Termination Rates

Overall Summary

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

Termination rates represent the likelihood an active member will leave (terminate) an eligible position without retiring. We use termination assumptions in combination with our percent vested assumption[1] to estimate who will collect a deferred retirement benefit. We assume that terminated members who do not take a deferred retirement benefit will receive a refund of accumulated contributions.

For reference, a member who terminates has two options:

- **Withdraw their employee contributions with interest.** This option is available for any member who terminates. Members of Plans 1 and 2 who make a withdrawal will lose their membership service and forfeit their rights to future benefits. Plan 3 members do not lose their service upon withdrawal of their defined contribution accounts.

- **Defer retirement.** This option is available only for members who are vested (or worked a designated number of years within their retirement plan). It allows the member to leave their contributions in the system and defer their annuity until the plan's retirement eligibility.

[1]Members who are vested have a right to a future benefit even if they terminate their employment before retirement. This assumption is addressed in the Miscellaneous section of this report.

This assumption is generally distinguished by years of service and gender. However, where appropriate we have set unisex assumptions (Law Enforcement Officers' and Fire Fighters' Retirement System [LEOFF] and Washington State Patrol Retirement System [WSPRS]).

High-Level Takeaways

In general, we found the current termination rates were still reasonable to use for early service years.[2] The majority of terminations occur in early service years so the early service termination assumptions have the largest impact on plan costs.

We observed higher-than-expected termination rates for Plans 2/3 members with 20 to 30 years of service. These higher-than-expected termination rates were most noticeable in Plan 3 for the Public Employees' Retirement System (PERS), the Teachers' Retirement System (TRS), and the School Employees' Retirement System (SERS).

We did not exclude data related to the Great Recession for this assumption.

Assumptions

We assume a member who is eligible for service retirement will not terminate within their plan. We therefore set our termination rates to zero in our valuation model once a member has attained the age and service required for retirement.

We also assume a member will not return to active status if they remain terminated for more than two years.

[2]Over 50 percent of actual terminations occur in the first five service years for PERS, TRS, SERS, and LEOFF.

For all systems except WSPRS, termination rates above 30 years of service are equal to the termination rates at 30 years of service.

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

Data

We began with 16 years of experience study records, from 1995-2010. No special data was added for this assumption, but some data was removed. Specifically, we chose to remove valuation years 2001 and 2007 for all plans since they were (for the most part) only three-fourths of a year.[3] We also removed data from the year 2000 for SERS due to a short valuation cycle.

Data Adjustments

We also adjusted the termination data for PERS in 2006 to remove an observed spike in terminations. In researching the spike, we realized that the PERS members who transferred to the Public Safety Employees' Retirement System (PSERS) were being counted as terminations when, in fact, they are dual members with portable benefits. We have fixed the PERS valuation year 2006 data by removing the members who transferred to PSERS from the termination counts.

Counting Method

We adjusted our counting method from the last study to consider members who terminate but return to work as active members within two years. If a member terminates and returns to work within two years then they will be considered active during their period of absence.

Under this counting approach, members who left employment in the last two years could still return to work, so we have not included the valuation data for 2011 and 2012 in our study.

Great Recession

As noted above, we did not remove data related to the Great Recession. We are not yet seeing the residual effects of the Great Recession in the termination rate experience like we saw in other assumptions. We expect this is due to normal budget cycles in government, which take time to react to market conditions. It is also possible that a depressed economy encourages members to continue working longer than they might otherwise, and this could be offsetting any downsizing one might expect during a recession.

Law Changes

Since the last study, no law changes have impacted the termination rate assumption.

General Methodology

For each system, we summarized data from the studied time period by service level. Additionally, we summarized the data by gender for all systems except for LEOFF and WSPRS.

The number of active members not eligible for retirement was the basis for determining the members we assume eligible to terminate.

The number of counted terminations at each service level equals the terminated members minus the members who were rehired back to active service.

[3] For example, in 2007 the Legislature changed the valuation dates to match the fiscal year. The valuation dates changed from September 30 to June 30 of each year. The 2007 valuation had a nine-month valuation cycle for all systems.

The actual termination rate at each service level equals the number of counted terminations divided by the number of active members not eligible for retirement.

We relied on actual termination rates as the foundation for our new termination rates, but we also considered future expectations and applied our professional judgment.

Unlike several other decrements we studied, we did not remove any data related to the Great Recession. We did, however, remove some data as described in the Data section.

Results

All-Plan Summary

Generally, we made modest changes to the termination rates. The Actual-to-Expected (A/E) ratios for all systems moved closer to 100 percent. For all systems, except the TRS and WSPRS, we expect fewer terminations than expected under the Old assumptions.

Summary of A/E Ratios				
	Male		Female	
	Under Old Assumptions	Under New Assumptions	Under Old Assumptions	Under New Assumptions
PERS	97%	98%	97%	98%
TRS	105%	101%	106%	101%
SERS	96%	98%	103%	103%
LEOFF*	93%	98%	93%	98%
WSPRS*	111%	105%	111%	105%

*LEOFF and WSPRS have unisex termination rates.

We do not have enough data to create a termination rates assumption based purely on PSERS data. Our first year of PSERS data is 2007. We would only have four years of PSERS termination data based on our counting approach (2007-2010). Please see **PSERS** for more details.

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