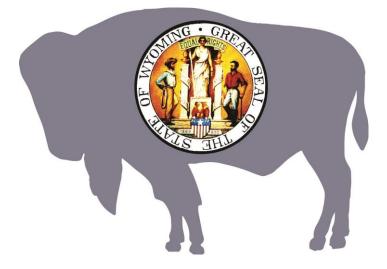


**RETIREMENT SYSTEM** 

PARTNERING TO BUILD FINANCIAL SECURITY FOR MEMBERS AND THEIR FAMILIES

### **Report to the JAC**

October 27, 2017





### Wyoming Retirement System

Partnering to Build Financial Security for Members and their Families

Matt Mead Governor Ruth Ryerson Executive Director

October 16, 2017

The Honorable Senator Bruce Burns, Co-Chairman JAC The Honorable Representative Bob Nicholas, Co-Chairman JAC VIA EMAIL c/o Legislative Service Office

Dear Senator Burns and Representative Nicholas:

The Wyoming Retirement System Board (Board) regrets that prior commitments prevent either of us (Laura Ladd and Ruth Ryerson) from attending the October 27th JAC meeting in Casper. We will send in our place representatives from WRS' actuarial firm, Gabriel Roeder Smith & Co. (GRS), along with WRS senior staff members and Board Vice Chair Eric Nelson. The purpose of this letter is to respond to the recent information request from LSO Budget and Fiscal Administrator Don Richards to WRS Executive Director Ruth Ryerson.

WRS engages in careful management and ongoing monitoring of Wyoming's pension plans. The Board has established a good pattern for oversight of the actuarial assumptions, funding status and contribution requirements. It is one of the Board's most important fiduciary duties. The Board recently received the results of an experience study in which GRS compared prior assumptions to what actually happened in the population of each pension plan, as well as investment outcomes, over the course of the past five years. The Board used this information to re-evaluate its actuarial assumptions and make sound, data-driven changes at its August meeting. Using assumptions that are "built to last" helps to minimize contribution changes over time, while improving the benefit security for the members and creating equitable costs for generations of Wyoming tax payers. Next spring, the Board will review the impact that another full year of investment performance and the revised assumptions had on the funded status of the plans.

GRS will present an educational overview of the actuarial assumption changes, recently adopted by the Board, at the October 27th meeting, which will address the first question from the information request. There is an actuarial gain or loss associated with each assumption change, the combination of which will impact the actuarially determined contributions needed in order to bring each plan into full funding. GRS will also review the impact of the changes made to the plan after the previous five year experience study in order to put the current changes in context.

The Board believes it would be advantageous for the Legislature to consider implementing a modest contribution increase during this legislative session; for example, an increase of half a percent split between the employer and employee share of contributions, effective July 1, 2018. The Board believes to have support for this approach from the Governor's Office following WRS' budget meeting with his staff in late September. GRS will present information about why a contribution increase at this time

would be helpful to address the fiscal impacts of the Board's changes to the actuarial assumptions. This will give a response to the second question from the information request.

With regard to the remaining questions outlined in the information request, WRS provided them to GRS and learned there is not enough time to accomplish such a list of work in advance of the October meeting, particularly since it must meet the required standards for actuarial peer review. Further, the cost for completing the work would be well in excess of \$20,000. The requests were all related to the "Big Plan" and do not address the smaller plans, which also need to be managed. Along with these limitations, the Board has reservations about making policy recommendations based on ad hoc research requests developed by a subset of stakeholders.

The Board does not believe that Wyoming is in a pension crisis, nor is there a need for drastic action, but also shares the Legislature's concern and commitment to reaching 100 percent funded status within 30 years. With the exception of the Paid Firefighter Pension Plan A, which the Legislature has long been aware is expected to run out of money within the next ten years and needs legislative attention, all of the pension plans are healthy and holding relatively steady in terms of funding level. That said, the Board shares the JAC's concerns about ensuring that Wyoming maintains well-funded pension plans for its public employees over the long-term.

The Board believes a better approach to the list of requested projections would be a comprehensive evaluation of different plan design and funding strategies with the goal of identifying methods to better achieve long-term pension plan sustainability and affordability. The Board will have more comprehensive information, including valuation results for year ending December 31, 2017, that will contribute to completion of a meaningful study by mid-summer 2018.

The Board hopes the JAC is agreeable to this approach, which we believe will produce sound information that can be used as we partner to develop long-lasting solutions that a majority of stakeholders support.

Sincerely,

June 7.

Laura Ladd WRS Board Chair

Rute Ryerson

Ruth Ryerson Executive Director

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### **Purpose of Report**

The purpose of this report is to provide a summary of recent changes to benefits and contribution rates, report assumption changes adopted by the Board and the resulting implications, as well as to record the education that will be given in-person at the meeting by WRS' actuarial firm, Gabriel Roeder Smith & Co. (GRS).

### **Recent Benefit Changes to Manage Liabilities**

The WRS Board is committed to running well funded pension programs. Since 2009, many public pension funds have made adjustments to their programs to manage the growth in liabilities. Similarly, Wyoming made meaningful pension reforms which have been crucial to keeping Wyoming's public pension plans healthy.

In the practical sense, cost of living adjustments (COLAs) have been removed from benefits for retirees (with the exception of the Paid Fire A Plan retirees). Since 2009, economic conditions prevented the WRS Board from granting COLAs. The budget bill of 2010 included a legislative hold on COLA awards by the WRS Board and called for a study. In 2012, the Legislature passed a law returning the authority to grant pension COLAs to the Legislature and also requiring 100 percent funding, plus a cushion, before the Board could recommend a COLA from WRS funds. See W.S. 9-3-454 for the specific language. In actuality, it will be decades before the Public Employee Plan meets the requirements to grant a COLA from WRS funds. A more extensive history of COLA policies and awards is included in the <u>2007 LSO</u> <u>Program Evaluation</u> of the WRS pension plans.

		D . 1 F	D 115	Warden,	<b>T</b> 7 <b>1</b> /		
Year	Public Employees	Paid Fire Plan A	Paid Fire Plan B	Patrol & DCI	Volunteer Fire	Law Enforcement	Judicial
		I Iali A		DCI	rne	Enorcement	Juuiciai
1991	1.00%		4.00%				
1992	1.00%		4.00%				
1993	1.00%		3.75%				
1994	1.00%		3.33%				
1995	1.00%	Based on	3.33%	1.00%			
1996	1.00%	increases to 1st	4.00%	1.00%			
1997	1.50%	class	4.00%	1.00%			
1998	2.00%	salary by	2.80%	1.00%			
1999	2.00%	each city	2.80%	1.50%			
2000	2.50%		2.80%	1.50%			
2001	3.00%		4.30%	2.25%	2.00%		
2002	3.00%		4.30%	2.25%	2.00%	2.00%	
2003	3.00%		2.50%	2.25%	2.00%	2.00%	
2004	2.16%	3.00%	2.90%	2.25%	2.00%	2.00%	3.00%
2005	1.40%	3.00%	4.90%	2.00%	2.00%	2.00%	2.75%
2006	1.05%	3.00%	4.50%	1.85%	2.00%	2.00%	2.58%
2007	1.00%	3.00%	3.00%	1.38%	2.00%	2.00%	2.82%
2008	1.03%	3.00%	3.00%	1.49%	3.00%	2.00%	2.79%
2009	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2010 to present	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%

#### History of COLAs by Plan

In response to recommendations from the WRS Board, the Legislature implemented a new tier with reduced benefits for members of the Public Employee Plan hired on or after Sept. 1, 2012. This has helped to manage the liabilities of the Plan, while still providing a reasonable benefit to employees. At present, WRS estimates a third of the members of the Public Employee Plan are in the new reduced tier and this will increase over time.

	Tier 1: Current	Tier 2: New
	Members Hired on or	Members Hired on
	Before 8/31/2012	or After 9/1/2012
	2.125% for first 15 years	
	and 2.25% for years	
Multiplier	above 15	2% for all years
	3 year highest average	5 year highest
Highest Average Salary	salary	average salary
Retirement Age	age 60 or rule of 85	age 65 or rule of 85

#### **Benefit Summary for Both Tiers**

The Board reduced the interest paid on individual accounts in 2016 to 3.00 percent compounded annually from 5.50 percent. The interest rate has an impact on members who take a refund of employee contributions or who receive a pre-retirement death benefit.

### **Contribution History**

In response to recommendations from WRS, the Legislature passed a bill enacting a multi-year plan to gradually increase contributions to the Public Employee Plan in 2010 and two of the smaller plans were included in subsequent years. All contribution increases were fully phased in as of July 2015; however, the employer pickup of the employee contribution for state employees gradually adjusted and was fully phased in as of July 2017. This resulted in state employees contributing more from their own paychecks than in prior years. However, non-state employers establish their own pick-up arrangements with some following the pattern of the state and some not.

With the first increase starting in September 2010, contributions to the Public Employee Plan were increased overall by 2.87 percent. The multi-year plan was adjusted by bills in 2013 and 2014 to start increases sooner and by an additional 2.50 percent, and two other plans were included. There was a bill passed in 2012 to gradually increase the contribution rate by 3.25 percent to the Warden, Patrol and DCI Plan effective July 1, 2012, and the plan was adjusted by bills in 2013 and 2014 by an additional 3.84 percent. The contribution rate to the Paid Firefighter B Plan was increased by 0.225 percent in 2013 and by an additional 0.52 percent in 2014.

Summary of Contribution Increase Bins					
Contribution Increase			Total Increase Phased		
Bill	Year	Plan(s)	In		
SF 72	2010	Public Employee	2.87%		
SF 30	2012	Warden, Patrol & DCI	3.25%		
HB 250	2013	Public Employee	1.00%		
		Warden, Patrol & DCI	1.80%		
		Paid Firefighter B	0.23%		
HB 46	2014	Public Employee	1.50%		
		Warden, Patrol & DCI	2.04%		
		Paid Firefighter B	0.52%		

#### **Summary of Contribution Increase Bills**

				<b>Employee Paid</b>	<b>Employee Paid</b>			Total
Public Plan				by Employer	by Employee	Total Employee	Employer	Contribution
01/01/78	to	02/27/	81	5.57%	by Employee	5.57%	5.57%	11.14%
	to	08/30/		5.57%		5.57%	5.68%	11.25%
	to	08/31/		5.57%	1.43%	7.00%	7.12%	14.12%
09/01/13	to	06/30/		5.82%	1.68%	7.50%	7.12%	14.62%
07/01/14	to	06/30/		6.195%	2.055%	8.250%	7.620%	15.870%
07/01/15	to	06/30/		6.195%	2.055%	8.250%	8.370%	16.620%
07/01/16	to	06/30/		5.945%	2.305%	8.250%	8.370%	16.620%
07/01/17		00/30/	- /	5.57%	2.68%	8.25%	8.37%	16.62%
07/01/17	10			Employee Paid	Employee Paid	0.2370	0.3770	Total
Warden & Patrol				by Employer	by Employee	Total Employee	Employer	Contribution
07/01/73	to	06/30/	12	11.02%	by Employee	11.02%	11.33%	22.35%
07/01/12	to	08/31/		11.02%	1.62%	12.64%	12.96%	25.60%
09/01/13	to	06/30/		11.92%	1.62%	13.54%	12.96%	26.50%
07/01/14	to	06/30/		12.60%	1.96%	14.56%	13.86%	28.42%
	to	06/30/		12.60%	1.96%	14.56%	14.88%	29.44%
	to	06/30/		12.26%	2.30%	14.56%	14.88%	29.44%
07/01/17		00/30/	- /	11.92%	2.64%	14.56%	14.88%	29.44%
07/01/17	10			Employee Paid	Employee Paid	14.50%	14.00%	Total
Guard Fire				by Employer	by Employee	Total Employee	Employer	Contribution
07/01/01	to	08/31/	10	15.22%	by Employee	15.22%	5.68%	20.90%
09/01/10			10	15.22%	1.43%	16.65%	7.12%	23.77%
05/01/10	10	present		Employee Paid	Employee Paid	10.05%	7.1270	Total
Paid Fire B				by Employee	by Employee	Total Employee	Employer	Contribution
07/01/81	to	06/30/	'ne	6.00%	by Employee	6.00%	12.00%	18.00%
07/01/08		08/31/		8.50%		8.50%	12.00%	20.50%
	to	06/30/		8.725%		8.725%	12.000%	20.725%
07/01/14				9.245%		9.245%	12.000%	21.245%
01/01/11	10	p. coont		Employee Paid	<b>Employee Paid</b>	5121070	12100070	Total
Law Enforcement				by Employer	by Employee	Total Employee	Employer	Contribution
04/01/89	to	06/30/	97	5.57%	3.20%	8.77%	5.68%	14.45%
	to	06/30/		5.57%	3.73%	9.30%	5.68%	14.98%
07/01/02		present		8.60%	0.7070	8.60%	8.60%	17.20%
07/01/02	10	present		Employee Paid	<b>Employee Paid</b>	0.0070	0.0070	Total
Judicial				by Employer	by Employee	Total Employee	Employer	Contribution
07/01/98	to	06/30/	05	9.22%	by Employee	9.22%	5.68%	14.90%
07/01/05		06/30/		9.22%		9.22%	8.78%	18.00%
07/01/08				5.57%	3.65%	9.22%	14.50%	23.72%
				5.5770	5.0070	5.2270	1.5070	Total
Vol Plan				Employee Paid		Total Employee	Employer	Contribution
07/01/15	to	present		\$15.00		rotar Employee	Employer	\$15.00
Paid Fire A	10	p. count		Benefit % Increa	sed			<i>\</i>
Contributions suspend	ded	4/1/97		benent /o increa	iseu			
04/01/97			00	55% of MSFFC*		plus 1.5%		
07/01/00				57.5% of MSFFC	*	plus 1.5%		
07/01/00		, ,		75% of MSFFC*		plus 1.5%		
* Monthly Salary of a			_					
Interest Rate History				Rate				
07/01/78		12/31	15	5.50%				
01/01/16			10	3.00%				
01/01/10	10	present		5.0070				

### **Recent Assumption Changes**

The benefit security of a pension plan depends on using assumptions which reflect the underlying experience of the membership and the investments. In keeping with W.S. 9-3-410(a) and Board policies, the Board commissioned an experience study in 2017 and recently made adjustments to assumptions as a result. These assumptions are then used to generate the contribution amounts. The maintenance of the funded ratio depends on receipt of adequate contributions, which in turn depends on the actuarial assumptions.

Assumptions	Old	New - Effective with 1/1/18 valuations
Investment Return/Discount Rate	7.75%	7.00%
Inflation	3.25%	2.25%
Real Rate of Return	4.50%	4.75%
Wage Inflation	4.25%	2.50%
Productivity	1.00%	0.25%
Payroll Growth	4.25%	2.50%
Amortization Period for ADC*	30 Year Open	30 Year Closed Layered
	5 year	
	smoothing,	
	with	
Actuarial Value of Assets	immediate	
	recognition of	
	interest and	
	dividends	5 year smoothing of entire return
Mortality	RP-2000	RP-2014
Mortality Projection	Scale BB	Scale MP-2016**
Retirement	Age-based	Age-based modified
Termination	Age-based	Age-based modified
Salary	Age-based	Service-based
Disability	Age-based	Age-based modified
Expense Growth Rate	6.50%	2.50%

#### Board Adopted Assumptions for Calculating Pension Liabilities

\*The Actuarially Determined Contribution

\*\*MP-2017 if available

The funded ratios of each pension plan with the old and new assumptions are provided in chart format.

#### Changes in Funding Ratios Resulting from Assumption Changes

	Public Employee	Law Enforcement	Warden, Patrol & DCI	Judicial	Paid Firefighter A	Paid Firefighter B	Guard Fire	Volunteer Fire & EMT
Funded Ratio January 1, 2017								
Old Assumptions	78.18%	94.01%	79.53%	109.46%	60.42%	99.42%	87.21%	76.46%
New Assumptions	75.70%	86.90%	76.46%	100.21%	51.10%	93.03%	83.86%	72.71%
Projected Funded Ratio January 1, 2018	74.50%	85.80%	75.80%	98.80%	49.80%	91.30%	84.90%	72.20%
Current Contribution - Statutory	16.62%	17.20%	29.44%	23.72%	0.00%	21.25%	23.77%	\$3,250,000*
Effective Funding Period Based								
on Old Assumptions (years)	40	20	69	0	Never	Never	7	19
Projected Contribution to reach 100% in	19.20%	19.05%	31.64%	23.72%*	\$16,800,000	27.10%	23.77%*	\$3,250,000*
Effective Funding Period Based on New Assumptions (years)	30	30	30	18	10	30	8	27

\*Current contribution achieves 100% funding within 30 years

### Sample Contribution Increase Scenario

The following is a response to the JAC's request for an estimate the cost of raising the employer contribution rate by one percent (1%) for one fiscal year, by employer category.

<b>*</b>	uone Employee I lan	
Employer Contribution		\$ 149,717,967
Cost of 1% Increase of Employ	er Contribution	\$ 17,891,254
Category	Percent	Cost
Cities & Towns	7.2%	\$ 1,288,983
Counties	6.8%	\$ 1,212,047
Judicial Branch	0.3%	\$ 44,957
Legislative Branch	0.1%	\$ 25,535
School Districts	49.2%	\$ 8,805,462
State Agencies, Boards &		
Commissions	23.1%	\$ 4,134,521
Community Colleges	3.4%	\$ 607,916
University of Wyoming	3.5%	\$ 625,719
All Others	6.4%	\$ 1,146,113
	100.0%	\$ 17,891,254

#### Public Employee Plan

#### Law Enforcement Plan

Employer Contribution		\$ 13,430,603
Cost of 1% Increase of Employ	er Contribution	\$ 1,561,698
Category	Percent	Cost
Cities & Towns	33.1%	\$ 516,938
Counties	41.2%	\$ 644,164
University of Wyoming	0.5%	\$ 8,313
Joint Powers Board	0.7%	\$ 11,407
Attorney General	0.6%	\$ 9,762
Board of Outfitters	0.0%	\$ 597
Department of Corrections	22.4%	\$ 349,995
Department of Family		
Services	0.0%	\$ 77
Department of		
Transportation	1.1%	\$ 17,923
Livestock Board	0.2%	\$ 2,521
	100.0%	\$ 1,561,698

ff cliv			
Employer Contribution		\$	3,513,950
Cost of 1% Increase of Employer Contribution			236,152
Category	Percent		Cost
Attorney General	14.1%	\$	33,303
Game and Fish	24.6%	\$	58,077
Department of			
Transportation	61.3%	\$	144,772
	100.0%	\$	236,152

#### Warden, Patrol & DCI Plan

#### Paid Firefighter B Plan

Employer Contribution		\$	3,368,771	
Cost of 1% Increase of Employer Contribution\$280,75				
Category	Percent		Cost	
Cities & Towns	75.8%	\$	212,866	
Counties	24.2%	\$	67,865	
	100.0%	\$	280,731	

### Air Guard Firefighter Plan

Employer Contribution		\$ 136,542
Cost of 1% Increase of Emplo	yer Contribution	\$ 19,177
Calana		
Category	Percent	Cost
Guard Firefighters	Percent 100.0%	\$ Cost 19,177

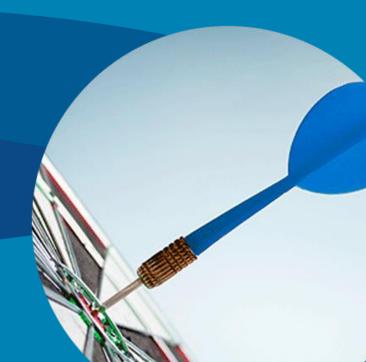
**Educational Presentation on Actuarial Information** 



### Joint Appropriations Committee Wyoming Retirement System

### October 27, 2017 in Casper, Wyoming

Leslie Thompson, FSA, FCA, EA, MAAA Thomas Lyle, ASA, MAAA



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# Agenda- State Plan

- Context for rate change recommendations
- Previous changes in benefits and contribution rates
- Predictions-hit or miss?
- Experience study and changes for 2018
- Dollars vs. Rates
- Interactive model





# **Overview**

- Basis of rate recommendations
  - 30 year projections based on assumptions;
  - Contributions necessary to achieve 100% funded in 30 years;
  - Allows for recognition of changes for new hires;
  - Uses a projection model that allows for the changes in the work force;
  - Rate change recommendations (if any) occur following the 2018 valuation;
    - To include impact of early retirement windows;
    - To use the new assumption set;
    - To use all the 2017 participant and asset data.





# **Changes made-New Benefit Tier**

- A new tier of benefits was signed into law on March 23, 2012 and is effective for new members joining the System on or after September 1, 2012.
- Normal Retirement Eligibility
  - Tier I Age 60 with 4 years of service
  - Tier 2 Age 65 with 4 years of service
- Normal Retirement Benefit
  - Tier I 2.125% of employee's HAS for the first 15 years of service credit plus 2.25% of HAS for any years of service credit exceeding 15 years.
  - Reduced by 5.0% per year the employee is under age 60.
  - Tier 2 2.00% of employee's HAS
  - Reduced by 5.0% per year that the employee is under age 65.



# Changes made- Rate changes

- <u>Employee Contribution</u>
  - September 1, 2013 : Increase from 7.00% to 7.50%
  - July 1, 2014: Increase from 7.50% to 8.25%
- <u>State/Employer Contribution</u>
  - September 1, 2014: Increase from 7.12% to 7.62%
  - July 1, 2015: Increase from 7.62% to 8.37%



# Projections from 2014 and forward

- Using new assumptions for 2014
- Reflecting the new tier of benefits
- Incorporating the rate increases
- Let's look at the 30 year funded ratio (one of the sources for recommendations)
- Let's also look at how the model works in general for predicting



### **Predictive Model**

	Data Basis	2017 Predicted Asset Value	2017 Predicted Accrued Liability	2017 Predicted Funded Ratio (Assets/Accrued Liability)	2044 Predicted Funded Ratio (Assets/Accrued Liability)
	2014	\$7,446	\$8,963	83.1%	114.7%
	2015	\$7,298	\$8,880	82.2%	106.1%
	2016	\$7 <i>,</i> 063	\$9,078	77.8%	84.3%
re	2017	\$7,063	\$9,039	78.1%	82.4%



### Investment return history

Calendar Year	Market Rate of Return	Actuarial Rate of Return (includes five year smoothing of gains and losses)
2012	14.05%	2.22%
2013	13.53%	11.55%
2014	4.70%	8.70%
2015	-0.26%	5.87%
2016	7.60%	6.74%
4-year average	6.68%	8.19%*
5-year average	7.79%	6.97%
10-year average	4.38%	5.27%
*timing matters! Will illustrate on interactive model.		



# **Prediction Results**

- The liabilities predicted from 2014 to 2017 were higher by less than 1%
  - Liabilities nearly "on target" while asset returns created the lower funded ratios
- The assets predicted from 2014 to 2017 ended up lower by 5%.
- The variance is then compounded over 30 years



# Experience Study data shows a need to change assumptions

- Primary change in the inflation and investment return
- 2017 funded ratio impacts show "strength" of each change

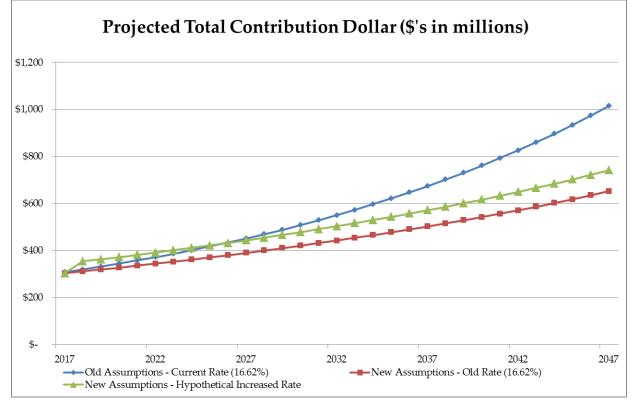
Funded ratio (baseline, before assumption changes)78.1%Funded ratio with demographic assumption changes81.7%Funded ratio changing discount rate to 7.00%75.7%





### Public Employees' Plan - Budget Impact

Pre-and Post experience study assumption changes



 Actual contributions as a dollar amount, even with a hypothetical rate increase, are projected to be lower than the projected contributions under the current assumptions because payroll is no longer assumed to grow as quickly



# **Miscellaneous topics**

- Impact of early retirement windows on WRS
  - Due to acceleration of retirements
  - Reduced payroll and a fixed cost (the UAL)
- Employee account balances-an example of a policy consideration
  - Employees pay 8.25%
  - All but 2.68% is "picked up" by the employer
  - An example of a cost savings without hurting long term employees



# Move to interactive session

- Sample Illustrations
- Pre experience study (the 2017 baseline)
- Post experience study
- Timing Matters!
- Contribution rate increased needed for 100% funding in 30 years
- Show impacts on rate increase for varying returns in 2017
- Interactive model illustrates only changes in contributions and returns
  - Does not include changes in liabilities/benefits



# Summary

- The assumptions estimate the funds needed to meet the promises
  - Realistic assumptions help to stabilize the contribution rate
  - They also maintain equity between employees, employers and taxpayers
  - Assumptions will change as underlying conditions change
- The valuation is merely a snapshot in time
- The 30 year projections look long term and factor in the changing demographics
- The WRS Board has a set process for review for the assumptions, valuations and projections
- WRS remains in a strong position to meet its benefit obligations



### **Investment Management Considerations**

WRS was asked to provide educational information at the October 27th Joint Appropriations Committee meeting regarding the following subjects: increasing internal investment management, increasing investment group resources, and improving collaboration with the Treasury investment group. WRS will need several months to complete comprehensive research on these topics, but this summary highlights some of the opportunities and challenges for consideration. We will distribute a more detailed presentation based on this summary prior to the meeting.

#### **Background**

- 1. Goals of the investment operation
  - a. 7.0% long-term required return
  - b. Measuring success
- 2. Importance of a robust investment operation
- 3. Historical Challenges
  - a. Staff recruitment and turnover
  - b. Infrastructure

#### Potential For Internal Management

- 1. Current investment strategy
  - a. Investing with external active investment managers
  - b. Investing in passive investments
  - c. Internal tactical trades
- 2. Rationale for increased internal investment management
- 3. Public pension peer structures
- 4. Opportunities and challenges

#### Additional Resources for WRS Investment Operations

- 1. Limitation of budget process and flexibility
- 2. Improved investment performance
- 3. Increased staffing for internal investment management
- 4. Improve investment sourcing and monitoring
- 5. Investment group performance incentives

#### Collaboration between WRS and Treasury

- 1. Potential Opportunities
  - a. Investing together in external managers
  - b. Idea sharing
  - c. Operations
- 2. Challenges
  - a. Protecting the interests of WRS members
  - b. Conflicts of interest
    - i. Dilution of investment opportunities with limited capacity

#### Next Steps

- 1. WRS 5-Year plan Update
- 2. Public pension peer investment group organizational review
- 3. Public Pension internal investment management review
- 4. Compensation study
- 5. Fiduciary review