

Office Of The State Actuary's Recommendations On Long-Term Economic Assumptions

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Presentation to LEOFF Plan 2 Retirement Board



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

September 23, 2015

Today's Presentation

- Highlights of Report on Financial Condition for all plans
- Economic Experience Study for LEOFF 2
- Full reports included in meeting material
- No action required at today's meeting

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Three Key Measures To Assess Plan's Financial Condition

- Funding level
- Adequacy and affordability of contributions
- Underlying financial risks of the plan

- One measure alone will not provide the complete story
- Maintaining plan health requires striking the right balance of these measures for all stakeholders

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Summary Of Financial Condition

- Funded status declined since last report
 - Most plans on target for full funding
 - Plan in place to get PERS and TRS Plans 1 back on track
 - GASB reporting changes lowered funded status in open plans
- Contributions required under funding policy currently being made
- Affordability measures have experienced volatility
- Financial risk of the systems has improved
 - Changes to benefit provisions for new hires
 - Court ruling regarding Gain Sharing and UCOLA
 - Adoption of updated assumptions

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Funded Status Declined From Last Report

- Phase-in of lower investment return assumption from 7.9 to 7.8 percent for all plans except LEOFF 2
 - Today's value of future benefits increases when the discount rate decreases
- Recognizing longer life spans (mortality improvements)
 - When members live longer they receive more benefits and the cost (liabilities) of the plan increases

Funded Status as of June 30			
Plan	2012	2013	2014
PERS 1	69%	63%	61%
PERS 2/3	111%	102%	101%
TRS 1	79%	71%	69%
TRS 2/3	114%	105%	104%
SERS 2/3	110%	102%	101%
PSERS 2	134%	124%	124%
LEOFF 1	135%	125%	127%
LEOFF 2	119%	115%	113%
WSPRS 1/2	114%	105%	103%

Note: Shown under Projected Unit Credit (PUC) cost method.

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Funded Status Also Declined Under Different Cost Method

- GASB requires Entry Age Normal (EAN) Actuarial Cost Method to report funded status in state and local government's financial reports
- GASB requirements do not change contribution rate calculations for funding purposes
- Beginning with the 2014 Actuarial Valuation, we will report the funded status under EAN

Funded Status as of June 30, 2014, Under Different Cost Methods		
Plan	Projected Unit Credit	Entry Age Normal
PERS 1	61%	61%
PERS 2/3	101%	90%
TRS 1	69%	69%
TRS 2/3	104%	94%
SERS 2/3	101%	91%
PSERS 2	124%	96%
LEOFF 1	127%	127%
LEOFF 2	113%	107%
WSPRS 1/2	103%	100%

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Financial Condition Based On Funded Status

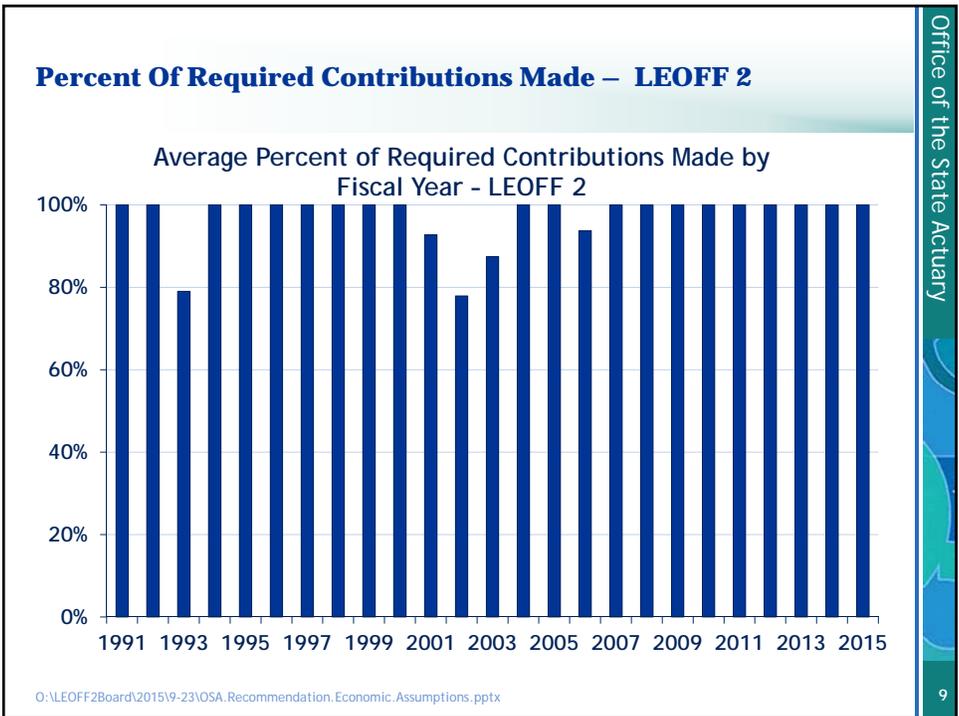
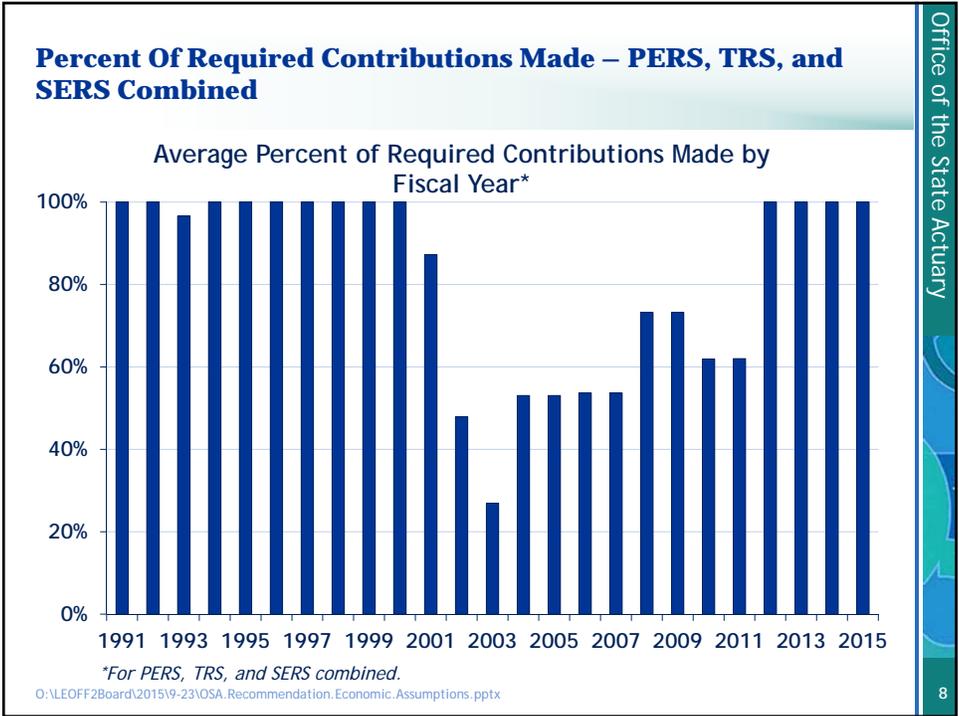
- Washington's combined plans rank seventh in the nation based on national report by the Pew Charitable Trusts
- All open plans and LEOFF 1 at least 90 percent funded and considered on target for full funding
- PERS and TRS Plans 1 less than 70 percent funded but Legislature requires additional employer contributions to get them back on track
 - Legacy costs (Unfunded Actuarial Accrued Liability) amortized over rolling ten year period
 - Minimum rates in place to ensure full funding
 - Under current projections and assumptions, full funding is expected in 2027 (PERS 1) and 2025 (TRS 1)
 - Full funding will occur sooner/later under optimistic/pessimistic outlooks

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Adequate Funding Improves Plan Health

- Contributions are adequate if they provide full funding based on the funding policy and reasonable set of assumptions
 - Recent history shows adequate contributions have been made
 - Future increases are expected to reach full funding for most plans
 - PERS and TRS Plans 1 also require additional funding to amortize the past legacy costs (UAAL)
- Adopting set of reasonable assumptions improves adequacy
 - When assumptions closely model actual experience the contributions calculated under the funding policy will closely model actual plan costs

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Affordability Is The Ability To Provide Adequate Funding

- If contributions are deemed unaffordable, full funding and plan health are at risk of declining
- Affordability is subjective
- Can measure/assess affordability by the growth in contributions over time
 - As a percent of pay
 - As a percent of General Fund-State (GF-S) budget
- Affordability improves if contribution rates are stable and predictable
 - Asset smoothing method helps reduce volatility

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Contribution Rates As A Percent Of Pay

		Contribution Rates		
System		Actual 2013-15	Adopted 2015-17	Projected ¹ 2017-19
PERS	Member ²	4.92%	6.12%	7.23%
	Employer	9.03%	11.00%	12.29%
TRS	Member ²	4.96%	5.95%	7.00%
	Employer	10.21%	12.95%	14.69%
SERS	Member ²	4.64%	5.63%	6.94%
	Employer	9.64%	11.40%	12.52%
PSERS	Member	6.36%	6.59%	6.80%
	Employer	10.36%	11.36%	11.75%
LEOFF ³	Member	8.41%	8.41%	8.85%
	Employer	8.41%	8.41%	8.85%
WSPRS	Member	6.59%	6.69%	7.19%
	Employer	7.91%	8.01%	12.45%

¹Rates shown for 2017-19 are expected projections based on the 2013 Actuarial Valuation.

²Plan 1 members' contribution rate is statutorily set at 6.0%. Members in Plan 3 do not make contributions to their defined benefit.

³No member or employer contributions are required for LEOFF Plan 1 when the plan is fully funded.

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Estimated Pension Contributions As A Percent Of GF-S Budget

Estimated Pension Contributions as a Percent of GF-S Budget						
(Dollars in Millions)	1989	1994	2000	2005	2010	2014
Est GF-S Contributions*	\$200	\$323	\$265	\$81	\$384	\$597
GF-S Budget**	\$5,686	\$8,013	\$11,068	\$13,036	\$13,571	\$16,383
Percent of GF-S Budget	3.5%	4.0%	2.4%	0.6%	2.8%	3.6%

*Actual total employer contributions were found in the 2005, 2009, and 2014 OFM CAFRs. The estimated GF-S contributions is the product of actual employer contributions and assumed GF-S fund splits (found on OSA's website).

**1989 and 1994 GF-S budget found in June 2008 ERFC Annual Forecast. All other GF-S budgets were found in June 2015 ERFC Annual Forecast.

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Financial Risk Has Improved

- Recent changes to benefit provisions for new hires
 - Early retirement benefits less generous
 - Reduces contribution requirements
 - Improves affordability and sustainability of plans
- Litigation risks for gain-sharing and Plan 1 UCOLA removed after court ruling in favor of the state
- Adoption of updated assumptions
 - Longer life spans
 - Lower investment return assumption
 - Short term costs with long term savings

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Concluding Remarks On Financial Condition

- Contribution rates expected to increase in the short term to meet full funding goal
- Full funding and maintenance of affordable/sustainable plan designs will help systems manage financial risks and improve health
- Adopting reasonable assumptions improves adequacy
 - Require continual monitoring and adjustments as needed

- Questions on Report on Financial Condition?

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Summary Of Report On Long-Term Economic Assumptions

- All current assumptions reasonable
- No assumption changes recommended
- Retaining current assumptions will maintain system health and lessen some financial risks
- Supporting data and analysis in full report

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Current and Recommended Assumptions

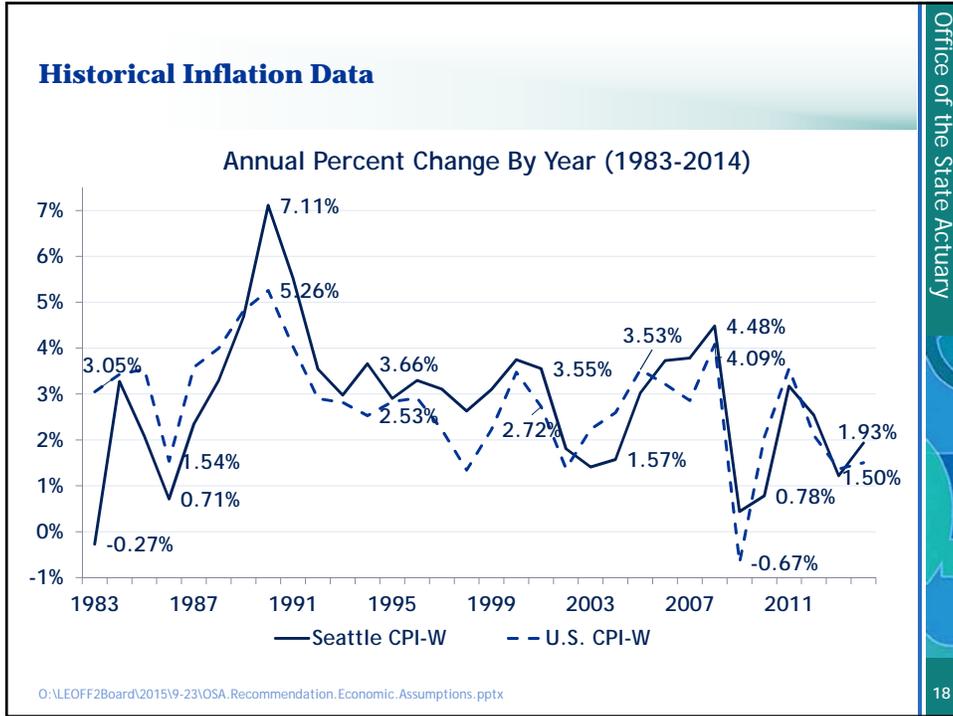
Assumption	Current	Recommended
Inflation	3.00%	3.00%
General Salary Growth	3.75%	3.75%
Annual Investment Return	7.50%	7.50%

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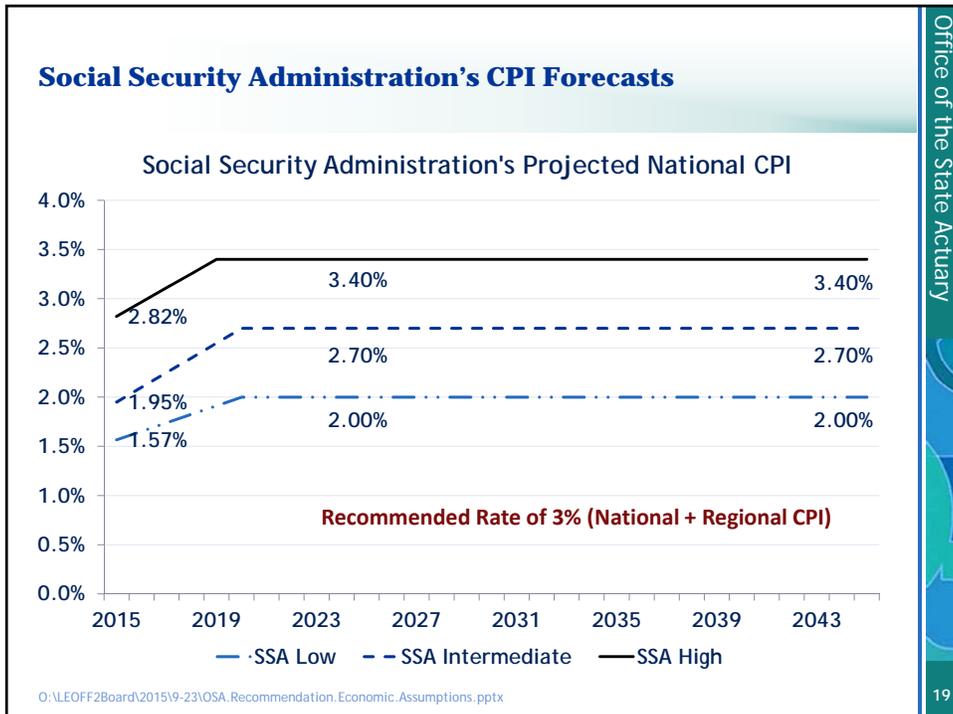
Inflation

- Assumption used to model post-retirement COLAs based on changes in consumer price index (CPI) for Seattle, Tacoma, Bremerton
- Also used as a “building block” for general salary growth and nominal rate of return assumption
- Components of total inflation assumption
 - US inflation
 - Adjustment for regional inflation
- Recommending no change in the total inflation assumption from the current assumption

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General Salary Growth

- Assumption used to project salaries to determine future retirement benefits and contribution rates as a percentage of payroll
- Components of general salary growth assumption
 - Inflation
 - "Productivity growth" (salary growth above inflation)
 - Economic growth factors only
- Service-based salary increases included in plan-specific demographic assumptions
- Consistent with last study, adjusted experience study data to remove short-term salary practices in response to Great Recession
- Recommending no change in the general salary increase assumption from the current assumption

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General Salary Growth Experience

General Salary Growth Experience 1984 - 2009				
	Observed Inflation	Observed Productivity	Total General Salary Growth	Recommended Assumption*
LEOFF 2	3.14%	0.51%	3.65%	3.75%

Note: Totals may not agree due to rounding.

*3% assumed inflation + 0.75% assumed productivity

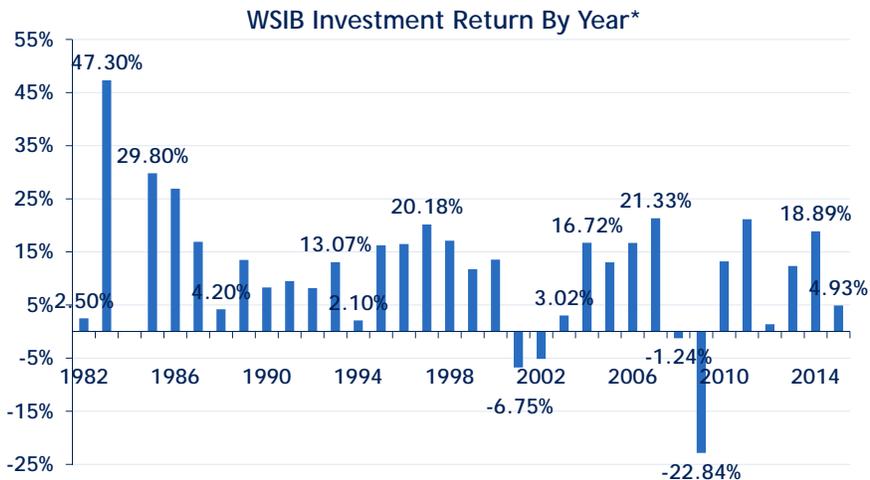
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Annual Investment Return

- Assumption used to determine today's value of future benefit payments and salaries
- Key assumption for determining contribution requirements
- Components of annual investment return assumption
 - Inflation
 - "Real rate of return" (return above inflation)
- Recommending no change in the annual investment return assumption from the current assumption

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Historical Investment Returns



*Fiscal year ending June 30.

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Simulated Future Investment Returns

50-Year Simulated Future Investment Returns*					
	2015	2013	2011	2009	Average
75th Percentile	8.86%	8.62%	8.95%	8.87%	8.83%
60th Percentile	8.18%	7.86%	8.04%	8.05%	8.03%
55th Percentile	7.94%	7.63%	7.76%	7.80%	7.78%
Expected Return	7.74%	7.40%	7.49%	7.57%	7.55%
45th Percentile	7.54%	7.17%	7.22%	7.31%	7.31%
40th Percentile	7.31%	6.93%	6.94%	7.07%	7.06%
25th Percentile	6.56%	6.13%	6.03%	6.25%	6.24%

*Based on WSIB's capital market assumptions.

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Concluding Remarks On Economic Assumptions

- All current assumptions reasonable and representative of our best estimate
- No changes recommended

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Recap

- Report on Financial Condition
 - Funded status declined but the plan remains fully funded
 - Current contribution rates are adequate to maintain full funding
 - Risk measures have improved
 - Reasonable assumptions key to maintain plan health
- Economic Experience Study
 - All current assumptions reasonable
 - Recommend no changes to current assumptions
- Full reports included in meeting materials

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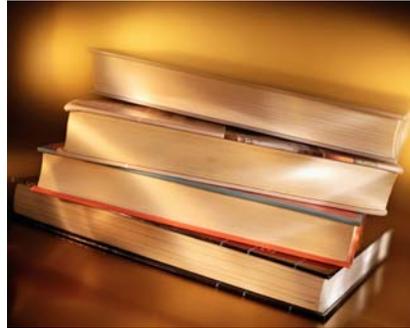
Next Steps

- LEOFF 2 Board has authority to adopt recommendations for economic assumptions
 - Any changes subject to revision by Legislature

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Appendix



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Other States' Economic Assumptions

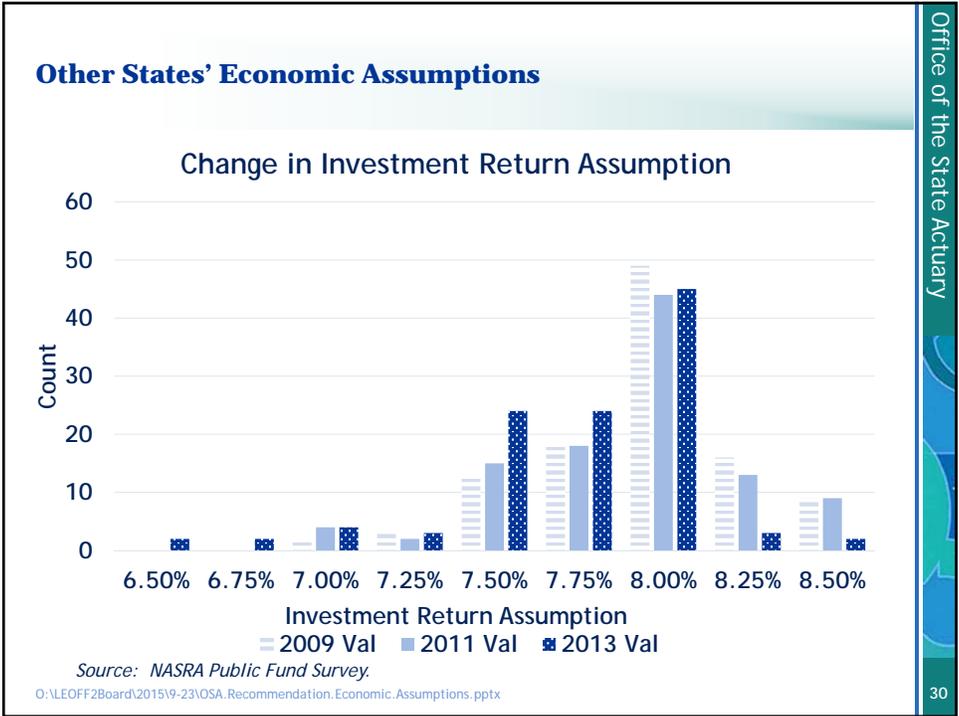
Economic Assumptions for Selected Plans Outside Washington				
Plan Name	Investment Return	General Salary Growth	Productivity*	Inflation
Alaska Public Employees Retirement System	8.00%	3.62%	0.50%	3.12%
Alaska Teachers Retirement System	8.00%	3.62%	0.50%	3.12%
California Public Employees Retirement System	7.50%	3.00%	0.25%	2.75%
California State Teachers Retirement System	7.50%	3.75%	0.75%	3.00%
Public Employees Retirement Association of Colorado (State & School Divisions)	7.50%	3.90%	1.10%	2.80%
Florida Retirement System	7.65%	3.25%	0.65%	2.60%
Iowa Public Employees Retirement System	7.50%	4.00%	1.00%	3.00%
Public Employees Retirement System of Idaho	7.00%	3.75%	0.51%	3.24%
Missouri State Employees Retirement System	8.00%	3.00%	0.50%	2.50%
Ohio Public Employees Retirement System	8.00%	3.75%	0.75%	3.00%
Oregon Public Employees Retirement System	7.75%	3.75%	1.00%	2.75%
Wisconsin Retirement System	7.20%	3.20%	N/A	2.0%-2.7%
2015 Economic Experience Study Recommendation	7.50%	3.75%	0.75%	3.00%
Selected Public Plans Outside WA - Average	7.63%	3.55%	0.68%	2.90%
Selected Public Plans Outside WA - Minimum	7.00%	3.00%	0.25%	2.50%
Selected Public Plans Outside WA - Maximum	8.00%	4.00%	1.10%	3.24%

Assumptions are developed according to individual plan needs for use in a variety of actuarial models. Additional assumptions may be used, in combination with the reported general salary growth assumption, to model total salary growth. Investment return assumptions are heavily dependent on the plan's asset allocation.

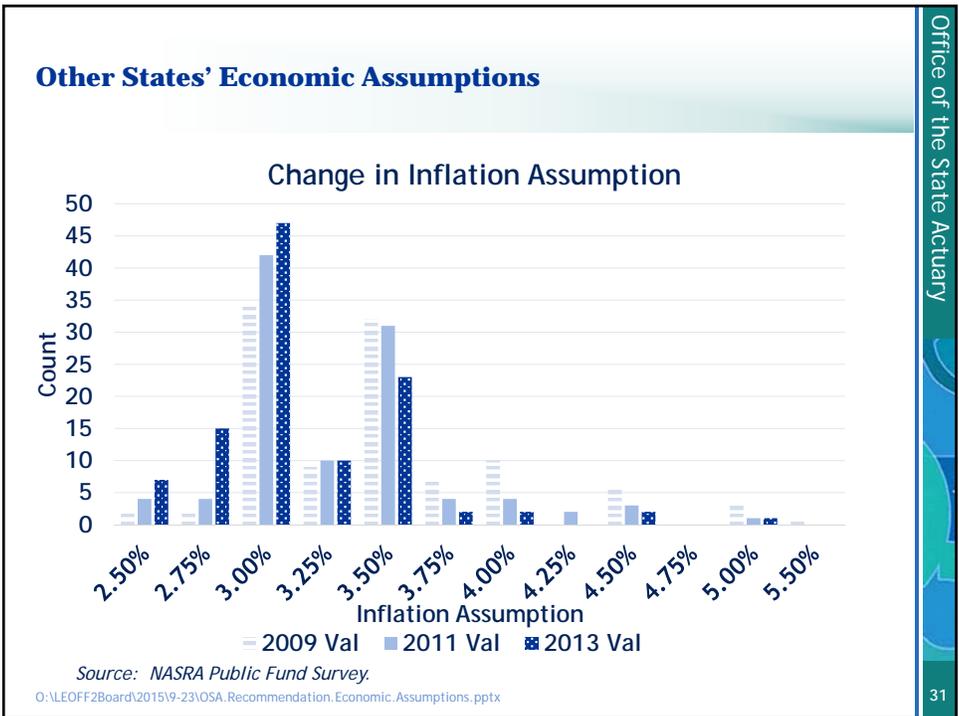
Data gathered from Public Plans Database, Center for Retirement Research, and individual state system Comprehensive Annual Financial Reports or Actuarial Valuations.

**For comparison to our economic assumptions. We assumed productivity was the difference between General Salary Growth and Inflation.*

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