

Preliminary Demographic Experience Study Results

Lisa A. Won, ASA, FCA, MAAA
Deputy State Actuary

Presentation to: LEOFF Plan 2 Retirement Board



Today's Presentation

- Preview of preliminary results from our current demographic experience study
- No action required at today's meeting



What Is An Experience Study?

- Review of current assumptions
 - How do they compare with actual experience?
 - Do they need to change?
- Assumptions help us estimate
 - When benefits are paid
 - How much is paid
 - How long they're paid
- Those estimates inform contribution rate and funded status calculations

How Often Do We Perform Them?

- Economic experience studies
 - Performed every two years
 - Last performed in 2017
- Demographic experience studies
 - Performed at least once every six years
 - Last performed in 2014



Why Do We Perform Them?

- Things change
- Ensure assumptions remain reasonable
 - Reasonable assumptions contribute to reasonable funding
- Important part of systematic actuarial funding
- Risk management

How Do We Perform Them?

- They're data driven
 - Over 20 years of experience in some cases
- They also involve professional judgment
 - Past not always the best predictor of future
- Because they involve professional judgment and expertise
 - You hire an actuary to perform studies and certify work
 - You hire an outside actuary to review reasonableness



Why Are The Results Preliminary?

- The study is still in progress
- We don't expect to complete the work until 2019
- The work will be reviewed by an outside actuary hired by the PFC and the results may change

When Will The New Assumptions Impact Contribution Rates?

- The new assumptions will first impact contribution rates calculated and adopted in 2020
- Rates adopted in 2020 will be collected during 2021-23



What Have We Studied Thus Far?

Mortality

Retirement

Termination

Disability

Definitions

Mortality

- ❖ Estimate how long members will live and receive pension

Retirement

- ❖ Estimate when members will retire and begin receiving pension

Termination

- ❖ Estimate when members exit the system (i.e., quit, get fired, change systems, etc.) and either withdraw from the system or collect a deferred pension when eligible

Disability

- ❖ Estimate when members experience a disability and elect to receive a disability pension benefit

A Quick Technical Note

- We model the payment of a member's Defined Benefit (DB)
- A Plan 3 member that retires or experiences a disability may elect to retire from the Defined Contribution portion of Plan 3 and defer commencement of their DB pension
- If they decide to defer commencement of their DB, they are considered to terminate under our valuation model

What Have We Observed Thus Far?

- Members are continuing to live longer, but at a slightly lower annual rate of improvement than expected
- Members are continuing to defer retirement
 - Especially at ages prior to normal retirement for PERS/TRS/SERS
- We continue to see lower rates of disability than expected
- Differences in plan design are beginning to drive different behavior
 - Later retirement and higher termination rates in Plan 3 than Plan 2
 - Higher rates of disability in Plan 2 than Plan 3
- Material percentage of PERS/TRS/SERS Plan 2 and Plan 3 members that are eligible to retire leave employment (terminate) and defer commencement of their pension

Planned Assumption Updates

- Lower the annual rate of projected mortality improvement by about 0.2%/0.5% at most post-retirement ages for females/males
- Move rates of retirement, termination and disability closer to observed experience
- Establish separate rates of retirement, termination and disability for Plan 2 and Plan 3
- Establish new rates of termination for members eligible to retire in PERS/TRS/SERS/PSERS



What's The Expected Impact Of These Updates?

- Not yet determined
- Work still in progress, subject to future audit and change
- However, we expect the impacts to be much smaller than the last demographic experience study

Next Steps For The Study

Study new national public plan mortality tables when finalized

Study service-based salary increase assumptions

Complete the study of other miscellaneous demographic assumptions

Work with outside actuary to complete audit of our work

Finalize study, contribution rate and budget impacts

Questions?

