THREE: APPENDICES

Percent Male/Female

What is the Percent Male/Female Assumption and How Do We Use it?

The Percent Male/Female assumption is used to assign a default gender for valuation data records that contain missing gender information. Many of our demographic assumptions, such as mortality, vary by gender. Thus, our valuation requires each plan member be assigned a gender in order to apply the current structure of our assumptions that vary by gender.

High Level Takeaways

We study the Percent Male/Female assumption by system. Our current assumption for each system continues to model the plan demographic data well and is reasonable, so we made no change to our current assumption.

Data

We used active record data from the 1984-2017 valuations to develop this assumption. No special data was added, and no data was excluded.

General Methodology

To develop this assumption, we calculate the ratio of male to female active members by system and round the results to a multiple of ten percent.

Law Changes

Under WAC 246-490-075 and effective January 27, 2018, individuals born in Washington State can change their sex designation to "gender X", which is a gender that is not exclusively male or female. We did not account for gender X when setting our assumption due to a lack of gender X observations, and due to an inability of our valuation software to account for this third gender option properly. Any individual in our valuation data who identifies as gender X will be defaulted to a gender of either male or female based on their respective system's Percent Male/Female assumption. We plan to revisit our approach to gender X data in our next Demographic Experience Study.

Analysis and Results

We did not change the Percent Male/Female assumption for any system since the current assumptions remain reasonable. The following table summarizes these assumptions.

Percent Male/Female Assumptions		
System	Percent Male	Percent Female
PERS	50%	50%
TRS	30%	70%
SERS	20%	80%
PSERS	70%	30%
LEOFF	90%	10%
WSPRS	90%	10%

MISCELLANEOUS ASSUMPTIONS *continued*

Below are some of the system and plan-specific observations we made while studying this assumption.

❖ The Percent Male in both PERS 1 and TRS 1 has been decreasing over the past few decades, while the Percent Male in LEOFF 1 has remained steady at nearly 100 percent. However, since the Plans 1 are closed plans with small and declining active populations, we do not believe they merit their own plan-specific assumptions.

❖ Historical data for the PERS, TRS, and SERS Plans 3 does not exist for the entire study period dating back to 1984, since the Plans 3 were introduced in the late 1990s and early 2000s. However, the existing data for the Plans 3 models the same Percent Male/Female trends as their respective system's Plans 2.

❖ Likewise, historical data for WSPRS Plan 2 does not exist for the entire study period, since the plan was introduced in 2003. However, the existing data for WSPRS Plan 2 models the same Percent Male/Female trends as WSPRS Plan 1.

❖ SERS opened in 2000, but its membership consists of employees in school and educational service districts who would have been in PERS 2 prior to 2000. This allowed us to track SERS data for the entire study period.

❖ PSERS opened in 2006, and we do not have data for the entire study period. The data that we do have has shown that PSERS male membership has increased from approximately 65 percent in 2006 to approximately 75 percent in 2009. Male membership then remained stable from 2009 to 2017. We expect that female membership may increase in the future, so we maintained the current PSERS Percent Male assumption at 70 percent.