



# Oregon Public Employees Retirement System

## Actuarial Review of Pension and Postemployment Healthcare Plans

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# Audit Issues and Scope

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- ◆ Pension Assumptions
- ◆ Actuarial Valuation Methods
- ◆ Contribution Rate Determination
- ◆ Actuarial Valuation Report
- ◆ Test Lives
- ◆ Healthcare Cost Assumptions



# GRS Audit Findings - Assumptions

Issue	Current treatment	Status x = more consideration y = concurrence	GRS Comments
Investment Return-Regular Accounts	8% investment return	x	Capital market analysis shows on high end of reasonable range. Recommend continued biennial review
Investment Return-Variable Accounts	8.5% investment return	x	Consistent with 8.0% assumption. Recommend continued biennial review
Price Inflation	2.75% per year	y	On low end of range, but reasonable
Real wage growth/payroll growth	3.75% per year	y	Reasonable
Member pay increase	Base salary plus allowance for merit	y	Reasonable
Demographic assumptions	Mortality, Retirement, Termination, Withdrawal and Disability Rates	y	Reasonable
Decrement Timing	Mercer assumes decrements occur beginning of year	x	Recommend mid-year timing.
Lump sum and return of contribution assumption for Tier 1/2	Two sets of assumptions are used and applied to all participants	x	Recommend comparing relative value of annuity benefit and lump sum option
Health Care Cost Assumptions	RHIA and RHIPA participation and medical trend rates	y	Reasonable



# GRS Audit Findings - Methods

Issue	Current treatment	Status		GRS Comments
		x = more consideration	y = concurrence	
Experience Study	Sets demographic assumptions	x		Recommend giving more weight to historical trends
Projected Unit Credit Cost Method	One of six approved methods		y	Reasonable
Actuarial Value of Assets	Market value minus reserves		y	Reasonable, but monitor variance from market
Tier 1 Rate Guarantee Reserve	Not include in assets. Deficit of \$441.8 M	x		Recommend estimating future rate impacts of restoring
Amortization Method	Closed bases of different periods		y	Reasonable
Sick Leave	Impact on final average pay included		y	Reasonable
Vacation pay	Lump sum assumption for impact on final average pay	x		No supporting data shown. Include in next experience study.
Data Process	Underlying data for valuation		y	Although we did not do full audit, reasonable
Contribution rates	Normal cost, amortization, side accounts and rate collar adjustments		y	Reasonable

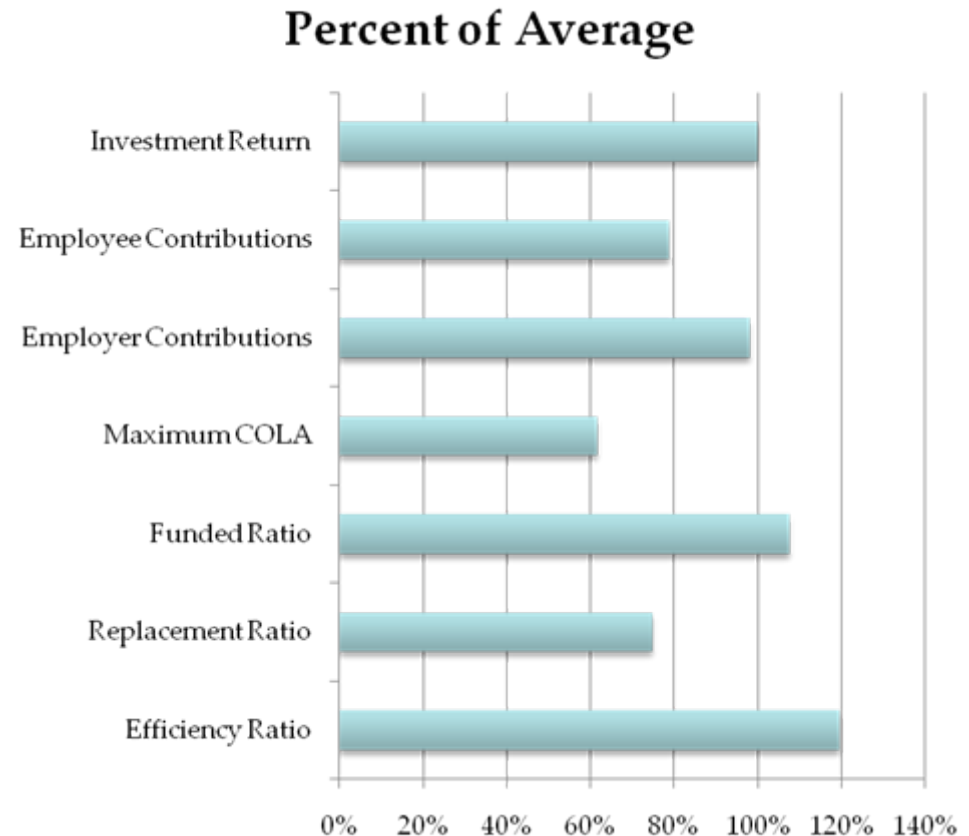


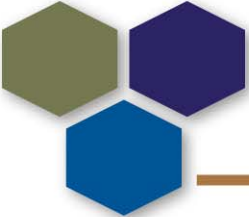
# GRS Test Lives Summary

	Present Value of Benefits		% Difference
	GRS	Mercer	
Pension Plan			
Actives			
Tier 2 Police and Fire	\$117,221.93	\$117,083.91	0.1%
Tier 1 General Service	\$336,956.50	\$336,840.33	0.0%
Tier 1 School District	\$300,803.26	\$300,405.36	0.1%
OPSRP Police and Fire	\$125,305.01	\$125,273.88	0.0%
Retirees			
50% Joint and Survivor, pop-up	\$125,259.45	\$125,259.45	0.0%
Reversionary Annuity	\$4,889.83	\$4,889.83	0.0%
Health Care Plan			
Actives			
Tier 1 School District	\$1,164.96	\$1,127.80	3.3%
Retirees			
RHIA Case 1	\$5,911.63	\$5,911.63	0.0%
RHIA Case 2	\$7,691.69	\$7,694.64	0.0%
RHIPA Case 3	\$13,180.76	\$13,179.36	0.0%
RHIPA Case 4	\$29,045.27	\$29,017.62	0.1%

# GRS Benchmarking Summary

- ◆ Peer group
  - ◆ AZ, CO, ID, MO, NV, NM, UT, WA, WY
- ◆ 100% line on graph shows average of peer group results
- ◆ Oregon
  - ◆ Equals average for investment return
  - ◆ Above average for funded status and efficiency ratio
  - ◆ Below average for employee and employer contributions, COLAs and Full Formula Replacement Ratio





# Questions?



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