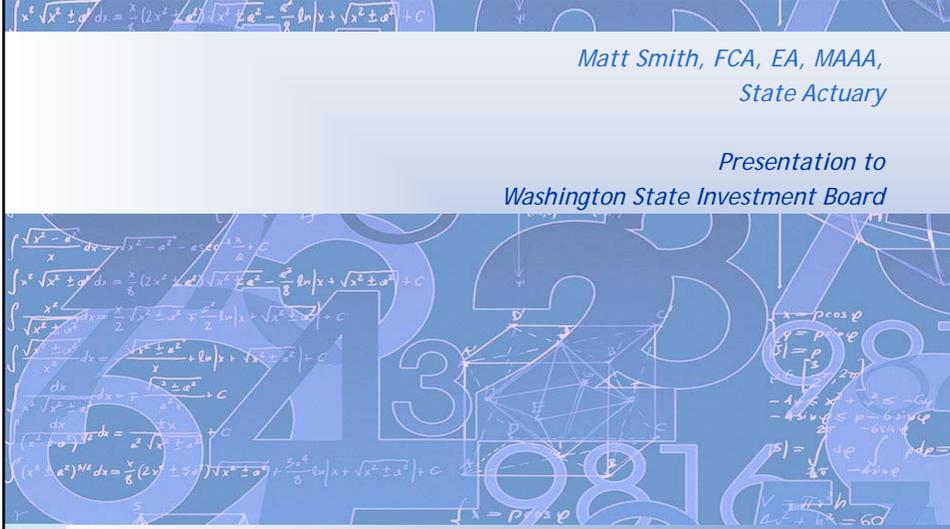


State Actuary Update

Matt Smith, FCA, EA, MAAA,
State Actuary

Presentation to
Washington State Investment Board



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

September 18, 2014

Today's Presentation

- Background on Office of the State Actuary
- Update on GET and state pensions
- Supplemental retirement plans in higher education

Office of the State Actuary



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 \$122.5 billion
 - With a future value of payments totaling \$559 billion for current members of the state pension plans

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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

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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

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Update On GET

- Latest funded status
- Asset allocation



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Funded Status Of Current GET Contracts

Funded Status Summary	
<i>(Dollars in Millions)</i>	
Present Value of Future Obligations	\$2,767
Present Value of Fund	\$2,928
Funded Status	105.8%
Reserve/(Deficit)	\$161

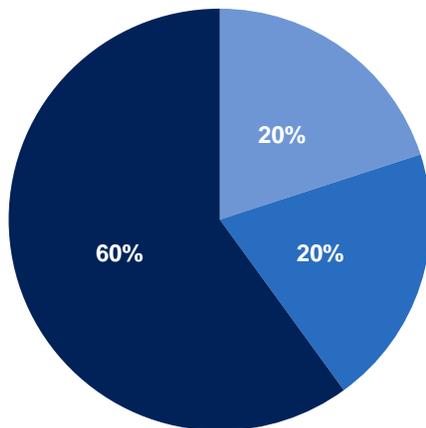
- Measured at June 30, 2014
- Funded status improved from last measurement due to lower assumed tuition growth in response to 2013-15 Budget and higher than expected investment returns
- Excludes the impacts of differential tuition
- Supporting analysis in *2014 GET Actuarial Valuation Report*

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GET Target Asset Allocation



- 5.5 percent assumed rate of investment return
- Assumption reviewed annually
- Asset allocation study scheduled for this fall

■ TIPS ■ Fixed Income ■ Global Equities

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Update On State Pensions

- Long-term economic assumptions
- Results of latest demographic experience study
- System membership overview
- Latest financial condition
- Litigation update



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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)	0.80% (TRS)
	0.95% (PERS)	0.95% (PERS)

Note: Excludes LEOFF2. The LEOFF2 Board adopts assumptions for LEOFF2.

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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%

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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.

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Results Of Latest Demographic Experience Study

- All demographic assumptions compared to actual experience and updated where necessary
- Ensure assumptions remain reasonable
- Key assumption changes
 - Later retirements
 - Longer lifespans
- Pension Funding Council adopted contribution rates for 2015-17 with impacts of mortality assumption changes phased-in over six years
 - Subject to revision by Legislature
- Contribution rates and experience study audited by outside actuary

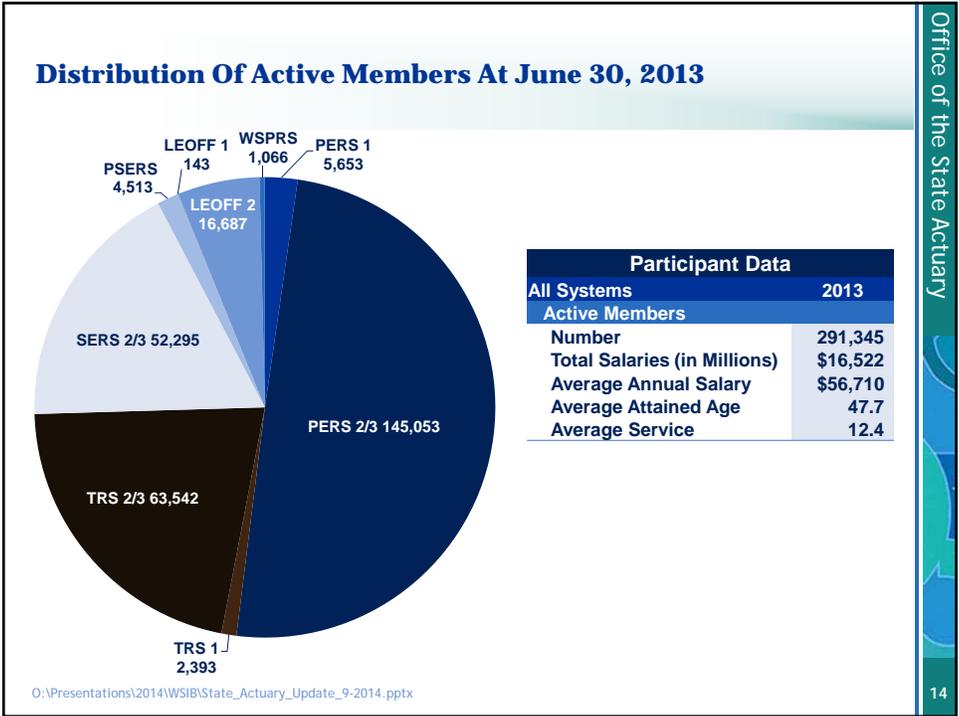


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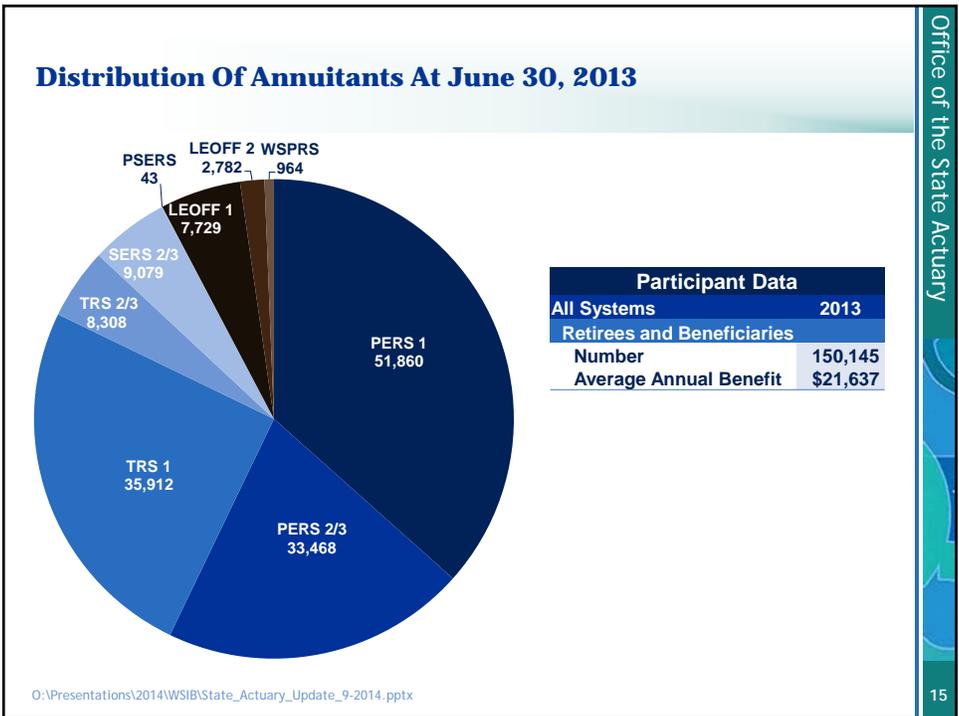
State Plans Cover Diverse Membership

- 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 291,000 active members and 150,000 annuitants

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Office of the State Actuary



Office of the State Actuary

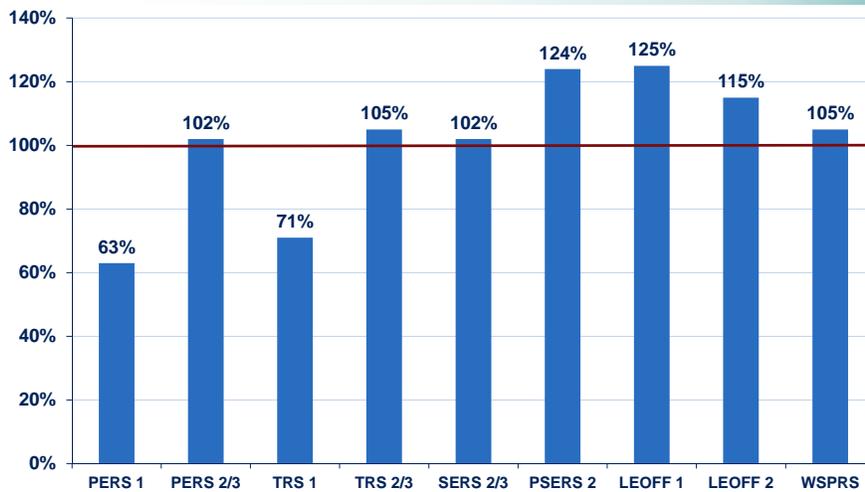
Plans Well-Funded Overall

Funded Status At June 30		
	2013 After ExpStudy 7.8% ExpROR	2012 Before ExpStudy 7.9% ExpROR
<i>(Dollars in Millions)</i>		
All Systems		
a. Present Value of "Earned" Benefits	\$69,828	\$62,578
b. Market Value of Assets	62,213	56,753
c. Deferred Gains/(Losses)	(3,245)	(6,369)
d. Actuarial Value of Assets (b-c)	65,458	63,122
e. Unfunded Liability (a-d)	\$4,370	(\$544)
f. Funded Ratio (d/a)	94%	101%

Note: Totals may not agree due to rounding. Source, OSA 2013 Actuarial Valuation Report.

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Funded Status By Plan At June 30, 2013



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Funded Status By Plan At June 30, 2013

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	\$12,884	\$23,798	\$9,449	\$8,016	\$3,273	\$180	\$4,410	\$6,859	\$959	\$69,828
Valuation Assets	\$8,053	\$24,335	\$6,717	\$8,406	\$3,335	\$224	\$5,516	\$7,862	\$1,009	\$65,458
Unfunded Liability	\$4,831	(\$537)	\$2,732	(\$390)	(\$62)	(\$44)	(\$1,107)	(\$1,003)	(\$50)	\$4,370
Funded Ratio										
2013**	63%	102%	71%	105%	102%	124%	125%	115%	105%	94%
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 7.8% (7.5% for LEOFF 2). All assets have been valued under the actuarial asset method.
 **Assumptions changed.
 ***LEOFF 2 values for 2010 were updated after the 2010 AVR was published.

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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	\$14,012	\$27,818	\$10,272	\$9,523	\$3,806	\$226	\$4,844	\$8,212	\$1,105	\$79,818
Valuation Assets	\$8,053	\$24,335	\$6,717	\$8,406	\$3,335	\$224	\$5,516	\$7,862	\$1,009	\$65,458
Unfunded Liability	\$5,959	\$3,484	\$3,555	\$1,117	\$471	\$2	(\$673)	\$349	\$96	\$14,360
Funded Ratio										
2013	57%	87%	65%	88%	88%	99%	114%	96%	91%	82%

Note: Totals may not agree due to rounding.
 *Liabilities valued using the PUC cost method at an interest rate of 6.8% (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	\$11,914	\$20,600	\$8,741	\$6,838	\$2,845	\$147	\$4,039	\$5,808	\$843	\$61,775
Valuation Assets	\$8,053	\$24,335	\$6,717	\$8,406	\$3,335	\$224	\$5,516	\$7,862	\$1,009	\$65,458
Unfunded Liability	\$3,861	(\$3,735)	\$2,023	(\$1,568)	(\$490)	(\$78)	(\$1,477)	(\$2,054)	(\$167)	(\$3,683)
Funded Ratio										
2013	68%	118%	77%	123%	117%	153%	137%	135%	120%	106%

Note: Totals may not agree due to rounding.
 *Liabilities valued using the PUC cost method at an interest rate of 8.8% (8.5% for LEOFF 2). All assets have been valued under the actuarial asset method.

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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 reduced



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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

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PERS 1 And TRS 1 UAAL At June 30, 2013

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	\$12,884	\$23,798	\$9,449	\$8,016	\$3,273	\$180	\$4,410	\$6,859	\$959	\$69,828
Valuation Assets	\$8,053	\$24,335	\$6,717	\$8,406	\$3,335	\$224	\$5,516	\$7,862	\$1,009	\$65,458
Unfunded Liability	\$4,831	(\$537)	\$2,732	(\$390)	(\$62)	(\$44)	(\$1,107)	(\$1,003)	(\$50)	\$4,370

Note: Totals may not agree due to rounding.
 *Liabilities valued using the PUC cost method at an interest rate of 7.8% (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 (under old assumptions)
 - 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 contribution requirements for Plan 1 UAAL and updated mortality assumptions
- Lowering assumed rate of investment return
 - 7.9 percent for 2013-15
 - 7.8 percent for 2015-17
 - 7.7 percent for 2017+
- Creates short-term pressure on state and local government budgets
 - Pay now or pay more later

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Update On Litigation

- State Supreme Court found Legislature's repeal of gain-sharing and Plan 1 UCOLA to be valid
- Reversed trial court decisions
- No change to reported plan liabilities and costs



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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

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Supplemental Retirement Plans In Higher Education

- Institutions of higher education authorized to offer retirement plans separate from the state's pension systems
 - Defined contribution plans with a supplemental defined benefit
- Supplemental retirement plans
 - Provide a "floor" defined benefit to ensure eligible retirees achieve at least a certain level of retirement income from their defined contribution plan
- Pay-as-you-go funding policy adopted at institutions
- Relevant changes under ESHB 1981 (2011)
 - Eliminated supplemental retirement benefits for new hires
 - OSA to prepare on-going actuarial valuations on supplemental retirement plans
 - Fund created to pre-fund supplemental benefits; invested by WSIB
 - Temporary employer contribution rate established

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Next Steps

- OSA now replicating prior actuary's last actuarial valuation
 - Using prior actuary's assumptions and methods
- OSA will then review current assumptions and methods
- First OSA actuarial valuation will follow; date TBD
- Actuarial analysis expected to determine on-going employer contribution rate and inform investment policy for new fund
 - Projected benefit payments
 - Cash-flow analysis



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Questions



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