Office of the State Actuary
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Preliminary Results, Actuarial Valuation

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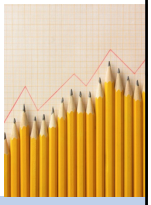
Today's Presentation

- Brief "Actuarial 101" to start
- Preliminary 2011 Actuarial Valuation results
- Projected budget impacts
- Other considerations
- No action required today

Purpose Of Actuarial Valuation

- Determine contribution requirements for 2013-15
- Based on results of June 30, 2011, valuation date
- Consistent with prescribed funding policy
- Provide information on funding progress and developments over the past valuation year
- Certify the data, assumptions, and methods are reasonable and conform with current actuarial standards of practice



Systematic Actuarial Funding

- Prescribed funding policy
- Regular contributions over time
- Investment returns earned systematically over time
  - WSIB mandate: maximize returns at a prudent level of risk
- Investment risk is spread over time
- Supports intergenerational equity
  - Contributions made over members' careers
  - Today's generation pays for today's generation

How Does It Work?

- Estimate future pension benefits
  - What will future benefits be?
  - When will they be paid and for how long?
- Estimate returns on future invested contributions?
  - What will future investment returns look like?
- Select an actuarial cost method
  - What are the regular contributions required over time?

Actuarial Cost Method

- Allocates a pension plan's cost over a member's working career
- Determines annual and on-going cost while member works
  - "Normal cost"
  - The regular contributions over time under systematic actuarial funding
- If everything happens as planned, normal cost will accumulate with investment earnings and completely fund a member's pension at the time of his/her retirement

Measuring Plan Health

- Has everything happened as planned?
- Are we on track with our systematic actuarial funding plan?
- Two key measurements
  - Funded status
  - Unfunded Actuarial Accrued Liability (the "UAAL")

Funded Status

- Comparison of plan assets to today's value of earned pensions
  - Point-in-time measurement
- A funded status of at least 100 percent means a plan has at least $1 in actuarial assets for each $1 of earned pension liability
  - On track with systematic actuarial funding plan

Unfunded Actuarial Accrued Liability

- Occurs when a plan does not have sufficient assets to cover earned pension liabilities
  - Funded status less than 100 percent
- Off track with systematic actuarial funding plan
- Requires additional contributions to get back on track
  - Normal cost plus UAAL contributions
  - Intergenerational equity is weakened
- If you don't get back on track, funding plan will ultimately become pay-as-you-go

2011 Actuarial Valuation Results Are Preliminary

- Concurrent outside actuarial audit underway
- 2011 actuarial valuation finalized following completion of audit and PFC rate adoption in July

Comments On 2011 Results

- PERS 2/3, TRS 2/3, SERS, PSERS, LEOFF, and WSPRS on track with systematic actuarial funding plan
- PERS 1 and TRS 1 remain off track with systematic funding plan
  - Phasing-in larger Plan 1 UAAL contributions to get back on track
  - Full requirements begin in 2015
  - See Appendix for further details

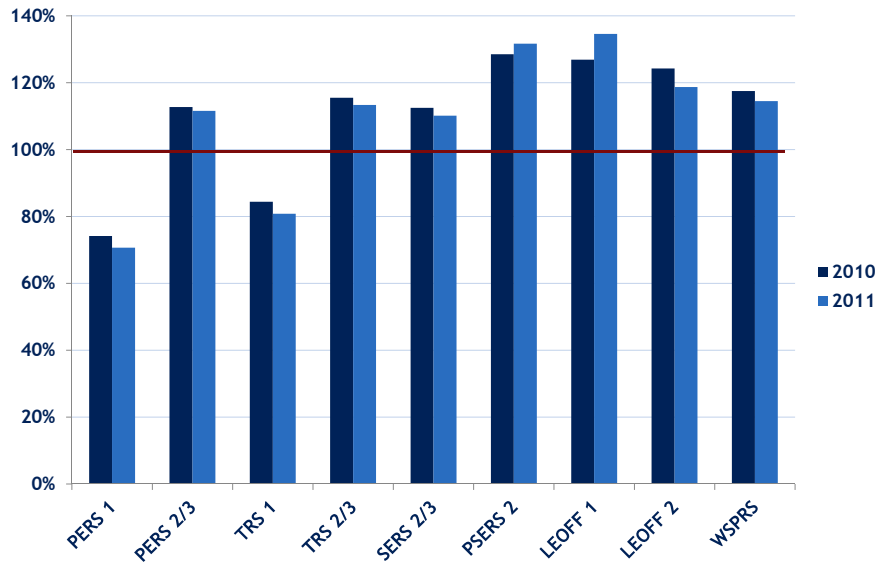
Recent Efforts To Reduce Pension Costs

- Repeal of future gain-sharing benefits
- Repeal of Plan 1 Uniform COLA
- Adoption of new economic assumptions
  - Reduces long-term costs
  - Increases short-term costs
- Reduced early retirement benefits for new hires in PERS, TRS, and SERS
  - Lowers long-term costs as new hires replace current members

Short-Term Cost Increases Remain

- Continue to recognize asset losses from the Great Recession under asset smoothing method
  - See Appendix for further details
- Phasing in larger Plan 1 UAAL requirements
- Adopted new economic assumptions
  - With phase-in of lower investment return assumption
  - See Appendix for further details
- In general, all put downward pressure on funded status and upward pressure on contribution rates in the short-term
  - Especially the Plan 1 UAAL rates

Funded Status By Plan – 2010/2011



Funded Status And Unfunded Liability At June 30, 2011

Funded Status on an Actuarial Value Basis*										
(Dollars in Millions)	PERS		TRS		SERS	PSERS	LEOFF		WSPRS	Total
	Plan 1	Plans 2/3	Plan 1	Plans 2/3	Plans 2/3	Plan 2	Plan 1	Plan 2		
Accrued Liability	$12,567	$18,815	$9,258	$6,299	$2,607	$107	$4,135	$5,576	$829	$60,193
Valuation Assets	$8,883	$20,997	$7,485	$7,141	$2,872	$141	$5,565	$6,621	$949	$60,654
Unfunded Liability	$3,684	($2,182)	$1,773	($842)	($265)	($34)	($1,430)	($1,044)	($120)	($461)
Funded Ratio										
2011	**71%**	**112%**	**81%**	**113%**	**110%**	**132%**	**135%**	**119%**	**115%**	**101%**

Note: Totals may not agree due to rounding.

**Accrued liabilities represent the present value of future benefits for current members earned at the valuation date assuming an expected rate of return on assets of 7.9% per year (7.5% for LEOFF 2). All assets have been valued under the actuarial asset method (the "smoothing" method).*

Employer Contribution Rates*

	Current	2013-15
PERS	6.92%	9.03%
TRS	7.88%	10.21%
SERS	7.42%	9.64%
PSERS	8.58%	10.22%
LEOFF 1	0.00%	0.00%
WSPRS	7.91%	7.63%

- PERS, SERS, and PSERS employers pay for the PERS 1 UAAL and employer normal cost
- TRS employers pay for the TRS 1 UAAL and employer normal cost

**Excludes administrative expense rate of 0.16%. Current rates based on 2009 AVR plus subsequent legislative changes.*

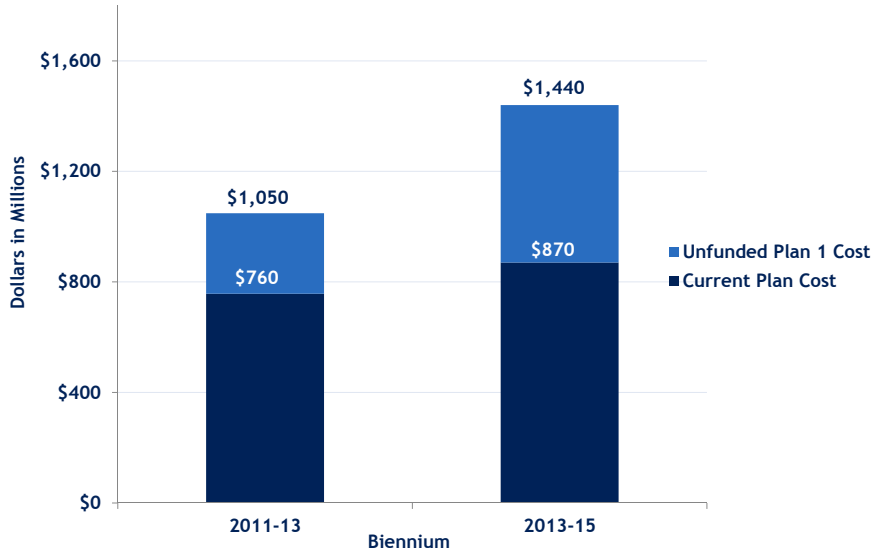
Plan 2 Member Contribution Rates

	Current	2013-15
PERS	4.64%	4.92%
TRS	4.69%	4.96%
SERS	4.09%	4.64%
PSERS	6.36%	6.22%
LEOFF 1	0.00%	0.00%
WSPRS*	6.59%	6.31%

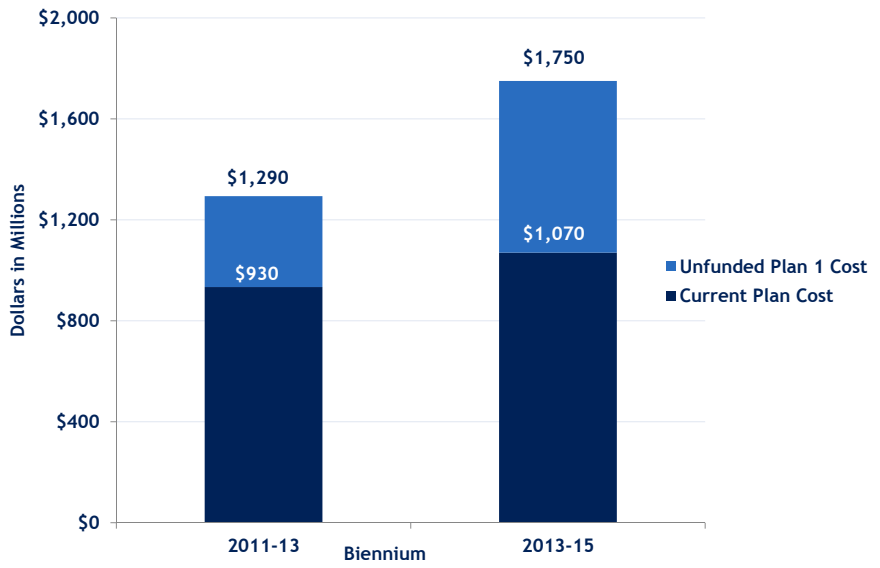
** Rate applies to Plan 1 and Plan 2 members.*

- Plan 2 members do not pay for the Plan 1 UAAL (employee normal cost only)

Estimated General Fund State (GF-S) Contributions



Estimated Local Government Contributions

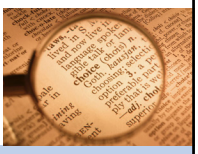


Actuarial Certification - Preliminary

- All data, assumptions, and methods are reasonable and conform with current actuarial standards of practice
- New Plan 1 funding method includes minimum contribution rates beginning 2015
- All contributions under this method are required to fully amortize Plan 1 UAAL near the previous target date of June 30, 2024
- Failure to make all future required contributions may result in premature pay-go funding in the future

Other Considerations

- The choice: pay now or pay more later
- Investment returns in 2012 below long-term expectations thus far
  - -1.02 percent ROR from July 1, 2011 through May 31, 2012
- Full funding and adoption of new economic assumptions support the on-going soundness of the systems and help manage financial risks
- Opportunity to prevent a temporary decrease in normal cost rates for PSERS and WSPRS



Recap

- 2011 Actuarial Valuation results are preliminary
- All plans except PERS 1 and TRS 1 currently on track with systematic actuarial funding plan
- Phasing in higher Plan 1 UAAL contribution requirements to get back on track
- Recent efforts to reduce pension costs
- Short-term cost increases remain
- The choice: pay now or pay more later
- Full funding and adoption of new economic assumptions support the on-going soundness of the systems

Questions?

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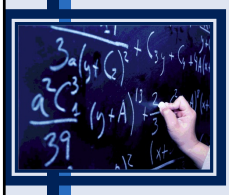

Appendix

Amortization of Plan 1 UAAL

- Phasing in higher Plan 1 UAAL contribution requirements under new method adopted in 2009
- Full requirements begin in 2015
  - Increase from 2.34 (current) to at least 3.50 percent (2015) in PERS
  - Increase from 2.42 (current) to at least 5.75 percent (2015) in TRS
- Paid by employers only
- Expected amortization dates
  - 2025 in PERS 1
  - 2022 in TRS 1
  - Will occur sooner/later under optimistic/pessimistic outcomes

Actuarial Value Of Assets At June 30, 2011

Calculation of Actuarial Value of Assets All Plans	
(Dollars in Millions)	Total
a. Market Value of Assets	$57,350
b. Deferred Gains and (Losses)	
Plan Year Ending	
6/30/2011	5,547
6/30/2010	1,531
6/30/2009	(11,090)
6/30/2008	(2,724)
6/30/2007	2,058
9/30/2006	892
9/30/2005	482
Total Deferral	($3,304)
c. Market Value less Deferral (a-b)	$60,654
d. 70% of Market Value of Assets	$40,145
e. 130% of Market Value of Assets	$74,555
f. Actuarial Value of Assets*	$60,654

Note: Totals may not agree due to rounding.

**Actuarial Value of Assets can never be less than 70% or greater than 130% of the Market Value of Assets.*

New Economic Assumptions Established In 2ESB 6378

	Prior	2ESB 6378
Investment Return	8.00%	7.90%
Inflation	3.50%	3.00%
General Salary Increase	4.00%	3.75%

- 2ESB 6378 assumption changes effective for contribution rate requirements beginning July 1, 2013
- Assumed ROR becomes 7.8 percent beginning July 1, 2015 and 7.7 percent beginning July 1, 2017
- 2ESB 6378 assumed to not revise the 2011 actions of the Pension Funding Council