Calculation of Actuarial Value of Assets *(Continued)*						
(Dollars in Millions)			PSERS 2	LEOFF 1	LEOFF 2	WSPRS 1/2	Total
Investment Gains and (Losses) for FY							
a. Market Value (MV) at 6/30/2023			$1,449	$6,874	$20,617	$1,795	$144,174
b. Expected 7.0% Return*			$92	$470	$1,346	$119	$9,462
c. Actual Return			$93	$457	$1,327	$118	$9,411
Investment Gain/(Loss) (c - b)			$1	($12)	($19)	($1)	($51)
Actual Rate of Return			7.10%	6.82%	6.90%	6.94%	6.96%
Smoothing Period			1	1	1	1	1
Deferred Gains and (Losses)							
Plan Year Ending	**Smoothing Period**	**Years Remaining**					
6/30/2023	1	0	$0	$0	$0	$0	$0
6/30/2022	7	5	(60)	(345)	(927)	(85)	(6,586)
6/30/2021	8	5	133	855	2,202	204	15,690
Total Deferral			**$73**	**$509**	**$1,276**	**$120**	**$9,104**
Market Value less Deferral (a - b)			$1,376	$6,365	$19,342	$1,675	$135,070
70% of Market Value of Assets			1,014	4,812	14,432	1,256	100,922
130% of Market Value of Assets			1,883	8,936	26,802	2,333	187,426
Actuarial Value of Assets**			**$1,376**	**$6,365**	**$19,342**	**$1,675**	**$135,070**
Ratio (AV / MV)			95%	93%	94%	93%	94%

Note: Totals may not agree due to rounding. The gain/(loss) for plan years not shown has been fully recognized.

**Dollar weighted rate of return assuming cashflows occur mid-year.*

***Actuarial Value of Assets can never be less than 70% or greater than 130% of the Market Value of Assets.*

Additional information on the Retirement Commingled Trust Fund, including the asset allocation policy, can be found in the most recent EES.

FUNDED STATUS

Funded status is one of several measures that helps explain the health of a pension plan. The funded status represents the portion of the actuarial accrued liabilities covered by today's actuarial assets and provides information on the funding progress of the plan.

In our AVR, we calculate a plan's funded status by comparing the plan's current assets, determined under an asset valuation method, to the actuarial accrued liability of its members, calculated under an EAN actuarial cost method. Actuarial cost methods vary in the manner they allocate benefits to past and future time periods. We rely on an EAN actuarial cost method to better track the funding progress of accrued (or earned) benefits allocated to past service. Otherwise, the assumptions and methods used to measure funded status is consistent with the state's current funding policy and financing plan for future retirement benefits.

Funded status measures alone are not sufficient to determine whether a plan has enough assets to terminate or settle the plan obligations. Plans may have accumulated sufficient assets, at the measurement date, to satisfy the ongoing goal of having adequate assets to pay all currently earned benefits for existing members when due on an expected basis. However, ongoing contributions may still be required. The following table provides general guidance on how to interpret a plan's funded status at a point in time.

Interpretation of Plan Funded Status			
	Less than 100%	**Equals 100%**	**Greater than 100%**
Assets to Fund Earned Benefits as of the Measurement Date	Behind schedule on funding goals.	On schedule for funding goals.	Ahead of schedule on funding goals.
Contribution Rates	Typically requires higher contribution rates in the short term to raise plan's funded status to 100% over time.	Requires ongoing contribution rates for plans with members accruing future service.	Typically requires ongoing contribution rates for plans with members accruing future service. Short-term contribution rates may be lower to reduce the plan's funded status to 100% over time.

Plans with members accruing future service will typically require ongoing contributions. However, the level of actuarially determined contribution rates relative to current rates may be higher or lower depending on funded status and actual future experience.

As of the valuation date for the 2023 AVR, and under the data, assumptions, and methods used for this actuarial valuation, only LEOFF Plan 1 has sufficient assets to cease ongoing contributions.

Funded Status on an Actuarial Value Basis*					
(Dollars in Millions)	**PERS**		**TRS**		**SERS**
	Plan 1	**Plans 2/3**	**Plan 1**	**Plans 2/3**	**Plan 2/3**
Accrued Liability	$10,701	$60,245	$7,807	$25,616	$9,574
Valuation Assets	$8,561	$58,592	$6,732	$23,569	$8,858
Unfunded Liability	**$2,140**	**$1,653**	**$1,075**	**$2,047**	**$715**
Funded Ratio					
2023	**80%**	**97%**	**86%**	**92%**	**93%**
2022	75%	97%	80%	92%	92%
2021	71%	95%	73%	90%	91%
2020	69%	98%	71%	93%	93%
2019	65%	96%	66%	91%	91%
2018	60%	91%	63%	90%	89%
2017	57%	89%	60%	91%	88%
2016	56%	87%	61%	89%	87%
2015	58%	88%	64%	92%	89%
2014	61%	90%	69%	94%	91%

Note: Totals may not agree due to rounding.

**Liabilities valued using the EAN cost method at an interest rate of 7.0%. All assets have been valued under the actuarial asset method.*

Funded Status on an Actuarial Value Basis* *(Continued)*					
(Dollars in Millions)	PSERS	LEOFF		WSPRS	Total
	Plan 2	Plan 1	Plan 2	Plans 1/2	
Accrued Liability	$1,427	$4,269	$19,011	$1,787	$140,437
Valuation Assets	$1,376	$6,365	$19,342	$1,675	$135,070
Unfunded Liability	**$51**	**($2,095)**	**($331)**	**$112**	**$5,368**
Funded Ratio					
2023	**96%**	**149%**	**102%**	**94%**	**96%**
2022	101%	152%	104%	94%	96%
2021	98%	146%	104%	92%	93%
2020	101%	148%	113%	97%	95%
2019	101%	141%	111%	95%	92%
2018	96%	135%	108%	93%	89%
2017	95%	131%	109%	92%	86%
2016	94%	126%	105%	91%	84%
2015	95%	125%	105%	98%	86%
2014	96%	127%	107%	100%	87%

Note: Totals may not agree due to rounding.

**Liabilities valued using the EAN cost method at an interest rate of 7.0%. All assets have been valued under the actuarial asset method.*

The funded status depends on numerous assumptions. Two of the most significant assumptions are the mortality rates, which estimate how long we expect members to live, and the interest rate or expected return on plan assets. A key component of the mortality assumption is the rate at which mortality is expected to improve in the future. To show this, we doubled the current mortality improvement assumption (longer lifespans than our best estimate) and assumed no future improvements (shorter lifespans than our best estimate). We also considered the impact if the expected return on assets was 1% lower or higher.

The following tables demonstrate how the funded status changes across all retirement systems if we alter these assumptions.

Sensitivity of Funded Ratios to Assumed Mortality Rates			
(Dollars in Millions)	No Assumed Mortality Improvement	Best Estimate Assumed Mortality	Double Assumed Mortality Improvement
Accrued Liability	$130,681	$140,437	$150,271
Valuation Assets	$135,070	$135,070	$135,070
Unfunded Liability	($4,389)	$5,368	$15,201
Funded Ratio	103%	96%	90%

Sensitivity of Funded Ratios to Assumed Interest Rates			
(Dollars in Millions)	1% Lower 6.0%	Best Estimate Assumption 7.0%	1% Higher 8.0%
Accrued Liability	$159,887	$140,437	$124,423
Valuation Assets	$135,070	$135,070	$135,070
Unfunded Liability	$24,818	$5,368	($10,647)
Funded Ratio	84%	96%	109%

Please see our Commentary on Risk webpage for individual system results or our Interactive Reports webpage for more funded status measures that vary by interest rate assumptions and asset valuation methods.

The funded status measures we share in this report may vary from those presented in the *DRS Annual Comprehensive Financial Report*. These differences occur because the assumptions and methods applied to determine contribution requirements (under a funding valuation) may not apply for financial reporting under GASB accounting standards (an accounting valuation). Put another way, these measurements are used for distinct purposes, and the results may vary between the two reports.

LOW-DEFAULT-RISK OBLIGATION MEASURE

When determining plan costs for the purposes of calculating required contribution rates, current funding policy prescribes an annual assumed investment return of 7.0% to discount future expected benefits to the measurement date. These expected future investment returns are based on an investment policy that aims to maximize investment returns at a prudent level of risk. This investment strategy has reduced past required contributions and is expected, but not guaranteed, to reduce future required contributions. For example, over the past 20 years across all plans, investment returns have comprised approximately 70% of the pension fund's total income, with the remaining 30% coming from employer contributions and employee contributions.

Ultimately, actual funding requirements will be determined by actual experience including actual investment performance. Actual investment performance will inevitably vary from future expectations.

To provide a sense for how much future costs are potentially reduced under the state's current funding policy, we can compare those costs to the hypothetical costs under an investment policy with less risk. This comparison also provides a sense for how much costs under current funding policy could increase if future returns from a higher risk investment portfolio are not realized.

In the table below we make such a comparison. First, we display the funded status for each plan under current funding policy with an assumed investment return of 7%. Next, we display the funded status for each plan under a hypothetical funding policy where the plans would be supported by an investment portfolio comprised solely of low-default-risk fixed income securities. The latter measurement is referred to as a Low-Default-Risk Obligation Measure (or LDROM).

For the calculation of the LDROM, and consistent with ASOP 4, we selected a discount rate derived from US Treasury yields whose cash flows were reasonably consistent with the pattern of benefit payments expected to be paid by the covered plans in the future. As of June 30, 2023, that discount rate was 3.9% for the state's open plans and 4% for the closed plans.

All assumptions other than the assumed rate of investment return match between the two measurements presented below.