

Law Enforcement Officers' and Firefighters' Plan 2 Retirement Board Meeting - August 23, 2006

Concurrent Audit of Actuarial Valuations Used for Rate-Setting Purposes for 2007-2009 Biennium

Presenters

- Marilyn Oliver FSA, MAAA, EA
 - Manager of Audit
 - Principal and Actuary, Oliver Consulting
- John Bartel ASA, MAAA, EA
 - Peer Review
 - President, Bartel Associates, LLC

Actuarial Audit Process

Items Reviewed

Actuarial Liabilities and Present Values

- Office of the State Actuary (OSA) member data checking and editing processes
- OSA pre-processing of member data received from Department of Retirement Services (DRS)
- Calculation of liabilities and present values for actives and retirees for all plans by recalculating using Oliver Consulting computer programs and working with OSA staff to resolve any differences that exceed reasonable tolerance levels
- Test cases from OSA computer programs

Actuarial Assets

- Derivation of Market Value of Assets from information supplied by SIB, DRS, and Treasury
- Derivation of Actuarial Value of Assets

Actuarial Methods and Techniques

- Conformance with pension funding statutes
- Conformance with Actuarial Standards of Practice
- Conformance with actuarial theory

Member, Employer, and State Contribution Rates

- Application of actuarial formulas
- Check of contribution rate worksheets
- Analysis of sources of change in contribution rates since prior statutory valuation (9/30/2003)

Items Not Reviewed

- Actuarial assumptions set in 1995-2000 experience study and reviewed during 2002 actuarial audit
- Tests other than general reasonability of demographic data supplied by DRS
- Audit of fund data supplied by SIB, DRS, and Treasury

Peer Review

- General purpose of peer review
- Team approach
- Items included in peer review:
 - Completeness of audit process
 - Audit should encompass all items having significant impact on contribution rates and within the scope of an actuarial review
 - Includes all actuarial formulas, methods and calculations
 - Resource during course of audit
 - Current and emerging actuarial practices
 - Materiality in an actuarial sense
 - Second set of eyes
 - Reviews of actuarial formulas and techniques

Changes Since Last Statutory Valuation (9/30/2003)

Software conversion:

- Change in software system used to calculate liabilities and present values.
- Adopted method and technique changes to conform to new software system and simplify procedures.
- We have allocated particular attention to the software review portion of audit.

Contribution rate formulas:

- Simplified procedure for calculating normal cost.
- We agree that the new method is reasonable and conforms to the statutes.

Probabilities of Disablement and other Assumptions Revised due to Changes in Benefits

- We agree that the revised assumptions are appropriate.

Mortality Assumptions:

- Contribution rates increased to reflect recognition of future mortality improvement.
- In line with current trends in practice, presents a picture of the systems' liabilities that is more accurate because it recognizes the likelihood of future mortality improvement.
- Benefit administration ramifications in terms of calculation of actuarial equivalence factors.
- Generally changes of this nature addressed when mortality assumptions reviewed in an experience study, so that mortality rates addressed as a whole – but not inappropriate to implement independently.

Phase-in of contribution rates:

- Member and employer contribution rates increased to finish the phase-in of rate increases during 2007-2009 biennium.
- We agree that the new rates have been accurately adjusted to reflect these items.

Current Status of Audit

- Completed with the exception of final stages of computer program reconciliation process, review of final contribution rates and review of analysis of changes in contribution rates.
- Anticipate completion of audit and report in time for review by the Law Enforcement Officers' and Firefighters' Plan 2 Retirement Board Meeting on September 13.