Multiple Agency Fiscal Note Summary

Bill Number: 6378 SB	**Title:** State retirement plans

Estimated Cash Receipts

NONE

Estimated Expenditures

Agency Name	2011-13			2013-15			2015-17		
	FTEs	GF-State	Total	FTEs	GF-State	Total	FTEs	GF-State	Total
Department of Retirement Systems	.2	0	175,507	.0	0	0	.0	0	0
Department of Enterprise Services	.1	0	14,239	.0	0	0	.0	0	0
Actuarial Fiscal Note - State Actuary	.0	(146,900,000)	(212,600,000)	.0	(6,700,000)	(7,300,000)	.0	(3,800,000)	8,400,000
Total	**0.3**	**$(146,900,000)**	**$(212,410,254)**	**0.0**	**$(6,700,000)**	**$(7,300,000)**	**0.0**	**$(3,800,000)**	**$8,400,000**

Estimated Capital Budget Impact

NONE

Prepared by: Jane Sakson, OFM	**Phone:** 360-902-0549	**Date Published:** Revised 3/26/2012

* See Office of the Administrator for the Courts judicial fiscal note

** See local government fiscal note

FNPID 32556

Individual State Agency Fiscal Note

Bill Number: 6378 SB	Title: State retirement plans	Agency: 124-Department of Retirement Systems

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

	FY 2012	FY 2013	2011-13	2013-15	2015-17
FTE Staff Years	0.4	0.0	0.2	0.0	0.0
Account					
Department of Retirement Systems Expense Account-State 600-1	175,507	0	175,507	0	0
Total $	175,507	0	175,507	0	0

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☒ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☐ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☒ Requires new rule making, complete Part V.

Legislative Contact:		Phone:	Date: 01/26/2012
Agency Preparation:	Merchant Shawn	Phone: 360-664-7303	Date: 01/31/2012
Agency Approval:	Marcie Frost	Phone: 360-664-7224	Date: 01/31/2012
OFM Review:	Cherie Berthon	Phone: 360-902-0659	Date: 01/31/2012

Request # 12-013-1

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Briefly describe by section number, the significant provisions of the bill, and any related workload or policy assumptions, that have revenue or expenditure impact on the responding agency.

This bill requires new members of the Teachers' Retirement System (TRS), School Employees' Retirement System (SERS) and Public Employees' Retirement System (PERS), hired on or after July 1, 2012, to join Plan 3. In addition, Plan 3 members hired on or after July 1, 2012, are not eligible for the alternate early retirement provisions.

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

No impact.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

ADMINISTRATIVE ASSUMPTIONS

- Members who established Plan 3 membership prior to July 1, 2012, are not affected by this bill.
- Members hired into eligible positions prior to July 1, 2012, will still be given 90 days to make a Plan 2/3 choice, even if the 90th day is after July 1, 2012. These members are also eligible for the alternate early retirement provisions.
- Certain members who established Plan 2 membership prior to July 1, 2012, are eligible to transfer to Plan 3 each January. If these members transfer to Plan 3, they will be eligible for the alternate early retirement provisions.
- Substitute teachers and substitute classified school employees have the option of becoming a member. These members who first establish membership through the purchase of substitute time on or after July 1, 2012, will be Plan 3 members and will not be eligible for alternate early retirement provisions.
- Substitutes previously reported in Plan 2 as "potential members," and who have not established membership, will be converted as Plan 3 "potential members" as of the effective date of the bill.
- Notification to "potential members" who could purchase time prior to the effective date of this bill will be accomplished through employers and website postings.

The assumptions above were used in developing the following workload impacts and cost estimates.

BENEFITS/CUSTOMER SERVICE

Estimates for costs and hours associated with Benefits and Customer Service for this bill include:

- Review communications materials (letters, publications, forms, etc.)
- Respond to customer inquiries
- Review and update existing rules and operating policies
- Update the Retirement Services Division Online Operations Manual

- Participate in user acceptance testing of system modifications

Retirement Services Analyst 3 – 132 hours (salaries/benefits) = $4,141
Total Estimated Benefits/Customer Service Costs = $4,141

MEMBER COMMUNICATIONS

Estimates for costs and hours associated with communicating these changes to members:

- Create new Plan 3 member brochure
- Review and edit member handbooks and other brochures
- Update website
- Update Plan Choice materials
- Produce new member video for PERS, SERS and TRS members
- Review and update member forms

Communications Consultant 5 – 245 hours (salaries/benefits) = $10,364
Total Estimated Member Communications Costs = $10,364

EMPLOYER SUPPORT SERVICES

Estimates for costs and hours associated with communicating these changes to employers:

- Update Employer Handbook
- Review communication materials
- Provide employer training
- Respond to employer inquiries
- Participate in user acceptance testing of system modifications

Information Technology Specialist 3 – 40 hours (salaries/benefits) = $1,584
Total Estimated Employer Support Services Costs = $1,584

AUTOMATED SYSTEMS

The Department of Retirement Systems' (DRS) will modify the automated Employer Information System (EIS), Member Information System (MIS), Benefits System and online DRS applications to support this bill. The major changes to the DRS' automated systems include:

- Configure the TRS, SERS and PERS benefit plans to support mandatory Plan 3 membership for new members.
- Modify MIS and Benefits System to not allow alternate early retirement provisions for Plan 3 members hired on or after July 1, 2012.
- Modify EIS and the Web-based Employer Transmittal system to support mandatory Plan 3 enrollment for new TRS, SERS and PERS members.

- Convert potential member substitutes previously reported in Plan 2 to Plan 3.
- Modify other online DRS applications (DB Access, Online Estimator, etc.) to support new rules.

Information Technology Specialist 4 – 334 hours (salaries/benefits) = $14,438
Programming, testing and verification – 1,324 hours @ $95 per hour = $125,780
CTS* cost of $500 per week for 20 weeks = $10,000
Total Estimated Automated Systems Costs = $150,218

*cost for mainframe computer processing time and resources at Consolidated Technology Services

RECORD KEEPING SERVICES

Changes required by the Plan 3 Record Keeper include:

- Update automated welcome confirmation letters
- Update financial modeling software
- Updates to website and publications/presentation materials

Cost to modify record keeper system and communications = $9,200
Total Estimated Plan 3 Record Keeping Costs = $9,200

ESTIMATED TOTAL COST TO IMPLEMENT THIS BILL:

	2011-13
BENEFITS/CUSTOMER SERVICE	$4,141
MEMBER COMMUNICATIONS	$10,364
EMPLOYER SUPPORT SERVICES	$1,584
AUTOMATED SYSTEMS	$150,218
RECORD KEEPING SERVICES	$9,200
ESTIMATED TOTAL COSTS	$175,507

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2012	FY 2013	2011-13	2013-15	2015-17
FTE Staff Years	0.4		0.2		
A-Salaries and Wages	23,263		23,263		
B-Employee Benefits	7,264		7,264		
C-Personal Service Contracts					
E-Goods and Services	144,980		144,980		
G-Travel					
J-Capital Outlays					
M-Inter Agency/Fund Transfers					
N-Grants, Benefits & Client Services					
P-Debt Service					
S-Interagency Reimbursements					
T-Intra-Agency Reimbursements					
9-					
Total:	$175,507	$0	$175,507	$0	$0

III. B - Detail: *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part I and Part IIIA*

Job Classification	Salary	FY 2012	FY 2013	2011-13	2013-15	2015-17
Communications Consultant 5	67,668	0.1		0.1		
Info Tech Specialist 3	62,796	0.0		0.0		
Info Tech Specialist 4	69,348	0.2		0.1		
Retirement Services Analyst 3	47,892	0.1		0.0		
Total FTE's	247,704	0.4		0.2		0.0

Part IV: Capital Budget Impact

NONE

No impact.

Part V: New Rule Making Required

Identify provisions of the measure that require the agency to adopt new administrative rules or repeal/revise existing rules.

Some rules will need to be modified.

Individual State Agency Fiscal Note

Bill Number: 6378 SB	Title: State retirement plans	Agency: 179-Department of Enterprise Services

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

	FY 2012	FY 2013	2011-13	2013-15	2015-17
FTE Staff Years	0.1	0.0	0.1	0.0	0.0
Account					
Data Processing Revolving Account-Non-Appropriated 419 -6	14,239	0	14,239	0	0
Total $	14,239	0	14,239	0	0

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☐ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☒ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☐ Requires new rule making, complete Part V.

Legislative Contact:		Phone:	Date: 01/26/2012
Agency Preparation:	Kelly Moore	Phone: (360) 407-8427	Date: 03/23/2012
Agency Approval:	Bob Van Schoorl	Phone: (360)407-9222	Date: 03/23/2012
OFM Review:	Diamatris Winston	Phone: (360) 902-7657	Date: 03/23/2012

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Briefly describe by section number, the significant provisions of the bill, and any related workload or policy assumptions, that have revenue or expenditure impact on the responding agency.

Section 1. (1) and Section 3. (1) require all teachers and classified employees hired into a retirement eligible position on or after July 1, 2012 to become members of plan 3. Section 2.(3)(c) and Section 4.(3)(c) of this legislation also eliminates the eligibility for these same members to the alternate early retirement provision. Section 7. changes the employer contribution rate for the member's portion of PERS, PSERS, SERS, and TRS that support the Plan 1 Unfunded Accrued Actuarial Liability.

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

Assumptions:

1) The cost estimates assume that existing state staff will perform this work; if contractors need to be hired, the costs would increase. The following is normally scheduled work that may be impacted in addition to processing payroll twice a month and providing support to agency end-users depending on when the implementation date is:

Annual Health Care Authority Employee Medical Rate
Annual Retirement Rate Adjustments
Annual Sick Leave Buyout
Annual Secure Socket Layer Certificate Renewal
Annual configuration of System Calendars
Annual Year End Processing
Quarterly Tax Reporting
Quarterly Operating System Patches
Fiscal Year Processing
Biennial Year End Processing
Semi-Annual Support Stack Update
Monthly System Maintenance
System Audits
Legislative Review
Collective Bargaining Agreements
Information Requests
Union Requested Changes
GMAP Reporting Cycle
Centralized Security

Employee Self Service On Line Leave
Workers Compensation

Estimated work effort to make the changes to the Human Resource Management System (HRMS) is a total of 257.5 hours and is outlined below:

Configuration of employer rate
Estimated work effort: 10 hours

Configuration to delimit Plan Choice Codes
Estimated work effort: 16 hours

Revising agency training material
Estimated work effort: 15 hours

Updating schedule for load process to apply Plan 3 as default plan
Estimated work effort: 4 hours

Testing configuration changes and Plan 3 default process update:
Estimated work effort: 212.5 hours

The above changes can be accomplished within the maintenance and operation budget for the Human Resource Management System.

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

	FY 2012	FY 2013	2011-13	2013-15	2015-17
FTE Staff Years	0.1		0.1		
A-Salaries and Wages	7,895		7,895		
B-Employee Benefits	2,448		2,448		
C-Personal Service Contracts					
E-Goods and Services	896		896		
G-Travel					
J-Capital Outlays					
M-Inter Agency/Fund Transfers					
N-Grants, Benefits & Client Services					
P-Debt Service					
S-Interagency Reimbursements					
T-Intra-Agency Reimbursements	3,000		3,000		
9-					
Total:	$14,239	$0	$14,239	$0	$0

III. B - Detail: *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part I and Part IIIA*

Job Classification	Salary	FY 2012	FY 2013	2011-13	2013-15	2015-17
ITS 2	56,892	0.1		0.0		
ITS 3	62,796	0.0		0.0		
ITS 5	76,536	0.0		0.0		
Total FTE's	196,224	0.1		0.1		0.0

Part IV: Capital Budget Impact

NONE

Part V: New Rule Making Required

Identify provisions of the measure that require the agency to adopt new administrative rules or repeal/revise existing rules.

Individual State Agency Fiscal Note

Bill Number: 6378 SB	Title: State retirement plans	Agency: AFN-Actuarial Fiscal Note - State A

Part I: Estimates

☐ **No Fiscal Impact**

Estimated Cash Receipts to:

NONE

Estimated Expenditures from:

		FY 2012	FY 2013	2011-13	2013-15	2015-17
Account						
All Other Funds-State	000-1	0	(65,700,000)	(65,700,000)	(600,000)	12,200,000
General Fund-State	001-1	0	(146,900,000)	(146,900,000)	(6,700,000)	(3,800,000)
	Total $	0	(212,600,000)	(212,600,000)	(7,300,000)	8,400,000

Estimated Capital Budget Impact:

NONE

The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.

Check applicable boxes and follow corresponding instructions:

☒ If fiscal impact is greater than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.

☐ If fiscal impact is less than $50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).

☐ Capital budget impact, complete Part IV.

☐ Requires new rule making, complete Part V.

Legislative Contact:		Phone:	Date: 01/26/2012
Agency Preparation:	Darren Painter	Phone: 360-786-6155	Date: 03/26/2012
Agency Approval:	Matt Smith	Phone: 360-786-6147	Date: 03/26/2012
OFM Review:	Jane Sakson	Phone: 360-902-0549	Date: 03/26/2012

Request # SB 6378-3

Part II: Narrative Explanation

II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

Briefly describe by section number, the significant provisions of the bill, and any related workload or policy assumptions, that have revenue or expenditure impact on the responding agency.

II. B - Cash receipts Impact

Briefly describe and quantify the cash receipts impact of the legislation on the responding agency, identifying the cash receipts provisions by section number and when appropriate the detail of the revenue sources. Briefly describe the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explain how workload assumptions translate into estimates. Distinguish between one time and ongoing functions.

II. C - Expenditures

Briefly describe the agency expenditures necessary to implement this legislation (or savings resulting from this legislation), identifying by section number the provisions of the legislation that result in the expenditures (or savings). Briefly describe the factual basis of the assumptions and the method by which the expenditure impact is derived. Explain how workload assumptions translate into cost estimates. Distinguish between one time and ongoing functions.

Part III: Expenditure Detail

III. A - Expenditures by Object Or Purpose

NONE

Part IV: Capital Budget Impact

NONE

Part V: New Rule Making Required

Identify provisions of the measure that require the agency to adopt new administrative rules or repeal/revise existing rules.

SUMMARY OF RESULTS

This bill closes Plan 2 of PERS, TRS, and SERS, requires new hires in these systems to join Plan 3 without subsidized early retirement, and temporarily suspends contributions to the PERS and TRS Plan 1 UAAL.

Impact on Contribution Rates (Effective 7/1/2012)*				
Fiscal Year 2013 State Budget	**PERS**	**TRS**	**SERS**	**PSERS**
Employee (Plan 2)	0.00%	0.00%	0.00%	0.00%
Total Employer	(2.34%)	(2.42%)	(2.34%)	(2.34%)

** Please see the fiscal note for contribution rate impacts beyond July 1, 2012.*

Budget Impacts			
(Dollars in Millions)	**Fiscal Year 2013**	**2013-2015**	**25-Year**
General Fund-State	($146.9)	($6.7)	($525.5)
Local Government	($181.4)	($4.6)	($213.9)
Total Employer	($394.0)	($11.9)	($699.1)

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.

HIGHLIGHTS OF ACTUARIAL ANALYSIS

The suspension of contributions to the Plan 1 UAAL results in a total employer savings of $394 million for fiscal year 2013 and a 25-year cost of over $400 million.

The closure of the Plans 2 changes future cost sharing between Plan 2 members and Plans 2/3 employers. We expect this provision to increase employer costs and Plan 2 contributions rates. We expect the removal of subsidized early retirements from Plan 3 new hires to decrease employer costs and Plan 2 contribution rates. When we consider both provisions together, we expect a total employer savings of nearly $1.2 billion over the next 25 years.

We expect the savings from removing subsidized early retirements for Plan 3 new hires to be larger than the combined cost of suspending Plan 1 UAAL contributions and closing the Plans 2. However, the actual cost of this bill could vary significantly based on the actual cost of closing the Plans 2. For example, if we assume lower future investment returns and fewer new hires selecting Plan 3 under current law, the 25-year total employer cost of this bill changes from a $699 million savings to a $3.2 billion cost.

This bill improves overall affordability risk, increases pay-go risk, and increases the chance that the total system funded status will drop below 60 percent. Please see the Risk Analysis section for more detailed information.

See the remainder of this fiscal note for additional details on the summary and highlights presented here.

WHAT IS THE PROPOSED CHANGE?

Summary Of Change

This bill impacts the following systems:

- ❖ Public Employees' Retirement System (PERS).
- ❖ Teachers' Retirement System (TRS).
- ❖ School Employees' Retirement System (SERS).

This bill closes Plan 2, requires new hires to join Plan 3, ends subsidized early retirement benefits for new hires in Plan 3, and temporarily suspends contributions to the Plan 1 Unfunded Actuarial Accrued Liability (UAAL).

The bill closes the Plans 2 of PERS, TRS, and SERS on June 30, 2012. New members of these systems first hired on or after July 1, 2012, are required to join Plan 3.

The bill also ends alternate (or subsidized) early retirement benefits for Plan 3 members of PERS, TRS, and SERS first hired on or after July 1, 2012. Under the bill, new hires who wish to retire before age 65 are required to take an actuarially reduced early retirement benefit. Alternate early retirement is a subsidized form of early retirement that provides larger benefits than actuarially reduced early retirement. Alternate early retirement is still provided for members hired prior to July 1, 2012.

The bill suspends employer contributions to the PERS and TRS Plan 1 UAAL for fiscal year 2013 by setting the maximum employer contribution rate to zero.

Effective Date: 90 days after session.

What Is The Current Situation?

New members in PERS, TRS, and SERS may choose between participating in Plan 2 or Plan 3. Plan 2 is a traditional Defined Benefit (DB) plan design with equal cost sharing between employees and employers. Plan 3 is a DB/DC hybrid plan design featuring a smaller employer-provided DB combined with an employee-funded Defined Contribution (DC) account.

The normal retirement age for Plans 2/3 members is age 65. Early retirement benefits are available to members who have attained age 55 and meet the minimum service requirements of twenty years in Plan 2 or ten years in Plan 3. Under early retirement, pensions are actuarially reduced for each year the member retires prior to attaining age 65.

Alternate early retirement benefits are available to Plans 2/3 members who have attained age 55 and have at least 30 years of service credit. Pension are reduced for alternate early retirement, however, the reduction is less than under early retirement. Alternate early retirement is considered a subsidized form of early retirement because benefits are not actuarially reduced. Statute provides two different sets of alternate early retirement provisions: 2000 Early Retirement Factors (ERFs) and 2008 ERFs. These provisions differ in pension reductions and retire-rehire restrictions. Eligible members may choose to retire under either provision as follows.

- **2000 ERFs** – Eligible members may retire and receive a pension reduced by 3 percent for each year the member retires prior to attaining age 65. Members retiring under this provision may return to work in an eligible position for a covered public employer prior to age 65 and, subject to certain restrictions, still receive their full pension.

- **2008 ERFs** – Eligible members may retire with unreduced pensions beginning at age 62. Members retiring between ages 55 and 62 have their pension reduced by a specified percentage that is less than the reduction provided under the 2000 ERFs. Members retiring under this provision are generally prohibited from receiving their full pension if they return to work in any capacity for a covered public employer before they reach age 65.

PERS and TRS Plans 1 have unfunded past service costs known as a UAAL. The UAAL is paid by employers through an additional contribution rate. Statute establishes maximum employer contribution rates for the PERS and TRS Plans 1 UAAL for fiscal years 2010-2015. These rates are collected as a percentage of members' salaries (including members outside the Plans 1). TRS employers contribute to the TRS 1 UAAL. PERS, SERS, and the Public Safety Employees' Retirement System (PSERS) employers contribute toward the PERS 1 UAAL. The maximum rates for PERS and TRS for fiscal year 2013 are 4.5 percent and 7.5 percent respectively.

Who Is Impacted And How?

We estimate this bill could affect all 149,626 active members of PERS 2, TRS 2, and SERS 2 and all employers of PERS, TRS, and SERS through different contribution rates. We expect Plan 2 members of PERS and SERS will experience short-term increases in contribution rates followed by long-term decreases in contribution rates. We expect Plan 2 members of TRS will experience only decreases in contribution rates. Employer rate impacts vary by year since they include both changes to the Plan 1 UAAL rate and the Plans 2/3 normal cost. Please see How Contribution Rates Changed for further details.

This bill would also affect all future new hires in PERS, TRS, and SERS through decreased benefits in the form of no subsidized ERFs. For example, a future member retiring at age 61 with 30 years of service would have their pension reduced by approximately 35 percent under this bill rather than 2 percent under current law. If this member were in Plan 2 under current law and had an average final salary of $50,000, the reduction factor for this member would be 0.98 resulting in an initial annual benefit of $29,400. The reduction factor under this bill would be 0.652 resulting in an initial annual benefit of $19,560.

In addition, future entrants of PERS, TRS, and SERS would no longer have the choice between Plan 2 and Plan 3 at hire, but would rather be required to enter Plan 3. This provision not only changes benefits for future new hires, but also changes cost sharing between Plan 2 members and Plans 2/3 employers. Please see the next section for further details on why the cost-sharing shift occurs.

WHY THIS BILL HAS A COST/SAVINGS AND WHO PAYS FOR IT

Why This Bill Has A Cost/Savings

The three major provisions of this bill have separate types of impacts:

- **Suspend UAAL Payment** – A funding policy change that results in a short-term employer savings followed by a long-term employer cost from the loss of assumed investment earnings on the forgone contributions.
- **Remove Subsidized ERFs for New Hires** – A benefit reduction that lowers the liabilities and costs associated with future hires. It begins as a small savings (when there aren't many new hires in the system) and becomes a larger savings over time.
- **Close Plans 2** – A demographic shift that alters the cost-sharing between Plan 2 members and Plans 2/3 employers for the unfunded costs of current Plans 2/3 members. In other words, it is not an additional cost to the retirement system, but rather a change in who pays for it in the future. Instead of cost-sharing between (a) assumed future Plan 2 members, (b) current Plan 2 members, and (c) Plans 2/3 employers, the bill changes cost-sharing to just current Plan 2 members and Plans 2/3 employers. This results in an expected short-term cost because future Plan 2 members are not sharing in the unfunded cost of current Plans 2/3 members.

See Appendix A for further details on the cost of this bill by major provision.

Who Will Pay For These Costs/Savings?

The three major provisions of this bill have separate types of impacts.

- **Suspend UAAL Payment** – The short-term savings and long-term costs will be fully realized by employers. PERS, SERS, and PSERS employers will realize the impact from the suspension of the PERS UAAL payment whereas TRS employers will realize the impact from the suspension of the TRS UAAL payment.
- **Remove Subsidized ERFs for New Hires** – The savings associated with this benefit reduction will be realized under the standard Plans 2/3 funding policy.

    - ◊ **Plan 2** – 50 percent member and 50 percent employer. Note that although there will be no future hires in Plan 2 under this bill, the current Plan 2 members will experience a contribution rate reduction as less expensive members join the system in the future.
    - ◊ **Plan 3** – 100 percent employer.
- ❖ **Close Plans 2** – The cost of the cost-sharing shift described above would be borne by current Plan 2 members and Plans 2/3 employers.

HOW WE VALUED THESE COSTS

Assumptions We Made

We made the following assumption changes for each of the three major provisions of this bill.

- ❖ **Suspend UAAL Payment** – No assumption changes.
- ❖ **Remove Subsidized ERFs for New Hires** – We assumed future members would retire later (work longer) without the subsidized ERFs. Specifically, we assumed new hires would have the same rate of retirement after 30 years of service as they do currently before 30 years of service.
- ❖ **Close Plans 2** – We updated the new entrant profile for our projection system as described in Appendix D and assumed 100 percent of new hires will enter Plan 3.

The savings from removing subsidized early retirements for new hires in Plan 3 assumes the continuation of these benefits for new hires under current law. The cost of closing TRS 2 and SERS 2 also assumes the continuation of Plan 2/3 choice for new hires under current law. According to current law, if the courts, through a final court action, reinstate gain-sharing benefits, the 2008 ERFs and plan choice for TRS and SERS are removed prospectively by operation of law. Should this occur, then the expected net savings attributed to this bill would become a cost.

Please see Appendix D for further details on the assumption changes we made for this pricing.

How We Applied These Assumptions

We calculated the cost of this bill by comparing the current situation ("base") to the expected scenario if this bill passed ("pricing").

The base is a projection where all UAAL contributions are made, new hires have access to subsidized ERFs, and two-thirds of new hires choose Plan 2 while one-third choose Plan 3. Based on this projection we observe both the required contribution rates and the projected payroll. The multiplication of these two items results in the base fiscal costs.

The pricing is a projection where the 2013 fiscal year's PERS and TRS UAAL contribution is suspended, new hires do not have access to subsidized ERFs (and therefore retire later on average), and new hires are mandated into Plan 3. Based on this projection we observe the new required contribution rates and projected payroll. The multiplication of these two items results in the pricing fiscal costs.

We then compare the pricing fiscal costs to the base fiscal costs to determine the expected impact from this bill.

Otherwise, we developed these costs using the same methods as disclosed in the *June 30, 2010, Actuarial Valuation Report* (AVR).

Special Data Needed

We developed these costs using the same assets and data as disclosed in the AVR. In addition, we recognized investment returns of 21.14 percent through June 30, 2011, when estimating projected asset values.

ACTUARIAL RESULTS

How The Liabilities Changed

This bill does not change the present value of future benefits payable to current members so there is no impact on pension liability for current members. We include the estimated impact of benefit changes for new hires in the budget impact section.

Impact on Pension Liability – Current Members			
(Dollars in Millions)	Current	Increase	Total
Actuarial Present Value of Projected Benefits			
(The Value of the Total Commitment to all Current Members)			
PERS 1	$12,721	$0.0	$12,721
PERS 2/3	26,041	0.0	26,041
PERS Total	**$38,762**	**$0.0**	**$38,762**
TRS 1	$9,305	$0.0	$9,305
TRS 2/3	9,111	0.0	9,111
TRS Total	**$18,416**	**$0.0**	**$18,416**
SERS 2/3	**$3,461**	**$0.0**	**$3,461**
Unfunded Actuarial Accrued Liability			
*(The Portion of the Plan 1 Liability that is Amortized According to Funding Policy)**			
PERS 1	**$3,094**	**$0.0**	**$3,094**
TRS 1	**$1,345**	**$0.0**	**$1,345**
Unfunded Projected Unit Credit Liability			
(The Value of the Total Commitment to all Current Members Attributable to Past Service that is Not Covered by Current Assets)			
PERS 1	$3,238	$0.0	$3,238
PERS 2/3	(2,202)	$0.0	(2,202)
PERS Total	**$1,036**	**$0.0**	**$1,036**
TRS 1	$1,439	$0.0	$1,439
TRS 2/3	(886)	$0.0	(886)
TRS Total	**$554**	**$0.0**	**$554**
SERS 2/3	**($296)**	**$0.0**	**($296)**

How The Present Value of Future Salaries (PVFS) Changed

This proposal does not change the PVFS of the current members. We include the estimated PVFS impact of later assumed retirement for new hires in the budget impact section.

How Contribution Rates Changed

The rounded change in the required actuarial contribution rate results in the 2013 supplemental contribution rate shown on page one that applies in the current biennium. We used the rounded employer rate changes shown below for the Plan 1 UAAL and Plans 2/3 Normal Cost (NC) to measure the budget changes in future Fiscal Years (FY).

Most of the employer rate impact from the suspension of Plan 1 UAAL payments occurs at the end of the expected amortization period since the suspended payments extend the projected amortization date. Prior to the amortization date, we expect the Plan 1 UAAL rate to remain at the minimum rate level both before and after this bill for most future years.

The Plans 2/3 normal cost impacts vary by system. TRS experiences the largest future rate savings from the removal of subsidized ERFs because TRS has the highest utilization of subsidized early retirement under current law, followed by PERS, and then SERS. We see the largest rate impacts from closing Plan 2 in

PERS because PERS currently has the largest percentage of Plan 2 members, followed by SERS, and then TRS.

Employer Contribution Rate Change By Year					
FY	PERS 1	PERS 2/3	TRS 1	TRS 2/3	SERS 2/3
2013	(2.34%)	0.00%	(2.42%)	0.00%	0.00%
2014	0.00%	(0.01%)	0.00%	(0.08%)	(0.03%)
2015	0.00%	(0.01%)	0.00%	(0.08%)	(0.03%)
2016	0.21%	(0.02%)	0.00%	(0.20%)	(0.06%)
2017	0.21%	(0.02%)	0.00%	(0.20%)	(0.06%)
2018	0.17%	0.07%	0.00%	(0.25%)	0.00%
2019	0.17%	0.07%	0.00%	(0.25%)	0.00%
2020	0.00%	0.14%	0.00%	(0.29%)	0.03%
2021	0.00%	0.14%	0.00%	(0.29%)	0.03%
2022	0.00%	0.09%	0.57%	(0.35%)	(0.02%)
2023	0.00%	0.09%	2.54%	(0.35%)	(0.02%)
2024	0.00%	0.06%	0.00%	(0.40%)	(0.05%)
2025	2.58%	0.06%	0.00%	(0.40%)	(0.05%)
2026	0.00%	0.03%	0.00%	(0.42%)	(0.08%)
2027	0.00%	0.03%	0.00%	(0.42%)	(0.08%)
2028	0.00%	(0.02%)	0.00%	(0.43%)	(0.10%)
2029	0.00%	(0.02%)	0.00%	(0.43%)	(0.10%)
2030	0.00%	(0.06%)	0.00%	(0.45%)	(0.11%)
2031	0.00%	(0.06%)	0.00%	(0.45%)	(0.11%)
2032	0.00%	(0.09%)	0.00%	(0.47%)	(0.13%)
2033	0.00%	(0.09%)	0.00%	(0.47%)	(0.13%)
2034	0.00%	(0.13%)	0.00%	(0.48%)	(0.13%)
2035	0.00%	(0.13%)	0.00%	(0.48%)	(0.13%)
2036	0.00%	(0.15%)	0.00%	(0.49%)	(0.13%)
2037	0.00%	(0.15%)	0.00%	(0.49%)	(0.13%)

How This Impacts Budgets And Employees

We show the expected fiscal impacts below. Appendix A shows the costs for major provisions of this bill.

Budget Impacts					
(Dollars in Millions)	**PERS**	**TRS**	**SERS**	**PSERS**	**Total**
Fiscal Year 2013					
General Fund	($45.8)	($79.9)	($16.7)	($4.5)	($146.9)
Non-General Fund	(65.2)	0.0	0.0	(0.5)	(65.7)
Total State	**($111.0)**	**($79.9)**	**($16.7)**	**($5.0)**	**($212.6)**
Local Government	(118.7)	(40.6)	(20.8)	(1.4)	(181.4)
Total Employer	**($229.7)**	**($120.5)**	**($37.5)**	**($6.3)**	**($394.0)**
2013-2015					
General Fund	($0.4)	($5.8)	($0.5)	$0.0	($6.7)
Non-General Fund	(0.6)	0.0	0.0	0.0	(0.6)
Total State	**($1.0)**	**($5.8)**	**($0.5)**	**$0.0**	**($7.3)**
Local Government	(1.1)	(2.9)	(0.6)	0.0	(4.6)
Total Employer	**($2.1)**	**($8.7)**	**($1.1)**	**$0.0**	**($11.9)**
2012-2037					
General Fund	$27.8	($554.8)	($4.7)	$6.2	($525.5)
Non-General Fund	39.6	0.0	0.0	0.7	40.3
Total State	**$67.4**	**($554.8)**	**($4.7)**	**$6.8**	**($485.2)**
Local Government	72.1	(282.0)	(5.8)	1.9	(213.9)
Total Employer	**$139.5**	**($836.8)**	**($10.5)**	**$8.7**	**($699.1)**

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. The combined effect of several changes could exceed the sum of each proposed change considered individually.

As with the costs developed in the actuarial valuation, the emerging costs 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

This bill will affect the overall risk and affordability of the pension systems as shown below. Generally, we found affordability risk measures improved while pay-go risks increased.

Pension Score Card				
	Base		Pricing	
Category *(Dollars in Billions)*	**Value**	**Score**	**Value**	**Score**
Affordability				
Chance Pensions will Consume More than 8% of GF-S[1]	6%	80	4%	86
5% Chance GF-S[1] Consumption will Exceed	8.1%	61	7.6%	67
5% Chance Employer Contribution Rate will Exceed	17.3%	54	16.2%	59
Risk				
Chance of PERS 1, TRS 1 in Pay-Go[2]	27%	33	32%	28
Chance of Open Plan in Pay-Go[2]	9%	51	15%	45
5% Chance Annual Pay-Go Cost[3] in PERS 1, TRS 1 Exceed	$1.5	40	$1.4	41
5% Chance Annual Pay-Go Cost[3] in Open Plans Exceed	$9.9	0	$8.5	0
Chance of Total Funded Status Below 60%	26%	36	35%	23
Total Weighted Score		**50**		**50**

[1]Currently 2.7% of GF-S.

[2]When today's value of annual cost exceeds $25 million.

[3]Pay-Go costs on top of normal pension costs.

We found the removal of the subsidized ERFs improves affordability by lowering required contributions throughout the projection period. However, the impact on affordability risk was minimal as measured under the score card. Under current law, most affordability risks surface in 2024. This corresponds with the year LEOFF 1 UAAL would need to be fully amortized under pessimistic scenarios.

In addition, during periods of increased contribution requirements resulting from the closure of Plan 2, we found the model assumed higher funding shortfalls. This result simultaneously improves affordability risk and makes pay-go risk worse. We found in the risk model an assumed shift from closed plan contributions to open plan contributions in order to accommodate the increasing open plan contribution rates under SB 6378. Open plan contribution rates, which are collected over less system payroll, collect fewer dollars and have a smaller impact on the percent GF-S risk measure than closed plan contribution rates.

The combination of the suspension of the UAAL payment and closing Plan 2 increases contribution rate requirements over the next 30 years. This results in larger assumed funding shortfalls in the future which decrease overall funded status and increase the chance of pay-go in both open and closed plans.

The removal of the subsidized ERFs lowers the long-term guaranteed benefits of the open plans which reduces the amount of pay-go payments should they occur.

Please see Appendix B and Appendix C for further details about how risk measures change under this bill. Please see our *2010 Risk Assessment Report* (RAR) for additional background on how we developed and how to interpret the risk measures.

HOW THE RESULTS CHANGE WHEN THE ASSUMPTIONS CHANGE

To determine the sensitivity of the actuarial results to the best-estimate assumptions selected for this pricing we varied the following:

- The currently assumed plan choice between Plans 2 and 3. Currently, we assume two-thirds of new entrants will choose Plan 2 and one-third will choose Plan 3.
- The assumed 8 percent investment return.

We believe these two assumptions are correlated. Specifically, we believe more members will choose Plan 2 (plan bears investment risk/reward) when investment returns have been lower than average. Conversely, we believe more members will choose Plan 3 (member bears investment risk/reward) when investment returns have been higher than average. Based on this correlation, we chose two scenarios that we believe represent a likely range of potential outcomes:

- **Lower Cost** – 50 percent of new hires choose Plan 2 and 50 percent choose Plan 3. Investment returns equal 9 percent.
- **Higher Cost** – 80 percent of new hires choose Plan 2 and 20 percent choose Plan 3. Investment returns equal 7 percent.

We chose these scenarios because the cost of this bill is most sensitive to these assumptions. Specifically, the close Plans 2 provision of the bill shows the most sensitivity to these assumptions.

As discussed earlier, the cost-sharing shift that results from closing Plan 2 means future Plan 2 members will not share in the unfunded costs of current Plans 2/3 members. This results in additional contribution requirements from current Plan 2 members and Plans 2/3 employers.

The more/less future Plan 2 members lost by closing Plan 2, the larger/smaller the cost-sharing shift and resulting cost. The more/less future investment returns (relative to the 8 percent assumption), the smaller/larger the unfunded costs of current Plans 2/3 members.

The lower cost scenario represents a scenario where unfunded costs of current Plans 2/3 members decrease from above-expected investment returns and employers share the savings with fewer Plan 2 members. The higher cost scenario, on the other hand, represents a scenario where unfunded costs of current Plans 2/3 members increase from below-expected investment returns, and employers share the cost with more Plan 2 members.

The closure of the Plans 2 may result in lower future investment returns for the defined benefit programs. Current Plan 3 members have the option to invest their contributions in the same fund as the fund that supports the state's defined benefit programs – the Commingled Trust Fund (CTF). As more Plan 3 member contributions enter the CTF, the CTF will likely experience more cash-flow volatility. Managing this increased volatility may require the CTF to hold more liquid assets to support the higher cash flow needs of the portfolio. Holding more liquid assets reduces the expected investment returns of the CTF resulting in higher contribution requirements to offset lost investment earnings.

The closure of the Plans 2 under this bill will increase the Plan 3 member contributions in the CTF. However, since this increase will happen gradually over time and the decision to change the CTF's asset allocation depends on a future action of the Washington State Investment Board, we did not assume a cost from the bill in this area in our best-estimate pricing.

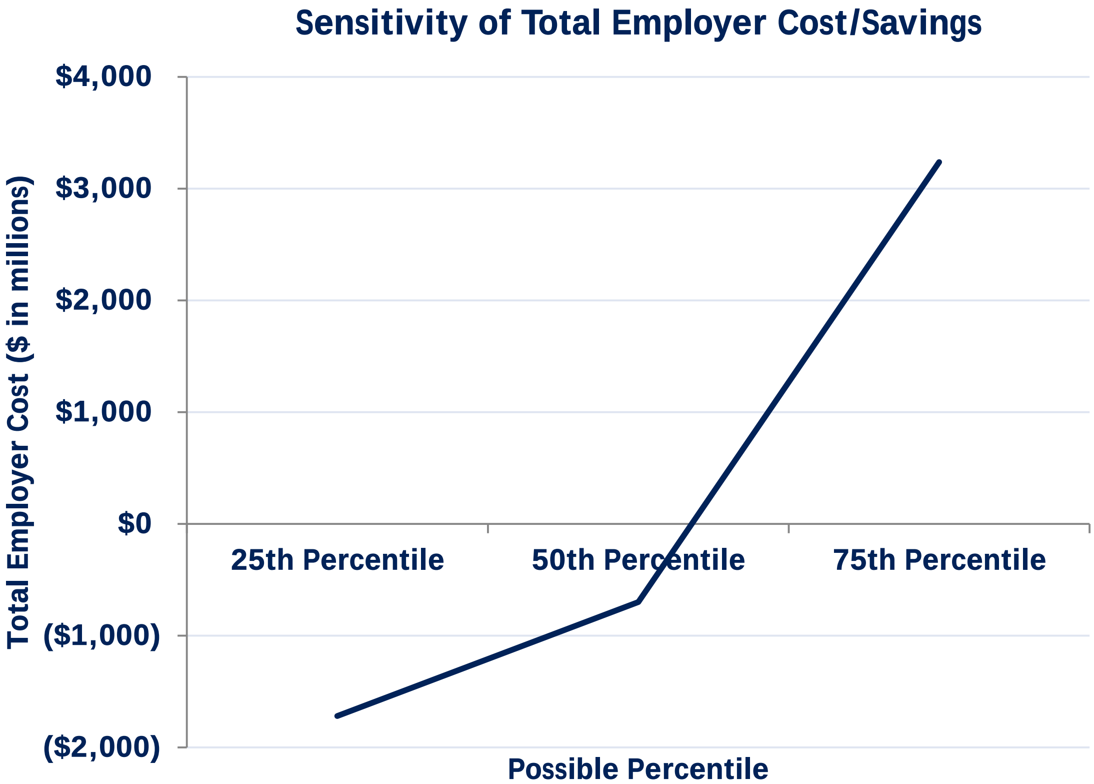
The table below shows the results of our sensitivity analysis.

Sensitivity of Best Estimate Fiscal Impact			
(Dollars in Millions)	**Lower Cost 50%/50% Plans 2/3 9% Investment Returns**	**Best-Estimate 67%/33% Plans 2/3 8% Investment Returns**	**Higher Cost 80%/20% Plans 2/3 7% Investment Returns**
25-Year GF-S	($844.8)	($525.5)	$628.8
25-Year Total Employer	($1,719.8)	($699.1)	$3,236.7

The pattern of costs shown in the table above is not linear. Considering the probability and amount of each outcome, a more complete picture can be seen.

For example, it would not be unreasonable to believe these three scenarios represent the best-estimate and a best-estimate range (25^{th} – 75^{th} percentile). If someone made that assumption, they could graph the three points equal distance apart and make observations about the probability of different outcomes. The graph below shows this example.

This graph shows the probability of this bill resulting in a savings is greater than 50 percent because more than half the outcomes fall below $0 (a savings). However, the magnitude of a savings is likely to be smaller than the magnitude of a cost if a cost arises. Policy makers may choose to weigh the likely expected savings against the risk of more costly outcomes.



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 in the footer. We intend this fiscal note to be used by the Legislature during the 2012 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.

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.
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. The risk analysis summarized in this fiscal note involves the interpretation of many factors and the application of professional judgment. We believe that the data, assumptions, and methods used in our risk assessment model are reasonable and appropriate for the purposes of this pricing exercise. The use of another set of data, assumptions, and methods, however, could also be reasonable and could produce materially different results.
6. We prepared this fiscal note for the Legislature during the 2012 Legislative Session.
7. 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 in the footer of this fiscal note.

The undersigned, with actuarial credentials, meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

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

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APPENDIX A – INDIVIDUAL COMPONENT COSTS

This Appendix shows the fiscal costs associated with the major provisions of the bill. We show two categories below:

- **Plan 1 Provisions** – The impact of suspending the UAAL payment only.
- **Plans 2/3 Provisions** – The impact of closing the Plans 2 and removing subsidized ERFs for new hires only.

Please note the sum of each category does not equal the total cost of this proposal due to the interaction of the two categories in our pricing.

Budget Impacts – Plan 1 Provisions			
(Dollars in Millions)	**Fiscal Year 2013**	**2013-2015**	**25-Year**
General Fund-State	($146.8)	$0.0	$173.5
Local Government	($181.4)	$0.0	$219.2
Total Employer	($394.0)	$0.0	$472.6

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.

The table above shows the short-term savings and the long-term repayment with interest. For example, all employers will avoid paying $394 million in fiscal year 2013. However, they will end up paying $867 million later. The $867 million payment is made of up $394 million in principal and $473 million in lost assumed investment earnings.

Budget Impacts – Plan 2/3 Provisions			
(Dollars in Millions)	**Fiscal Year 2013**	**2013-2015**	**25-Year**
General Fund-State	**($0.0)**	**($6.7)**	**($699.1)**
Local Government	**($0.0)**	**($4.6)**	**($433.0)**
Total Employer	**($0.0)**	**($11.9)**	**($1,171.7)**

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.

The table above shows the net emergence of employer costs from closing the Plans 2 and savings from removing the subsidized ERFs for new hires. The net savings begins small since we expect few new hires in the plan. However, over time as the current members leave and are replaced with new hires, the net savings grows. Eventually, the cost of closing the Plans 2 will disappear (beyond 25 years) and only savings will exist due to the removal of the subsidized ERFs for new hires.

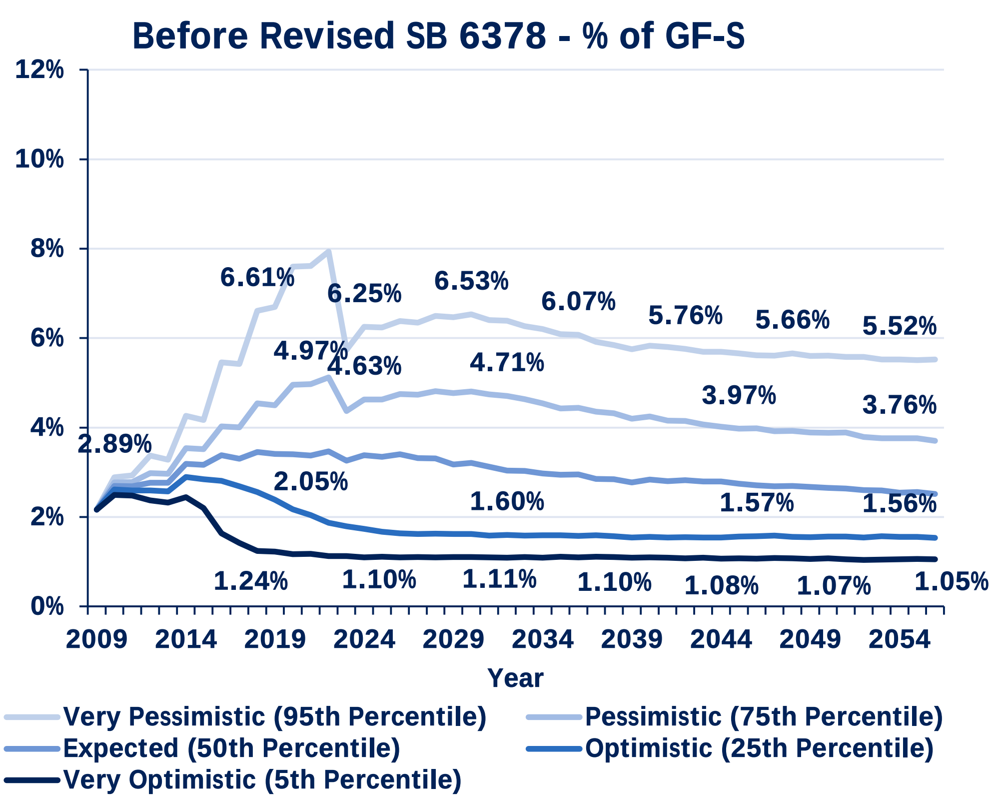
APPENDIX B – HOW THE RISK MEASURES CHANGED (FULL PROPOSAL)

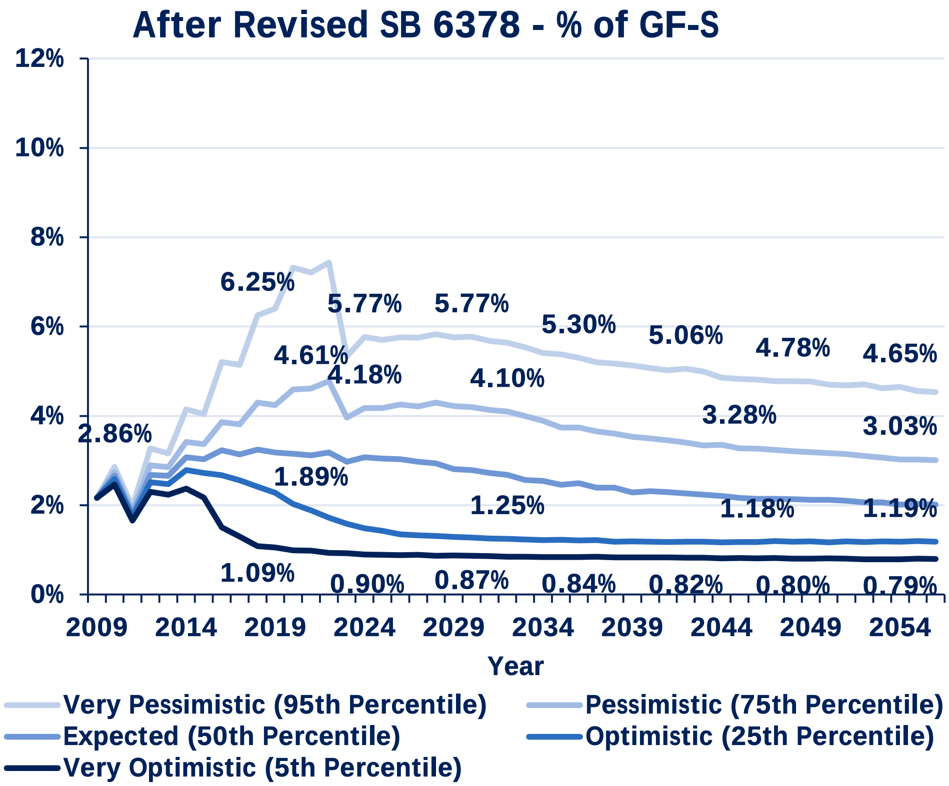
Two impacts that we don't see on the scorecard shown in the body of the fiscal note include:

- **Long-Term Affordability** – Long-term affordability improves based on the removal of the subsidized ERFs for new hires lowering long-term contribution rates.
- **Current Plan 2 Member Contribution Rates** – Plan 2 member contribution rates are expected to increase.

The graphs below show these two impacts.

First, the percent of GF-S shows the long-term decrease in costs associated with this bill. More specifically, the right portion of these two graphs can be compared to see the longer-term impact. Under the full range of optimistic to pessimistic scenarios, this bill will have lower costs.

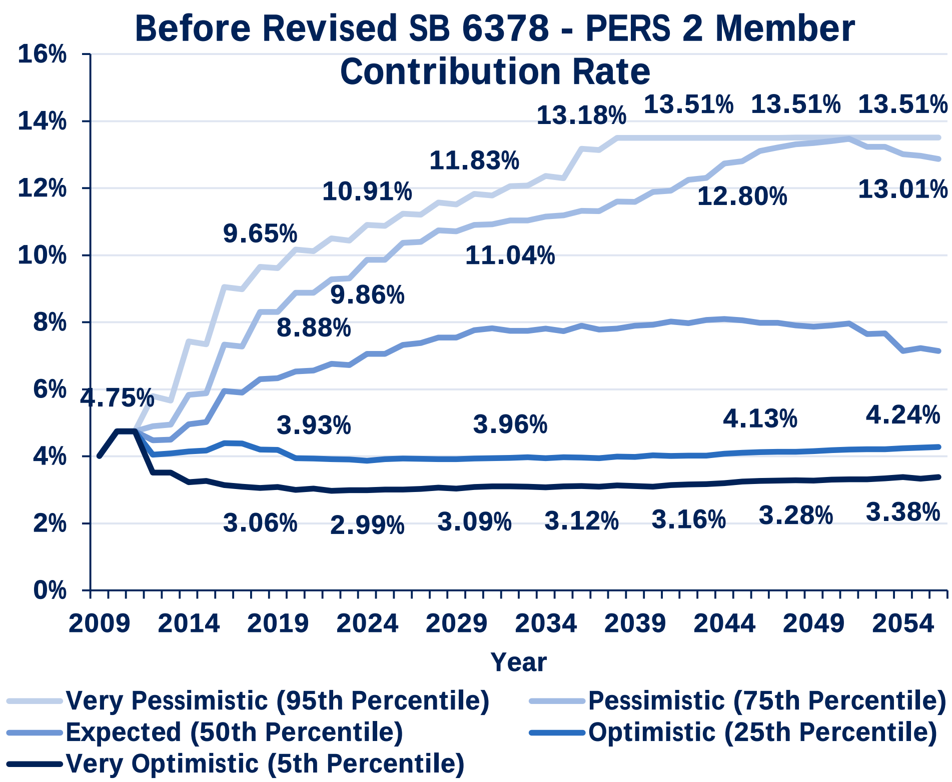


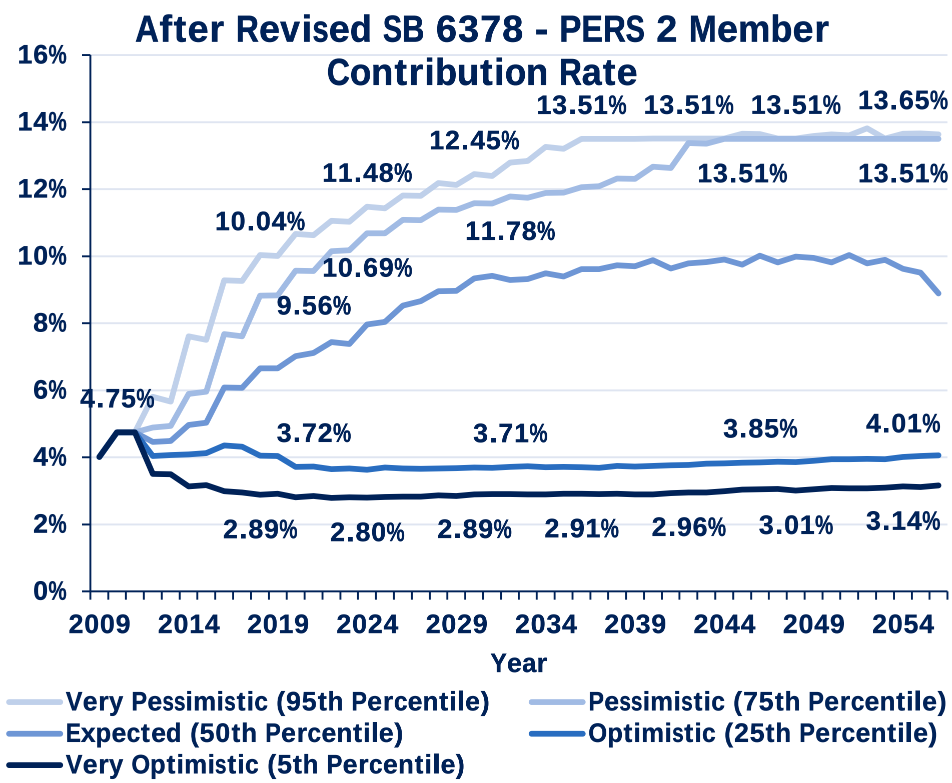


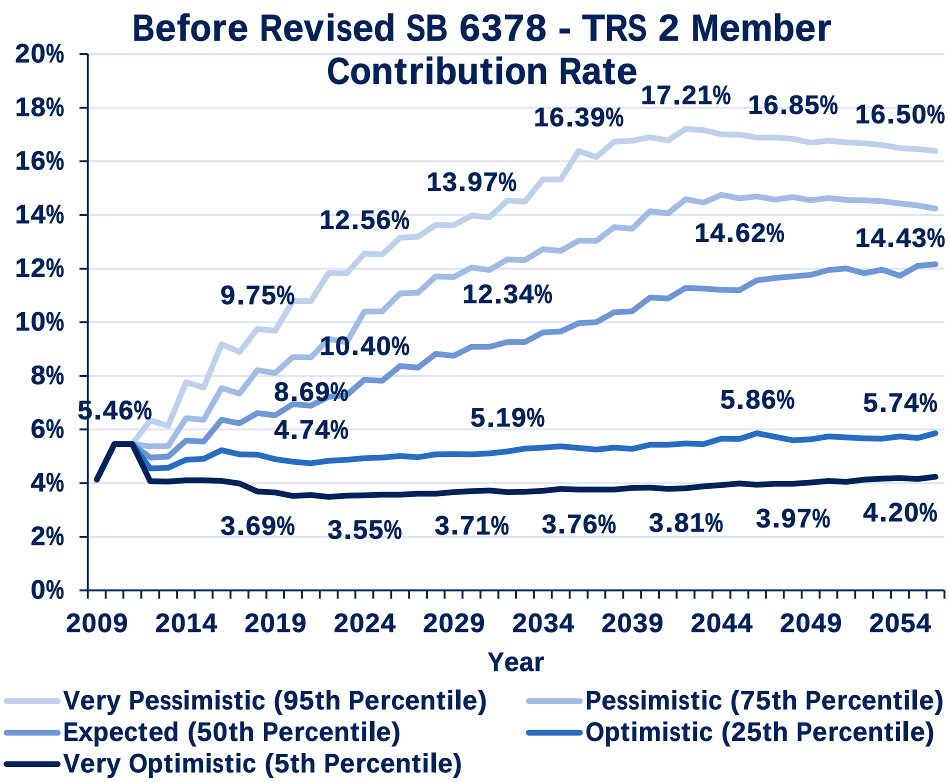
The following contribution rate graphs show how Plan 2 members will be impacted by this bill. Generally, this shows a consistent, but more thorough, analysis to what we displayed and discussed in the body of the fiscal note for the Plans 2/3 rate changes by year.

The impact varies by system based on the net impact between closing the Plans 2 (cost) and removing the subsidized ERFs for new hires (savings). SERS has a similar impact as PERS.

- **PERS** – Under expected conditions, contribution rates will increase higher under this bill (for about 20 years). Under pessimistic conditions, the contribution rates will be roughly the same. Under optimistic conditions, the contribution rates will be lower under this bill (consistent with the sensitivity analysis).
- **TRS** – Under expected and optimistic conditions, contribution rates will be about the same or decrease under this bill. Under pessimistic conditions, the contribution rates will be roughly the same.


Before Revised SB 6378 - PERS 2 Member Contribution Rate
16%
14%
12%
10%
8%
6%
4%
2%
0%
13.18%
13.51%
13.51%
13.51%
11.83%
10.91%
9.65%
12.80%
13.01%
11.04%
9.86%
8.88%
4.75%
3.93%
3.96%
4.13%
4.24%
3.06%
2.99%
3.09%
3.12%
3.16%
3.28%
3.38%
2009
2014
2019
2024
2029
2034
2039
2044
2049
2054
Year
Very Pessimistic (95th Percentile)
Pessimistic (75th Percentile)
Expected (50th Percentile)
Optimistic (25th Percentile)
Very Optimistic (5th Percentile)


After Revised SB 6378 - PERS 2 Member Contribution Rate
16%
14%
12%
10%
8%
6%
4%
2%
0%
13.51%
13.51%
13.51%
13.65%
12.45%
11.48%
10.04%
13.51%
13.51%
11.78%
10.69%
9.56%
4.75%
3.72%
3.71%
3.85%
4.01%
2.89%
2.80%
2.89%
2.91%
2.96%
3.01%
3.14%
2009
2014
2019
2024
2029
2034
2039
2044
2049
2054
Year
Very Pessimistic (95th Percentile)
Pessimistic (75th Percentile)
Expected (50th Percentile)
Optimistic (25th Percentile)
Very Optimistic (5th Percentile)


Before Revised SB 6378 - TRS 2 Member Contribution Rate
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
5.46%
17.21%
16.85%
16.50%
16.39%
13.97%
12.56%
14.62%
14.43%
9.75%
12.34%
10.40%
8.69%
4.74%
5.19%
5.86%
5.74%
3.69%
3.55%
3.71%
3.76%
3.81%
3.97%
4.20%
2009
2014
2019
2024
2029
2034
2039
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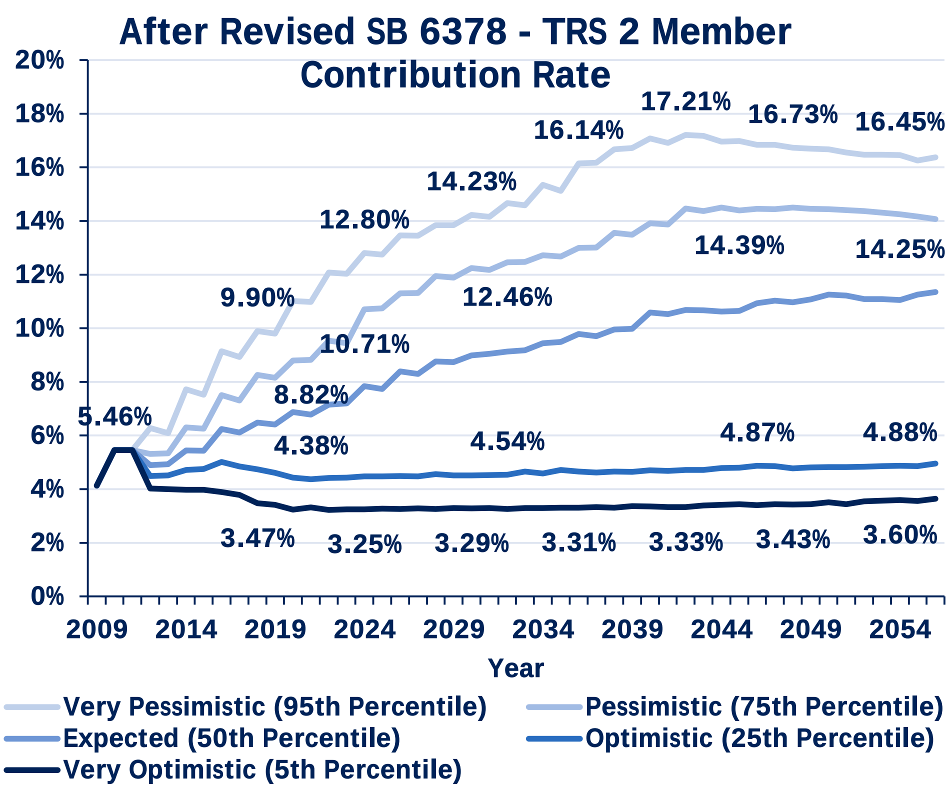
2049
2054
Year
Very Pessimistic (95th Percentile)
Pessimistic (75th Percentile)
Expected (50th Percentile)
Optimistic (25th Percentile)
Very Optimistic (5th Percentile)


After Revised SB 6378 - TRS 2 Member Contribution Rate
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
5.46%
17.21%
16.73%
16.45%
16.14%
14.23%
12.80%
14.39%
14.25%
9.90%
12.46%
10.71%
8.82%
4.38%
4.54%
4.87%
4.88%
3.47%
3.25%
3.29%
3.31%
3.33%
3.43%
3.60%
2009
2014
2019
2024
2029
2034
2039
2044
2049
2054
Year
Very Pessimistic (95th Percentile)
Pessimistic (75th Percentile)
Expected (50th Percentile)
Optimistic (25th Percentile)
Very Optimistic (5th Percentile)

APPENDIX C – HOW THE RISK MEASURES CHANGED (PLANS 2/3 PROVISONS)

This Appendix shows the risk analysis for the two Plans 2/3 provisions of this bill only. Specifically, it shows how the scorecard would differ if only close Plans 2 and the removal of the subsidized ERFs for new hires were considered.

The reader can attribute the difference between this scorecard and the full proposal's scorecard in the body of this fiscal note to the Plan 1 provision – suspension of the Plan 1 UAAL contributions.

Pension Score Card				
	Base		Pricing	
Category *(Dollars in Billions)*	**Value**	**Score**	**Value**	**Score**
Affordability				
Chance Pensions will Consume More than 8% of GF-S[1]	6%	80	4%	87
5% Chance GF-S1 Consumption will Exceed	8.1%	61	7.6%	68
5% Chance Employer Contribution Rate will Exceed	17.3%	54	16.1%	59
Risk				
Chance of PERS 1, TRS 1 in Pay-Go[2]	27%	33	31%	29
Chance of Open Plan in Pay-Go[2]	9%	51	15%	45
5% Chance Annual Pay-Go Cost[3] in PERS 1, TRS 1 Exceed	$1.5	40	$1.5	40
5% Chance Annual Pay-Go Cost[3] in Open Plans Exceed	$9.9	0	$8.5	0
Chance of Total Funded Status Below 60%	26%	36	35%	24
Total Weighted Score		**50**		**51**

[1] *Currently 2.7% of GF-S.*

[2] *When today's value of annual cost exceeds $25 million.*

[3] *Pay-Go costs on top of normal pension costs.*

This scorecard shows lower Plan 1 pay-go risk and similar affordability measures when compared to the full proposal's scorecard. The Plan 2/3 provisions of this bill impact closed-plan pay-go risks because Plan 2/3 employers contribute to the Plan 1 UAAL in addition to the on-going costs of the Plans 2/3. The closing of the Plans 2 increases employer contribution rate requirements over the next 30 years, resulting in larger assumed funding shortfalls for both the Plan 1 UAAL and the Plans 2/3 in the future.

Other than the assumptions, methods, and data described in this fiscal note, we developed these risk assessments using the same assumptions, methods, and data as disclosed in the *August 31, 2010, Risk Assessment Report*.

APPENDIX D – ASSUMPTIONS WE MADE

In addition to the assumption changes outlined in the body of this fiscal note, we updated the new entrant profile used in our projection system for both the "base" and "pricing" projections.

In order to ensure that we ran the same new entrant population through each projection (regardless of the percent going into Plan 2 versus Plan 3), we updated our new entrant profile for this pricing. This updated new entrant profile is a weighted average of two-thirds of our current Plan 2 new entrant database and one-third of our current Plan 3 new entrant database. This updated new entrant profile in our projection system allows us to consistently project the same future members to the pension system no matter what percent goes into Plan 2 or Plan 3.

Below, we show the new entrant profiles we used for PERS, TRS, and SERS in our projections.

New Entrant Profiles											
PERS				TRS				SERS			
Age	Salary	Sex	Weight	Age	Salary	Sex	Weight	Age	Salary	Sex	Weight
24	$34,000	M	10.5%	**25**	$50,533	M	6.7%	**24**	$19,167	M	3.0%
24	$34,000	F	10.5%	**25**	$50,533	F	15.6%	**24**	$19,167	F	12.1%
29	$38,800	M	9.8%	**29**	$53,400	M	8.6%	**29**	$20,400	M	2.6%
29	$38,800	F	9.8%	**29**	$53,400	F	20.0%	**29**	$20,400	F	10.3%
34	$41,133	M	7.3%	**34**	$55,300	M	4.5%	**34**	$19,433	M	2.6%
34	$41,133	F	7.3%	**34**	$55,300	F	10.6%	**34**	$19,433	F	10.6%
39	$41,700	M	5.8%	**39**	$55,467	M	3.0%	**39**	$18,733	M	3.2%
39	$41,700	F	5.8%	**39**	$55,467	F	7.1%	**39**	$18,733	F	12.9%
44	$41,733	M	5.3%	**44**	$56,067	M	2.7%	**44**	$18,767	M	3.1%
44	$41,733	F	5.3%	**44**	$56,067	F	6.4%	**44**	$18,767	F	12.4%
49	$42,200	M	4.5%	**49**	$56,733	M	2.0%	**49**	$19,467	M	2.2%
49	$42,200	F	4.5%	**49**	$56,733	F	4.7%	**49**	$19,467	F	9.0%
57	$43,433	M	6.7%	**56**	$62,767	M	2.4%	**57**	$19,467	M	3.2%
57	$43,433	F	6.7%	**56**	$62,767	F	5.7%	**57**	$19,467	F	12.7%

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

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 actuarial accrued 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) based on the PUC method.

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.

GLOSSARY OF RISK TERMS

Affordability: Measures the affordability of the pension systems. Affordability risk measures the chance that pension contributions will cross certain thresholds with regards to the General-Fund and contribution rates.

"Current Law": Scenarios in which assumptions about Legislative behavior are excluded. These scenarios show projections regarding the current state of Washington statutes.

Optimistic: A measurement of the pension system under favorable conditions (above expected investment returns, for example). Optimistic refers to the 75th percentile, where there is a 25 percent chance of the measurement being better and 75 percent chance of the measurement being worse. Very optimistic refers to the 95th percentile.

"Past Practices": Scenarios in which assumptions regarding Legislative behavior are introduced. These assumptions include actual contributions below what are actuarially required and improving benefits over time. These scenarios are meant to project past behavior into the future.

Pay-Go: The trust fund runs out of assets, and payments from the General-Fund must be made to meet contractual obligations.

Pessimistic: A measurement of the pension system under unfavorable conditions (below expected investment returns, for example). Pessimistic refers to the 25th percentile, where there is a 75 percent chance of the measurement being better and 25 percent chance of the measurement being worse. Very pessimistic refers to the 5th percentile.

Premature Pay-Go: Pay-go payments, measured in today's value, which might be considered "significant" in terms of the potential impact on the General-Fund.

Risk: Measures the risk metrics of the pension systems, including the chance that the pension systems will prematurely run out of assets, the amount of potential pay-go contributions, and the chance that the funded status will cross a certain threshold.

Risk Tolerance: The amount of risk an individual or group is willing to accept with regards to the likelihood and severity of unfavorable outcomes.