

# LAW ENFORCEMENT OFFICERS' AND FIRE FIGHTERS' PLAN 2 RETIREMENT BOARD

## Projected Improvements in Mortality Assumptions Preliminary Report

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### 1. Issue

Adopting actuarial assumptions that include recommended projected improvements in life expectancy will increase plan costs.

### 2. Staff

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### 3. Members Impacted

As of September 30, 2006 there were 15,718 active members and 779 retirees as reported in The Office of the State Actuary's 2006 *LEOFF Plan 2 Actuarial Valuation Report*. Changes in actuarial assumptions and/or methodology that affect contribution rates would impact all LEOFF Plan 2 members, as well as all LEOFF Plan 2 employers and the State.

### 4. Current Situation

The powers and duties of the Washington State Law Enforcement Officers' and Fire Fighters' (LEOFF) Plan 2 Retirement Board include the requirement that the Board shall adopt actuarial tables, assumptions and cost methodologies in consultation with an enrolled actuary retained by the Board [RCW 41.26.720].

The preliminary results of the 2001-2006 Actuarial Experience Study are now being presented to the Board. The State Actuary will recommend new actuarial tables, assumptions and cost methodologies to the Board as a result of the Experience Study. The recommendations from the State Actuary will include projected improvements in life expectancy.

## 5. Background Information and Policy Issues

### Projected Improvements in Life Expectancy

In 1994, the Society of Actuaries adopted an updated life expectancy table (UP94) for use by actuaries in calculating plan liabilities. Concern over setting up adequate reserves for insurance companies also led the Society to create the Group Annuity Reserving Table in 1994, which incorporated projected future improvements in life expectancy known as “**Scale AA.**” Insurers are required to use this mortality table for minimum reserve calculations for group annuities in a majority of the States.

The UP94 report produced by the Society of Actuaries strongly encouraged actuaries for public pension plans to incorporate the Scale AA projected improvements in life expectancy into calculations of plan liabilities. Scale AA is based on mortality improvement trends among Civil Service Retirement System and Social Security participants between 1977 and 1993. It is the most current mortality improvement table produced by the Society of Actuaries.

The recognition of future increases in life expectancy is consistent with current standards of actuarial practice. Since 1994, Scale AA projected improvements in life expectancy have been utilized by some public plans in the United States. The Oklahoma Teachers’ Retirement System utilizes full Scale AA projections. The Massachusetts Public Employees’ Retirement Plan utilized Scale AA in 2000 to project assumptions forward ten years to 2010. Other plans, such as the California State Teachers’ Retirement System incorporate some kind of adjustment for projected improvements in life expectancy but do not specifically use Scale AA. The majority of public pension plans in the United States, including all the public pension plans in Washington State, have not yet incorporated Scale AA into their liability calculations, and its use is not required by the standards of practice for Society of Actuaries. However, Actuarial Standard of Practice No. 35, (Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations) indicates the following:

- “Mortality Assumption---The actuary should consider factors such as the following:
- a. ....
  - b. the likelihood and extent of mortality improvement in the future;”

Life expectancies have continued to improve since 1994 but at roughly 50% of the rate that was projected in Scale AA. The preliminary 2005 Actuarial Valuation for LEOFF Plan 2 presented to the Board in August 2006 by the Office of the State Actuary incorporated 50% of the Scale AA projected improvements in life expectancy into the calculations of plan liabilities. Neither the changes in life expectancy assumptions nor the changes in methodology were adopted by the Board at that time. The Board chose to study the issue and make any necessary changes concurrent with the changes that will result from the 2001-06 Actuarial Experience Study.

The net effect of incorporating projected future increases in life expectancy into actuarial mortality assumptions would be an increase in plan liabilities. The exact amount of this increase and the corresponding required increase in contribution rates for members, employers and the State will be determined by the State Actuary concurrent with any recommended changes to mortality assumptions.