Retirement Rates

Overall Summary

What is the Retirement Rate Assumption and how is it Used?

Retirement Rates represent the probability that a retirement-eligible individual will stop working and start collecting their pension benefits. In analyzing historical data, our goal is to establish assumptions that best represent when and how much money will be paid from the trust fund each year in the future.

This assumption is generally age-based. However, where appropriate, we set assumptions that vary by service-level and gender.

High-Level Takeaways

In general, we are continuing to observe members deferring retirement. When members work longer, we see fewer actual retirements per year. As a result, we lowered existing retirement rate assumptions (as developed in the prior study) toward the level of actual retirements.

We evaluated several potential changes to the structure of the retirement assumption (e.g. gender and service splits, simplifications, etc.), but ultimately did not make any changes from the structure in place for the prior experience study.

We saw that the data during the Great Recession reduced the ratio of actual to expected retirements in some systems by approximately half. Given the magnitude of the Great Recession's impact on actual retirement rates, and the fact that it is likely a once-in-a-career event, we chose to remove those data years for the Public Employees' Retirement System (PERS) Plans 2/3, the Teachers' Retirement System (TRS) Plans 2/3, and the School Employees' Retirement System (SERS) Plans 2/3.

However, we chose not to exclude the Great Recession data for the Plans 1 (PERS 1 and TRS 1) or the Public Safety systems (the Law Enforcement Officers' and Fire Fighters' Retirement System [LEOFF] , the Public Safety Employees' Retirement System [PSERS], and the Washington State Patrol Retirement System [WSPRS]). In the public safety plans, we observed that actual retirement rates appeared to return to pre-recession levels much faster. We suspect this is due to higher incomes and/or benefit adequacy.

Assumptions

Except as noted, all assumptions used in the development of retirement rates match those disclosed in the 2012 Actuarial Valuation Report.

Data

We began with 18 years of experience study records, from 1995-2012. No special data was added for this assumption, but some data was removed for some individual plans as noted below.

We chose to remove valuation years 2001 and 2007 since they were, for the most part, only three-fourths of a year.[1] Although retirements in some systems are seasonal, we wanted to ensure the number of expected retirements was consistent throughout the measurement period for actual retirements.

[1] *For example, in 2007 the Legislature changed the valuation dates to match the fiscal year. Specifically, the valuation dates changed from September 30 to June 30 of each year.*

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As noted above, we chose to remove data for the Great Recession years (2008-12) for the Plans 2/3 (PERS 2/3, TRS 2/3, and SERS 2/3). With the removal of that data, we have insufficient data to adjust retirement rates for members with more than 30 Years of Service (YOS) based on plan experience for the Plans 2/3. Therefore, any adjustments we made to the "at least 30 YOS" rates were based on the adjustments we made to the "less than 30 YOS" rates.

Counting Method

We adjusted our counting method to include members who would reach the minimum retirement age at some point in a given year. In other words, if a member is age 54 at the beginning of the year (at the time the data is compiled), but will reach age 55 later that year, our previous method would show this person as having retired at age 54. Our new method assumes these members are age 55 at the beginning of the year.

Law Changes

There were three law changes since the last study that impacted the retirement rates assumption:

- SHB 2688 (2006).
  - Applied to LEOFF 1.
  - This law removed the 30 YOS cap. ESHB 1981 (2011) — Repealed Plan 1 Return-To-Work Program Expansion.
  - Applied to members of PERS 1/TRS 1.
  - This law repealed a portion of the return-to-work rules (also known as post-retirement employment, or "retire-rehire"). This resulted in lower retirement rates, but no more than already being reduced due to other forces.
- 2ESB 6378 (2012) — Reduced Subsidized Early Retirement Factors (ERFs) for members hired on or after May 1, 2013.
  - Applied to PERS 2/3, TRS 2/3, and SERS 2/3.
  - In future studies we will provide a different set of retirement rates for the applicable groups using methods consistent with this legislation.

Methods and Assumptions

General Methodology

For each year and retirement plan we counted both the members who met the minimum eligibility requirements at the beginning of the year (exposures), and the members who retired during the year (retirements). We divided the number of retirements by the number of exposures to arrive at an observed, or actual, retirement rate.

We then analyzed the relation of actual to expected retirements in light of economic and demographic trends and applied our professional judgment to set retirement rates.

The main issue in setting the retirement rates during this experience study is to limit the large shifts in the rates over short periods of time and not overcompensate for short-term events (e.g. the Great Recession). As a result, we did not let the retirement rates decrease as much as the most recent information implies they should. If the data from the next experience study continue to show a trend of decreasing retirement rates we will reduce retirement rates further.

We determined which data to exclude and set new assumptions based upon that experience and expectations for the future. In most cases, we will limit the change in the assumed weighted average retirement age (due to an assumption change) to one year.

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Results

All-Plan Summary

Generally, we made modest changes to the retirement rates; nudging the Actual-to-Expected (A/E) ratios closer to one. The notable exception is LEOFF Plan 2, where actual retirements have been consistently and significantly lower than expected.

The decade of investment returns from 2000-2010, also known as the "Lost Decade," heavily influenced Plan 3 retirements (reducing Defined Contribution balances and leading to later retirements). We do not believe this decade of experience represents expected outcomes for future Plan 3 retirees. As a result, we decided to continue to apply one set of retirement rates for the Plans 2/3.

Summary of A/E Ratios

	Under Old Assumptions	Under New Assumptions
PERS 1	0.954	0.995
PERS 2/3	0.958	0.992
TRS 1	0.933	0.991
TRS 2/3	0.714	0.789
SERS 2/3	0.893	0.970
PSERS	N/A	N/A
LEOFF 1	0.798	0.908
LEOFF 2	0.601	0.726
WSPRS	1.093	1.061

Please see the **Appendices** for results on all plans.

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