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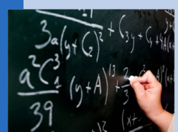

State of the State's Pension Systems

Matt Smith, FCA, EA, MAAA
State Actuary

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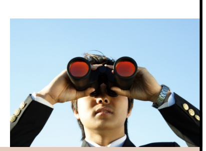
Policy Analyst

December 18, 2012

State Of The State's Pensions

- A national leader in pensions
- Certain risks and challenges ahead
- Opportunities to plan for the future and remain a national leader

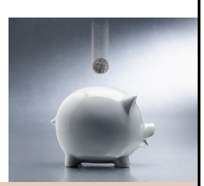


Today's Presentation

- "Pensions 101" to start
- State of the state's pensions
- Additional pension references and Appendix

What Are Pensions?

- Lifetime retirement payments
- Promises made today to pay benefits in the future

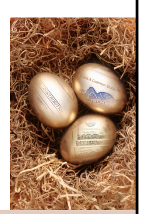


Pension Promise Is A Contract

- Since 1956, pension promise has been deemed a contractual right (*Bakenhus* case)
- Money must be available when pension payment becomes due
- How do you secure a promise for something that happens in the future?

Washington Uses A Financing Plan To Satisfy Contract

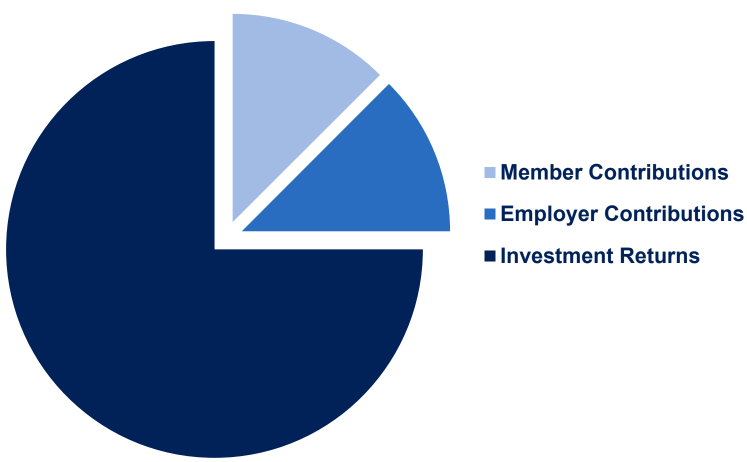
- Regular contributions over time
  - "Systematic actuarial funding"
- Uses the power of investing to help pay pension costs



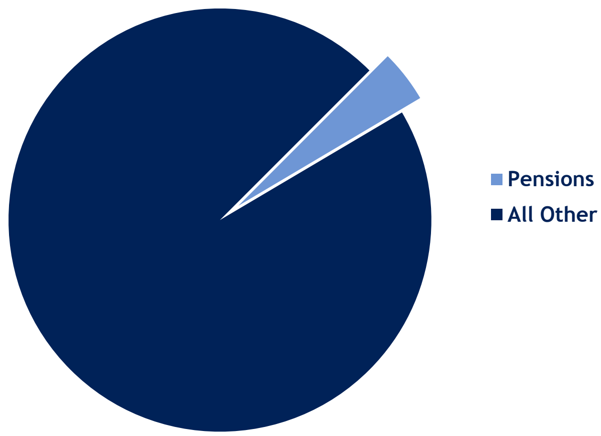
Where Does The Money Come From?

- Members and employers (taxpayers) make contributions
- DRS collects contributions as a percentage of each paycheck
- Contributions pooled and held in a trust fund
  - Managed by WSIB
  - WSIB mandate
    - Maximize returns at a prudent level of risk

Pension Trust Fund



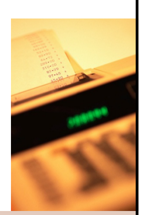
Pension Contributions As A Percentage Of GF-S Budget



Note: Estimated state pension contributions and includes higher education.

What Is Systematic Actuarial Funding?

- Balance between two opposite approaches
  - Pay-as-you-go
  - Up-front contribution
- Three key considerations when selecting funding approach
  - Financing cost
    - Short term vs. long term
  - Investment risk
  - Fairness across generations
- "Intergenerational equity"
  - Funding a pension plan so costs of members' benefits are paid by the taxpayers who received services from those members

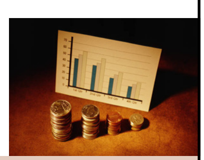


Pay-As-You-Go

- Contributions made as benefits are paid
- Most expensive financing plan in long term
  - Little time to invest
    - Less potential earnings
    - Less potential investment risk
- Least expensive in short-term
  - No contributions made until employee retires
- Does not support intergenerational equity
  - Contributions made after a member retires
  - Future generations pay for past generations

Up-Front Payment

- Single lump sum contribution today for all future benefits
- Least expensive financing plan in long term
  - Maximum time to invest
    - Greater potential earnings
    - Greater potential investment risk
- Most expensive in short-term
  - All contributions made up-front, single lump sum
- Does not support intergenerational equity
  - All contributions made today
  - Today's generation pays for future generations

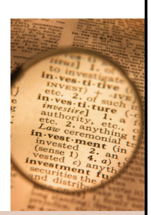


Systematic Actuarial Funding

- Washington uses this approach
- Regular contributions over time
- Investment returns earned systematically over time
  - "Middle ground" between pay-as-you-go and up-front payment plans
- 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 assets for each $1 of earned pension liability
  - On track with systematic actuarial funding plan

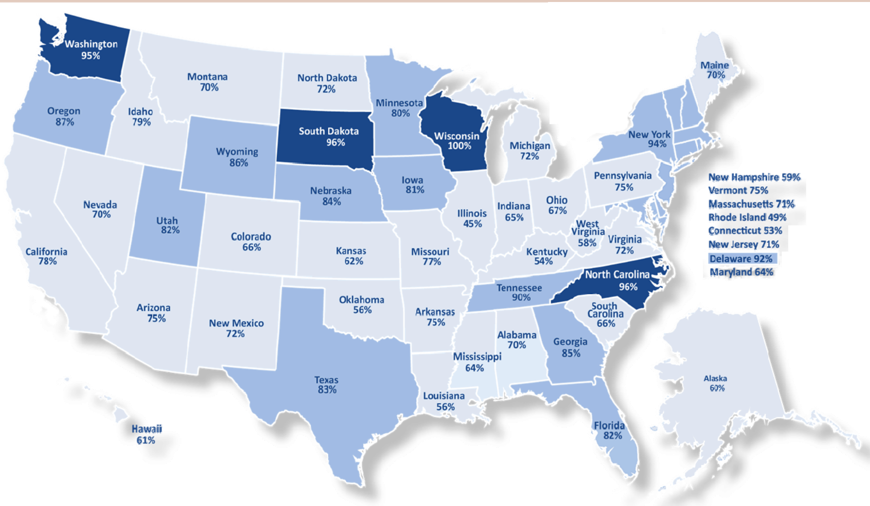
UAAL

- 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

Recap: Pensions 101

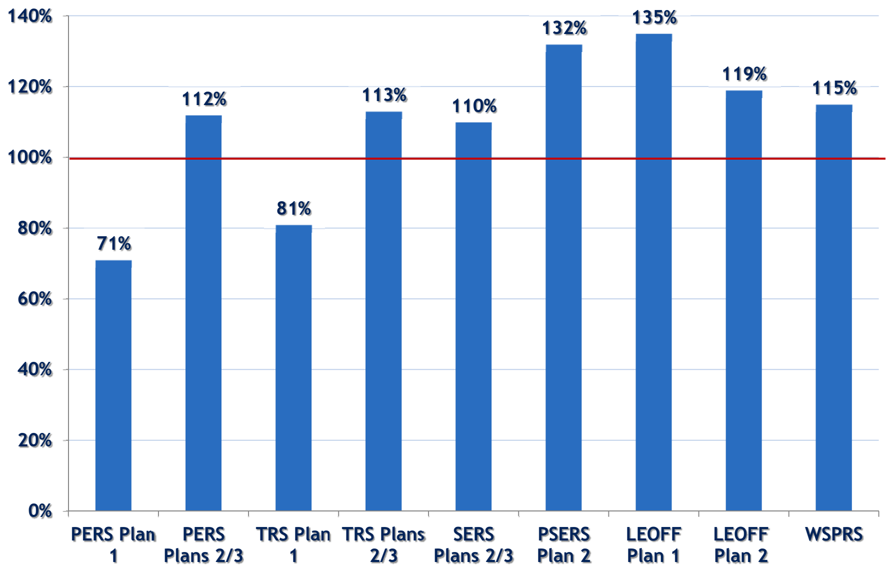
- Pensions are promises made today to make lifetime retirement payments in the future
- Funded by member and employer contributions plus investment returns
- Washington uses systematic actuarial funding to secure future pensions
- Systematic actuarial funding supports intergenerational equity
- Actuarial measurements determine whether the state's on track with the financing plan
  - Funded status
  - UAAL

Top Four Funded Status Nationally



Source: The PEW Center on the States June 2012 report, "*The Widening Gap Update*."

Funded Status For Washington At June 30, 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).*

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Amortization of Plan 1 Unfunded Liability

- Paid by employers only
- Phasing in higher Plan 1 UAAL contribution requirements under new method adopted in 2009
- Full contribution rate requirements begin in 2015
  - Increase from 2.30 (current) to at least 3.50 percent (2015) in PERS
  - Increase from 2.43 (current) to at least 5.75 percent (2015) in TRS
- Expected amortization dates
  - 2027 in PERS 1
  - 2026 in TRS 1
  - Will occur sooner/later under optimistic/pessimistic outcomes

Top Investment Performance

- WSIB’s ten-year returns through June 30, 2010, after fees, best for public funds
- Based on Bloomberg survey of public pension funds with more than $20 billion in assets
- According to Bloomberg, WSIB’s ten-year returns benefitted from investments in
  - Private equity
  - Real estate

Complex Plans With Cost Effective Administration

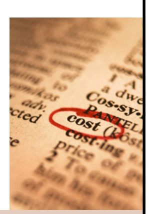
- Third most complex public pension system
- DRS’ cost per active member and annuitant well below peer average
  - $59 for DRS
  - $82 for peer average
- According to CEM Benchmarking analysis in 2011

Leader In Pension Reform

- Closed Plans 1 to new members in 1977
- Created Plans 2 with age 65 normal retirement age
- One of the first states to adopt hybrid plan design in 1996 (TRS 3)
- Other states following Washington's earlier examples
- Cost-reduction reforms occurred in 2007 and 2011
  - Repeal of "gain-sharing benefits" in PERS 1, TRS 1 and Plans 3
  - Repeal of PERS 1 and TRS 1 Uniform Cost-of-Living-Adjustment (UCOLA)
  - Legislature relied on "reservation of rights" clause

2012 Pension Reform

- Adoption of new economic assumptions
  - Reduces long-term costs
  - Increases short-term costs
  - See Appendix for further details
- Reduced early retirement benefits for new hires in PERS, TRS, and SERS
  - Lowers long-term costs as new hires replace current members



Litigation Risks Remain

- Potential reinstatement of recently repealed benefits would weaken affected plans' financial health
  - Gain-sharing benefits
  - PERS 1 and TRS 1 UCOLA
- Full analysis included in 2011 Report on Financial Condition
- Potential funded status and budget impacts included in the Appendix
  - Based on 2010 analysis
  - 2010 analysis provides context and general magnitude only

Recovery Underway, Not Complete

- Investment returns of 13.2 and 21.1 percent for fiscal years ending June 30, 2010 and 2011
- Recovered most, but not all of past investment losses from Great Recession
- Actuarial funding based on "smoothed" investment returns
- Annual returns above/below expected return (i.e., 8 percent) spread over a maximum of eight years

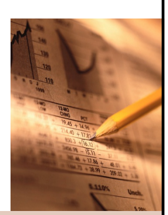
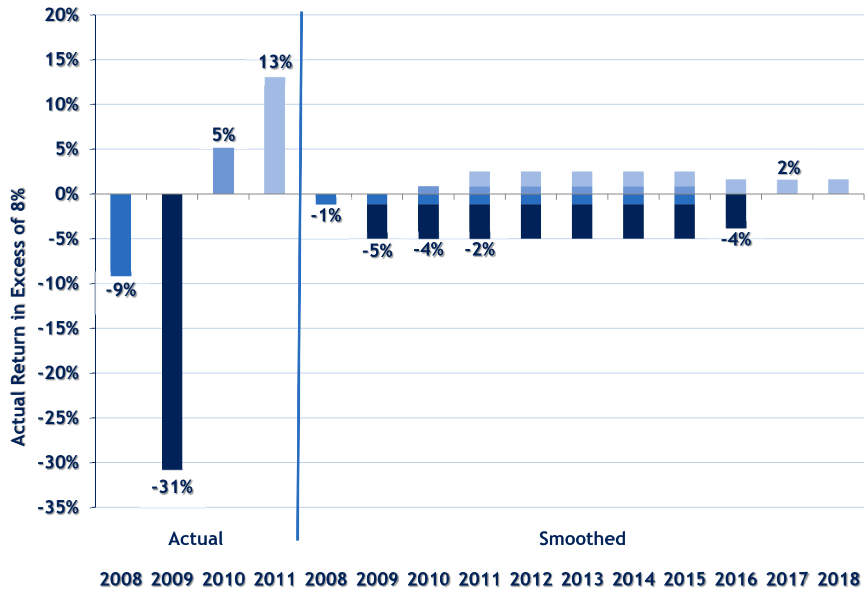


Illustration Of Asset Smoothing Method



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.*

Future Contribution Increases Expected

- With $3.3 billion in deferred investment losses at June 30, 2011, we expect contributions to increase above current levels
- Also phasing-in higher Plan 1 UAAL requirements
- Important note
  - Future contribution increases depend on actual investment performance plus actual funding and benefit levels
- Employer contribution rate projections beyond 2013-15 in Appendix

Employer Contribution Rates*

	Current	2013-15
PERS	7.05%	9.03%
TRS	7.89%	10.21%
SERS	7.43%	9.64%
PSERS	8.71%	10.36%
LEOFF 1	0.00%	0.00%
LEOFF 2	5.08%	5.05%
WSPRS	7.91%	7.91%

Note: LEOFF 2 represents the local employer rate. The state also contributes 20% of the total contribution rate.

- 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.*

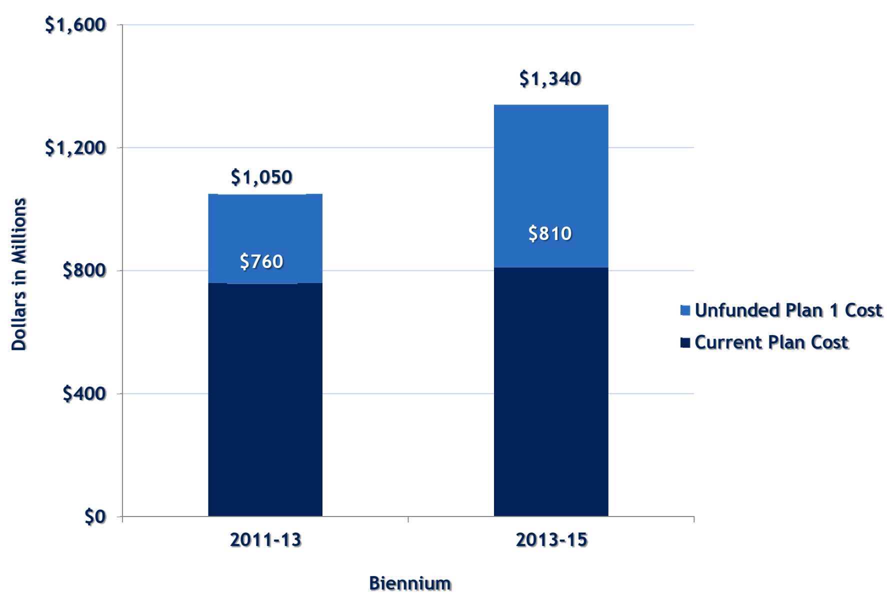
Plan 2 Member Contribution Rates

	Current	2013-15
PERS	4.64%	4.92%
TRS	4.69%	4.96%
SERS	4.09%	4.64%
PSERS	6.36%	6.36%
LEOFF 1	0.00%	0.00%
LEOFF 2	8.46%	8.41%
WSPRS*	6.59%	6.59%

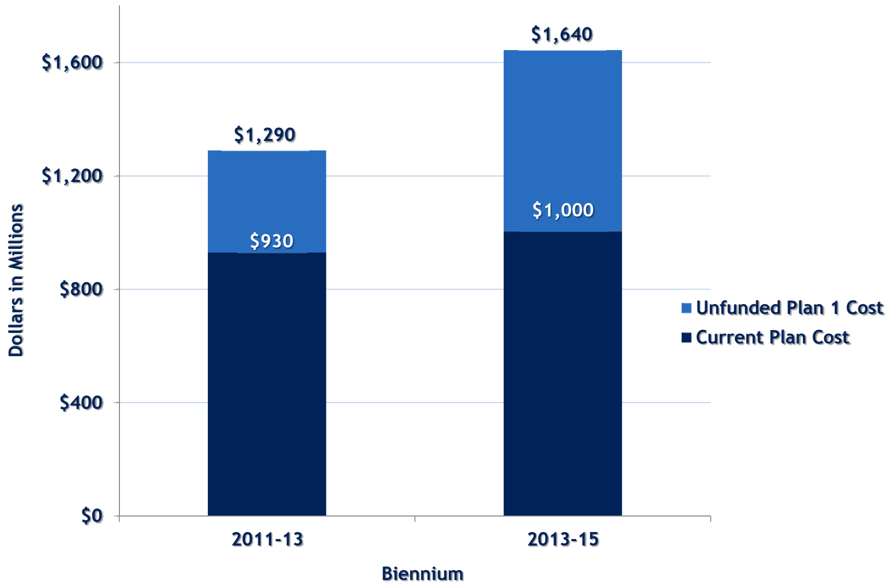
** Rate applies to Plan 1 and Plan 2 members.*

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

Estimated General Fund State (GF-S) Contributions



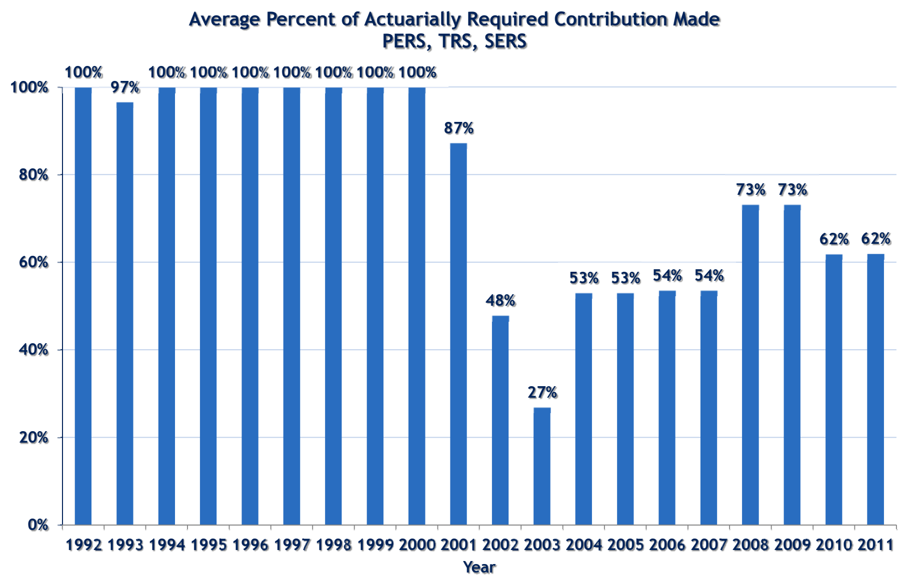
Estimated Local Government Contributions



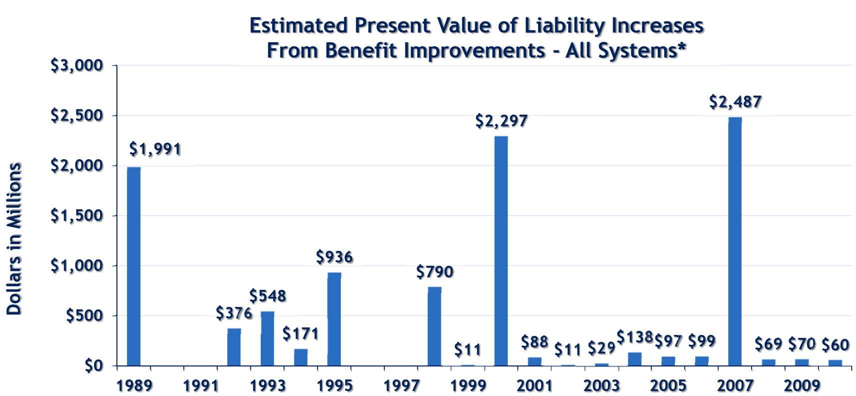
Planning For The Future

- Apply lessons learned
- Pension plans require consistent, stable, and adequate funding to remain affordable
  - Funding shortfalls today increase future contribution requirements
  - Pay now or pay more later
- Certain benefit improvements can weaken affordability and sustainability of state pensions
- Full funding and no further benefit improvements will reduce chances of pay-go funding in PERS 1 and TRS 1

Past Funding Practices



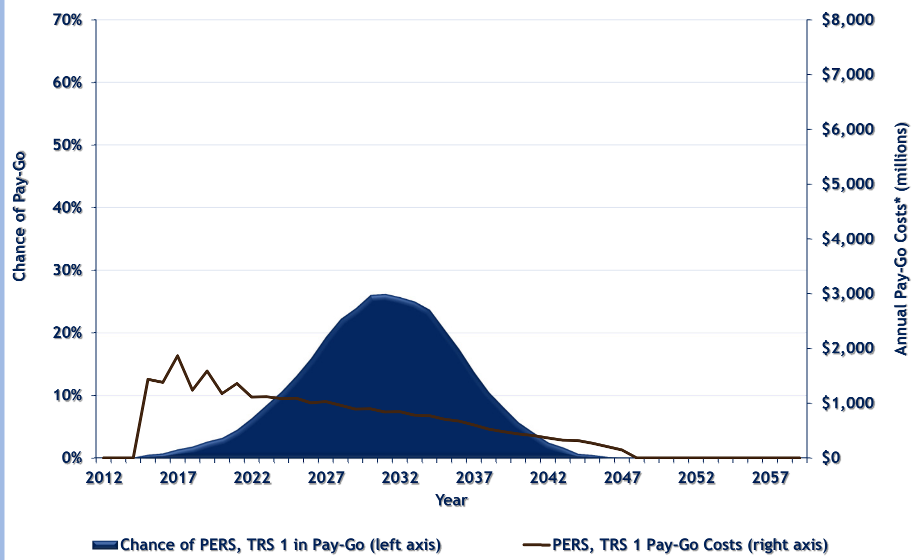
Past Benefit Improvements



1989 - Plan 1 Age 65 COLA after 40% loss of purchasing power from age 65.
1995 - Plan 1 Uniform COLA.
1998 - Plan 1 Gain-Sharing (excluding cost of future gain-sharing benefits).
2000 - Plan 2/3 subsidized early retirement reduction factors with 30 years of service.
2007 - Gain-sharing replacement benefits.

** In 2010 dollars (based on 8% annual interest).*
Note: Does not include impacts of Plan 3 gain-sharing prior to 2008 gain-sharing event. Does not include savings from repealing future gain-sharing since cost never recognized previously.

Pay-Go Risk: If Past Practices Continue



*Pay-Go Costs on Top of Normal Pension Costs.

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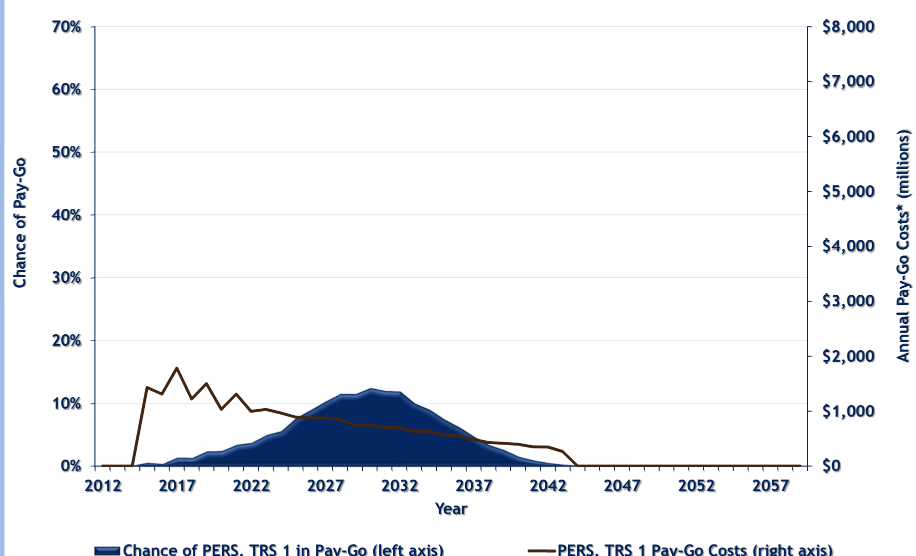
Pay-Go Risk: Full Funding And No Benefit Improvements



*Pay-Go Costs on Top of Normal Pension Costs.

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State Of The State's Pensions

- Top four funded status nationally
- Best investment performance over ten-year period
- Cost effective administration
- Leader in pension reform
- Certain risks and challenges ahead
- Opportunities for future planning
- Remain a national leader in pensions

Additional Pension References

- Department of Retirement Systems
- Washington State Investment Board
- Office of the State Actuary
  - 2011 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

Questions?

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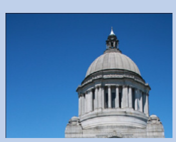
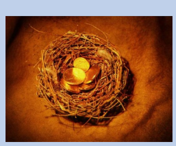
Appendix





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

** Chapter 7, Laws of 2012 1st special session. Excludes LEOFF 2.*

Litigation Risks - Potential Funded Status Impacts

Funded Status on an Actuarial Value Basis				
	2010 Funded Status[1]	After Restoration of Gain-Sharing[2]	After Restoration of UCOLA[3]	After Restoration of Gain-Sharing and UCOLA[4]
PERS 1	74%	72%	66%	63%
PERS 2/3	113%	112%	N/A	112%
TRS 1	84%	82%	72%	70%
TRS 2/3	116%	109%	N/A	109%
SERS 2/3	113%	105%	N/A	105%

[1]Based on 2010 Actuarial Valuation Report (AVR); intended to provide context and general magnitude only.
[2]Based on AVR results after restoration of gain-sharing and continuation of replacement benefits.
[3]Based on AVR results after restoration of UCOLA for all participants.
[4]Based on AVR results after restoration of gain-sharing and UCOLA.

Litigation Risks - Potential 2013-15 Budget Impacts

Increase in 2013-15 Employer Contributions			
(Dollars in Millions)	After Restoration of Gain-Sharing[1]	After Restoration of UCOLA[2]	After Restoration of Gain-Sharing and UCOLA[3]
General Fund	$206.5	$410.5	$639.7
Non General Fund	37.4	105.9	149.4
Total State	243.9	516.4	789.1
Local Government	185.9	381.9	589.2
Total Employer	$429.8	$898.2	$1,378.4

Note: Totals may not agree due to rounding. Figures intended to provide context and general magnitude only.

[1]Based on AVR results after restoration of gain-sharing and continuation of replacement benefits.

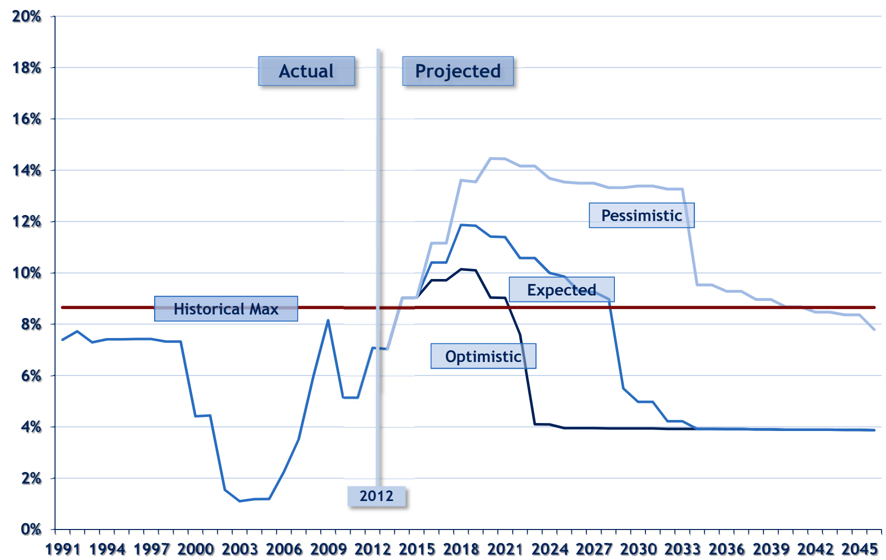
[2]Based on AVR results after restoration of UCOLA for all participants.

[3]Based on AVR results after restoration of gain-sharing and UCOLA.

Projected Employer Contribution Rates

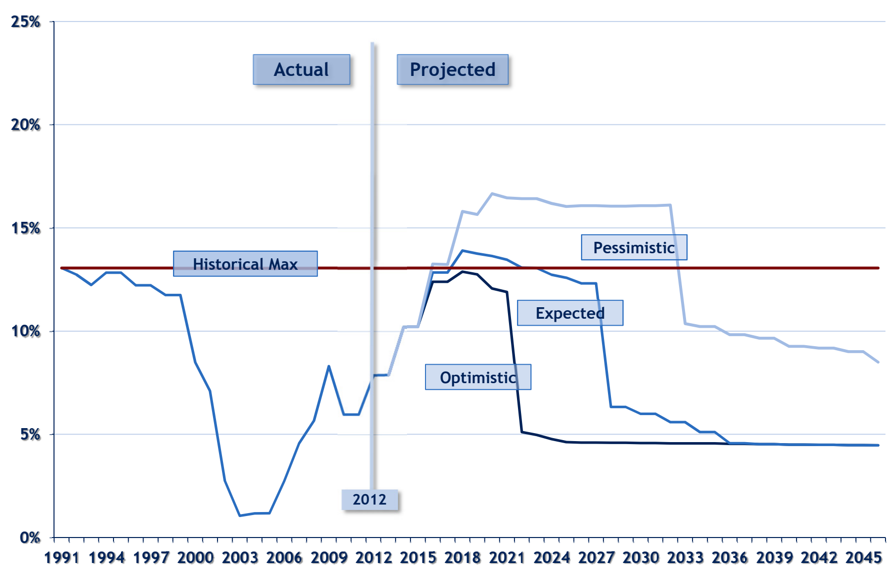
- The next seven slides reflect projected employer contribution rates based on
  - Asset returns through June 30, 2012
  - *June 30, 2011, Actuarial Valuation Report*
  - Legislative changes through the 2012 Legislative Session
- We update our projections at least annually
- Please replace these projections when more recent projections become available
- Please see the *2010 Risk Assessment* for further information on projected contribution rates

Projected Employer Contribution Rates – PERS*



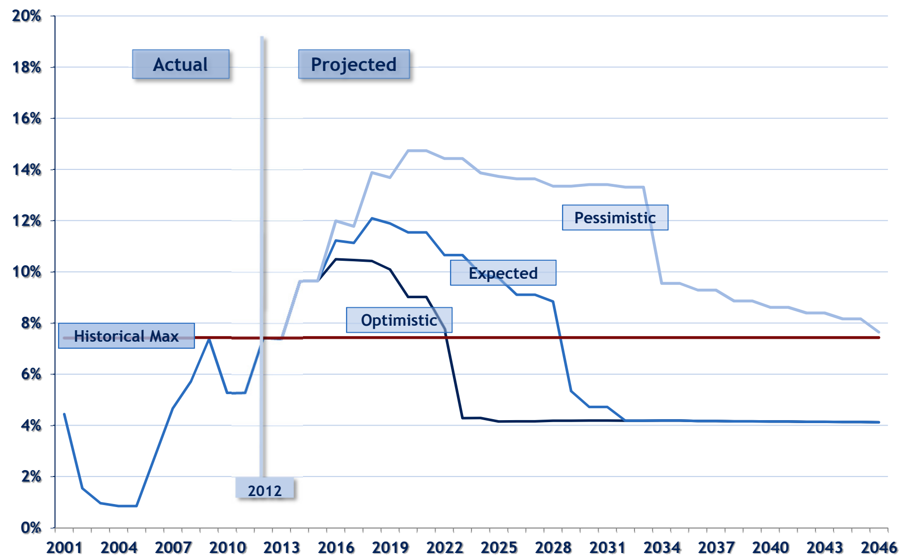
**Assumes no future benefit improvements and full funding.*

Projected Employer Contribution Rates – TRS*



**Assumes no future benefit improvements and full funding.*

Projected Employer Contribution Rates – SERS*



Assumes no future benefit improvements and full funding.

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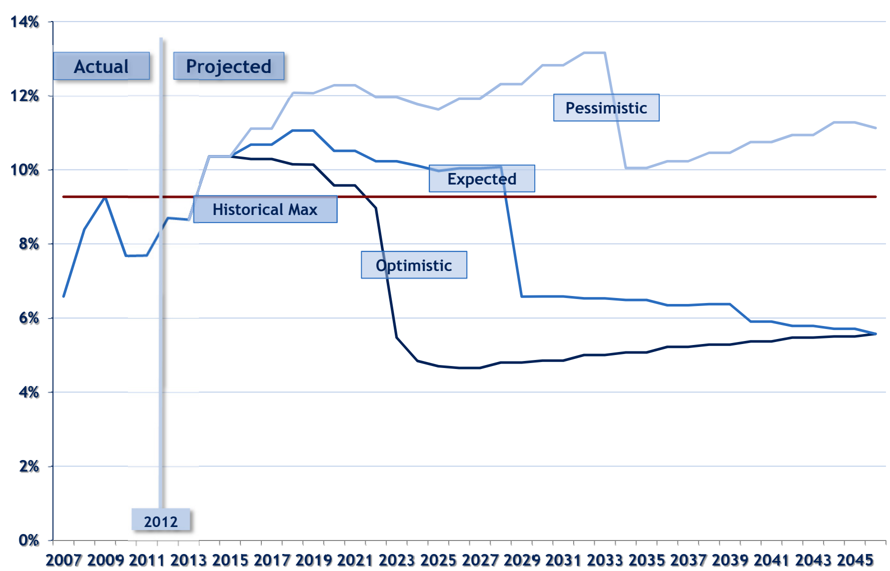
Projected Employer Contribution Rates – PSERS*



Assumes no future benefit improvements and full funding.

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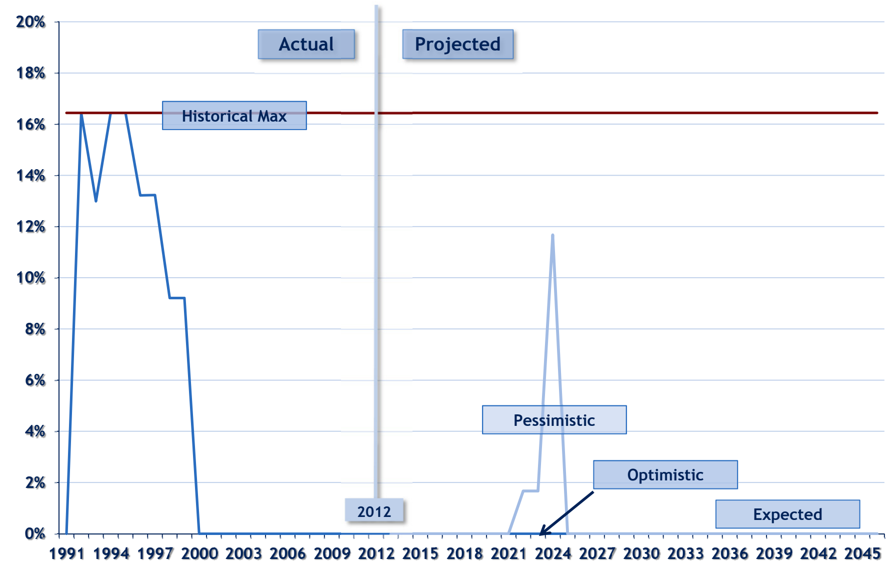
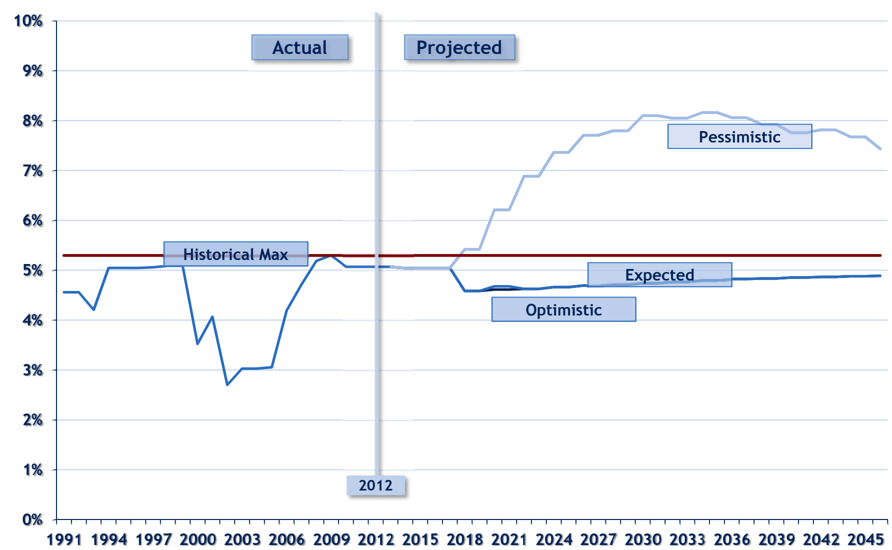
Projected UAAL Contribution Rates – LEOFF 1*



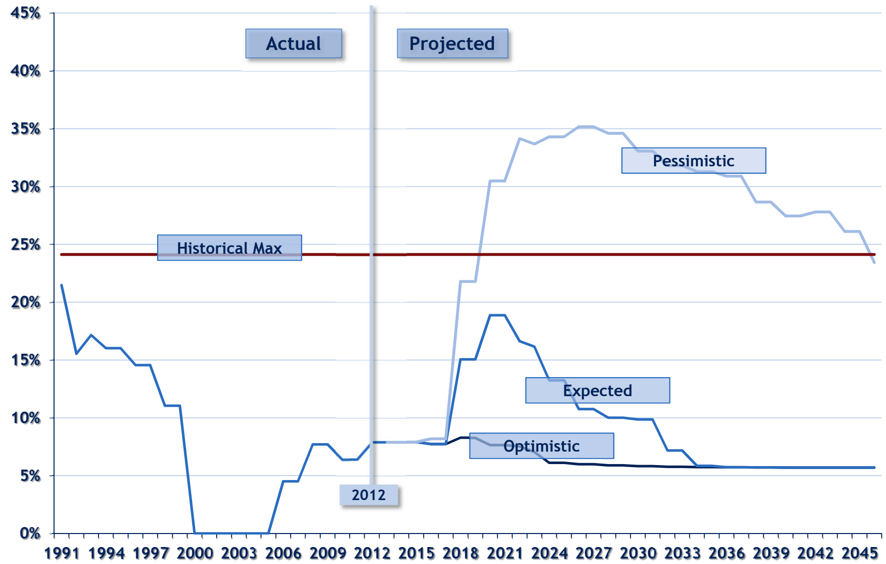
**Assumes no future benefit improvements and full funding.*

Projected Local Employer Contribution Rates – LEOFF 2*



**Assumes no future benefit improvements and full funding. Local employers fund 30 percent of total LEOFF 2 costs; state funds 20 percent.*

Projected Employer Contribution Rates – WSPRS*



*Assumes no future benefit improvements and full funding.