

Montana Public Employees' Retirement Board



Actuarial Valuations as of June 30, 2015

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Presented By

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Discussion Topics



- Current Public Plan Issues
- The Actuarial Valuation Process
- Changes Since Prior Valuation
- Historical Trends (PERS)
- 2015 Actuarial Valuations, Projections and Stress Testing
- 2015 GASB 67 Results
- 2015 Actuarial Valuation for PERS-DC Disability Plan



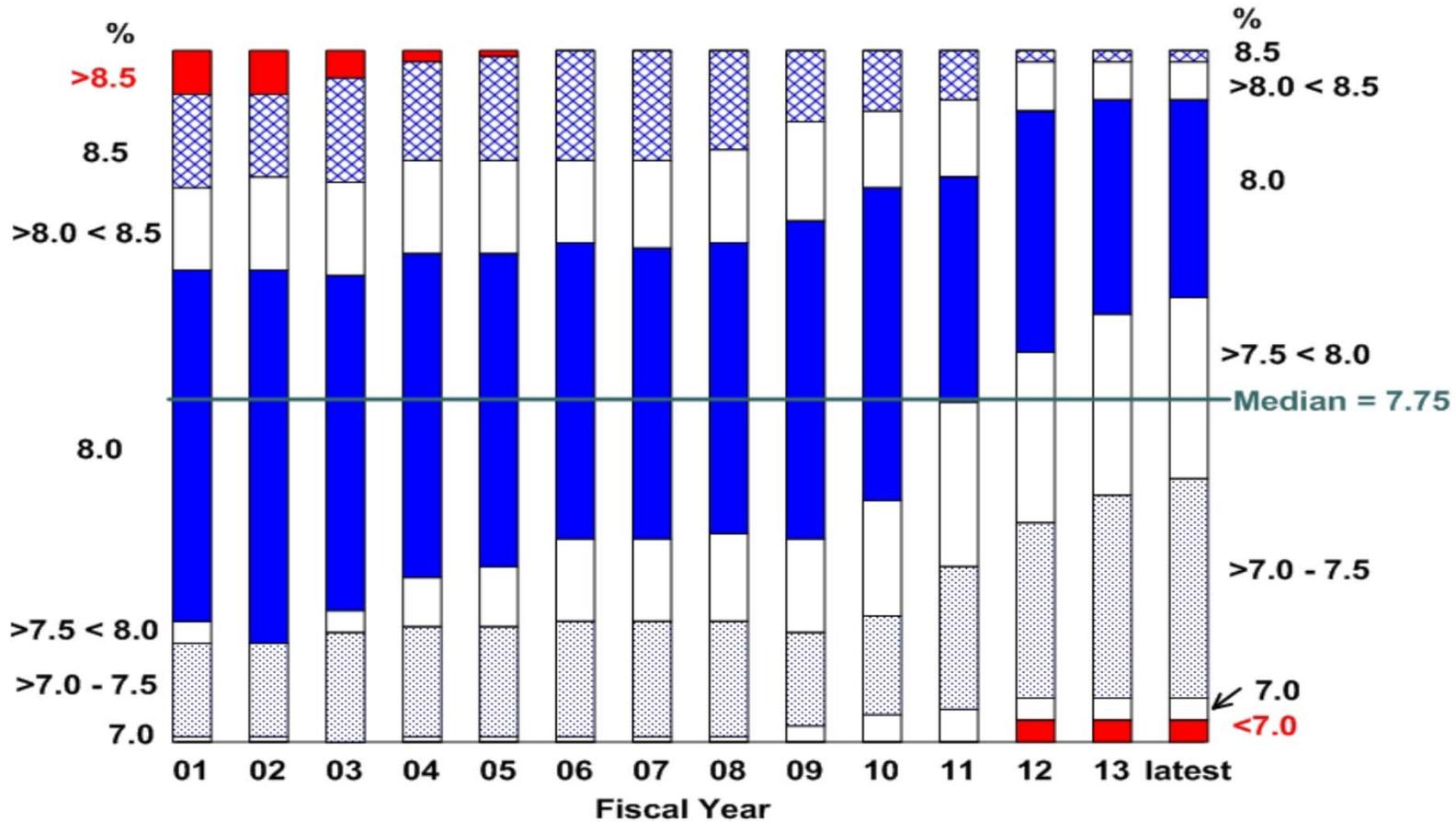
Current Public Plan Issues

Current Public Plan Issues



- GASB
 - GASB 67 and 68 for pension plans
- Actuarial Standards Board
 - Considering whether actuarial standards for public pension plans should be different than those for private sector pension plans
- Society of Actuaries Public Plan Mortality Study
- Continued movement by public plans to reduce investment return assumptions

Current Public Plan Issues - Investment Return Assumption Trend



Source: NASRA Public Fund Survey Summary of Findings

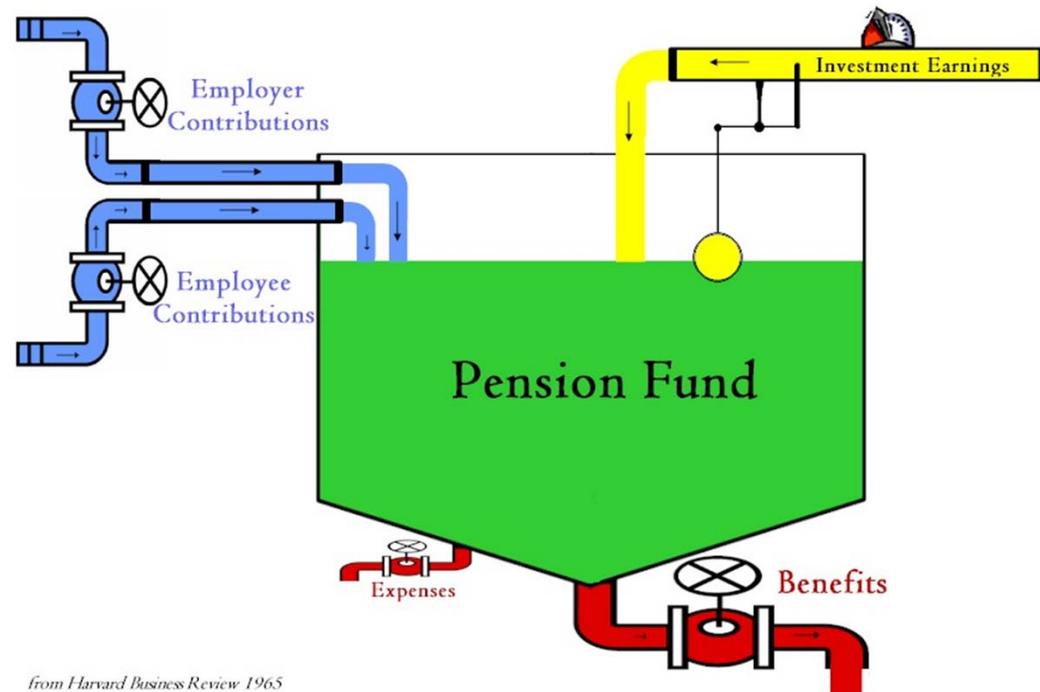


The Actuarial Valuation Process

The Actuarial Valuation Process



1. Collect data
 - Participants
 - Plan Provisions
 - Financial
2. Make assumptions
 - Demographic
 - Economic
3. Project all future benefit payments
4. Determine a present value = tank
5. Compare to assets
6. Calculate employer contribution





Changes Since Prior Valuation

Plan Changes



- PERS
 - GABA
 - Court overturned GABA provisions of HB 454 for members hired before July 1, 2013
 - Employer Contributions
 - In accordance with statute, employer contribution rates were increased 0.1%
 - HB 107
 - Additional 1% DC plan employer contribution directed to PCR-UAL rather than DB UAL
- HPORS
 - SB 238, subject to IRS approval
 - Add DROP benefit
 - Member Contributions
 - In accordance with statute, member contribution rates were increased by 1%
- VFCA
 - HB 438
 - Increase multiplier from \$7.50 to \$8.75 (up to 20 YOS)

Other Plan Changes



- HB 101 (most Systems)
 - (PERS) 2nd Retirement Benefit & Limited Re-Employment of Retirees
 - (SRS / GWPORS / FURS) Membership from PERS membership
 - (JRS / GWPORS) Survivor Benefit updates
 - (MPORS) Survivor Benefits under DROP
- HB 392 (MPORS)
 - 2nd Retirement Benefit
- HB 555 (VFCA)
 - Allowable payments to Volunteer Firefighters
- No effect on Valuations

Review of Actuarial Experience



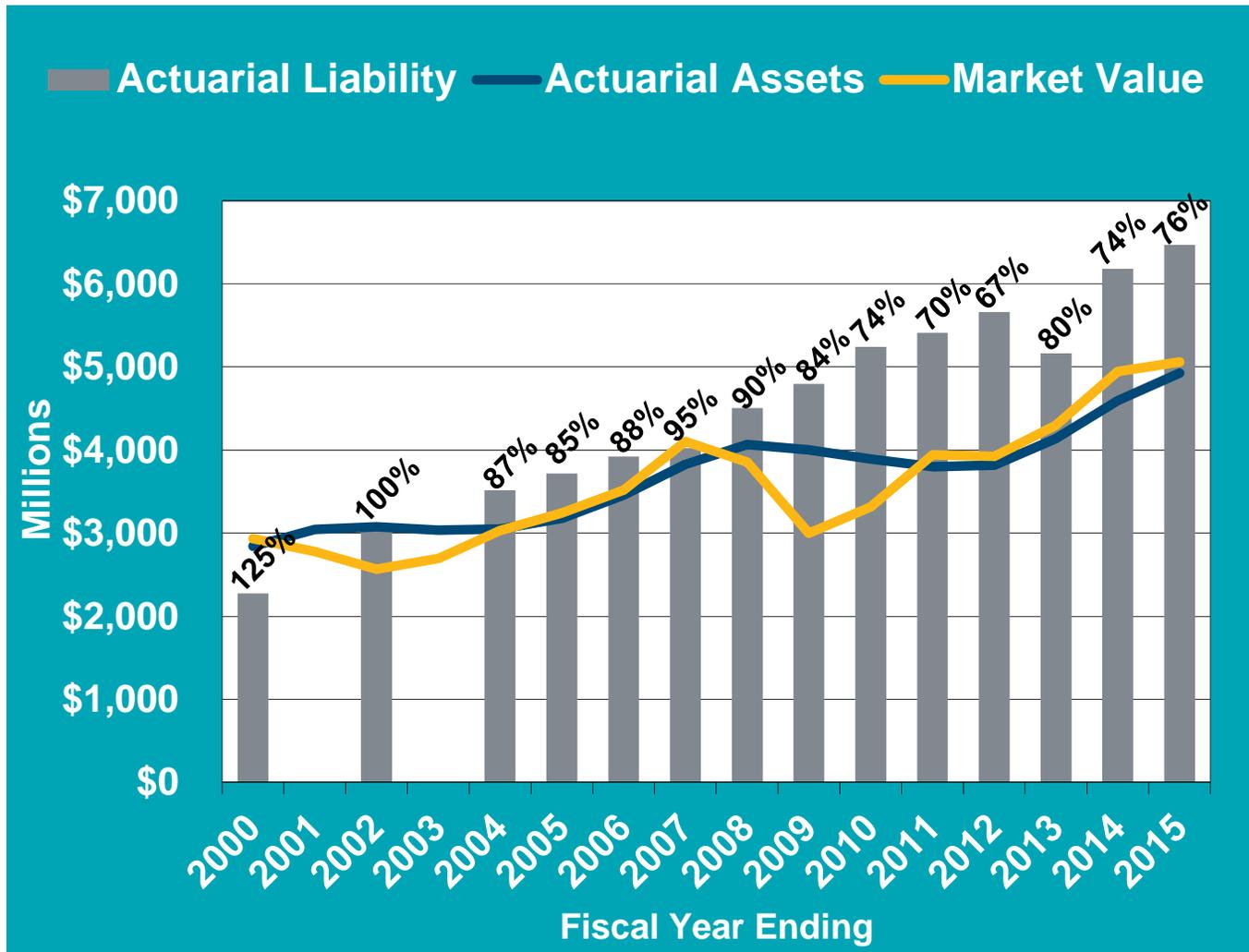
- Investment experience
 - Return on market value was approximately 4.5% for all systems
 - Due to asset smoothing gains, return on actuarial value was from about 9.0% to 9.6% for all systems, creating actuarial experience gains
- Liability experience showed relatively small actuarial gains and losses except:
 - JRS & MPORS: Gains due to salary increases less than expected effecting both current salaries as well as benefit increases for non-GABA retirees
 - GWPORS: Losses from salary increases higher than expected



Historical Trends (PERS)

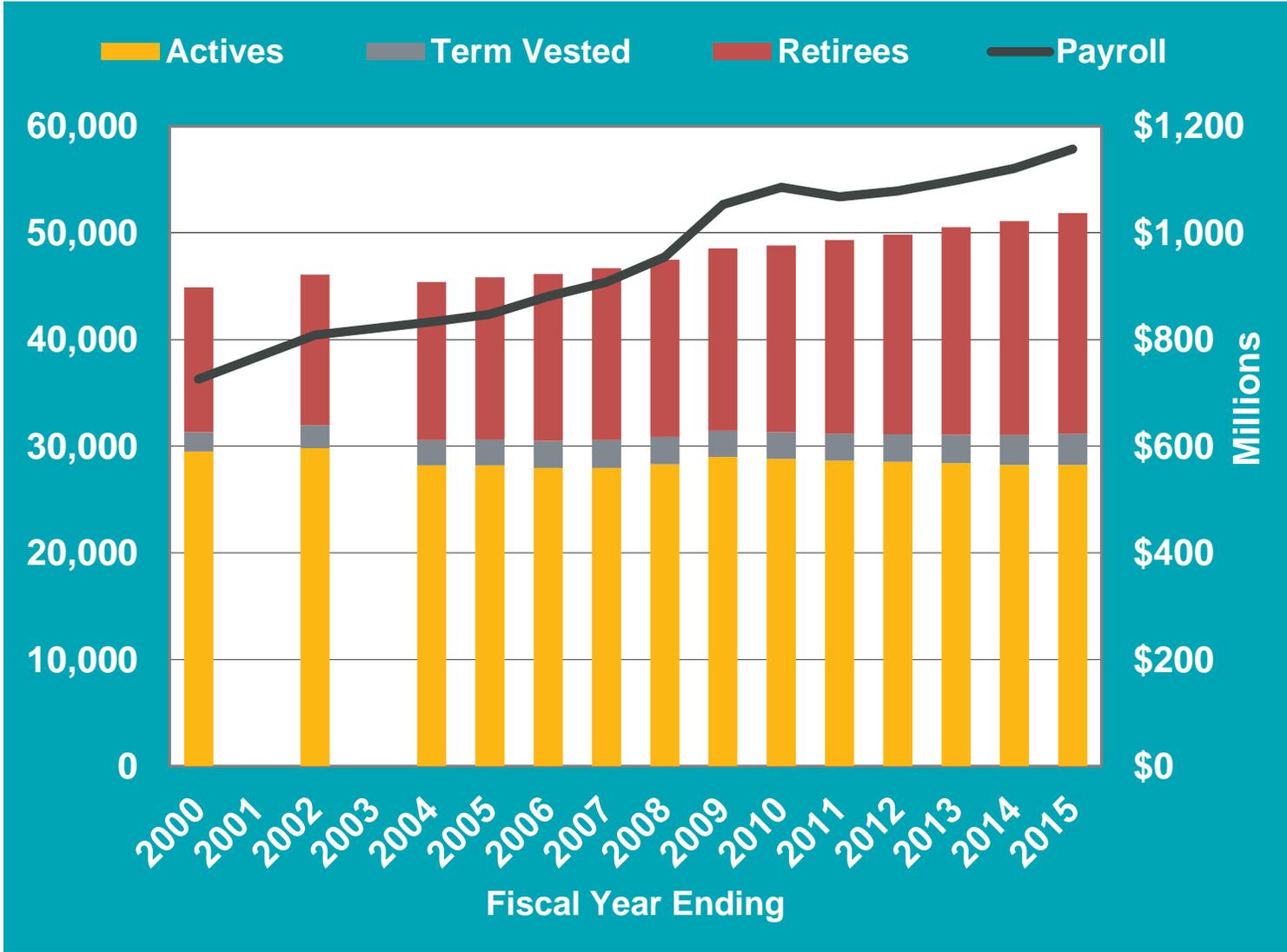
PERS Historical Trends

Assets and Liabilities



Note: 2013 Actuarial Liability reflects reduced GABA under HB 454

PERS Historical Trends Participation





2015 Actuarial Valuations, Projections, and Stress Testing

PERS Valuation Results



Valuation as of:	June 30, 2014	June 30, 2015	% Change
<u>Participant Counts - DBRP Only</u>			
Active Members	28,229	28,237	0.0%
Disabled Members	193	176	(8.8%)
Retirees and Beneficiaries	19,888	20,505	3.1%
Terminated Vested Members	2,825	2,925	3.5%
Terminated Non-Vested Members	7,666	8,839	15.3%
Total	58,801	60,682	3.2%
Annual Salaries of Active Members	\$ 1,120,939,764	\$ 1,156,855,431	3.2%
Average Annual Salary	\$ 39,709	\$ 40,969	3.2%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 302,758,499	\$ 326,390,329	7.8%

PERS Valuation Results



Valuation as of:	June 30, 2014	June 30, 2015
<u>Assets and Liabilities</u>		
Actuarial Liability (AL)	\$ 6,177,504	\$ 6,470,303
Actuarial Value of Assets (AVA)	<u>4,595,805</u>	<u>4,926,516</u>
Unfunded AL (AVA/AL)	1,581,699	1,543,787
Less: PCR-UAL	<u>5,903</u>	<u>2,589</u>
Net Unfunded AL	\$ 1,575,796	\$ 1,541,198
Funded Ratio	74%	76%
Market Value of Assets (MVA)	\$ 4,942,770	\$ 5,061,058
Ratio of Actuarial Value to Market Value	93%	97%

Amounts in Thousands

PERS Valuation Results



	Fiscal Year End 2015	Fiscal Year End 2016
<u>Contributions as a Percentage of Payroll</u>		
Statutory Funding Rates		
Average Member Contribution Rate	7.90%	7.90%
Employer Contribution Rate	8.13%	8.27%
State Contribution Rate	0.10%	0.10%
Coal Tax as Percen of Comp.	3.09%	2.56%
DCRP/MUS-RP Percent of Comp.	0.10%	0.00%
Total Statutory Funding Rate	19.36%	18.83%
Less: Transfer to DB Ed Fund	0.04%	0.04%
Net Statutory Funding Rate	19.32%	18.79%
Normal Cost Rate	11.63%	11.18%
Administrative Expense Rate	0.27%	0.27%
Available for Amortization of UAL	7.42%	7.34%
Period to Amortize (years)	29.3	27.2
Projected 30-year Level Funding Rate	19.27%	18.43%
Projected Shortfall (Surplus)	(0.09%)	(0.40%)

PERS Valuation Results

With Reduced GABA under HB 454



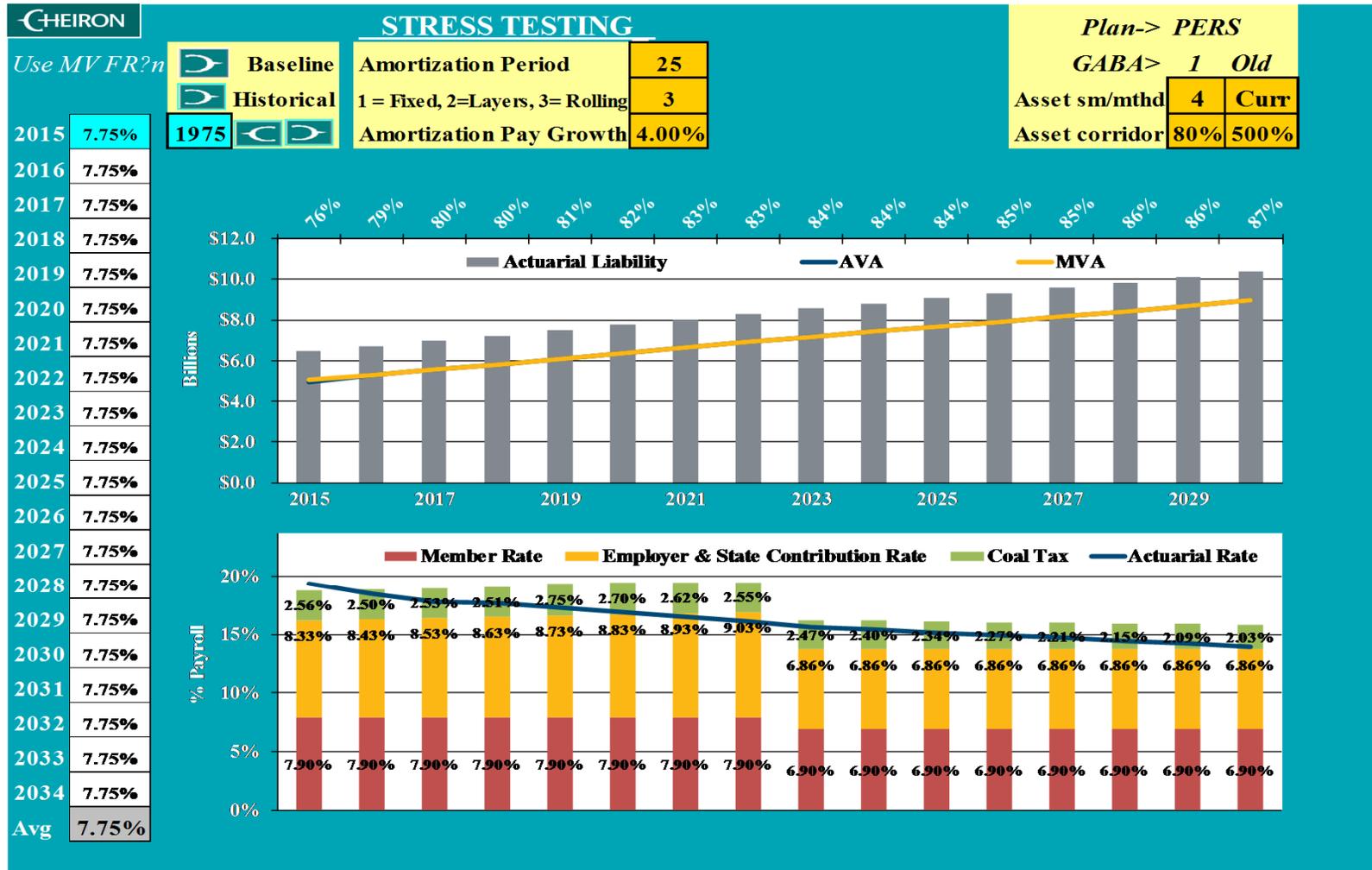
Valuation as of:	June 30, 2015
<u>Assets and Liabilities</u>	
Actuarial Liability	\$ 5,739,207
Actuarial Value of Assets	<u>4,926,516</u>
Unfunded AL	\$ 812,691
Funded Ratio	86%
<u>Contributions as a Percentage of Payroll</u>	
Net Statutory Funding Rate	18.79%
Normal Cost Rate	10.36%
Administrative Expense Rate	0.27%
Available for Amortization of UAL	8.16%
Period to Amortize (years)	9.8 years
<u>Contribution Determination next January 1*</u>	
Net Statutory Funding Rate w/o temporary contributions	16.32%
Normal Cost Rate	10.66%
Administrative Expense Rate	0.27%
Available for Amortization of UAL	5.39%
Period to Amortize (years)**	16.4 years
<u>GABA Determination next January 1*</u>	
Funding ratio to nearest whole percentage	86%
GABA based on funded ratio	1.3%
Is amortization period over 40 years?	No
Final GABA	1.3%

Amounts in Thousands

* Assumes all future GABAs at 1.5% and future employee contributions at 7.9%.

** Since the period is under 25 years, temporary contributions would be eliminated at January 1, 2016

PERS Valuation Results - Stress Testing the Future

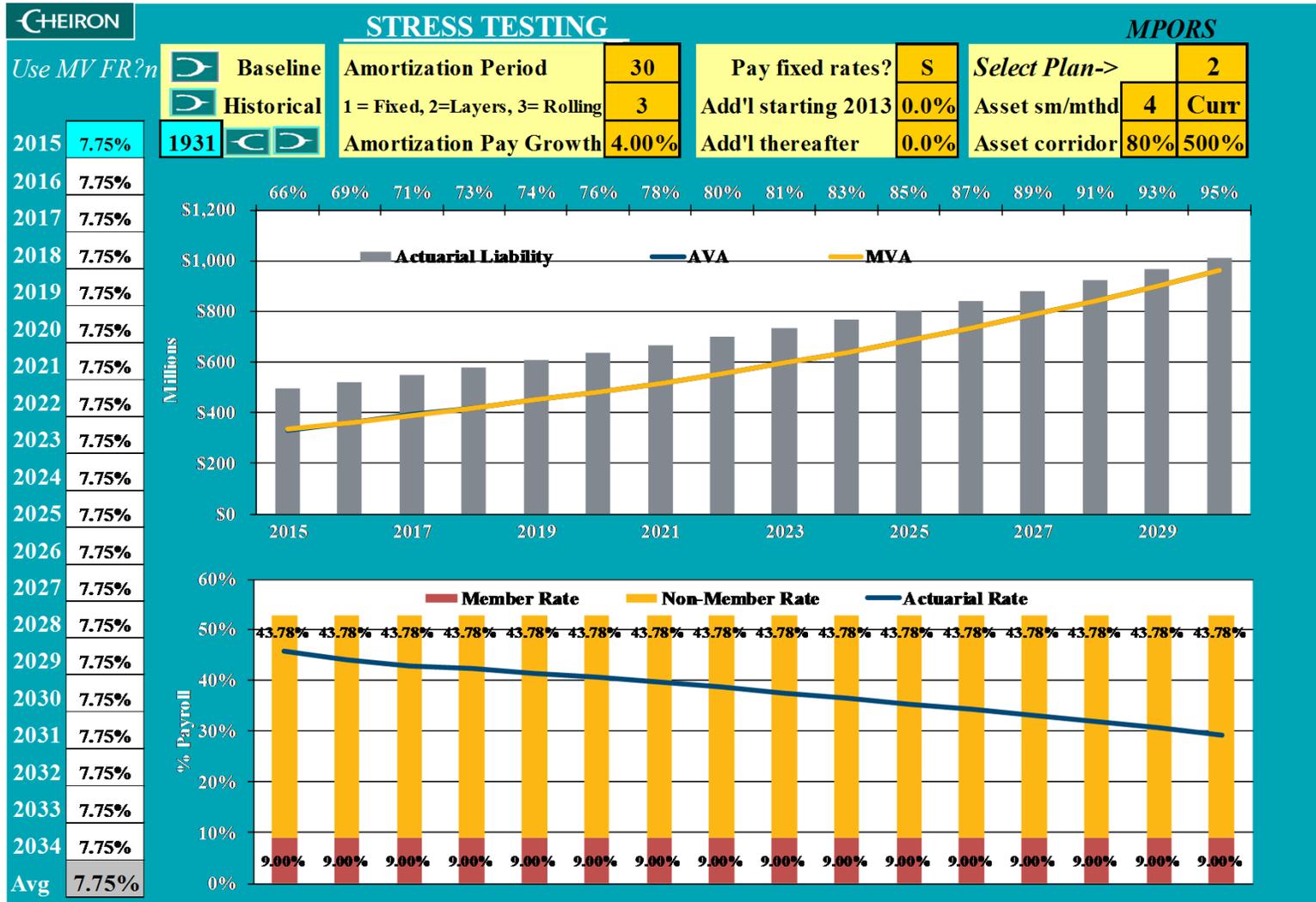


Valuation Results - Other Plans



	Funded Ratio		Amortization Period	
	2014	2015	2014	2015
JRS	155%	164%	0.0	0.0
HPORS	64%	65%	30.3	28.5
SRS	81%	83%	Does not amortize	Does not amortize
GWPORS	84%	84%	Does not amortize	Does not amortize
MPORS	63%	66%	19.6	18.3
FURS	72%	76%	11.3	9.7
VFCA	82%	75%	5.1	9.3

Stress Testing the Future - Other Plans





2015 GASB 67 Results

GASB 67 & 68 - Pension Funds



- Assets: Market value as of the measurement date
- Liability must be computed using entry age normal cost method
- GASB 67 effective for years ended June 30, 2014
 - Measurement date must be year end
- GASB 68 is effective for employer fiscal years ending after June 15, 2015
 - Measurement date based on plan measurement either for:
 - Current fiscal year end, or
 - Prior fiscal year end

Preliminary GASB 67 Disclosures as of June 30, 2015



	Discount Rate	Total Pension Liability	Fiduciary Net Position	Net Pension Liability
PERS	7.75%	\$ 6,459	\$ 5,061	\$ 1,398
JRS	7.75%	\$ 53	\$ 87	\$ (34)
HPORS	7.75%	\$ 193	\$ 129	\$ 64
SRS	6.86%	\$ 392	\$ 296	\$ 96
GWPORS	7.75%	\$ 170	\$ 149	\$ 21
MPORS	7.75%	\$ 500	\$ 335	\$ 165
FURS	7.75%	\$ 443	\$ 341	\$ 102
VFCA	7.75%	\$ 45	\$ 34	\$ 11

Amounts in Millions



2015 Actuarial Valuation PERS-DC Disability Plan

Background



- PERS-DC Disability Plan provides disability coverage to members covered by PERS-DC
 - Funded by contributions of 0.3% of covered PERS-DC payroll
 - This is the 2nd actuarial valuation for this plan (first completed as of June 30, 2013)
- GASB requires disclosure of liabilities for “stand-alone” disability plans under OPEB rules
 - GASB 43 applies, which is very similar to requirements for pension plans under superseded statement GASB 25

Valuation Results



Montana PERS DCRP Long Term Disability Plan Summary of Principal Plan Results

Valuation as of:	June 30, 2013	June 30, 2015	% Change
<u>Participant Counts – DCRP Only</u>			
Active Members	2,087	2,284	9.4%
Disabled Members	4	6	50.0%
Retirees and Beneficiaries	0	0	N/A
Terminated Vested Members	0	0	N/A
Terminated Non-Vested Members	0	0	N/A
Total	2,091	2,290	9.5%
Annual Salaries of Active Members	\$ 90,450,420	\$ 106,518,524	17.8%
Average Annual Salary	\$ 43,340	\$ 46,637	7.6%
Annual Retirement Allowances for Disabled Members	\$ 29,460	\$ 43,296	47.0%
<u>Assets and Liabilities</u>			
Actuarial Liability (AL)	\$ 2,715,033	\$ 3,235,065	19.2%
Actuarial Value of Assets (AVA)	2,184,488	2,781,120	27.3%
Unfunded AL (AVA-AL)	\$ 530,545	\$ 453,945	(14.4%)
Funded Ratio (AVA/AL)	80.5%	86.0%	
Ratio of Actuarial Value to Market Value	100.0%	100.0%	
<u>Contributions as a Percentage of Payroll</u>			
Statutory Funding Rate	0.30%	0.30%	
Normal Cost Rate	0.33%	0.32%	
Available for Amortization of UAL	(0.03%)	(0.02%)	
Period to Amortize	Does not amortize	Does not amortize	
Projected 30-year Level Funding Rate	0.35%	0.33%	
Projected Shortfall (Surplus)	0.05%	0.03%	

Required Disclosures



- The purpose of this presentation is to present the annual actuarial valuation of the Montana Public Employee Retirement Administration. This presentation is for the use of the Montana Public Employees' Retirement Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.
- In preparing our presentation, we relied on information (some oral and some written) supplied by the Montana Public Employee Retirement Administration. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice #23.
- The actuarial assumptions, data and methods are those used in the preparation of the latest actuarial valuation reports as of June 30, 2015. The results of this valuation rely on future plan experience conforming to the underlying assumptions and methods outlined in this report. To the extent that the actual plan experience deviates from the underlying assumptions and methods, or there are any changes in plan provisions or applicable laws, the results would vary accordingly.
- We hereby certify that, to the best of our knowledge, this presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.
- This presentation was prepared exclusively for the Montana Public Employees' Retirement Board for a for the purpose described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

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Classic Values, Innovative Advice

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