Office of the State Actuary

"Securing tomorrow's pensions today."

June 14, 2011

Mr. Steve Nelsen
Executive Director
LEOFF Plan 2 Retirement Board
P.O. Box 40918
Olympia, Washington 98504-0918

SUBJECT: 2011 SUPPLEMENTAL CONTRIBUTION RATES

Dear Steve:

As required under RCW 41.45.070, we are forwarding the required supplemental rate increases, effective September 1, 2011, for the following bill that passed during the 2011 Legislative Session.

LEOFF 2	Members	Employer	State
HB 2070 (C 5, L 11)	0.02%	0.01%	0.01%

According to RCW 41.45.070(2), the actuary retained by the Law Enforcement Officers' and Fire Fighters' (LEOFF) Plan 2 Retirement Board (the Board) and the state actuary calculate supplemental contribution rates for LEOFF Plan 2 through the process provided in RCW 41.26.720(1)(a). The Board will forward to the Department of Retirement Systems (DRS) any supplemental rate increases required for HB 2070 (C 5, L 11) under separate correspondence.

RCW 41.45.067(2) requires that DRS provide a 30-day notice to affected employers prior to the effective date of any rate change. If the Board adopts supplemental rates by their July Board meeting, that should provide enough time to notify DRS in order for them to meet their statutory deadline.

Please find attached the Actuarial Fiscal Note prepared by our office for HB 2070 to support the supplemental rates listed above.

PO Box 40914
Olympia, Washington, 98504-0914
http://osa.leg.wa.gov

Phone: 360.786.6140
Fax: 360.586.8135
TDD: 800.635.9993

We have not identified any additional legislation that requires a supplemental rate increase for LEOFF 2 at this time. Please feel free to contact me directly should you have any questions.

Sincerely,

Matthew M. Smith, FCA, EA, MAAA
State Actuary

Attachment
Actuarial Fiscal Note for HB 2070

cc: Marcie Frost, Deputy Director
Department of Retirement Systems
Lisa Won, Actuary
Office of the State Actuary

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ACTUARY'S FISCAL NOTE

RESPONDING AGENCY:	CODE:	DATE:	BILL NUMBER:
Office of the State Actuary	**035**	**6/14/11**	**HB 2070 (Revised)**

WHAT THE READER SHOULD KNOW

The Office of the State Actuary ("we") prepared this fiscal note based on our understanding of the bill as of the date shown above. We intend this fiscal note to be used by the Legislature for the 2011 Legislative Session only.

We advise readers of this fiscal note to seek professional guidance as to its content and interpretation, and not to rely upon this communication without such guidance. Please read the analysis shown in this fiscal note as a whole. Distribution of, or reliance on, only parts of this fiscal note could result in its misuse, and may mislead others.

SPECIAL NOTE

This fiscal note was revised to reflect passage of the 2011-13 Omnibus Appropriations bill, and ESSB 5860 (State Employee Compensation). Neither bill establishes a statewide salary policy for local governments, but ESSB 5860 reduces compensation for most state employees by 3 percent through methods such as salary reductions or furloughs. Please see the fiscal note for ESSB 5860 for additional details.

SUMMARY OF RESULTS

This bill requires the Department of Retirement Systems (DRS) to include compensation forgone due to reduced work hours, mandatory or voluntary leave without pay, temporary layoffs, or salary reduction when calculating Average Final Compensation (AFC) for state and local government members of the Public Employees' Retirement System (PERS), Teachers' Retirement System (TRS), School Employees' Retirement System (SERS), Public Safety Employees' Retirement System (PSERS), Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF), and Washington State Patrol Retirement System (WSPRS).

Impact on Pension Liability			
(Dollars in Millions)	**Current**	**Increase**	**Total**
Today's Value of All Future Pensions	$74,789	$101.3	$74,890
Earned Pensions Not Covered by Today's Assets	$5,773	$25.7	$5,799

Impact on Contribution Rates (Effective 9/1/2011)					
2011-2013 State Budget	**PERS**	**TRS**	**SERS**	**PSERS**	**LEOFF**
Employee (Plan 2)	0.05%	0.01%	0.01%	0.00%	0.02%
Employer					
Current Annual Cost	0.05%	0.01%	0.01%	0.00%	0.01%
Plan 1 Past Cost	0.02%	0.01%	0.02%	0.02%	0.00%
Total	0.07%	0.02%	0.03%	0.02%	0.01%
State					
Current Annual Cost					0.01%
Plan 1 Past Cost					0.00%
Total					0.01%

Budget Impacts			
(Dollars in Millions)	**2011-2013**	**2013-2015**	**25-Year**
General Fund-State	$4.8	$5.0	$36.4
Total Employer	$16.9	$16.5	$121.0

Note: We use long-term assumptions to produce our short-term budget impacts. Therefore, our short-term budget impacts will likely vary from estimates produced from other short-term budget models.

Please see the remainder of this fiscal note for additional detail.

WHAT IS THE PROPOSED CHANGE?

Summary Of Change

This bill applies to members of the following systems:

- PERS.
- TRS.
- SERS.
- PSERS.
- LEOFF.
- WSPRS.

Compensation forgone by a member of one of the affected systems during the 2011-13 Biennium will be included in calculating the member's AFC, so long as the employer certifies the forgone compensation is an integral part of the employer's expenditure reduction efforts, and results from one of the following:

- Reduced work hours.
- Mandatory or voluntary leave without pay.
- Temporary layoffs.
- Reductions to current pay provided the reductions do not include elimination of previously agreed upon future salary increases.

Effective Date: July 1, 2011.

What Is The Current Situation?

A similar forgone compensation provision exists in current law for the 2009-11 Biennium, and includes compensation forgone due to.

- Reduced work hours.
- Mandatory or voluntary leave without pay.
- Temporary layoffs.
- Temporary reductions in pay implemented prior to December 11, 2010.

This provision in current law applies to members of the following systems:

- ❖ PERS, state and local.
- ❖ TRS, state members only.
- ❖ PSERS, state members only.
- ❖ LEOFF, state members only.
- ❖ WSPRS, state members only.

Please see the fiscal note for HB 3225 (2010 Special Session) for additional information on current law.

Who Is Impacted And How?

We estimate this bill could affect 293,456 active members out of the total 301,838 active members of these systems through improved benefits. The table below shows the total count of potentially impacted members by system and plan.

Potentially Impacted Active Members			
System	**Plan 1**	**Plan 2/3**	**Total**
PERS	10,161	140,711	150,872
TRS	5,204	62,184	67,388
SERS	N/A	52,474	52,474
PSERS	N/A	4,321	4,321
LEOFF	356	16,951	17,307
WSPRS	830	264	1,094

This bill will increase the benefits for a typical member by providing average final compensation (AFC) protection for salary forgone during the 2011-13 Biennium. In other words, DRS will calculate an affected member's AFC as if the salary reduction did not occur.

This bill impacts all 173,556 Plan 2 and WSPRS Plan 1 members of the impacted systems through increased contribution rates. With the exception of WSPRS members, this bill will not affect member contribution rates in Plan 1 since they are fixed in statute. Additionally, this bill will not affect member contribution rates in Plan 3 since Plan 3 members do not contribute to their employer-provided defined benefit.

See Appendix A for more details.

WHY THIS BILL HAS A COST AND WHO WILL PAY FOR IT

Why This Bill Has A Cost

This bill increases the AFC and retirement benefit of members who receive eligible salary reductions during the 2011-13 Biennium, as defined in the bill. Any increase in a member's AFC will increase the retirement benefits payable from the plan and will increase the costs to the pension system. The AFC may be used in calculating retirement benefits following termination, retirement, disability, and death.

Who Will Pay For These Costs?

The costs from this bill will be divided between members, local employers, and the state according to standard funding methods that vary by plan:

- ❖ Plan 1 and Plan 3: 100 percent employer.
- ❖ Plan 2, WSPRS: 50 percent member and 50 percent employer.
- ❖ LEOFF 2: 50 percent member, 30 percent employer, and 20 percent state.

All employers of PERS, SERS, and PSERS members will pay higher PERS Plan 1 Unfunded Actuarial Accrued Liability (UAAL) contribution rates. Similarly, all employers of TRS members will pay higher TRS Plan 1 UAAL contribution rates.

HOW WE VALUED THESE COSTS

Assumptions We Made

Consistent with ESSB 5860, we assumed all impacted state-employed members would receive a 3 percent salary reduction during the 2011-13 Biennium.

The 2011-13 Omnibus Appropriations bill ("budget bill") reduced salary allocations to K-12 consistent with a 1.9 percent salary reduction for most members of TRS and SERS. The budget bill, however, does not mandate a salary reduction for these members. As a result, we expect some school districts will implement salary reductions and some will not. Existing contracts and collective bargaining may also impact the incidence of salary reductions in TRS and SERS. For purposes of this fiscal note, we assumed 20 percent of TRS and SERS members would receive a 1.9 percent salary reduction during the 2011-13 Biennium.

Local government members of the remaining affected retirement systems are also affected by this bill. We cannot rely, however, on a statewide salary reduction policy or statewide budget to estimate the potential salary reductions for these members. In absence of a statewide salary reduction policy for local government, we reviewed the Association of Washington Cities latest salary survey and contacted five counties (Snohomish, Spokane, Thurston, Pierce, and King) to estimate salary reductions for local government. For purposes of this fiscal note, we assumed 25 percent of local government members covered in systems other than TRS and SERS would receive a 2 percent salary reduction during the 2011-13 Biennium.

We further assumed the salary reductions would not impact the calculation of an impacted member's AFC. In other words, their "pensionable earnings" for 2011-13 would not be reduced by the salary reductions assumed under this fiscal note.

Otherwise, we developed these costs using the same assumptions as disclosed in the June 30, 2009, Actuarial Valuation Report (AVR).

How We Applied These Assumptions

First, we measured the increase in liability by comparing the present value of future benefits with and without the salary reductions we assumed to price this bill. Next, we divided the increase in liability by the present value of future salaries to determine the contribution impacts from this bill.

We did not include impacts for WSPRS since the data provided by the Office of Financial Management (OFM) indicates only six members would be impacted.

LEOFF 1 remains fully funded before and after this bill (when measured at June 30, 2009). Therefore, we show no budget impacts to LEOFF 1 from this bill. The contribution rate impacts we display for LEOFF 1 indicate how much the negative UAAL rate will change.

Please see Appendix A for additional details.

Special Data Needed

We relied on data provided by OFM to determine the state-employed members affected by this bill including the number of members exempt from the statewide salary reductions. We relied on this data as complete and accurate for the purpose of this pricing. We did not audit this data.

Please see Appendix B for additional details.

ACTUARIAL RESULTS

How The Liabilities Changed

This bill will impact the actuarial funding of the affected systems by increasing the present value of future benefits payable under the systems as shown below.

Impact on Pension Liability			
(Dollars in Millions)	**Current**	**Increase**	**Total**
Actuarial Present Value of Projected Benefits			
(The Value of the Total Commitment to all Current Members)			
PERS 1	$14,215	$21.0	$14,236
PERS 2/3	24,472	62.8	24,535
PERS Total	**$38,687**	**$83.7**	**$38,771**
TRS 1	$10,956	$4.6	$10,960
TRS 2/3	8,661	5.3	8,667
TRS Total	**$19,617**	**$9.9**	**$19,627**
SERS 2/3	**$3,260**	**$1.2**	**$3,261**
PSERS 2	**$388**	**$0.2**	**$388**
LEOFF 1	$4,501	$0.7	$4,502
LEOFF 2	7,394	5.6	7,399
LEOFF Total	**$11,895**	**$6.3**	**$11,901**
Unfunded Actuarial Accrued Liability			
*(The Portion of the Plan 1 Liability that is Amortized According to Funding Policy)**			
PERS 1	**$4,208**	**$19.9**	**$4,228**
TRS 1	**$2,676**	**$5.1**	**$2,681**
LEOFF 1	**($1,111)**	**$0.7**	**($1,110)**
Unfunded PUC Liability			
(The Value of the Total Commitment to all Current Members Attributable to Past Service that is Not Covered by Current Assets)			
PERS 1	$4,169	$20.4	$4,189
PERS 2/3	(2,560)	$54.0	(2,506)
PERS Total	**$1,609**	**$74.4**	**$1,684**
TRS 1	$2,692	$4.5	$2,696
TRS 2/3	(947)	$4.6	(942)
TRS Total	**$1,745**	**$9.2**	**$1,754**
SERS 2/3	**($341)**	**$0.9**	**($340)**
PSERS 2	**($15)**	**$0.1**	**($15)**
LEOFF 1	($1,135)	$0.7	($1,135)
LEOFF 2	(1,215)	$5.0	(1,210)
LEOFF Total	**($2,351)**	**$5.6**	**($2,345)**

Note: Totals may not agree due to rounding.

** PERS 1 and TRS 1 are amortized over a ten-year period. LEOFF 1 must be amortized by June 30, 2024.*

How The Present Value of Future Salaries (PVFS) Changed

This bill does not establish a mandatory statewide compensation reduction policy for state and local government members during the 2011-13 Biennium, and therefore will not change the PVFS of the affected members. As a result, this bill will not impact the actuarial funding of these plans due a change in PVFS.

How Contribution Rates Changed

The rounded increase in the required actuarial contribution rates results in the supplemental contribution rates shown on page one that apply in the current biennium. However, we will use the un-rounded rate increases below to measure the budget changes in future biennia.

Impact on Contribution Rates (Effective 9/1/2011)					
System/Plan	**PERS**	**TRS**	**SERS**	**PSERS**	**LEOFF**
Current Members					
Employee (Plan 2)	0.047%	0.011%	0.007%	0.005%	0.016%
Employer					
Normal Cost	0.047%	0.011%	0.007%	0.005%	0.010%
Plan 1 UAAL	0.021%	0.013%	0.021%	0.021%	0.004%
Total	0.068%	0.024%	0.028%	0.026%	0.014%
State					
Current Annual Cost					0.006%
Plan 1 Past Cost					0.004%
Total					0.011%
New Entrants*					
Employee (Plan 2)	0.000%	0.000%	0.000%	0.000%	0.000%
Employer					
Normal Cost	0.000%	0.000%	0.000%	0.000%	0.000%
Plan 1 UAAL	0.021%	0.013%	0.021%	0.021%	0.000%
Total	0.021%	0.013%	0.021%	0.021%	0.000%
State					
Current Annual Cost					0.000%
Plan 1 Past Cost					0.004%
Total					0.004%

**Rate change applied to future new entrant payroll and used to determine budget impacts only. Current members and new entrants pay the same contribution rate.*

How This Impacts Budgets And Employees

Budget Impacts						
(Dollars in Millions)	**PERS**	**TRS**	**SERS**	**PSERS**	**LEOFF**	**Total**
2011-2013						
General Fund	$2.6	$1.4	$0.5	$0.1	$0.3	$4.8
Non-General Fund	3.7	0.0	0.0	0.0	0.0	3.7
Total State	**$6.3**	**$1.4**	**$0.5**	**$0.1**	**$0.3**	**$8.5**
Local Government	6.7	0.7	0.6	0.0	0.3	8.4
Total Employer	**$13.0**	**$2.1**	**$1.1**	**$0.1**	**$0.7**	**$16.9**
Total Employee	**$7.2**	**$0.2**	**$0.1**	**$0.0**	**$0.7**	**$8.2**
2013-2015						
General Fund	$2.4	$1.6	$0.5	$0.1	$0.4	$5.0
Non-General Fund	3.4	0.0	0.0	0.0	0.0	3.5
Total State	**$5.9**	**$1.6**	**$0.5**	**$0.1**	**$0.4**	**$8.5**
Local Government	6.3	0.8	0.6	0.0	0.3	8.0
Total Employer	**$12.1**	**$2.5**	**$1.0**	**$0.2**	**$0.7**	**$16.5**
Total Employee	**$6.0**	**$0.1**	**$0.1**	**$0.0**	**$0.5**	**$6.8**
2011-2036						
General Fund	$17.8	$11.7	$2.6	$0.6	$3.6	$36.4
Non-General Fund	25.4	0.0	0.0	0.1	0.0	25.5
Total State	**$43.2**	**$11.7**	**$2.6**	**$0.7**	**$3.6**	**$61.9**
Local Government	46.3	5.9	3.3	0.2	3.4	59.1
Total Employer	**$89.5**	**$17.6**	**$5.9**	**$0.9**	**$7.1**	**$121.0**
Total Employee	**$51.2**	**$1.2**	**$0.6**	**$0.2**	**$5.8**	**$59.0**

Note: Totals may not agree due to rounding. We use long-term assumptions to produce our short-term budget impacts. Therefore, our short-term budget impacts will likely vary from estimates produced from other short-term budget models.

The analysis of this bill does not consider any other proposed changes to the systems. The combined effect of several changes to the systems could exceed the sum of each proposed change considered individually.

As with the costs developed in the actuarial valuation, the emerging costs of the systems will vary from those presented in the AVR or this fiscal note to the extent that actual experience differs from the actuarial assumptions.

How the Risk Measures Changed

We have not analyzed this bill using the risk assessment model. We chose not to use the risk assessment model because we believe this bill will have a very small impact on the risk measures and we do not have the resources to use the model on every bill.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

ESSB 5860 mandates a 3 percent salary reduction during the 2011-13 Biennium for non-exempt state-employed members of the affected systems. As a result of this mandate, we expect actual salary reduction experience for state-employed members will closely match our assumptions in this fiscal note.

The Legislature, however, did not mandate salary reductions for members of K-12 and other members of local government. Actual salary reductions during the 2011-13 Biennium could vary from the assumed levels in this fiscal note. To demonstrate the sensitivity of the cost of this bill to the assumed salary reductions, the table below shows the impacts of this bill when we change the assumed number of local government members receiving salary reductions in the 2011-13 Biennium.

- **Best Estimate** – All state-employed members not exempt from salary reductions in SB 5860, 20 percent of TRS and SERS local government members, and 25 percent of employees from each remaining system with local government employees (129,550).
- **Local Government Impact Doubled** – All state-employed members not exempt from salary reductions in SB 5860, 40 percent of TRS and SERS local government members, and 50 percent of employees from each remaining system with local government employees (177,720).
- **All Local Government Impacted** – All state-employed members not exempt from salary reductions in SB 5860 and local government members impacted (293,456).

(Dollars in Millions)	Best Estimate	Local Government Impact Doubled	All Local Government Impacted
Increase in Liability	$101.3	$131.7	$204.2
Increase in 2011-13 Employer Normal Cost Rates			
PERS	0.047%	0.054%	0.068%
TRS	0.011%	0.022%	0.054%
SERS	0.007%	0.021%	0.064%
PSERS	0.005%	0.005%	0.006%
LEOFF	0.010%	0.019%	0.039%
Increase in 2011-13 Employer Plan 1 UAAL Rates			
PERS	0.021%	0.024%	0.030%
TRS	0.013%	0.024%	0.056%
SERS	0.021%	0.024%	0.030%
PSERS	0.021%	0.024%	0.030%
LEOFF	0.004%	0.009%	0.017%
Budget Impact 2011-13			
General Fund-State	$4.8	$6.7	$14.5
Total Employer	$16.9	$20.0	$35.9
Budget Impact 25-years			
General Fund-State	$36.4	$54.6	$105.5
Total Employer	$121.0	$159.0	$261.5

For this sensitivity analysis, we changed the assumed percentage of local government members impacted only. The assumed salary reduction per person remained consistent with the assumptions disclosed in the Assumptions We Made section of this fiscal note.

See Appendix C for additional information on how the results change when the assumptions change.

ACTUARY'S CERTIFICATION

The undersigned hereby certifies that:

1. The actuarial cost methods are appropriate for the purposes of this pricing exercise.
2. The actuarial assumptions used are appropriate for the purposes of this pricing exercise. Please see Special Note on page 1 for further details on the purpose of this pricing.
3. The data on which this fiscal note is based are sufficient and reliable for the purposes of this pricing exercise.
4. Use of another set of methods, assumptions, and data may also be reasonable, and might produce different results.
5. We prepared this fiscal note for the Legislature during the 2011 Legislative Session.
6. We prepared this fiscal note and provided opinions in accordance with Washington State law and accepted actuarial standards of practice as of the date shown on page one of this fiscal note.

While this fiscal note is meant to be complete, the undersigned is available to provide extra advice and explanations as needed.

Matthew M. Smith, FCA, EA, MAAA
State Actuary

APPENDIX A – HOW WE APPLIED THESE ASSUMPTIONS

We created a new "base" that reflects the future benefits expected to be earned based on a lower AFC, taking into account the assumed percent salary reduction. We assumed all non-exempt state employed members would receive a 3 percent salary reduction. We assumed 25 percent of local government members of PERS, PSERS, and LEOFF to receive a 2 percent salary reduction. We assumed 20 percent of local government members of TRS and SERS would receive a 1.9 percent and a 3 percent salary reduction respectively.

To do this we first altered the projected salary stream of the affected members. Each affected member's salary would decrease by our assumed percent reduction in the first year. We then increased every member's salary by 4.00 percent (4.50 percent in LEOFF 2) in the second year to reflect assumed general salary growth, consistent with the salary growth assumptions of the plans. We then increased every member's salary by a higher percent in the third year to reflect assumed general salary growth and the return to a full annual salary since the reductions assumed under this bill are temporary. The third year salary increases are 7.22 percent for state-employed members in PERS, PSERS, and LEOFF 1 (6.12 percent for the local government members). TRS 1 state-employed members would have a 7.34 percent salary increase (6.14 percent for local government members) for the third year. TRS 2/3 state-employed members would have a 7.36 percent salary increase (6.16 percent for local government members) for the third year. SERS 2/3 members would have a 6.04 percent salary increase for the third year. LEOFF 2 state-employed members would have a 7.73 percent salary increase (6.63 percent for local government members) for the third year. Please see the table below for an example of the salary stream for a PERS state member under this pricing.

Salary Example			
	Year 1	Year 2	Year 3
With 3% Reduction	$48,500	$50,440	$54,080
Without 3% Reduction	$50,000	$52,000	$54,080

We then measured the increase in liability between the "base" and the "pricing" – where the "pricing" is consistent with our AVR. The increase in liability emerges due to a higher AFC in the calculation of retirement benefits.

Otherwise, we developed these costs using the same methods as disclosed in the AVR.

APPENDIX B – SPECIAL DATA NEEDED

ESSB 5860 exempts some state-employed members from mandatory salary reductions during the 2011-13 Biennium. We used our actuarial valuation database to first determine the number of state-employed members. Consistent with ESSB 5860, we then removed state-employed members earning less than $30,000 per year.

Next, we needed special data to adjust our actuarial valuation data for the remaining exemptions provided under ESSB 5860. During the 2011 Regular Session, OFM provided estimated counts of state-employed members impacted by SB 5860 during the 2011-13 Biennium (including an estimate of members exempted from salary reductions). We relied on this data to adjust our valuation data (after removing the $30,000 salary exemption we could identify). The resulting adjustment (labeled "Valuation Data Adjustment" in the table below) was applied to our valuation headcounts and liability increases to arrive at our best estimate used for this pricing.

State-Employed Members Impacted					
System	State Employees	Salary < $30,000	Non-Exempt (OSA Count)	Best Estimate (OFM Count)	Valuation Data Adjustment
PERS 1	5,071	193	4,878	4,145	85.0%
PERS 2/3	81,611	8,170	73,441	69,279	94.3%
TRS 1	208	0	208	83	39.9%
TRS 2/3	180	0	180	183	101.7%
PSERS	2,471	19	2,452	2,294	93.6%
LEOFF 2	221	0	221	223	100.9%
WSPRS	1,094	0	1,094	6	N/A

Based on the AVR, there are no state employees in LEOFF Plan 1 or SERS 2/3.

Otherwise, we developed these costs using the same assets and data as disclosed in the AVR.

APPENDIX C – HOW THE RESULTS CHANGE WHEN ONLY NON-EXEMPT STATE-EMPLOYED MEMBERS RECEIVE SALARY REDUCTIONS

As noted in the fiscal note, actual salary reductions for local government members may vary from the assumed reductions in this fiscal note. To provide a sense of how much local government impacts the cost of this bill, we display in the table below the fiscal impacts of this bill if we remove all assumed local government impacts.

Readers can compare the tables below with the tables in the body of this fiscal note. For example, if we remove all assumed local government impacts from this fiscal note, the all systems 2011-13 and 25-year general-fund state budget impacts drop from $4.8 m and $36.4 m to $2.6 m and $19.0 m respectively.

Impact on Contribution Rates (Effective 9/1/2011)					
System/Plan	**PERS**	**TRS**	**SERS**	**PSERS**	**LEOFF**
Current Members					
Employee (Plan 2)	0.043%	0.001%	0.000%	0.004%	0.001%
Employer					
Normal Cost	0.043%	0.001%	0.000%	0.004%	0.000%
Plan 1 UAAL	0.018%	0.001%	0.018%	0.018%	0.000%
Total	0.061%	0.002%	0.018%	0.022%	0.000%
State					
Current Annual Cost					0.000%
Plan 1 Past Cost					0.000%
Total					0.000%
New Entrants*					
Employee (Plan 2)	0.000%	0.000%	0.000%	0.000%	0.000%
Employer					
Normal Cost	0.000%	0.000%	0.000%	0.000%	0.000%
Plan 1 UAAL	0.018%	0.001%	0.018%	0.018%	0.000%
Total	0.018%	0.001%	0.018%	0.018%	0.000%
State					
Current Annual Cost					0.000%
Plan 1 Past Cost					0.000%
Total					0.000%

**Rate change applied to future new entrant payroll and used to determine budget impacts only. Current members and new entrants pay the same contribution rate.*

Budget Impacts			
(Dollars in Millions)	**2011-2013**	**2013-2015**	**25-Year**
General Fund-State	$2.6	$2.7	$19.0
Total Employer	$11.9	$11.8	$85.7

Note: We use long-term assumptions to produce our short-term budget impacts. Therefore, our short-term budget impacts will likely vary from estimates produced from other short-term budget models.

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 actuarial accrued liability. The normal cost is determined for the entire group rather than on 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.
- Amortization of the unfunded actuarial accrued 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.

Projected Unit Credit (PUC) Liability: 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 that 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 PUC Liability: The excess, if any, of the Present Value of Benefits calculated under the PUC cost method 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.