

State Actuary Update

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State Actuary

Presentation to
Washington State Investment Board



Office of the State Actuary
"Securing tomorrow's pensions today."

November 21, 2013

Today's Presentation

- Background on Office of the State Actuary
- Update on GET
- Update on state pensions
- Pension reporting changes
- Society of Actuaries recent work on public pensions



Office of the State Actuary
"Securing tomorrow's pensions today."

O://Presentations/2013/WSIB/WSIB_State_Actuary_Update_11-2013.pptx

1

Office Of The State Actuary

- Independent, in-house pension actuaries and policy analysts
- OSA promotes the security of public employee benefit programs including state pension and retiree medical plans, plus the GET program
- As of our latest measurements, these programs have a present value of future benefits for current members totaling \$112.5 billion
 - With a future value of payments totaling \$436 billion for current members of the state pension plans



Services We Provide

- Calculate and certify pension contribution rates
- Recommend economic assumptions for pension funding
- Prepare and certify actuarial reports
 - Actuarial valuation reports
 - Demographic experience studies
 - Actuarial fiscal notes on pension bills
- Prepare risk analysis and pension projections
- Staff the Select Committee on Pension Policy
- Provide actuarial assistance and advice to Legislature and Governor
- Perform actuarial services for various clients
- Prepare special studies and provide education



Who We Serve

OSA Clients			
Legislative Branch	Executive Branch	Boards	Public
<ul style="list-style-type: none"> ❖ Pension Funding Council ❖ Select Committee on Pension Policy ❖ Legislators and Legislative Staff ❖ GET Legislative Advisory Committee ❖ Fiscal Committees 	<ul style="list-style-type: none"> ❖ Governor's Office ❖ Office of the State Treasurer ❖ Health Care Authority ❖ Department of Retirement Systems ❖ Office of Financial Management ❖ Office of the Attorney General 	<ul style="list-style-type: none"> ❖ Volunteer Fire Fighters' and Reserve Officers' Relief and Pension Fund ❖ State Investment Board ❖ LEOFF Plan 2 Retirement Board ❖ Public Employees' Benefits Board ❖ GET Committee ❖ Institutions of Higher Education 	<ul style="list-style-type: none"> ❖ Pension community ❖ Local governments ❖ Citizens at large



Update On GET

- Latest funded status
- Key assumptions
- Asset allocation



Funded Status Of Current GET Contracts

Funded Status Summary

(Dollars in Millions)

Present Value of Future Obligations	\$2,716
Present Value of Fund	\$2,557
Funded Status	94.1%
Reserve/(Deficit)	(\$160)

- Measured at June 30, 2013
- Funded status improved from last measurement due to lower assumed tuition growth in response to enacted 2013-15 Budget and higher than expected investment returns
- Excludes the impacts of differential tuition
- Supporting analysis in *2013 GET Actuarial Valuation Report*



Key Assumptions For GET

Key Assumptions

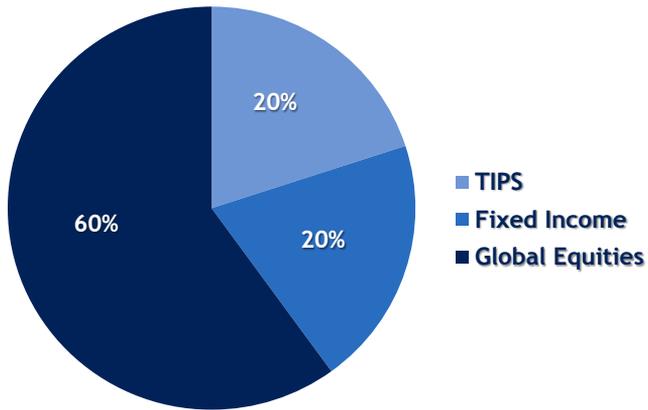
Annual Investment Return	5.50%
Annual Tuition Growth	
2013-14	0.0%
2014-15	0.0%
2015-16	8.1%
2016-17	8.1%
2017-18	8.1%
2018-19	8.1%
2019-20	6.5%
2020-21	6.5%
2021-22	6.5%
2022-23	6.5%
2023-24	6.5%
2024-25+	5.5%
Average Annual Unit Sales*	947,906

*Over next 20 years.

- Investment return assumption lowered from 5.98 to 5.50 percent
- Short-term tuition growth assumptions consistent with enacted 2013-15 Budget
- Assumptions reviewed and updated annually



GET Target Asset Allocation



Update On State Pensions

- Long-term economic assumptions
- System membership overview
- Latest financial condition



Lower Long-Term Rate Of Return Recommended, No Other Changes

Assumption	Current	Recommended
Inflation	3.00%	3.00%
General salary growth	3.75%	3.75%
Annual investment return	7.90%	7.50%
Growth in system membership	0.80% (TRS) 0.95% (PERS)	0.80% (TRS) 0.95% (PERS)

Note: Excludes LEOFF 2. The LEOFF 2 Board adopts assumptions for LEOFF 2.



Recommended Investment Return Phase-In

Investment Return Phase-In		
Biennium	Current Law	Recommended
2013-15	7.90%	7.90%
2015-17	7.80%	7.80%
2017-19	7.70%	7.70%
2019-21	7.70%	7.60%
2021-23	7.70%	7.50%



Simulated Future Investment Returns

	Simulated Future Returns*		Recommended Rate
	Measurement Period		
	15 Years	50 Years	
75th percentile	9.65%	8.62%	
60th percentile	8.31%	7.86%	
55th percentile	7.90%	7.63%	
Expected Return	7.49%	7.40%	7.50%
45th percentile	7.08%	7.17%	
40th percentile	6.67%	6.93%	
25th percentile	5.27%	6.13%	

*Based on WSIB's capital market assumptions at time of recommendation.

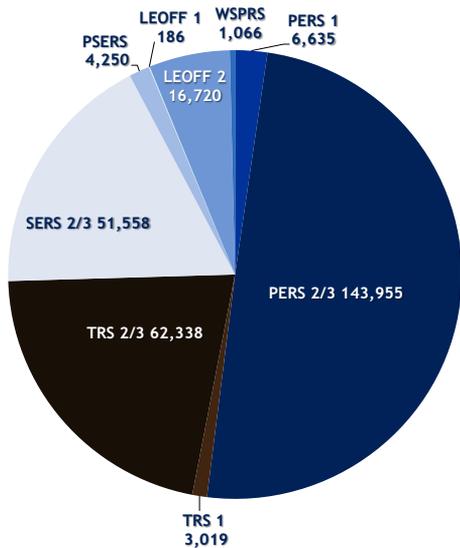


State Plans Cover Diverse Membership

- Six open systems
 - Defined Benefit (DB) plans
 - Hybrid plans - DB and Defined Contribution (DC)
- General government employees
 - Except first-class cities
- School employees
- Police, fire, and public safety
- Nearly 290,000 active members and 144,000 annuitants



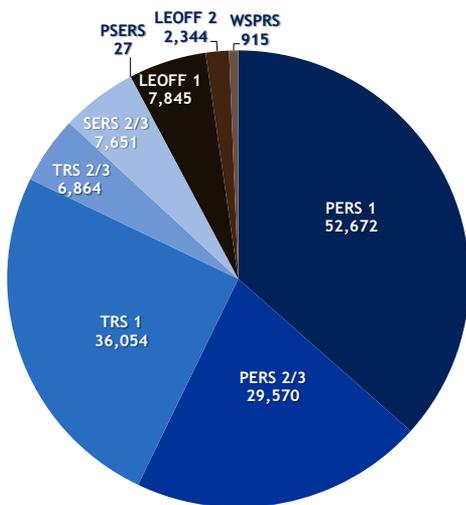
Distribution Of Active Members At June 30, 2012



Participant Data	
All Systems	2012
Active Members	
Number	289,727
Total Salaries (in Millions)	\$16,245
Average Annual Salary	\$56,069
Average Attained Age	47.8
Average Service	12.4



Distribution Of Annuitants At June 30, 2012



Participant Data	
All Systems	2012
Retirees and Beneficiaries	
Number	143,942
Average Annual Benefit	\$21,321



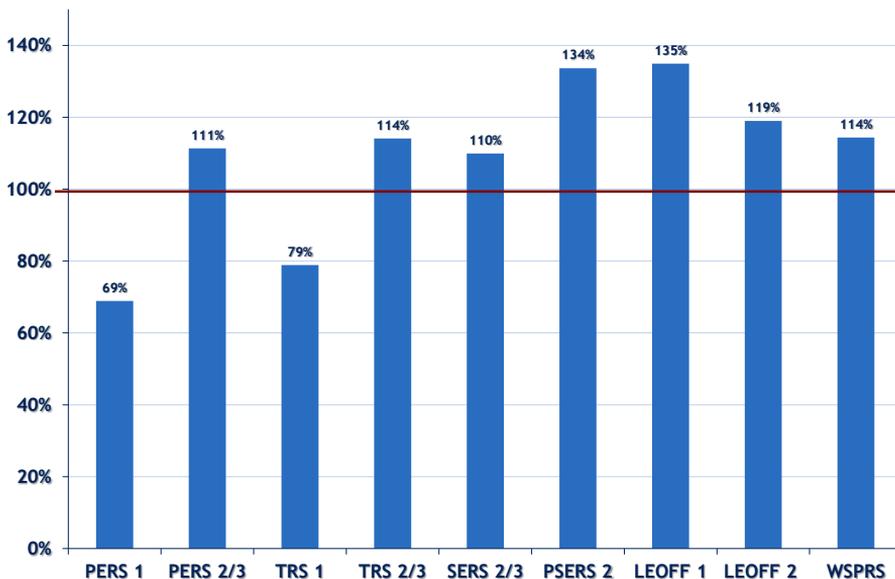
Plans Well-Funded Overall

Funded Status At June 30		
(Dollars in Millions)	2012	2011
All Systems		
a. Present Value of "Earned" Benefits	\$62,578	\$60,193
b. Market Value of Assets	56,753	57,350
c. Deferred Gains/(Losses)	(6,369)	(3,304)
d. Actuarial Value of Assets (b-c)	63,122	60,654
e. Unfunded Liability (a-d)	(\$544)	(\$461)
f. Funded Ratio (d/a)	101%	101%

Note: Totals may not agree due to rounding. Source, OSA 2012 Actuarial Valuation Report.



Funded Status By Plan At June 30, 2012



Funded Status By Plan At June 30, 2012

Funded Status on an Actuarial Value Basis*										
(Dollars in Millions)	PERS		TRS		SERS	PSERS	LEOFF		WSPRS	Total
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 2	Plan 1	Plan 2		
Accrued Liability	\$12,368	\$20,347	\$9,058	\$6,799	\$2,820	\$135	\$4,121	\$6,071	\$859	\$62,578
Valuation Assets	\$8,521	\$22,653	\$7,145	\$7,758	\$3,100	\$180	\$5,562	\$7,222	\$982	\$63,122
Unfunded Liability	\$3,847	(\$2,306)	\$1,914	(\$959)	(\$280)	(\$45)	(\$1,440)	(\$1,150)	(\$123)	(\$544)
Funded Ratio										
2012	69%	111%	79%	114%	110%	134%	135%	119%	114%	101%
2011	71%	112%	81%	113%	110%	132%	135%	119%	115%	101%
2010	74%	113%	84%	116%	113%	129%	127%	119%	118%	102%
2009	70%	116%	75%	118%	116%	128%	125%	128%	119%	99%
2008	71%	119%	77%	125%	121%	127%	128%	133%	121%	100%
2007	71%	120%	76%	130%	126%	120%	123%	129%	118%	99%
2006	74%	121%	80%	133%	125%	99%	117%	116%	114%	100%
2005	74%	127%	80%	134%	122%	N/A	114%	114%	113%	99%
2004	81%	134%	88%	153%	137%	N/A	109%	117%	118%	105%
2003	82%	142%	89%	155%	138%	N/A	112%	125%	123%	107%
2002	92%	158%	98%	182%	169%	N/A	119%	137%	135%	118%
2001	97%	179%	100%	197%	197%	N/A	129%	154%	147%	126%
2000	98%	190%	100%	196%	170%	N/A	136%	161%	152%	131%

Note: Totals may not agree due to rounding.

*Liabilities valued using the PUC cost method at an interest rate of 7.9% (7.5% for LEOFF 2). All assets have been valued under the actuarial asset method.



Funded Status By Plan With Different Interest Rate Assumption

Funded Status at a 1% Lower Interest Rate Assumption*										
(Dollars in Millions)	PERS		TRS		SERS	PSERS	LEOFF		WSPRS	Total
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 2	Plan 1	Plan 2		
Accrued Liability	\$13,372	\$23,618	\$9,790	\$8,025	\$3,263	\$167	\$4,498	\$7,207	\$982	\$70,921
Valuation Assets	\$8,521	\$22,653	\$7,145	\$7,758	\$3,100	\$180	\$5,562	\$7,222	\$982	\$63,122
Unfunded Liability	\$4,851	\$966	\$2,646	\$267	\$163	(\$14)	(\$1,064)	(\$15)	\$0	\$7,800
Funded Ratio										
2012	64%	96%	73%	97%	95%	108%	124%	100%	100%	89%

Note: Totals may not agree due to rounding.

*Liabilities valued using the PUC cost method at an interest rate of 6.9% (6.5% for LEOFF 2). All assets have been valued under the actuarial asset method.

Funded Status at a 1% Higher Interest Rate Assumption*										
(Dollars in Millions)	PERS		TRS		SERS	PSERS	LEOFF		WSPRS	Total
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 2	Plan 1	Plan 2		
Accrued Liability	\$11,495	\$17,713	\$8,422	\$5,829	\$2,461	\$111	\$3,797	\$5,177	\$759	\$55,766
Valuation Assets	\$8,521	\$22,653	\$7,145	\$7,758	\$3,100	\$180	\$5,562	\$7,222	\$982	\$63,122
Unfunded Liability	\$2,975	(\$4,939)	\$1,278	(\$1,929)	(\$639)	(\$69)	(\$1,764)	(\$2,045)	(\$223)	(\$7,356)
Funded Ratio										
2012	74%	128%	85%	133%	126%	162%	146%	140%	129%	113%

Note: Totals may not agree due to rounding.

*Liabilities valued using the PUC cost method at an interest rate of 8.9% (8.5% for LEOFF 2). All assets have been valued under the actuarial asset method.



Certain Risks And Challenges Ahead

- Plan 1 unfunded past liability
 - AKA “Unfunded Actuarial Accrued Liability” or “UAAL”
- Contribution rate increases expected in short-run before stabilizing
- Litigation risks



Unfunded Actuarial Accrued Liability

- PERS and TRS Plan 1 have a UAAL
 - Insufficient assets to cover earned benefits
 - Off track with funding plan
- Requires additional contributions to get back on track
- If funding doesn't get back on track, plan becomes pay-as-you-go
- Pay-go means no assets set aside to pay benefits
 - Benefits must be paid from other sources as they come due



PERS 1 And TRS 1 UAAL At June 30, 2012

Funded Status on an Actuarial Value Basis*										
(Dollars in Millions)	PERS		TRS		SERS	PSERS	LEOFF		WSPRS	Total
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 2	Plan 1	Plan 2		
Accrued Liability	\$12,368	\$20,347	\$9,058	\$6,799	\$2,820	\$135	\$4,121	\$6,071	\$859	\$62,578
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Unfunded Liability	\$3,847	(\$2,306)	\$1,914	(\$959)	(\$280)	(\$45)	(\$1,440)	(\$1,150)	(\$123)	(\$544)

Note: Totals may not agree due to rounding.

*Liabilities valued using the PUC cost method at an interest rate of 7.9% (7.5% for LEOFF 2). All assets have been valued under the actuarial asset method.



Plan For Getting PERS 1 And TRS 1 Back On Track

- New funding method adopted in 2009
- Requires higher employer UAAL contribution rates
- Phasing in higher UAAL rate requirements
 - Full requirements begin in 2015
- Expected full funding dates
 - 2027 in PERS 1; 2026 in TRS 1
 - Assumes required contributions are made and actuarial assumptions are realized
 - Full funding will occur sooner/later under optimistic/pessimistic outcomes



Future Contribution Increases Expected

- Still recognizing deferred asset losses under asset smoothing method
- Phasing-in higher Plan 1 UAAL requirements
- Lowering assumed rate of investment return
 - 7.9 percent assumed ROR for 2013-15
 - 7.8 percent assumed ROR for 2015-17
 - 7.7 percent assumed ROR for 2017+
- Creates short-term pressure on state and local government budgets
 - Pay now or pay more later



Litigation Risks Remain

- Potential reinstatement of gain-sharing benefits or Plan 1 UCOLA would change financial condition of affected plans
- Gain-sharing and UCOLA cases now at State Supreme Court
 - DRS website contains updates on litigation
- Full actuarial analysis in *2013 Report on Financial Condition*



Planning For The Future

- Pension plans require consistent, stable, and adequate funding to remain affordable over the long term
- Stay on track with the funding plan
 - Funding shortfalls today increase future contribution requirements
 - Pay now or pay more later
- Ensure benefits and any future changes remain affordable for the long term
 - Whether the economy is up or down



Changes In Pension Reporting Coming

- New reporting of pension liability and funded status from GASB and Moody's
 - Governmental Accounting Standards Board
- Different measures used for different purposes
 - OSA valuations — funding
 - GASB — accounting
 - Moody's — credit rating
- GASB and Moody's changes aimed at more comparability across plans
- Does not change the financial health of the plans unless they lead to future changes in funding policy



Society Of Actuaries (SOA) Recent Work On Public Pensions

- 2012 call for essays on the theme “*Good, Better, Best: The Basics of Funding Public Sector Pension Plans*”
- 2012 Public Plan Funding Symposium
 - Bringing together a mix of public plan actuaries, trustees, and other public plan stakeholders
 - Open discussion on how we can best use actuarial methodology to support strong governance and robust funding of public sector pension plans
- 2013 Blue Ribbon Panel on Public Pension Plan Underfunding
 - Multidisciplinary panel to consider the causes of underfunding and make recommendations as to how governments can more securely fund plans going forward
 - Identify best use of actuarial methods and assumptions in funding plans
 - Draft report expected by the end of 2013
- 2013 research project “*Communicating the Financial Health of Public Pension Plans*”



“Communicating The Financial Health Of Public Pension Plans”

- SOA research findings
 - Much information is provided, but it is not user friendly
 - Lack of comprehensive and analytically oriented information
- Prototype reports prepared for two state plans using publicly available information
 - Colorado PERA
 - Florida Retirement System
- Prototypical reports include a “dashboard” with basic data on broad range of indicators
- Project’s ultimate goal “encourage state and local pension plans to provide accessible and candid overviews of the current state and likely evolution of their finances”



Questions



Additional Pension References

- [Office of the State Actuary](#)
 - [2012 Actuarial Valuation Report](#)
 - [Report on Financial Condition](#)
 - [Risk Assessment Report](#)
- [Select Committee on Pension Policy](#)
 - [Pension Primer](#)
 - [Pensions 101](#)
 - [Pensions 102 - Plan Design](#)
 - [Pensions 103 - Governance](#)

