 35–39 group, while entry ages 70 and older follow the 65–69 group.
- The rates are zero if a member's attained age and service meet service retirement or deferred retirement eligibilities. The attained age is determined as the sum of entry age and service.
- The rates are zero regardless of entry ages for members with less than one year of service.
- In blocks with limited data, raw rates were smoothed by referencing adjacent blocks to ensure consistency.

### Results

Withdrawals with cash-out experience exhibit distinct patterns due to the cliff vesting requirements for service retirement. Members need at least 20 years of service to retire at age 65 or later or may retire at age 70 with at least 5 years of service. Upon leaving the bench, members must take their Monetary Credit Account balance as a lump-sum if they are not eligible for a service retirement.

For members with the same years of service, members with entry ages at the lower end and higher end of the entry age range tend to have higher withdrawal rates than those of members with entry ages in the middle range. For members with the same entry age, members early in their career are the least likely to withdraw while those who are in their mid-career are the most likely to withdraw.

# Findings

In general, the plan saw more withdrawals with cash-out than expected using current assumptions. The proposed assumptions adopted raw rates for all the blocks on aggregated levels except these four blocks: (Entry Age 35 - 39 × Service 10 - 14), (Entry Age 35 - 39 × Service 15 - 19), (Entry Age 40 - 44 × Service 10 - 14), and (Entry Age 45 - 49 × Service 5 - 9). For these four blocks, the raw rates were adjusted for smoothing and lack of experience.

The tables below show the proposed assumptions and the raw rates.

**Proposed Rates**

| | Years of Service | | | | | |
|---|---|---|---|---|---|---|
| Entry Age | Less than 1 | 1 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | At least 20 |
| Less than 35 | 0 | 0.015 | 0.025 | 0.015 | 0.015 | 0.015 |
| 35 - 39 | 0 | 0.015 | 0.025 | 0.015 | 0.015 | 0.015 |
| 40 - 44 | 0 | 0.005 | 0.015 | 0.015 | 0.015 | 0.010 |
| 45 - 49 | 0 | 0.005 | 0.015 | 0.010 | 0.010 | 0 |
| 50 - 54 | 0 | 0.005 | 0.010 | 0.025 | 0.020 | 0 |
| 55 - 59 | 0 | 0.005 | 0.015 | 0.010 | 0 | 0 |
| 60 - 64 | 0 | 0.010 | 0.015 | 0 | 0 | 0 |
| 65 - 69 | 0 | 0.010 | 0 | 0 | 0 | 0 |
| At least 70 | 0 | 0.010 | 0 | 0 | 0 | 0 |

**Raw Rates**

| | Years of Service | | | | | |
|---|---|---|---|---|---|---|
| Entry Age | Less than 1 | 1 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | At least 20 |
| 35 - 39 | 0 | 0.015 | 0.025 | 0.010 | 0 | 0.015 |
| 40 - 44 | 0 | 0.005 | 0.015 | 0.005 | 0.015 | 0.010 |
| 45 - 49 | 0 | 0.005 | 0.010 | 0.010 | 0.010 | 0 |
| 50 - 54 | 0 | 0.005 | 0.010 | 0.025 | 0.020 | 0 |
| 55 - 59 | 0 | 0.005 | 0.015 | 0.010 | 0 | 0 |
| 60 - 64 | 0 | 0.010 | 0.015 | 0 | 0 | 0 |
| 65 - 69 | 0 | 0.010 | 0 | 0 | 0 | 0 |

# Findings

## Mortality Assumptions

### Summary

Due to the limited size of the JRS II population and a lack of data, mortality assumptions have historically been aligned with those developed in the CalPERS Experience Study. Actual experience for JRS II has generally tracked closely with these assumptions, resulting in no significant actuarial gains or losses attributable to mortality. Consequently, mortality assumptions established in the 2025 CalPERS Experience Study are proposed for JRS II. For a comprehensive analysis of the methodology and data used to set these rates, please refer to the full 2025 CalPERS Experience Study report.

## Pre-Retirement Mortality (Non-Industrial)

The assumptions use the Miscellaneous Non-Duty Death Mortality rates from the 2025 CalPERS Experience Study.

| Attained Age | Female | Male |
|---|---|---|
| 35 | 0.00029 | 0.00058 |
| 40 | 0.00039 | 0.00075 |
| 45 | 0.00054 | 0.00093 |
| 50 | 0.00081 | 0.00134 |
| 55 | 0.00123 | 0.00198 |
| 60 | 0.00179 | 0.00287 |
| 65 | 0.00250 | 0.00403 |
| 70 | 0.00404 | 0.00594 |

## Pre-Retirement Mortality (Industrial)

Rates are zero. No changes are proposed to the current assumptions.

## Post-Retirement Mortality for Healthy Recipients

The assumptions use the Healthy Post-Retirement Mortality rates from the 2025 CalPERS Experience Study.

## Post-Retirement Mortality for Non-Industrial Related Disabled Retirees

The assumptions use the Non-Duty Disabled Post-Retirement Mortality rates from the 2025 CalPERS Experience Study.

## Post-Retirement Mortality for Industrial Related Disabled Retirees

Rates are zero. No changes are proposed to the current assumptions.

# Findings

## Percentage Married And Age Difference

**Summary**

The purpose of these assumptions is to determine the percentage of members who are married and the age difference between male and female spouses for purposes of valuing the likelihood of a member having a statutory spouse at retirement. Since the plan offers a 50% post-retirement survivor allowance benefit, these assumptions serve to estimate the additional payment stream after the death of the member. Based on the results of this experience study, no changes are proposed to the current assumptions for marital status or spousal age difference.

**Method**

Data on members who received benefits between June 30, 2017 and June 30, 2023 were studied. Same gender marriages were included for calculating the percentage married statistic but were excluded for calculating the age difference statistic.

**Results**

The study reviewed a total of 635 retired member records. Of these, 525 members were married at the time of retirement while 110 members were unmarried. The actual age difference between male and female spouses was about 3.3 years. No changes in assumptions are proposed since it was determined that more years of experience were needed to justify a change.

| | Current Assumptions | Statistics | Proposed Assumptions |
|---|---|---|---|
| Percentage Married | 90% | 82.7% | 90% |
| Age Difference | 3 years | 3.3 years | 3 years |

# Findings

## Gender Blending For Optional Forms Of Benefits

**Summary**

The purpose of this assumption is to determine the male/female mortality rate blending ratios used for developing unisex mortality tables for optional forms of benefits. The ratios are used for two categories of mortality: Service Retirement and Non-Industrial Disability Retirement and two optional forms: Single Life and Joint and Survivor.

**Method**

The gender counts in both the active member group and retired member group from June 30, 2021 to June 30, 2024 were summarized, then the ratios were determined based on the data. The data source includes both the Judges' Retirement System and the Judges' Retirement System II.

**Results**

To ensure these ratios remain an accurate estimate of future expectations, the study evaluates two data sets. The gender ratios for the active members are used as an indicator of the future trend, while the gender ratios for the retired members are used to measure the current ratios. The male members' ratios have declined over recent years and currently it is expected that 60% of active members who will retire are males.

**Gender Ratios for the Active Member Group**

| | | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Judges' Retirement System | Male | 79 | 71 | 57 | 46 |
| | Female | 31 | 28 | 23 | 22 |
| | % Male | 71.8% | 71.7% | 71.3% | 67.6% |
| Judges' Retirement System II | Male | 979 | 967 | 962 | 951 |
| | Female | 646 | 658 | 697 | 738 |
| | % Male | 60.2% | 59.5% | 58.0% | 56.3% |
| Combined | Male | 1,058 | 1,038 | 1,019 | 997 |
| | Female | 677 | 686 | 720 | 760 |
| | % Male | 61.0% | 60.2% | 58.6% | 56.7% |

**Gender Ratios for the Retired Member Group**

| | | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Judges' Retirement System | Male | 897 | 853 | 816 | 778 |
| | Female | 190 | 190 | 184 | 181 |
| | % Male | 82.5% | 81.8% | 81.6% | 81.1% |
| Judges' Retirement System II | Male | 245 | 292 | 351 | 403 |
| | Female | 91 | 112 | 133 | 168 |
| | % Male | 72.9% | 72.3% | 72.5% | 70.6% |
| Combined | Male | 1,142 | 1,145 | 1,167 | 1,181 |
| | Female | 281 | 302 | 317 | 349 |
| | % Male | 80.3% | 79.1% | 78.6% | 77.2% |

# Findings

**Proposed Percentages**

Based on the tabulations above, the following tables summarizes the proposed male/female percentages.

**All Single Life Forms**

| | Weighting of Male Retirees | | Weighting of Male Beneficiaries | |
|---|---|---|---|---|
| | Current | Proposed | Current | Proposed |
| Service Retirement | 65% | 60% | n/a | n/a |
| Non-Industrial Disability | 65% | 60% | n/a | n/a |

**Joint and Survivor Forms**

| | Weighting of Male Retirees | | Weighting of Male Beneficiaries | |
|---|---|---|---|---|
| | Current | Proposed | Current | Proposed |
| Service Retirement | 65% | 60% | 35% | 40% |
| Non-Industrial Disability | 65% | 60% | 35% | 40% |

# Economic Study

## Economic Study

**Summary**

The economic assumptions primarily focus on the inflation and expected investment return of JRS II Fund. The inflation assumptions developed from the 2025 CalPERS Experience Study are proposed to be used for JRS II. For a comprehensive analysis of the methodology used to set these rates, please refer to the full 2025 CalPERS Experience Study report. As part of the Asset Liability Management (ALM) review for JRS II, new capital market assumptions and asset allocations have been developed and reviewed by the Board. The expected long-term rate of return and the discount rate for the investment portfolio are currently under review. The board is scheduled to formally adopt these rates in June 2026.

### Inflation

Based on the results of the 2025 ALM process, the following adjustments to economic assumptions are proposed:

- Price Inflation: Increase from 2.3% to 2.5%.
- Wage Inflation: Increase from 2.8% to 3.0%.
- Payroll Growth (for purposes of determining future payments toward unfunded liability): Maintain the current level of 2.8%.

These assumptions are consistent with the broader economic trends identified in the 2025 CalPERS Experience Study. For a detailed analysis of the underlying data and macroeconomic factors supporting these changes, please refer to that report.

### Discount Rate

The discount rate is set equal to the long-term expected geometric return on assets, net of both investment and administrative expenses. This assumption is reviewed as part of the ALM process.

### Monetary Credit Account Crediting Rate

A member's Monetary Credit Account is credited at a rate, not less than zero, equal to the annual net investment return achieved by the Judges' Retirement System II Fund from the preceding fiscal year. As a result, the monetary credit accounts are assumed to grow, on average, at a rate greater than the discount rate. This crediting rate is set equal to the adjusted long-term expected geometric return on assets, net of both investment and administrative expenses. The adjusted long-term expected geometric return is based on a set of investment return scenarios where negative returns are set to zero. This assumption is reviewed as part of the ALM process.

# Appendix A
## Summary of Proposed Rates

## Appendix A - Summary of Proposed Rates

**Service Retirement Rates**

**Non-Industrial Disability Retirement Rates**

**Withdrawal with Cash-Out**

**Pre-Retirement Mortality (Non-Industrial) Base Rates**

**Post-Retirement Mortality Base Rates**

# Appendix A - Summary of Proposed Rates

## Service Retirement Rates

| Attained Age | Years of Service | Proposed Assumption |
|---|---|---|
| 65 | At least 20 | 0.55 |
| 66 | At least 20 | 0.4 |
| 67 | At least 20 | 0.45 |
| 68 | At least 20 | 0.35 |
| 69 | At least 20 | 0.25 |
| 70 | At least 5 | 0.3 |
| 71 | At least 5 | 0.25 |
| 72 | At least 5 | 0.25 |
| 73 | At least 5 | 0.25 |
| 74 | At least 5 | 0.2 |
| 75 - 79 | At least 5 | 0.18 |
| 80+ | At least 5 | 1 |
| 65 - 80 | N/A | N/A |

## Deferred Service Retirement Rates

| Attained Age | Years of Service | | | |
|---|---|---|---|---|
| | 5-9 | 10-14 | 15-19 | At least 20 |
| Below 60 | 0.000 | 0.000 | 0.000 | 0.000 |
| 60 | 0.000 | 0.000 | 0.150 | 0.150 |
| 61 - 64 | 0.000 | 0.000 | 0.050 | 0.050 |
| 65 - 67 | 0.000 | 0.200 | 0.200 | 0.000 |
| 68 - 69 | 0.000 | 0.100 | 0.100 | 0.000 |
| 70 | 0.000 | 0.000 | 0.000 | 0.000 |

# Appendix A - Summary of Proposed Rates

## Non-Industrial Disability Retirement

| Attained Age | Female | Male |
|---|---|---|
| 35 | 0.00000 | 0.00000 |
| 40 | 0.00100 | 0.00100 |
| 45 | 0.00190 | 0.00190 |
| 50 | 0.00320 | 0.00320 |
| 55 | 0.00540 | 0.00540 |
| 60 | 0.00850 | 0.00850 |
| 65 | 0.01220 | 0.01220 |
| 70 | 0.00000 | 0.00000 |

## Withdrawal with Cash-Out

| | Years of Service | | | | | |
|---|---|---|---|---|---|---|
| Entry Age | Less than 1 | 1 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | At least 20 |
| Less than 35 | 0 | 0.015 | 0.025 | 0.015 | 0.015 | 0.015 |
| 35 - 39 | 0 | 0.015 | 0.025 | 0.015 | 0.015 | 0.015 |
| 40 - 44 | 0 | 0.005 | 0.015 | 0.015 | 0.015 | 0.010 |
| 45 - 49 | 0 | 0.005 | 0.015 | 0.010 | 0.010 | 0 |
| 50 - 54 | 0 | 0.005 | 0.010 | 0.025 | 0.020 | 0 |
| 55 - 59 | 0 | 0.005 | 0.015 | 0.010 | 0 | 0 |
| 60 - 64 | 0 | 0.010 | 0.015 | 0 | 0 | 0 |
| 65 - 69 | 0 | 0.010 | 0 | 0 | 0 | 0 |
| At least 70 | 0 | 0.010 | 0 | 0 | 0 | 0 |

# Appendix A - Summary of Proposed Rates

## Pre-Retirement Mortality (Non-Industrial) Base Rates

| Attained Age | Female | Male |
|---|---|---|
| 35 | 0.00029 | 0.00058 |
| 36 | 0.00031 | 0.00061 |
| 37 | 0.00033 | 0.00065 |
| 38 | 0.00034 | 0.00068 |
| 39 | 0.00037 | 0.00072 |
| 40 | 0.00039 | 0.00075 |
| 41 | 0.00041 | 0.00078 |
| 42 | 0.00044 | 0.00082 |
| 43 | 0.00047 | 0.00084 |
| 44 | 0.00050 | 0.00088 |
| 45 | 0.00054 | 0.00093 |
| 46 | 0.00059 | 0.00100 |
| 47 | 0.00064 | 0.00106 |
| 48 | 0.00070 | 0.00115 |
| 49 | 0.00075 | 0.00124 |
| 50 | 0.00081 | 0.00134 |
| 51 | 0.00087 | 0.00145 |
| 52 | 0.00094 | 0.00157 |
| 53 | 0.00103 | 0.00169 |
| 54 | 0.00112 | 0.00183 |
| 55 | 0.00123 | 0.00198 |
| 56 | 0.00134 | 0.00213 |
| 57 | 0.00145 | 0.00231 |
| 58 | 0.00157 | 0.00249 |
| 59 | 0.00168 | 0.00267 |
| 60 | 0.00179 | 0.00287 |
| 61 | 0.00190 | 0.00307 |
| 62 | 0.00202 | 0.00328 |
| 63 | 0.00216 | 0.00350 |
| 64 | 0.00234 | 0.00375 |
| 65 | 0.00250 | 0.00403 |
| 66 | 0.00273 | 0.00432 |
| 67 | 0.00300 | 0.00463 |
| 68 | 0.00330 | 0.00503 |
| 69 | 0.00363 | 0.00544 |
| 70 | 0.00404 | 0.00594 |
| 71 | 0.00449 | 0.00647 |
| 72 | 0.00503 | 0.00706 |
| 73 | 0.00560 | 0.00772 |
| 74 | 0.00620 | 0.00849 |
| 75 | 0.00688 | 0.00933 |

# Appendix A - Summary of Proposed Rates

| | | |
|---|---|---|
| **76** | 0.00764 | 0.01027 |
| **77** | 0.00844 | 0.01132 |
| **78** | 0.00932 | 0.01246 |
| **79** | 0.01030 | 0.01372 |
| **80** | 0.01149 | 0.01515 |

# Appendix A - Summary of Proposed Rates

## Post-Retirement Mortality Base Rates

| | Healthy | | Non-Industrial Disability | |
|---|---|---|---|---|
| Attained Age | Female | Male | Female | Male |
| 35 | 0.00029 | 0.00058 | 0.00520 | 0.00644 |
| 36 | 0.00031 | 0.00061 | 0.00510 | 0.00659 |
| 37 | 0.00033 | 0.00065 | 0.00611 | 0.00702 |
| 38 | 0.00034 | 0.00068 | 0.00663 | 0.00724 |
| 39 | 0.00037 | 0.00072 | 0.00715 | 0.00760 |
| 40 | 0.00039 | 0.00075 | 0.00729 | 0.00807 |
| 41 | 0.00041 | 0.00078 | 0.00755 | 0.00841 |
| 42 | 0.00043 | 0.00082 | 0.00802 | 0.00903 |
| 43 | 0.00047 | 0.00084 | 0.00865 | 0.00955 |
| 44 | 0.00050 | 0.00088 | 0.00956 | 0.01039 |
| 45 | 0.00054 | 0.00093 | 0.01001 | 0.01114 |
| 46 | 0.00059 | 0.00100 | 0.01050 | 0.01191 |
| 47 | 0.00064 | 0.00106 | 0.01124 | 0.01309 |
| 48 | 0.00070 | 0.00115 | 0.01211 | 0.01433 |
| 49 | 0.00075 | 0.00124 | 0.01302 | 0.01566 |
| 50 | 0.00197 | 0.00266 | 0.01424 | 0.01701 |
| 51 | 0.00213 | 0.00284 | 0.01469 | 0.01823 |
| 52 | 0.00232 | 0.00301 | 0.01530 | 0.01929 |
| 53 | 0.00265 | 0.00325 | 0.01612 | 0.02011 |
| 54 | 0.00294 | 0.00356 | 0.01684 | 0.02116 |
| 55 | 0.00328 | 0.00390 | 0.01753 | 0.02210 |
| 56 | 0.00340 | 0.00427 | 0.01808 | 0.02301 |
| 57 | 0.00344 | 0.00454 | 0.01857 | 0.02409 |
| 58 | 0.00361 | 0.00480 | 0.01889 | 0.02483 |
| 59 | 0.00401 | 0.00521 | 0.01940 | 0.02579 |
| 60 | 0.00458 | 0.00578 | 0.01983 | 0.02708 |
| 61 | 0.00498 | 0.00633 | 0.02009 | 0.02804 |
| 62 | 0.00515 | 0.00688 | 0.02059 | 0.02933 |
| 63 | 0.00532 | 0.00750 | 0.02107 | 0.03058 |
| 64 | 0.00564 | 0.00798 | 0.02158 | 0.03199 |
| 65 | 0.00608 | 0.00857 | 0.02252 | 0.03334 |
| 66 | 0.00664 | 0.00940 | 0.02329 | 0.03470 |
| 67 | 0.00735 | 0.01026 | 0.02440 | 0.03580 |
| 68 | 0.00809 | 0.01102 | 0.02552 | 0.03713 |
| 69 | 0.00888 | 0.01190 | 0.02689 | 0.03851 |
| 70 | 0.00989 | 0.01333 | 0.02854 | 0.04001 |
| 71 | 0.01124 | 0.01507 | 0.03035 | 0.04182 |
| 72 | 0.01284 | 0.01686 | 0.03254 | 0.04424 |
| 73 | 0.01454 | 0.01866 | 0.03496 | 0.04678 |
| 74 | 0.01619 | 0.02102 | 0.03784 | 0.04998 |

# Appendix A - Summary of Proposed Rates

| | | | | |
|---|---|---|---|---|
| **75** | 0.01777 | 0.02391 | 0.04099 | 0.05376 |
| **76** | 0.01976 | 0.02703 | 0.04438 | 0.05796 |
| **77** | 0.02246 | 0.03018 | 0.04797 | 0.06270 |
| **78** | 0.02571 | 0.03384 | 0.05179 | 0.06780 |
| **79** | 0.02958 | 0.03844 | 0.05606 | 0.07352 |
| **80** | 0.03401 | 0.04371 | 0.06051 | 0.07936 |
| **81** | 0.03883 | 0.04918 | 0.06533 | 0.08568 |
| **82** | 0.04359 | 0.05506 | 0.07103 | 0.09248 |
| **83** | 0.04800 | 0.06263 | 0.07717 | 0.09983 |
| **84** | 0.05361 | 0.07245 | 0.08418 | 0.10763 |
| **85** | 0.06166 | 0.08274 | 0.09312 | 0.11561 |
| **86** | 0.07132 | 0.09176 | 0.10145 | 0.12426 |
| **87** | 0.08019 | 0.10128 | 0.11085 | 0.13339 |
| **88** | 0.08836 | 0.11289 | 0.12089 | 0.14366 |
| **89** | 0.09780 | 0.12735 | 0.13179 | 0.15404 |
| **90** | 0.11086 | 0.14539 | 0.14301 | 0.16608 |
| **91** | 0.12717 | 0.16531 | 0.15455 | 0.17892 |
| **92** | 0.14513 | 0.18562 | 0.15967 | 0.19286 |
| **93** | 0.16375 | 0.20680 | 0.16375 | 0.20680 |
| **94** | 0.18330 | 0.22707 | 0.18330 | 0.22707 |
| **95** | 0.20364 | 0.24664 | 0.20364 | 0.24664 |
| **96** | 0.22428 | 0.26341 | 0.22428 | 0.26341 |
| **97** | 0.24571 | 0.27821 | 0.24571 | 0.27821 |
| **98** | 0.26628 | 0.29619 | 0.26644 | 0.29619 |
| **99** | 0.28937 | 0.32755 | 0.28937 | 0.32755 |
| **100** | 0.31582 | 0.36198 | 0.31582 | 0.36198 |
| **101** | 0.33698 | 0.39016 | 0.33698 | 0.39016 |
| **102** | 0.35967 | 0.42320 | 0.35967 | 0.42320 |
| **103** | 0.37659 | 0.43785 | 0.37659 | 0.43785 |
| **104** | 0.40264 | 0.48732 | 0.40264 | 0.48732 |
| **105** | 0.44679 | 0.52229 | 0.44679 | 0.52229 |
| **106** | 0.50444 | 0.59051 | 0.50444 | 0.59051 |
| **107** | 0.58485 | 0.66932 | 0.58485 | 0.66932 |
| **108** | 0.66654 | 0.78103 | 0.66654 | 0.78103 |
| **109** | 0.75470 | 0.89589 | 0.75470 | 0.89589 |
| **110** | 1.00000 | 1.00000 | 1.00000 | 1.00000 |