
Annuity Purchase Final Proposal

Washington State Law Enforcement
Officers' and Fire Fighters Plan 2
Retirement Board

December 13, 2006

Background Summary

- Service Credit Purchase Legislation
- Annuity from pension trust fund now available
- Conversion of defined contribution assets into defined benefit
- Federal legislation liberalized rules for transfer of funds

Key Issues

- Defined contribution assets can be used to purchase increased defined benefits
- Service Credit Purchase limits the defined contribution assets that can be converted to defined benefits
- May have defined contribution assets in excess of the limit to convert to defined benefits

Proposal Summary

- Permit LEOFF Plan 2 retirees to purchase an actuarially equivalent life annuity from the LEOFF Plan 2 retirement fund.
- Cost insufficient to increase contribution rates

Annuity Purchase

Questions?

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

Annuity Purchase

Final Proposal

December 13, 2006

1. Issue

Federal law provides that defined contribution assets can be used to purchase increased defined benefits through enhancements, such as service credit purchase or annuity purchase. The current service credit purchase provisions in LEOFF Plan 2 limit the amount of additional defined benefits that may be purchased. Members may have defined contribution assets in excess of the limit, which they want to convert to defined benefits.

2. Proposal Summary

Permit LEOFF Plan 2 retirees to purchase an actuarially equivalent life annuity from the LEOFF Plan 2 retirement fund.

3. Staff

Tim Valencia, Sr. Research and Policy Manager
(360) 586-2326
tim.valencia@leoff.wa.gov

4. Members Impacted

Purchase of annuity could affect any active LEOFF Plan 2 member. As of September 30, 2005 there were 15,168 active members and 574 retirees as reported in the draft results of The Office of the State Actuary's *2005 LEOFF Plan 2 Actuarial Valuation Report*.

5. Current Situation

A vested member of LEOFF Plan 2 may retire with an unreduced defined benefit at age 53. At retirement in Plan 2, a member receives 2 percent of the member's final average salary for each year of credited service. A member of LEOFF Plan 2 may apply for early retirement after 20 years of credited service beginning at age 50. A member who applies for early retirement has his or her benefit reduced instead, by 3 percent per year for the amount of time they retire, prior to age 53. A member may purchase up to 5 years of service credit at the time of normal retirement or early retirement. The member must pay the actuarial cost of the additional service credit.

6. Background Information

Under traditional defined benefit plans, retirees receive an automatic and definite level of lifetime payouts based on a fixed accrual formula, regardless of financial market conditions. By contrast, most defined contribution plan participants are left to figure out a distribution strategy on their own, and they continue to be vulnerable to the ups and downs of financial markets in their retirement years. Research shows that one of the most effective ways to reduce the risk of outliving assets is by converting at least some of those assets to an annuity.

Brief History

The LEOFF Plan 2 Retirement Board studied both the Purchase of Service Credit and Purchase of Annuity during the 2004 Interim. Of these two concepts, the Board recommended legislation providing the option to purchase up to 5 years of service credit at the time of retirement. The legislation was passed by the 2005 Legislature (HB 1269). Although annuities were not available from the trust fund in 2004 when this issue was first studied by the Board, annuities have since become available from the trust fund and have been defined by the Department of Retirement Systems.

Federal Law

Changes in federal law have liberalized the rules on the transfer of funds between tax-deferred accounts, including government defined benefit pension plans like LEOFF Plan 2, and deferred compensation accounts such as 457, 403(b), and 401(k) plans. Many state and local government pension plans have subsequently provided the opportunity for members to transfer funds, including funds from tax-deferred accounts, into these plans to add value to a member's defined benefit through the purchase of additional service credit or the purchase of an annuity.

Members of LEOFF Plan 2 generally have the opportunity to participate in deferred compensation plans. These plans permit an individual to place a portion of salary into a special account prior to payroll tax reductions. The Department of Retirement Systems (DRS) operates a deferred compensation program consistent with the federal tax requirements of 26 United States Code section 457, commonly called a "457 Plan", in which employees of the state, counties, municipalities and other political subdivisions may participate. Some employers may also participate in other 457 plans or deferred compensation-type plans commonly referred to as "403(b)" or "401(k)" plans.

The Pension Protection Act of 2006 affirmed the purchase of up to 5 years of service credit or "air-time" as permissible under the definition of service credit and made permanent the rules allowing the transfer of funds between the various plan types as described above.

Annuities

At a basic level, annuity contracts are offered by organizations which take a current lump-sum amount of money and pay it out over a period of years. These contracts are regulated by various jurisdictions. Annuities have been in existence for well over two hundred years. The very first mention of Annuities in the United States was the use of these products by the Presbyterian Church in 1740 to provide security for the clergy and widows. Annuities provide the ability to accumulate tax-deferred funds for retirement and then receive a guaranteed income (this process is called Annuitization) payable for life or for a specified period of time.

The specific terms of an annuity will determine how much a person will receive as a stream of guaranteed income in exchange for the lump-sum dollar amount paid up front. There are several different features that may be available with an annuity which affect the price/value of the annuity. The terms and conditions of an annuity contract will specify features such as, whether the annuity will be for a single life or a joint annuity (like a survivor benefit feature), the payment frequency, adjustments for cost of living, and death provisions.

Annuity Purchase Examples in Washington

Some Washington State pension plans currently have provisions that allow the purchase of an annuity:

- RCW 41.50.088 provides members and survivors in the Teachers' Retirement System (TRS) Plan 3, the School Employees' Retirement System (SERS) Plan 3, and the Public Employees' Retirement System (PERS) Plan 3 optional actuarially equivalent life annuity benefit payment schedules that may be purchased from the combined plan 2 and plan 3 funds under RCW 41.50.075.
- RCW 41.32.067 provides Teachers' Retirement System (TRS) Plan 1, Plan 2 and Plan 3 members the ability to purchase additional benefits in the form of an annuity, by making a member reserve contribution which is actuarially converted to a monthly benefit at the time of retirement.

Plan 3 Annuity

A member of Teachers' Retirement System (TRS) Plan 3, the School Employees' Retirement System (SERS) Plan 3, and the Public Employees' Retirement System (PERS) Plan 3 may use funds from their Plan 3 Defined Contribution account to purchase a life annuity. A life annuity is a contract that provides a guaranteed income for the rest of a member's life in exchange for a lump-sum dollar amount that is paid up front. The contract specifies the amount paid to purchase the annuity, the benefit amount the member receives each month, and any other terms and conditions. Prior to 2005, a member could only purchase an annuity contract from an insurance company using defined contribution funds invested in the Self-Directed Investment Program.

Beginning July 1, 2005 Plan 3 members were provided with the opportunity to purchase an annuity directly from the pension trust fund using funds invested in the Washington State Investment Board Investment Program (WSIB). The WSIB annuity option is administered by the State of Washington. As defined by the Department of Retirement Systems, the WSIB annuity has several features and options as described in the following table.

| WSIB Investment Program Annuity Features and Options | |
|---|--|
| Contract Provider | Washington State |
| Minimum Purchase Price | \$25,000 |
| Annuity Payment Frequency | Monthly |
| Rescission Period | 15 calendar days from date of purchase |
| Single Life Annuity | <ul style="list-style-type: none"> • Provides regular payment for as long as annuitant lives. • Automatic 3% Annual Cost of Living Adjustment (COLA) • Conversion option to Joint Life Annuity • Balance Refund |
| Joint Life Annuity | <ul style="list-style-type: none"> • Provides regular payment for as long as member or joint annuitant is alive. • Joint annuitant survivorship options: 100%, 66 2/3%, or 50% • Automatic 3% Annual COLA • Monthly payment pops-up to Single Life Annuity amount if joint annuitant predeceases member. • Balance Refund |
| <p>Annuitant – The member/owner who purchases the annuity; the payee who receives lifetime monthly payments.</p> <p>Balance Refund – Any remaining balance equal to the original purchase price minus the total of all annuity payments made to the single or joint annuitants, may be refunded to the specified beneficiary.</p> <p>Conversion Option – If a single life annuity is purchased and then a subsequent marriage occurs, a one-time opportunity is available to convert to a joint life annuity with the new spouse as the joint annuitant. If a joint annuity is purchased with someone other than a spouse named as the joint annuitant, the annuity may be converted to a single life annuity after payments have begun.</p> <p>Joint Annuitant – The person designated to receive an ongoing payment in the event of the annuitant’s death.</p> <p>Pop-up – An increase from a joint annuity payment amount to the full single life annuity amount if the annuitant outlives the joint annuitant.</p> <p>Rescission Period – A period of time (typically 7 to 15 days) during which the terms of the contract may be canceled or altered</p> | |

Source: Plan 3 Annuity Guide published by Department of Retirement Systems.

Service Credit Purchase

The Legislature passed the service credit purchase benefit during the 2005 Session. This benefit provides LEOFF Plan 2 members the opportunity to purchase up to five years of additional service credit at the time of retirement. The cost of the additional service credit is the actuarial equivalent value of the resulting increase in the member's benefit. A member may pay all or part of the cost of the additional service credit with an eligible transfer from a qualified retirement plan.

Since the inception of the benefit, six service credit purchase billings have been requested from the Department of Retirement Systems and three have been paid in full. Five of the six billings were to purchase the maximum of 60 months of service credit; one billing requested to purchase 30 months of service credit. The average cost of all six billings was \$106,852. The average benefit increase from the six billings was \$620 per month.

| Months Purchased | Status | Benefit Increase | Cost | Age at Retirement |
|------------------|--------|------------------|--------------|-------------------|
| 60 | Paid | \$586.12 | \$100,961.17 | 54 |
| 60 | Paid | \$662.43 | \$109,852.08 | 56 |
| 60 | | \$789.39 | \$122,791.54 | 59 |
| 60 | | \$687.74 | \$138,952.01 | 50 |
| 60 | | \$689.26 | \$117,195.88 | 62 |
| 30 | Paid | \$309.73 | \$51,363.14 | 56 |

Below is an example calculation for the purchase of five years of service credit by an average LEOFF Plan 2 retiree. At the time of retirement, an average LEOFF Plan 2 retiree is age 56, has 17 years of service, and had a monthly final average salary of \$5,000.

Service Credit Purchase Calculation

1. Calculate Base Benefit:

$$2\% \times 17 \text{ YOS} \times \$5,000 = \$1,700 \text{ per month}$$

2. Calculate Benefit With Additional 5 Years Of Service Credit:

$$2\% \times 22 \text{ YOS} \times \$5,000 = \$2,200 \text{ per month}$$

3. Calculate Increase in Monthly Benefit from Additional Service Credit:

$$\$2,200 - \$1,700 = \$500 \text{ increase per month}$$

4. Calculate Service Credit Purchase Cost:

$$\$500 \div 0.0060302^1 = \$82,916$$

¹ The factor for the "Monthly benefit per \$1.00 of accumulation for defined benefit plans" for an age 56 LEOFF Plan 2 member as found in WAC 415-02-340.

Trust Fund Annuity Purchase

An annuity purchase calculation is similar to the service credit purchase calculation in that the Department of Retirement uses the same actuarial factors for computing the monthly benefit per \$1.00 of accumulation for defined benefits. A key difference between an annuity purchase and a service credit purchase is that the annuity purchase does not limit the lump sum amount that can be converted to a defined benefit. The service credit purchase is limited to converting only up to the amount that would purchase the maximum of five years of service.

In the service credit example above, the retiree would be limited to converting \$82,916 into defined benefit payments. An annuity purchase from the trust fund would not have the same constraint and would allow a member to roll-in all assets held from a deferred compensation account or other qualified account. For example, if the average retiree above had \$100,000 in a deferred compensation account, the entire amount could be converted into defined benefits through an annuity purchase.

Annuity Purchase Calculation

1. Calculate Base Benefit:

$$2\% \times 17 \text{ YOS} \times \$5,000 = \$1,700 \text{ per month}$$

2. Calculate Benefit Increase from a \$100,000 Annuity Purchase:

$$\$100,000 \times 0.0060302 = \$603.02 \text{ increase per month}$$

3. Calculate New Benefit (Base Benefit *plus* Annuity):

$$\$1,700 + \$603.02 = \$2,303.02 \text{ per month}$$

Commercial Market Annuity

Annuities can be purchased through insurance agents, financial planners, banks and life insurance carriers. However, only life insurance companies issue policies. Products developed by life insurance companies are often marketed through banks and stock brokerage firms.

Generally, commercial market annuities are not available with the same features available on a trust fund annuity and do not provide as favorable annuity payment amounts. Quotes were obtained from five different insurance companies based on an average LEOFF Plan 2 retiree. The annuity quote was based on \$100,000 annuity purchase, included a 3% COLA, and had a monthly payment frequency. The income quotes were as follows:

| Insurance Company | Quote |
|--------------------------|--------------|
| American General | \$389 |
| Aviva | \$402 |
| Fidelity & Guaranty Life | \$421 |
| Genworth Life Insurance | \$406 |
| Integrity Life Insurance | \$400 |

7. Policy Options

Policy Option 1: Purchase of Annuity

A member, or survivor of a member who applies for retirement benefits from LEOFF Plan 2 may, at the time of application purchase an actuarially equivalent life annuity from the LEOFF Plan 2 retirement fund. The member may pay all or part of the cost of the annuity purchase with an eligible transfer from a qualified retirement plan. This option is actuarially neutral and would not increase the cost of the plan.

8. Supporting Information

- RCW 41.50.088
- RCW 41.32.067
- WAC 415-02-340
- Draft Bill Z-0314.1 - Attached

RCW 41.50.088

Employee retirement benefits board -- Duties.

(1) The board shall adopt rules as necessary and exercise the following powers and duties:

(a) The board shall recommend to the state investment board types of options for member self-directed investment in the teachers' retirement system plan 3, the school employees' retirement system plan 3, and the public employees' retirement system plan 3 as deemed by the board to be reflective of the members' preferences;

(b) By July 1, 2005, the board shall make optional actuarially equivalent life annuity benefit payment schedules available to members and survivors that may be purchased from the combined plan 2 and plan 3 funds under RCW 41.50.075; and

(c) Determination of the basis for administrative charges to the self-directed investment fund to offset self-directed account expenses;

(2) The board shall recommend to the state investment board types of options for participant self-directed investment in the state deferred compensation plan, as deemed by the board to be reflective of the participants' preferences.

[2000 c 247 § 602. Prior: 1998 c 341 § 507; 1998 c 116 § 10; 1995 c 239 § 302.]

NOTES:

Effective dates -- Subchapter headings not law -- 2000 c 247: See RCW 41.40.931 and 41.40.932.

Effective date -- 1998 c 341: See note following RCW 41.34.060.

Intent -- Purpose -- 1995 c 239: See note following RCW 41.32.831.

Effective date -- Part and subchapter headings not law -- 1995 c 239: See notes following RCW 41.32.005.

Benefits not contractual right until date specified: RCW 41.34.100.

RCW 41.32.067

Purchase of additional benefits -- Conditions.

A member may purchase additional benefits subject to the following:

- (1) The member shall pay all reasonable administrative and clerical costs; and
- (2) The member shall make a member reserve contribution to be actuarially converted to a monthly benefit at the time of retirement.

[1992 c 212 § 13; 1991 c 278 § 2.]

WAC 415-02-340

Monthly benefit per \$1.00 of accumulation for defined benefit plans.

(1) How does the department use the information in the table called "monthly benefit per \$1.00 of accumulation for defined benefit plans"? The department uses this information to:

- (a) Determine what a future lifetime monthly benefit is worth in present-day dollars;
 - (b) Determine the equivalent value of a lump sum when compared with monthly payments;
- and

(c) Reduce the monthly retirement benefit in TRS Plan 1 if you take a lump sum cash out for some or all of your funds.²

(2) What type of information is in this table? The information in this table reflects the expected duration of lifetime payments for recipients over a range of ages. These values differ by system and plan, and all reflect an assumed rate of return of 8.0%.³

(3) Examples

(a) Example (a):

Celina is a 65-year-old PERS Plan 2 member who is eligible to receive \$45.00 per month. She wants to know how much money she could receive if she accepted a lump sum payment instead. Celina looks at the row in the table for age 65 in the PERS Plan 2 column and learns that \$0.0072458 per month for life is equivalent to one dollar in cash for this system, plan, and age class. Celina divides \$45.00 by 0.0072458 and learns that her lump sum payment would be \$6,210.49.

(b) Example (b):

Fred is a 58-year-old TRS Plan 1 member. The balance in Fred's account is \$124,934.00. Upon retirement, Fred chooses to withdraw the \$124,934.00 (as only members of TRS Plan 1 can do). From the row in the table for age 58 in the TRS Plan 1 column, Fred learns that \$0.0077573 per month for life is the equivalent to one dollar in cash for this system, plan, and age class. Fred multiplies the lump sum cash-out amount of \$124,934.00 by 0.0077573, and learns that his monthly retirement will be reduced by \$969.15 per month because of the lump sum cash out made at retirement.

(4) Table - Monthly benefit per \$1.00 of accumulation for defined benefit plans:

Based on the 1995-2000 actuarial experience study monthly benefit per \$1.00 of accumulation defined benefit (DB) single life pension:

| Age | LEOFF 1 | LEOFF 2 | PERS 1 | PERS 2/3 | SERS 2/3 | TRS 1 | TRS 2/3 | WSPRS 2 |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 20 | 0.0039835 | 0.0043310 | 0.0065444 | 0.0043102 | 0.0042786 | 0.0065267 | 0.0042774 | 0.0043319 |
| 21 | 0.0039997 | 0.0043459 | 0.0065518 | 0.0043243 | 0.0042911 | 0.0065329 | 0.0042897 | 0.0043469 |
| 22 | 0.0040168 | 0.0043615 | 0.0065598 | 0.0043390 | 0.0043042 | 0.0065396 | 0.0043027 | 0.0043626 |
| 23 | 0.0040347 | 0.0043780 | 0.0065684 | 0.0043546 | 0.0043181 | 0.0065468 | 0.0043165 | 0.0043791 |
| 24 | 0.0040535 | 0.0043955 | 0.0065778 | 0.0043710 | 0.0043327 | 0.0065546 | 0.0043309 | 0.0043966 |
| 25 | 0.0040734 | 0.0044139 | 0.0065878 | 0.0043884 | 0.0043481 | 0.0065630 | 0.0043462 | 0.0044150 |
| 26 | 0.0040943 | 0.0044333 | 0.0065987 | 0.0044067 | 0.0043644 | 0.0065720 | 0.0043622 | 0.0044346 |

² This option is only available in TRS Plan 1.

³ The younger a person is, the longer the anticipated lifetime of payments would be, and the greater the sum required to provide for these payments. Put another way, the amount of monthly lifetime benefit that a present-day dollar buys goes up as the remaining life expectancy of the recipient goes down.

| Age | LEOFF 1 | LEOFF 2 | PERS 1 | PERS 2/3 | SERS 2/3 | TRS 1 | TRS 2/3 | WSPRS 2 |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 27 | 0.0041163 | 0.0044539 | 0.0066105 | 0.0044261 | 0.0043816 | 0.0065818 | 0.0043792 | 0.0044552 |
| 28 | 0.0041396 | 0.0044757 | 0.0066232 | 0.0044466 | 0.0043997 | 0.0065924 | 0.0043971 | 0.0044771 |
| 29 | 0.0041641 | 0.0044988 | 0.0066370 | 0.0044682 | 0.0044189 | 0.0066038 | 0.0044161 | 0.0045002 |
| 30 | 0.0041899 | 0.0045231 | 0.0066517 | 0.0044911 | 0.0044391 | 0.0066162 | 0.0044361 | 0.0045246 |
| 31 | 0.0042171 | 0.0045488 | 0.0066676 | 0.0045152 | 0.0044605 | 0.0066295 | 0.0044572 | 0.0045503 |
| 32 | 0.0042456 | 0.0045758 | 0.0066845 | 0.0045405 | 0.0044830 | 0.0066438 | 0.0044795 | 0.0045774 |
| 33 | 0.0042755 | 0.0046042 | 0.0067025 | 0.0045672 | 0.0045067 | 0.0066592 | 0.0045031 | 0.0046059 |
| 34 | 0.0043069 | 0.0046340 | 0.0067217 | 0.0045952 | 0.0045316 | 0.0066756 | 0.0045278 | 0.0046358 |
| 35 | 0.0043398 | 0.0046654 | 0.0067421 | 0.0046247 | 0.0045578 | 0.0066930 | 0.0045539 | 0.0046672 |
| 36 | 0.0043745 | 0.0046984 | 0.0067639 | 0.0046558 | 0.0045854 | 0.0067116 | 0.0045812 | 0.0047004 |
| 37 | 0.0044109 | 0.0047333 | 0.0067873 | 0.0046886 | 0.0046145 | 0.0067315 | 0.0046101 | 0.0047353 |
| 38 | 0.0044494 | 0.0047701 | 0.0068123 | 0.0047233 | 0.0046452 | 0.0067527 | 0.0046404 | 0.0047723 |
| 39 | 0.0044900 | 0.0048091 | 0.0068393 | 0.0047600 | 0.0046777 | 0.0067754 | 0.0046725 | 0.0048114 |
| 40 | 0.0045330 | 0.0048505 | 0.0068682 | 0.0047988 | 0.0047120 | 0.0067998 | 0.0047065 | 0.0048529 |
| 41 | 0.0045784 | 0.0048944 | 0.0068994 | 0.0048400 | 0.0047483 | 0.0068261 | 0.0047423 | 0.0048969 |
| 42 | 0.0046266 | 0.0049409 | 0.0069329 | 0.0048837 | 0.0047868 | 0.0068543 | 0.0047803 | 0.0049436 |
| 43 | 0.0046777 | 0.0049904 | 0.0069690 | 0.0049300 | 0.0048275 | 0.0068846 | 0.0048206 | 0.0049932 |
| 44 | 0.0047319 | 0.0050430 | 0.0070078 | 0.0049791 | 0.0048706 | 0.0069172 | 0.0048632 | 0.0050460 |
| 45 | 0.0047894 | 0.0050989 | 0.0070495 | 0.0050312 | 0.0049163 | 0.0069523 | 0.0049084 | 0.0051021 |
| 46 | 0.0048504 | 0.0051584 | 0.0070945 | 0.0050866 | 0.0049647 | 0.0069900 | 0.0049562 | 0.0051617 |
| 47 | 0.0049153 | 0.0052218 | 0.0071429 | 0.0051455 | 0.0050161 | 0.0070305 | 0.0050070 | 0.0052253 |
| 48 | 0.0049844 | 0.0052894 | 0.0071953 | 0.0052082 | 0.0050707 | 0.0070740 | 0.0050609 | 0.0052932 |
| 49 | 0.0050581 | 0.0053617 | 0.0072519 | 0.0052752 | 0.0051287 | 0.0071210 | 0.0051183 | 0.0053657 |
| 50 | 0.0051368 | 0.0054390 | 0.0073132 | 0.0053466 | 0.0051905 | 0.0071717 | 0.0051793 | 0.0054432 |
| 51 | 0.0052210 | 0.0055218 | 0.0073796 | 0.0054231 | 0.0052564 | 0.0072265 | 0.0052444 | 0.0055264 |
| 52 | 0.0053104 | 0.0056098 | 0.0074510 | 0.0055044 | 0.0053265 | 0.0072858 | 0.0053139 | 0.0056147 |
| 53 | 0.0054060 | 0.0057042 | 0.0075283 | 0.0055914 | 0.0054014 | 0.0073500 | 0.0053881 | 0.0057094 |
| 54 | 0.0055084 | 0.0058054 | 0.0076121 | 0.0056846 | 0.0054813 | 0.0074191 | 0.0054671 | 0.0058110 |
| 55 | 0.0056182 | 0.0059141 | 0.0077029 | 0.0057845 | 0.0055668 | 0.0074939 | 0.0055515 | 0.0059201 |
| 56 | 0.0057354 | 0.0060302 | 0.0078008 | 0.0058912 | 0.0056581 | 0.0075749 | 0.0056420 | 0.0060367 |
| 57 | 0.0058601 | 0.0061539 | 0.0079058 | 0.0060049 | 0.0057557 | 0.0076627 | 0.0057388 | 0.0061608 |
| 58 | 0.0059937 | 0.0062865 | 0.0080192 | 0.0061265 | 0.0058600 | 0.0077573 | 0.0058422 | 0.0062940 |
| 59 | 0.0061368 | 0.0064287 | 0.0081415 | 0.0062566 | 0.0059712 | 0.0078589 | 0.0059524 | 0.0064368 |
| 60 | 0.0062900 | 0.0065812 | 0.0082732 | 0.0063959 | 0.0060901 | 0.0079685 | 0.0060703 | 0.0065898 |
| 61 | 0.0064540 | 0.0067444 | 0.0084149 | 0.0065448 | 0.0062172 | 0.0080866 | 0.0061963 | 0.0067538 |
| 62 | 0.0066294 | 0.0069191 | 0.0085668 | 0.0067036 | 0.0063529 | 0.0082138 | 0.0063311 | 0.0069292 |
| 63 | 0.0068167 | 0.0071058 | 0.0087294 | 0.0068729 | 0.0064976 | 0.0083506 | 0.0064751 | 0.0071168 |
| 64 | 0.0070165 | 0.0073050 | 0.0089030 | 0.0070531 | 0.0066517 | 0.0084970 | 0.0066285 | 0.0073169 |
| 65 | 0.0072307 | 0.0075186 | 0.0090893 | 0.0072458 | 0.0068158 | 0.0086537 | 0.0067919 | 0.0075315 |
| 66 | 0.0074600 | 0.0077474 | 0.0092891 | 0.0074517 | 0.0069903 | 0.0088208 | 0.0069657 | 0.0077614 |
| 67 | 0.0077052 | 0.0079921 | 0.0095028 | 0.0076715 | 0.0071765 | 0.0090000 | 0.0071514 | 0.0080073 |
| 68 | 0.0079692 | 0.0082556 | 0.0097332 | 0.0079076 | 0.0073755 | 0.0091921 | 0.0073497 | 0.0082721 |
| 69 | 0.0082539 | 0.0085400 | 0.0099823 | 0.0081620 | 0.0075879 | 0.0093974 | 0.0075612 | 0.0085580 |
| 70 | 0.0085622 | 0.0088479 | 0.0102523 | 0.0084366 | 0.0078162 | 0.0096186 | 0.0077883 | 0.0088676 |
| 71 | 0.0088938 | 0.0091793 | 0.0105419 | 0.0087308 | 0.0080615 | 0.0098577 | 0.0080327 | 0.0092008 |
| 72 | 0.0092539 | 0.0095393 | 0.0108558 | 0.0090487 | 0.0083261 | 0.0101166 | 0.0082964 | 0.0095628 |
| 73 | 0.0096446 | 0.0099300 | 0.0111955 | 0.0093919 | 0.0086093 | 0.0103939 | 0.0085784 | 0.0099559 |
| 74 | 0.0100684 | 0.0103538 | 0.0115628 | 0.0097624 | 0.0089142 | 0.0106939 | 0.0088826 | 0.0103824 |

| Age | LEOFF 1 | LEOFF 2 | PERS 1 | PERS 2/3 | SERS 2/3 | TRS 1 | TRS 2/3 | WSPRS 2 |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 75 | 0.0105280 | 0.0108135 | 0.0119604 | 0.0101627 | 0.0092422 | 0.0110180 | 0.0092104 | 0.0108451 |
| 76 | 0.0110267 | 0.0113124 | 0.0123914 | 0.0105960 | 0.0095951 | 0.0113678 | 0.0095637 | 0.0113472 |
| 77 | 0.0115688 | 0.0118547 | 0.0128599 | 0.0110662 | 0.0099757 | 0.0117460 | 0.0099450 | 0.0118933 |
| 78 | 0.0121597 | 0.0124460 | 0.0133705 | 0.0115778 | 0.0103875 | 0.0121558 | 0.0103575 | 0.0124885 |
| 79 | 0.0128051 | 0.0130919 | 0.0139278 | 0.0121352 | 0.0108344 | 0.0126012 | 0.0108049 | 0.0131389 |
| 80 | 0.0135111 | 0.0137984 | 0.0145368 | 0.0127433 | 0.0113202 | 0.0130863 | 0.0112914 | 0.0138505 |
| 81 | 0.0142843 | 0.0145725 | 0.0152030 | 0.0134074 | 0.0118492 | 0.0136157 | 0.0118211 | 0.0146303 |
| 82 | 0.0151240 | 0.0154130 | 0.0159279 | 0.0141293 | 0.0124242 | 0.0141938 | 0.0123986 | 0.0154769 |
| 83 | 0.0160353 | 0.0163252 | 0.0167162 | 0.0149136 | 0.0130497 | 0.0148256 | 0.0130286 | 0.0163958 |
| 84 | 0.0170241 | 0.0173149 | 0.0175726 | 0.0157650 | 0.0137302 | 0.0155137 | 0.0137139 | 0.0173927 |
| 85 | 0.0180966 | 0.0183884 | 0.0185016 | 0.0166876 | 0.0144701 | 0.0162628 | 0.0144589 | 0.0184740 |
| 86 | 0.0192583 | 0.0195513 | 0.0195059 | 0.0176841 | 0.0152736 | 0.0170771 | 0.0152680 | 0.0196456 |
| 87 | 0.0205119 | 0.0208062 | 0.0205851 | 0.0187541 | 0.0161432 | 0.0179605 | 0.0161446 | 0.0209102 |
| 88 | 0.0218550 | 0.0221507 | 0.0217347 | 0.0198932 | 0.0170791 | 0.0189147 | 0.0170905 | 0.0222656 |
| 89 | 0.0232781 | 0.0235752 | 0.0229444 | 0.0210916 | 0.0180779 | 0.0199388 | 0.0181048 | 0.0237021 |
| 90 | 0.0247625 | 0.0250609 | 0.0241977 | 0.0223336 | 0.0191323 | 0.0210275 | 0.0191823 | 0.0252008 |
| 91 | 0.0262789 | 0.0265782 | 0.0254717 | 0.0235975 | 0.0202301 | 0.0221705 | 0.0203134 | 0.0267317 |
| 92 | 0.0278427 | 0.0281429 | 0.0267640 | 0.0248804 | 0.0213620 | 0.0233525 | 0.0214834 | 0.0283116 |
| 93 | 0.0294384 | 0.0297392 | 0.0280581 | 0.0261661 | 0.0225126 | 0.0245532 | 0.0226729 | 0.0299249 |
| 94 | 0.0310505 | 0.0313517 | 0.0293389 | 0.0274402 | 0.0236656 | 0.0257646 | 0.0238739 | 0.0315562 |
| 95 | 0.0326651 | 0.0329665 | 0.0305940 | 0.0286908 | 0.0248057 | 0.0269704 | 0.0250708 | 0.0331914 |
| 96 | 0.0342704 | 0.0345719 | 0.0318149 | 0.0299099 | 0.0259197 | 0.0281559 | 0.0262493 | 0.0348186 |
| 97 | 0.0358572 | 0.0361585 | 0.0329987 | 0.0310951 | 0.0269980 | 0.0293096 | 0.0273986 | 0.0364281 |
| 98 | 0.0374173 | 0.0377185 | 0.0341503 | 0.0322517 | 0.0280348 | 0.0304239 | 0.0285118 | 0.0380114 |
| 99 | 0.0389423 | 0.0392433 | 0.0352857 | 0.0333956 | 0.0290309 | 0.0314979 | 0.0295884 | 0.0395582 |

[Statutory Authority: RCW 41.50.050(5) and chapter 41.45 RCW. 02-18-048, § 415-02-340, filed 8/28/02, effective 9/1/02.]

Annuity Purchase Bill Draft

NEW SECTION. **Sec. 1.** A new section is added to chapter 41.26 RCW under the subchapter heading "plan 2" to read as follows:

(1)The department of retirement systems shall make optional actuarially equivalent life annuity benefit payment schedules available to members and survivors that may be purchased from the Washington law enforcement officers' and fire fighters' system plan 2 retirement fund.

BILL REQUEST - CODE REVISER'S OFFICE

BILL REQ. #: Z-0314.1/07

ATTY/TYPIST: LL:seg

BRIEF DESCRIPTION: Making life annuity options available to members and survivors under the Washington law enforcement officers' and firefighters' system plan 2 retirement fund.

1 AN ACT Relating to making life annuity options available to members
2 and survivors under the Washington law enforcement officers' and
3 firefighters' system plan 2 retirement fund; and adding a new section
4 to chapter 41.26 RCW.

5 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

6 NEW SECTION. **Sec. 1.** A new section is added to chapter 41.26 RCW
7 under the subchapter heading "plan 2" to read as follows:

8 The department of retirement systems shall make optional
9 actuarially equivalent life annuity benefit payment schedules available
10 to members and survivors that may be purchased from the Washington law
11 enforcement officers' and firefighters' system plan 2 retirement fund.

--- END ---

DRAFT FISCAL NOTE

REQUEST NO.

| RESPONDING AGENCY: | CODE: | DATE: | BILL NUMBER: |
|-----------------------------|-------|----------|--------------------------|
| Office of the State Actuary | 035 | 11/29/06 | LEOFF 2 Annuity Purchase |

SUMMARY OF BILL:

This bill impacts the Law Enforcement Officers' and Fire Fighters' Retirement System Plan 2 (LEOFF 2) by allowing members and survivors to purchase life annuity benefits from the LEOFF 2 retirement fund.

Effective Date: 90 days after session

CURRENT SITUATION:

A LEOFF 2 member is currently allowed, upon retirement, to purchase up to 5 years of additional service credit. Since this service credit is not based on any service rendered, it is commonly referred to as "air time". The member must pay the actuarially equivalent value of the service; this is the same as purchasing an annuity that will provide up to 10 percent of the member's final average salary for their lifetime.

Members of the Public Employees', Teachers', and School Employees' Retirement Systems Plans 3 may currently purchase Total Allocation Portfolio (TAP) annuities. Annuities for members in the Plan 3 Self-Directed investment program have been available since 1997. TAP annuities can be purchased when a member is eligible to withdraw funds from their Plan 3 defined contribution (DC) account.

MEMBERS IMPACTED:

We estimate that all 15,168 members of LEOFF 2 could be affected by this bill. We estimate that for a typical member impacted by this bill, the value of any additional benefits purchased will be completely offset by the cost to the member of purchasing the annuity.

ASSUMPTIONS:

We assumed that the member would pay the full actuarial value of the annuity purchase. We have also assumed that the full actuarial cost will include the cost of any adverse selection that may develop due to mortality experience. We have further assumed that this benefit proposal will not change future retirement behavior in the plan since existing members currently have access to private-sector annuity providers that provide similar annuity products.

FISCAL IMPACT:

None. There would be no impact on rates if the member pays the full actuarial value of the annuity purchase.

It is possible that healthier than average members could benefit from this bill by outliving their assumed life expectancy. If only healthy members purchased annuities it is possible that there could be a minor cost for this benefit. However, we feel that this is unlikely, as in general there is no certain way for people to know whether or not they will outlive their life expectancy. While the mortality experience of the members electing to purchase an annuity should be monitored to compare it to the mortality experience of the entire group, the number of members electing this benefit will most likely be too small to make a determination about their mortality experience, and it could take decades to accumulate mortality data on the members electing to make the purchase.

This benefit is a variation of the benefit which allows members to purchase additional service by paying the full actuarially equivalent value of the additional benefits. We assume that benefits for which the member is required to pay the full actuarial cost have no significant impact on the cost of the plan.

STATEMENT OF DATA AND ASSUMPTIONS USED IN PREPARING THIS FISCAL NOTE:

The costs presented in this fiscal note are based on our understanding of the bill as well as generally accepted actuarial standards of practice including the following:

1. Costs were developed using the same membership data, methods, assets and assumptions as those used in preparing the preliminary September 30, 2005, actuarial valuation report of the Law Enforcement Officers' and Fire Fighters' Retirement System.
2. As with the costs developed in the actuarial valuation, the emerging costs of the System will vary from those presented in the valuation report or this fiscal note to the extent that actual experience differs from that projected by the actuarial assumptions.
3. The analysis of this bill does not consider any other proposed changes to the system. The combined effect of several changes to the system could exceed the sum of each proposed change considered individually.
4. This draft fiscal note is intended for use only during the 2007 Legislative Session.
5. Plan 2/3 utilizes the Aggregate Funding Method. The cost of Plan 2/3 is spread over the average working lifetime of the current active Plan 2/3 members.
6. Entry age normal cost rate increases are used to determine the increase in funding expenditures for future new entrants. Aggregate rate increases are used to calculate the increase in funding expenditures for current plan members.

GLOSSARY OF ACTUARIAL TERMS:

Actuarial accrued liability: Computed differently under different funding methods, the actuarial accrued liability generally represents the portion of the present value of fully projected benefits attributable to service credit that has been earned (or accrued) as of the valuation date.

Actuarial Present Value: The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions (i.e. interest rate, rate of salary increases, mortality, etc.)

Aggregate Funding Method: The Aggregate Funding Method is a standard actuarial funding method. The annual cost of benefits under the Aggregate Method is equal to the normal cost. The method does not produce an unfunded liability. The normal cost is determined for the entire group rather than an individual basis.

Entry Age Normal Cost Method (EANC): The EANC method is a standard actuarial funding method. The annual cost of benefits under EANC is comprised of two components:

- Normal cost; plus
- Amortization of the unfunded liability

The normal cost is determined on an individual basis, from a member's age at plan entry, and is designed to be a level percentage of pay throughout a member's career.

Normal Cost: Computed differently under different funding methods, the normal cost generally represents the portion of the cost of projected benefits allocated to the current plan year.

Pension Benefit Obligation (PBO): The portion of the Actuarial Present Value of future benefits attributable to service credit that has been earned to date (past service).

Projected Benefits: Pension benefit amounts which are expected to be paid in the future taking into account such items as the effect of advancement in age as well as past and anticipated future compensation and service credits.

Unfunded Liability (Unfunded PBO): The excess, if any, of the Pension Benefit Obligation over the Valuation Assets. This is the portion of all benefits earned to date that are not covered by plan assets.

Unfunded Actuarial Accrued Liability (UAAL): The excess, if any, of the actuarial accrued liability over the actuarial value of assets. In other words, the present value of benefits earned to date that are not covered by plan assets.