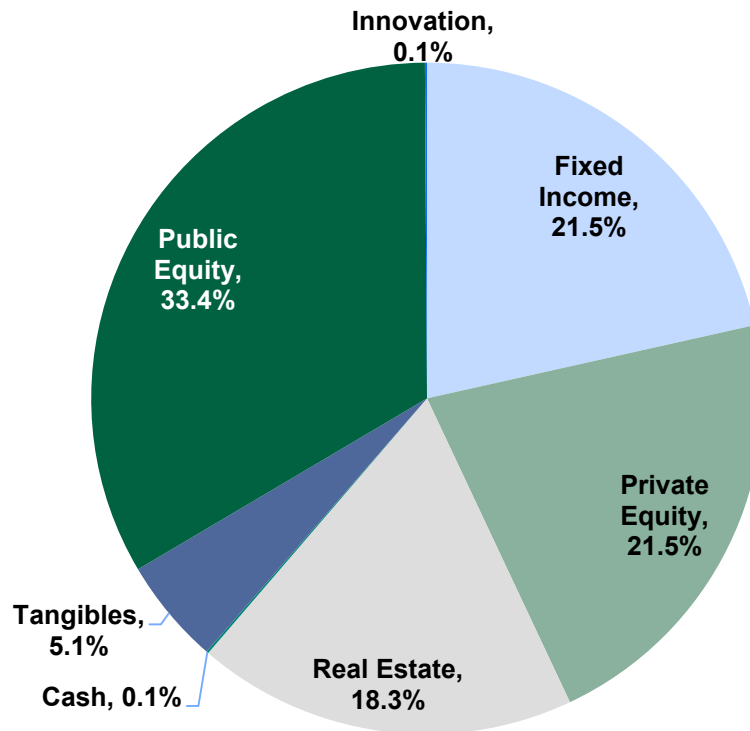


PLAN ASSETS

Retirement Commingled Trust Fund (CTF) Asset Allocation



Source: Washington State Investment Board.

Cash: Highly liquid, very safe investments that can be easily converted into cash, such as Treasury Bills and money-market funds.

Fixed Income: Securities representing debt obligations and usually having fixed payments and maturities. Different types of fixed income securities include government and corporate bonds, mortgage-backed securities, asset-backed securities, convertible issues, and may also include money-market instruments.

Innovation: Fund that provides the ability to invest in a broad range of assets that fall outside the traditional asset classes or management style of existing asset classes.

Public Equity: Shares of U.S. and non-U.S. corporations that trade on public exchanges or “over-the-counter.” The ownership of a corporation is represented by shares that are claimed on the corporation’s earnings and assets.

Private Equity: The infusion of equity capital into a private company (one that is not available on the public markets). Private equity investments include securities that are not listed on a public exchange and are not easily accessible to most individuals. These investments range from initial capital in start-up enterprises to leveraged buyouts of mature corporations.

Real Estate: An externally-managed selection of partnership investments with the majority of the partnerships invested in high-quality real estate leased to third parties.

Tangibles: The tangible asset portfolio invests in sectors such as infrastructure, timber, agriculture, natural resources, commodities, or other sectors consistent with the goals of the asset class.

Each asset class is unique in terms of expected return, standard deviation, and correlation to other asset classes. Please see page 45 of the [2019 Economic Experience Study](#) for more information.

In the asset tables that follow, LEOFF 2's MVA and AVA exclude \$22.0 million held in the LEOFF 2 BIA, and have been further reduced by \$300 million payable to the BIA effective July 1, 2019 (C 366 L19). Under RCW 41.26.805, assets held in the BIA are not included when calculating contribution rates.

Change in Market Value of Assets					
(Dollars in Millions)	PERS		TRS		SERS
	Plan 1	Plans 2/3*	Plan 1	Plans 2/3*	Plans 2/3*
	Fund 631	Fund 641	Fund 632	Fund 642	Fund 633
2018 Market Value	\$7,677	\$38,685	\$5,802	\$13,973	\$5,421
Revenue					
Member Contributions	\$7	\$642	\$2	\$120	\$80
Employer/State Contributions	726	820	501	524	201
Total Contributions	734	1,462	503	644	280
Investment Return	641	3,440	480	1,256	486
Restorations**	3	27	1	5	1
Transfers In	0	1	0	1	0
Miscellaneous	0	0	0	0	0
Total Revenue	\$1,377	\$4,929	\$984	\$1,905	\$767
Disbursements					
Monthly Benefits	\$1,199	\$1,196	\$905	\$355	\$176
Refunds	4	48	1	4	5
Total Benefits	1,203	1,244	906	359	181
Transfers Out	0	4	0	3	2
Expenses	0	1	0	0	0
Payables	0	0	0	0	0
Total Disbursements	\$1,203	\$1,249	\$906	\$362	\$183
2019 Market Value	\$7,851	\$42,365	\$5,880	\$15,516	\$6,005
Adjustments to Market Value***	\$0	\$166	\$0	\$427	\$113
2019 Adjusted Market Value (MV)	\$7,851	\$42,532	\$5,880	\$15,943	\$6,118
2019 Actuarial Value (AV)	\$7,461	\$40,766	\$5,558	\$15,311	\$5,872
Ratio (AV / MV)	95%	96%	95%	96%	96%

Note: Totals may not agree due to rounding.

*Excludes defined contribution portion of Plan 3 assets.

**Includes additional annuity purchases and service credit purchases.

***Adjustment reflects TAP assets for Plan 3 retirees and LEOFF 2 BIA asset transfer.

Change in Market Value of Assets (Continued)					
(Dollars in Millions)	PSERS	LEOFF		WSPRS	Total
	Plan 2	Plan 1	Plan 2	Plans 1/2	
	Fund 635	Fund 819	Fund 829	Fund 615	
2018 Market Value*	\$601	\$5,903	\$12,985	\$1,289	\$92,336
Revenue					
Contributions					
Member	33	0	188	9	\$1,081
Employer/State	32	0	189	15	3,008
Total Contributions	65	0	377	23	4,088
Investment Return	57	495	1,154	111	8,119
Restorations**	0	0	16	2	55
Transfers In	0	0	0	1	3
Miscellaneous	0	0	0	0	0
Total Revenue	\$123	\$495	\$1,547	\$137	\$12,265
Disbursements					
Monthly Benefits	\$3	\$369	\$305	\$64	\$4,572
Refunds	4	0	9	0	75
Total Benefits	7	369	314	64	4,647
Transfers Out	0	0	0	0	9
Expenses	0	0	2	0	4
Payables	0	0	0	0	0
Total Disbursements	\$7	\$369	\$316	\$65	\$4,659
2019 Market Value	\$717	\$6,029	\$14,216	\$1,362	\$99,942
Adjustments to Market Value***	\$0	\$0	(\$300)	\$0	\$406
2019 Adjusted Market Value (MV)	\$717	\$6,029	\$13,916	\$1,362	\$100,349
2019 Actuarial Value (AV)	\$690	\$5,734	\$13,294	\$1,301	\$95,987
Ratio (AV / MV)	96%	95%	96%	95%	96%

Note: Totals may not agree due to rounding.

*Due to adjustments from the expected BIA asset transfer, the 2018 MVA for LEOFF 2 in the table above does not match the 2018 MVA for LEOFF 2 in the 2018 Actuarial Valuation Report.

**Includes additional annuity purchases and service credit purchases.

***Adjustment reflects TAP assets for Plan 3 retirees and LEOFF 2 BIA asset transfer.



Calculation of Actuarial Value of Assets					
(Dollars in Millions)	PERS 1	PERS 2/3	TRS 1	TRS 2/3	SERS 2/3
a. Adjusted Market Value at 6/30/2019	\$7,851	\$42,532	\$5,880	\$15,943	\$6,118
Deferred Gains and (Losses)					
Plan Year Ending	Smoothing Period	Years Remaining			
6/30/2019	2	1	44	270	32
6/30/2018	3	1	\$49	\$241	\$37
6/30/2017	7	4	239	1,119	203
6/30/2016	6	2	(134)	(517)	(107)
6/30/2014	8	2	191	653	157
b. Total Deferral			\$390	\$1,765	\$322
c. Market Value less Deferral (a - b)			\$7,461	\$40,766	\$5,558
d. 70% of Market Value of Assets			\$5,496	\$29,772	\$4,116
e. 130% of Market Value of Assets			\$10,207	\$55,291	\$7,644
f. Actuarial Value of Assets*			\$7,461	\$40,766	\$5,558
					\$15,311
					\$5,872

Note: Totals may not agree due to rounding. The gain/(loss) for 6/30/2015 has been fully realized for all plans.

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

Calculation of Actuarial Value of Assets					
(Continued)					
(Dollars in Millions)	PSERS 2	LEOFF 1	LEOFF 2	WSPRS 1/2	Total
a. Adjusted Market Value at 6/30/2019	\$717	\$6,029	\$13,916	\$1,362	\$100,349
Deferred Gains and (Losses)					
Plan Year Ending	Smoothing Period	Years Remaining			
6/30/2019	2	1	5	34	97
6/30/2018	3	1	4	38	85
6/30/2017	7	4	15	186	387
6/30/2016*	6,5	2,1	(4)	(99)	(166)
6/30/2014	8	2	7	137	219
b. Total Deferral			\$27	\$295	\$623
c. Market Value less Deferral (a - b)			\$690	\$5,734	\$13,294
d. 70% of Market Value of Assets			\$502	\$4,220	\$9,742
e. 130% of Market Value of Assets			\$932	\$7,837	\$18,091
f. Actuarial Value of Assets**			\$690	\$5,734	\$13,294
					\$1,301
					\$95,987

Note: Totals may not agree due to rounding. The gain/(loss) for 6/30/2015 has been fully realized for all plans.

*PSERS 2 = 5 year smoothing period, 1 year remaining; all other plans = 6 year smoothing period, 2 years remaining.

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

II. ACTUARIAL EXHIBITS

Investment Gains and (Losses) for Prior Year					
(Dollars in Millions)	PERS 1	PERS 2/3*	TRS 1	TRS 2/3*	SERS 2/3*
a. 2018 Market Value**	\$7,633	\$38,640	\$5,775	\$13,958	\$5,408
b. Total Cash Flow	(475)	238	(415)	289	99
c. 2019 Market Value**	7,800	42,325	5,841	15,506	5,994
d. Actual Return (c - b - a)	\$642	\$3,447	\$481	\$1,260	\$487
e. Weighted Asset Amount	\$7,393	\$38,764	\$5,561	\$14,099	\$5,456
f. Expected Return (7.5% x e)	554	2,907	417	1,057	409
g. Investment Gain/(Loss) for Prior Year (d - f)	88	540	64	202	78
h. Dollar-Weighted Rate of Return**	8.68%	8.89%	8.65%	8.93%	8.93%

Note: Totals may not agree due to rounding.

*Excludes defined contribution portion of Plan 3 assets.

**Source: Washington State Investment Board.

Investment Gains and (Losses) for Prior Year (Continued)					
(Dollars in Millions)	PSERS 2	LEOFF 1	LEOFF 2	WSPRS	Total
a. 2018 Market Value*	\$600	\$5,902	\$12,942	\$1,288	\$92,145
b. Total Cash Flow	59	(370)	64	(39)	(550)
c. 2019 Market Value*	715	6,028	14,159	1,361	99,729
d. Actual Return (c - b - a)	\$57	\$496	\$1,154	\$111	\$8,135
e. Weighted Asset Amount	\$627	\$5,720	\$12,974	\$1,269	\$91,864
f. Expected Return (7.5% x e)**	47	429	960	95	6,877
g. Investment Gain/(Loss) for Prior Year (d - f)	10	67	193	16	1,258
h. Dollar-Weighted Rate of Return*	9.12%	8.67%	8.89%	8.77%	8.86%

Note: Totals may not agree due to rounding.

*Source: Washington State Investment Board.

**The expected return for LEOFF 2 is (7.4% x e).

FUNDED STATUS

In our actuarial valuation report, 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 actuarial cost method. Funded status can vary significantly from plan to plan, depending on the purpose of the measurement and the assumptions and methods used to determine the funded status.

Based on the purpose of the measurement, actuaries can select from several acceptable actuarial cost methods when measuring a plan's funded status. The cost methods vary in the manner they allocate benefits to past and future time periods. Generally speaking, benefits allocated to past service are considered accrued (or earned). Please see the [Glossary](#) on our website for an explanation of the actuarial cost methods we use in this actuarial valuation.

Consistent with financial reporting under GASB requirements, we report funded status using the EAN actuarial cost method. However, the funded status measures we share in this report may still vary from those presented in the [DRS Comprehensive Annual 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.

To determine the present value (today's value) of accrued benefits we discount future benefits to the valuation date using the valuation interest rate. This rate is intended to be consistent with the long-term expected return under the