Funded Status

We report a plan's funded status by comparing the plan's current assets to the present value of earned pensions of its members. A plan's funded status can vary significantly, depending on the assumptions and methods used to determine the plan's assets and liabilities. For this valuation report, we present two funded status measures.

The first funded status measure compares the Actuarial Value of Assets (AVA) to the Projected Unit Credit (PUC) liabilities calculated using a long-term interest assumption. The second measure compares the Market Value of Assets (MVA) to the PUC liabilities calculated using a short-term interest assumption. The next sections describe these measures in more detail and display the resulting funded statuses by plan. Please see the **Glossary** for an explanation of the PUC actuarial cost method.

Funded Status on an Actuarial Value Basis

We report the funded status on an actuarial value basis as the ratio of the AVA to the PUC liability calculated using the 7.9 percent valuation interest rate assumption (7.5 percent for the Law Enforcement Officers' and Fire Fighters' [LEOFF] Retirement Plan 2). We assume the plan is ongoing and, therefore, we use the same long-term assumptions to develop the liabilities as we used for determining the contribution requirements of the plan. We don't expect the assumptions to match actual experience over short-term periods. However, we do expect these assumptions to reasonably approximate average annual experience over long-term periods. This measure of funded status is consistent with the state's current funding policy and financing plan for future retirement benefits.

We use an asset valuation method to determine the AVA. This asset valuation method smooths the inherent volatility in the MVA by deferring a portion of annual investment gains or losses for a certain number of years. Investment gains and losses occur when the annual return on investments varies from the long-term assumed rate. To determine the 2011 investment gains or losses, we used an investment return assumption of 7.5 percent for LEOFF 2. For all plans except LEOFF 2, we used an investment return assumption of 8 percent because it was the assumption in place for the measurement period (investment returns from July 1, 2010, through June 30, 2011). We will use an investment return assumption of 7.9 percent for next year's measurement period (7.5 percent for LEOFF 2). The AVA provides a more stable measure of the plan's assets on an on-going basis.

We used the PUC actuarial cost method to determine the present value of earned pensions. The PUC liabilities are actuarial liabilities based on members' earned service credit as of the valuation date. They include future assumed salary increases and reflect future service credits for determining benefit eligibility. The PUC liabilities are discounted to the valuation date using the valuation interest rate to determine the present value (today's value). The valuation interest rate is consistent with the long-term expected return on invested contributions.

Comparing the PUC liabilities to the AVA provides an appropriate measure of a plan's funded status. Under current Governmental Accounting Standards Board (GASB) rules, the PUC method is one of several acceptable measures of a plan's funded status. Use of another cost method could also be considered appropriate and could produce materially different results. A plan more/less than 100 percent funded is not automatically considered over-funded/at-risk.

The following table displays the funded status on an actuarial value basis for each plan.

Funded Status on an Actuarial Value Basis*										
(Dollars in Millions)	PERS		TRS		SERS	PSERS	LEOFF		WSPRS	Total
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 2	Plan 1	Plan 2		
PUC Liability	$12,567	$18,815	$9,258	$6,299	$2,607	$107	$4,135	$5,576	$829	$60,193
Valuation Assets	$8,883	$20,997	$7,485	$7,141	$2,872	$141	$5,565	$6,621	$949	$60,654
Unfunded Liability	$3,684	($2,182)	$1,773	($842)	($265)	($34)	($1,430)	($1,044)	($120)	($461)
Funded Ratio										
2011 **	**71%**	**112%**	**81%**	**113%**	**110%**	**132%**	**135%**	**119%**	**115%**	**101%**
2010 ***	74%	113%	84%	116%	113%	129%	127%	119%	118%	102%
2009 **	70%	116%	75%	118%	116%	128%	125%	128%	119%	99%
2008 **	71%	119%	77%	125%	121%	127%	128%	133%	121%	100%
2007 **	71%	120%	76%	130%	126%	120%	123%	129%	118%	99%
2006 **	74%	121%	80%	133%	125%	99%	117%	116%	114%	100%
2005 **	74%	127%	80%	134%	122%	N/A	114%	114%	113%	99%
2004	81%	134%	88%	153%	137%	N/A	109%	117%	118%	105%
2003	82%	142%	89%	155%	138%	N/A	112%	125%	123%	107%
2002	92%	158%	98%	182%	169%	N/A	119%	137%	135%	118%
2001 **	97%	179%	100%	197%	197%	N/A	129%	154%	147%	126%
2000 **	98%	190%	100%	196%	170%	N/A	136%	161%	152%	131%
1999	93%	189%	93%	188%	N/A	N/A	125%	154%	159%	124%
1998	86%	191%	86%	185%	N/A	N/A	117%	160%	147%	116%
1997 **	83%	187%	82%	181%	N/A	N/A	108%	155%	140%	109%
1996	73%	157%	70%	144%	N/A	N/A	89%	130%	128%	92%
1995	68%	150%	65%	136%	N/A	N/A	80%	126%	119%	85%
1994 **	67%	142%	65%	130%	N/A	N/A	68%	124%	110%	80%
1993	70%	142%	62%	126%	N/A	N/A	68%	127%	110%	79%
1992	67%	139%	59%	127%	N/A	N/A	65%	128%	108%	75%
1991	67%	149%	59%	131%	N/A	N/A	66%	154%	106%	75%
1990	66%	154%	60%	140%	N/A	N/A	65%	153%	105%	74%
1989 **	65%	162%	58%	144%	N/A	N/A	65%	158%	103%	73%
1988	66%	165%	59%	143%	N/A	N/A	66%	153%	102%	72%
1987	71%	175%	58%	135%	N/A	N/A	69%	157%	95%	74%
1986	63%	162%	50%	125%	N/A	N/A	57%	142%	87%	63%

Note: Totals may not agree due to rounding.

**Liabilities valued using the PUC cost method at an interest rate of 7.9% (7.5% for LEOFF 2). All assets have been valued under the actuarial asset method.*

***Assumptions changed.*
****LEOFF 2 values for 2010 were updated after the 2010 Actuarial Valuation Report (AVR) was published.*

The present value of actuarial liabilities is sensitive to the interest rate assumption. The following tables show how the funded status changes when we use different interest rate assumptions. We calculated liabilities using varying interest rates to show this sensitivity.

Funded Status at a 1% Lower Interest Rate Assumption*

(Dollars in Millions)	PERS		TRS		SERS	PSERS	LEOFF		WSPRS	Total
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 2	Plan 1	Plan 2		
PUC Liability	$13,616	$21,934	$10,029	$7,467	$3,030	$133	$4,523	$6,645	$950	$68,327
Valuation Assets	$8,883	$20,997	$7,485	$7,141	$2,872	$141	$5,565	$6,621	$949	$60,654
Unfunded Liability	$4,732	$937	$2,544	$326	$158	($8)	($1,043)	$24	$1	$7,673
Funded Ratio										
2011	**65%**	**96%**	**75%**	**96%**	**95%**	**106%**	**123%**	**100%**	**100%**	**89%**
2010**	68%	96%	78%	97%	96%	103%	116%	99%	102%	90%
2009	64%	99%	69%	99%	99%	102%	114%	107%	103%	87%
2008	65%	100%	70%	104%	103%	101%	117%	111%	105%	88%
2007	65%	101%	70%	108%	107%	95%	111%	107%	102%	87%

Note: Totals may not agree due to rounding.

**Liabilities valued using the PUC cost method at an interest rate of 6.9% (6.5% for LEOFF 2). All assets have been valued under the actuarial asset method.*

***LEOFF 2 values for 2010 were updated after the 2010 Actuarial Valuation Report (AVR) was published.*

Funded Status at a 1% Higher Interest Rate Assumption*

(Dollars in Millions)	PERS		TRS		SERS	PSERS	LEOFF		WSPRS	Total
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 2	Plan 1	Plan 2		
PUC Liability	$11,657	$16,314	$8,589	$5,378	$2,266	$87	$3,802	$4,737	$731	$53,561
Valuation Assets	$8,883	$20,997	$7,485	$7,141	$2,872	$141	$5,565	$6,621	$949	$60,654
Unfunded Liability	$2,774	($4,683)	$1,104	($1,763)	($607)	($53)	($1,763)	($1,884)	($218)	($7,093)
Funded Ratio										
2011	**76%**	**129%**	**87%**	**133%**	**127%**	**161%**	**146%**	**140%**	**130%**	**113%**
2010**	80%	130%	91%	136%	130%	157%	139%	141%	133%	115%
2009	76%	135%	82%	140%	134%	158%	137%	152%	135%	112%
2008	77%	139%	84%	149%	141%	157%	141%	159%	137%	113%
2007	77%	141%	84%	155%	148%	149%	135%	154%	134%	112%

Note: Totals may not agree due to rounding.

**Liabilities valued using the PUC cost method at an interest rate of 8.9% (8.5% for LEOFF 2). All assets have been valued under the actuarial asset method.*

***LEOFF 2 values for 2010 were updated after the 2010 Actuarial Valuation Report (AVR) was published.*

Funded Status on a Market Value Basis

We report funded status on a market value basis as the ratio of the MVA to the PUC liability calculated using a 5 percent interest rate assumption. The funded status on a market value basis provides a measure of the plan's health if the plan is "settled" or "immunized" on the valuation date. Immunizing a pension plan means attaching assets to liabilities so the assets maturing each year match the expected pension payments due from the pension plan each year. A plan can be settled by purchasing annuities on the open market for each member, or immunized by investing the assets in bonds with payment streams that match the expected benefit payments. Expected benefit payments would include growth for future salary inflation, which is why we have used the PUC liability measure instead of a purely accrued liability measure.

Because most of the Washington State plans covered in this valuation report are open and ongoing, we only present the market value funded status for the closed Plans 1. Although the Plans 1 are closed to new members, they are not settled and have not been immunized. However, there is an opportunity to immunize these plans in the future. They are considered ongoing plans because current annuitants continue to receive their benefits from the retirement trust fund, and current active members continue to accrue benefits under the plan. However, because the plans are closed to new members, the future benefit payments are more predictable, have a shorter duration, and would be easier to immunize. The decision to settle or immunize the Plans 1 is complex and would require additional actuarial analysis and information that is outside the scope of this report.

The table on the right displays the market value funded status for each plan as described above.

Both funded status measures vary based on the measurement (valuation) date and the market conditions on that date. The market value measure, however, is more volatile because the asset value has no smoothing and the ability to immunize the plan depends on current bond and annuity purchase rates.

Funded Status on a Market Value Basis*

(Dollars in Millions)	**PERS Plan 1**	**TRS Plan 1**	**LEOFF Plan 1**
Projected Unit Credit Liability	$16,106	$11,860	$5,458
Market Value of Assets	8,178	6,902	5,185
Unfunded Liability	$7,929	$4,958	$273
Funded Ratio			
2011	**51%**	**58%**	**95%**
2010	49%	56%	82%
2009	43%	46%	76%
2008	60%	65%	107%
2007	66%	70%	114%
2006	64%	67%	102%
2005	61%	63%	94%
2004	59%	60%	82%

Note: Totals may not agree due to rounding.

** Liabilities have been valued using an interest rate of 5% while assets are their market value. The 5% interest rate approximates the "risk-free" rate of return on assets while maintaining consistency with the 3% inflation assumption used to project future benefit payments. This method was not used to determine contribution requirements. Prior to 2011, liabilities were valued at 5.5%.*