CONTRIBUTION RATES

Member and Employer Rate Summary					
	Pla	Plan 1		s 2/3	
	2019	2018	2019	2018	
	PERS				
Member*	6.00%	6.00%	6.36%	7.46%	
Employer (Normal Cost)	6.36%	7.48%	6.36%	7.48%	
Employer (Plan 1 UAAL)	3.71%	4.08%	3.71%	4.08%	
Total Employer	10.07%	11.56%	10.07%	11.56%	
	TRS				
Member*	6.00%	6.00%	8.05%	8.02%	
Employer (Normal Cost)	8.05%	8.40%	8.05%	8.40%	
Employer (Plan 1 UAAL)	6.19%	6.11%	6.19%	6.11%	
Total Employer	14.24%	14.51%	14.24%	14.51%	
	SERS				
Member*	N/A	N/A	7.76%	8.02%	
Employer (Normal Cost)	N/A	N/A	7.76%	8.02%	
Employer (PERS Plan 1 UAAL)	N/A	N/A	3.71%	4.08%	
Total Employer	N/A	N/A	11.47%	12.10%	
	PSERS				
Member	N/A	N/A	6.50%	7.09%	
Employer (Normal Cost)	N/A	N/A	6.50%	7.09%	
Employer (PERS Plan 1 UAAL)	N/A	N/A	3.71%	4.08%	
Total Employer	N/A	N/A	10.21%	11.17%	
	LEOFF		_		
Member	0.00%	0.00%	7.68%	8.67%	
Employer	0.00%	0.00%	4.61%	5.20%	
State (Normal Cost)	0.00%	0.00%	3.07%	3.47%	
State (Plan 1 UAAL)	0.00%	0.00%	0.00%	0.00%	
Total State	0.00%	0.00%	3.07%	3.47%	
	WSPRS				
Member	8.61%	8.45%	8.61%	8.45%	
Employer (State)	18.57%	20.41%	18.57%	20.41%	

Note: Employer rates exclude administrative expense rate.

*Plan 3 members do not contribute to the defined benefit plan.

Development of 2019 Employer/State Rates						
	PE	SERS				
	Plan 1	Plans 2/3	Plan 1	Plans 2/3	Plans 2/3	
a. Total Normal Cost	12.36%	12.72%	14.05%	16.10%	15.52%	
b. Member Normal Cost*	6.00%	6.36%	6.00%	8.05%	7.76%	
c. Employer Contribution (a - b)	6.36%	6.36%	8.05%	8.05%	7.76%	
d. Cost to Amortize UAAL	3.71%	3.71%	6.19%	6.19%	3.71%	
e. Total Employer Rate (c + d)	10.07%	10.07%	14.24%	14.24%	11.47%	

Note: Employer rates exclude administrative expense rate.

*Plan 3 members do not contribute to the defined benefit plan. TRS 2 member rate may be subject to a member maximum rate.

Development of 2019 Employer/State Rates					
PSERS	LEOFF WSPI				
Plan 2	Plan 1	Plan 2	Plans 1/2		
13.00%	0.00%	15.36%	27.18%		
6.50%	0.00%	7.68%	8.61%		
6.50%	0.00%	7.68%	18.57%		
3.71%	0.00%	0.00%	N/A		
10.21%	0.00%	4.61%	18.57%		
	PSERS Plan 2 13.00% 6.50% 6.50% 3.71%	PSERS LE0 Plan 2 Plan 1 13.00% 0.00% 6.50% 0.00% 6.50% 0.00% 3.71% 0.00%	PSERS LEOFF Plan 2 Plan 1 Plan 2 13.00% 0.00% 15.36% 6.50% 0.00% 7.68% 6.50% 0.00% 7.68% 3.71% 0.00% 0.00%		

Note: Employer rates exclude administrative expense rate.

*Plan 3 members do not contribute to the defined benefit plan. WSPRS member rate may be subject to a member maximum rate.

**The state pays 20% of the total normal cost for LEOFF 2. The total employer rate reflected above represents the local government, i.e. non-state, portion.

TRS Plan 2 Maximum Member Contribution Rates							
Valuation Year	Prior Max	Supplemental	New Max	Description	Source		
2010 - 2019	8.63%	0.01%	8.64%	AFC protection against reduced salaries.	C 5 L 11		
2007 - 2009	8.55%	0.08%	8.63%	Out-of-state service credit purchases.	C 101 L 08		
2006	7.76%	0.79%	8.55%	Improved Subsidized ERFs for certain Plan 2/3 members.	C 491 L 07		
2005	7.75%	0.01%	7.76%	Lowered vesting requirements for certain Plan 3 members.	C 33 L 06		
1999 - 2004	6.59%	1.16%	7.75%	Subsidized ERFs for Plan 2/3 members.	C 247 L 00		
1997 - 1998	N/A	N/A	6.59%				

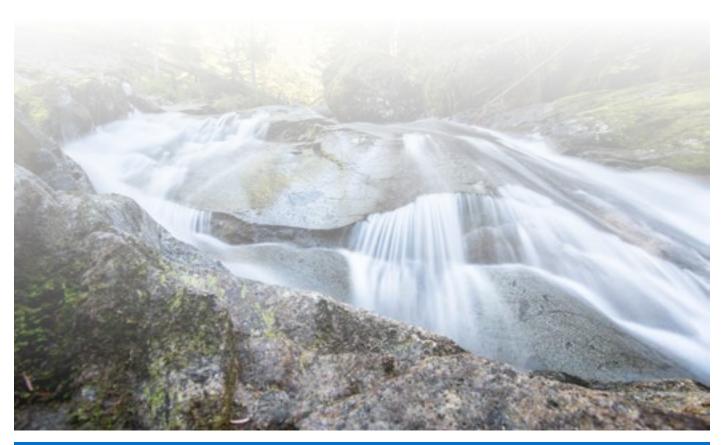
Note: Maximum member contribution rates change each year by 50% of benefit improvements, except as stated in RCW 41.45.070.

	WSPRS Plan 1/2 Maximum Member Contribution Rates						
Valuation Year	Prior Max	Supplemental	New Max	Description	Source		
2019	8.45%	0.16%	8.61%	Modified the definition of "Veteran" and leave cash-out as pensionable salary.	C 97 L 20		
2017 - 2018	8.44%	0.01%	8.45%	Modified the definition of "Veteran".	C 61 L 18		
2016*	7.68%	0.76%	8.44%	Expanded the definition of pensionable	C 181 L 17		
2010	7.34%	0.34%	7.68%	overtime.	OTOTEIN		
2014 - 2015	7.19%	0.15%	7.34%	L&I duty-related death benefits paid from pension trust fund on remarriage.	C 78 L 15		
2009 - 2013	7.18%	0.01%	7.19%	Increased duty-related death benefits.	C 261 L 10		
2008	6.95%	0.23%	7.18%	Survivor benefits for registered domestic partners.	C 522 L 09		
2006** - 2007	N/A	N/A	6.95%				

Note: Maximum member contribution rates change each year by 50% of benefit improvements, except as stated in RCW 41.45.070.

*This law stipulated a phased increase to the member maximum rate by applying 0.34% in Fiscal Year 2018 and 0.76% in Fiscal Year 2019.

**The original maximum contribution rate of 7% was decreased by 0.05% for C 87 L 07 (Raised maximum retirement age, 0.14% decrease) and C 488 L 07 (Provided medical premium reimbursements for certain survivors, 0.09% increase).



II. ACTUARIAL EXHIBITS

The following table compares the member and total employer contribution rates that were adopted by the PFC against the rates that were calculated by OSA. Note the 2019-21 adopted rates we display include the supplemental rates charged following the 2019 Legislative Session.

The tables on the following pages show the development of the normal cost rates and the Plan 1 UAAL rates. Consistent with current funding policy, the normal cost rates include minimum contribution rates to provide stable and adequate contribution rates over time. These minimum rates are a percent of the normal cost calculated under the EAN funding method. The percent is 70 percent for WSPRS Plans 1 and 2, 100 percent for LEOFF 2 (which reduces to 90 percent when the plan's funded ratio is at least 105 percent), and 80 percent for all other plans.

The PERS 1 and TRS 1 UAAL, under current funding policy, must be amortized over a rolling ten-year period, as a level percentage of projected system payroll. All employers of PERS, SERS, and PSERS members contribute toward the PERS 1 UAAL, while all employers of TRS members contribute toward the TRS 1 UAAL. UAAL rates also include minimum contribution rates to ensure complete amortization of the UAAL. The minimum UAAL rate is 3.50 percent in PERS 1 and 5.75 percent in TRS 1. Please see the <u>Glossary</u> for a more detailed explanation of EAN and UAAL.

The funded ratio for LEOFF 2 is currently above 105 percent and therefore the minimum contribution rate is 90 percent of the EANC rate based on Board policy.

Contribution Rates				
	2019-21	2021-23	2021-23	
	Adopted ¹	Calculated	Adopted	
	PERS	-		
Member	6.00%	6.00%	6.00%	
Total Employer	12.68%	10.07%	10.07%	
	PERS	2/3		
Member ²	7.90%	6.36%	6.36%	
Total Employer	12.68%	10.07%	10.07%	
	TRS	1		
Member	6.00%	6.00%	6.00%	
Total Employer	15.33%	14.24%	14.24%	
	TRS 2	2/3		
Member ²	7.77%	8.05%	8.05%	
Total Employer	15.33%	14.24%	14.24%	
	SERS	2/3		
Member ²	8.25%	7.76%	7.76%	
Total Employer	13.01%	11.47%	11.47%	
	PSER	6 2		
Member	7.20%	6.50%	6.50%	
Total Employer	11.96%	10.21%	10.21%	
	LEOF	= 1		
Member	0.00%	0.00%	0.00%	
Employer	0.00%	0.00%	0.00%	
State	0.00%	0.00%	0.00%	
	LEOFF	² 2 ³		
Member	8.59%	7.68%	8.53%	
Employer	5.15%	4.61%	5.12%	
State	3.44%	3.07%	3.41%	
	WSPRS	1/2 ⁴		
Member	8.45%	8.61%	8.61%	
Employer (State)	17.50%	18.57%	17.66%	

Employer rates exclude administrative expense rate.

¹2019-21 adopted rates include 2019 Session supplemental rate.

² Plan 3 members do not contribute to the defined benefit plan.

³ The LEOFF 2 Board adopts contribution rates for LEOFF 2. The Board adopted rates equal to 100 percent of the Entry Age Normal Cost. Please see the <u>2019 LEOFF 2 Actuarial Valuation Report</u> for more information.

⁴ Adopted employer contribution rate reflects temporary and supplemental smoothing policy per 2019 Legislative Session Law (C 416 L19 Sec 711(6).

We provide additional contribution rate calculations on the <u>Interactive Reports</u> page of our website. This interactive report calculates member and employer contribution rates that vary based on the asset valuation method and discount rate that the user selects. The state's funding policy, defined under <u>Chapter 41.45 RCW</u>, does not vary based on these selections.

	Development of Normal Cost Rates							
(Do	ollars in Millions)	PERS 2/3	TRS 2/3	SERS 2/3				
	1. Calculated Member Normal C	Cost Rate						
a.	Future Value of Fully Projected Benefits	\$316,203	\$208,149	\$48,545				
b.	Present Value of Fully Projected Benefits	51,592	23,168	8,096				
C.	Valuation Assets	40,766	15,311	5,872				
d.	Unfunded Fully Projected Benefits (b - c)	10,826	7,857	2,224				
e.	Past Liability Balance	3	37	0				
f.	Adjusted Unfunded (d - e)	\$10,823	\$7,820	\$2,224				
	Present Value of Projected Salaries to Current Members (PVS)							
g.	Plan 1 PVS	N/A	N/A	N/A				
h.	Plan 2 PVS	73,788	21,933	8,867				
i.	Plan 3 PVS	22,565	53,253	10,926				
j.	Weighted PVS (2g + 2h + i)	\$170,140	\$97,120	\$28,660				
k.	Member Normal Cost (f / j)	6.36%	8.05%	7.76%				
١.	Member Minimum Contribution Rate	4.37%	5.33%	4.72%				
m.	Prior Year Member Maximum Contribution Rate	N/A	8.64%	N/A				
n.	Member Contribution Rate with Max/Min	6.36%	8.05%	7.76%				
0.	Change In Plan Provisions (Laws of 2020)	0.00%	0.00%	0.00%				
р.	Calculated Member Contribution Rate (n + o)*	6.36%	8.05%	7.76%				
	2. Calculated Employer Normal	Cost Rate						
a.	Present Value of Fully Projected Benefits	\$51,592	\$23,168	\$8,096				
b.	Valuation Assets	40,766	15,311	5,872				
С.	Unfunded Benefits (a - b)	10,826	7,857	2,224				
d.	Present Value of Member Contributions	4,694	1,766	688				
e.	Past Liability Balance**	3	37	0				
f.	Employer Responsibility (c - d - e)	\$6,129	\$6,054	\$1,536				
	Present Value of Projected Salaries to Cu	urrent Members	(PVS)					
g.	Plan 1 PVS	N/A	N/A	N/A				
h.	Plan 2 PVS	73,788	21,933	8,867				
i.	Plan 3 PVS	22,565	53,253	10,926				
j.	Total PVS (g + h + i)	\$96,352	\$75,187	\$19,793				
k.	Employer Normal Cost (f / j)	6.36%	8.05%	7.76%				
I.	Employer Minimum Contribution Rate	4.37%	5.33%	4.72%				
m.	Employer Contribution Rate with Minimum	6.36%	8.05%	7.76%				
n.	Excess Employer Rate	N/A	0.00%	N/A				
о.	Rate to Amortize Past Liability Balance**	0.00%	0.00%	0.00%				
p.	Change In Plan Provisions (Laws of 2020)	0.00%	0.00%	0.00%				
q.	Calculated Employer Contribution Rate (m + n + o + p)	6.36%	8.05%	7.76%				
	3. Adopted Normal Cost Rates for	r 2021-2023						
a.	Member Contribution Rate	6.36%	8.05%	7.76%				
b.	Employer Contribution Rate	6.36%	8.05%	7.76%				
c.	State Contribution Rate	N/A	N/A	N/A				
	Total Contribution Rate (a + b + c)	12.72%	16.10%	15.52%				
Not	e: Totals may not agree due to rounding.							

Note: Totals may not agree due to rounding.

*Plan 3 members do not contribute to the defined benefit plan.

**Past liabilities are expected to be paid off when contribution rates are effective in 2021-23 Biennium.

II. ACTUARIAL EXHIBITS

	Development of Normal Cost	Rates						
	(Continued)							
(Do	ollars in Millions)		LEOFF 2	WSPRS 1/2				
	1. Calculated Member Normal Co	ost Rate						
	Future Value of Fully Projected Benefits	\$16,600	\$118,647	\$9,160				
	Present Value of Fully Projected Benefits	1,391	16,095	1,586				
	Valuation Assets ¹	690	13,294	1,301				
	Unfunded Fully Projected Benefits (b - c)	701	2,802	285				
	Past Liability Balance	0	0	6				
f.	Adjusted Unfunded (d - e)	\$701	\$2,802	\$279				
	Present Value of Projected Salaries to Curr							
•	Plan 1 PVS	N/A	N/A	\$ 238				
h.	Plan 2 PVS	5,390	24,130	854				
i.	Plan 3 PVS	N/A	N/A	N/A				
-	Weighted PVS (2g + 2h + i)	\$10,779	\$48,260	\$2,184				
k.	Member Normal Cost (f / j)	6.50%	5.81%	12.77%				
Ι.	Member Minimum Contribution Rate	5.51%	7.68%	7.31%				
m.	Prior Year Member Maximum Contribution Rate	N/A	N/A	8.45%				
n.	Member Contribution Rate with Max/Min	6.50%	7.68%	8.45%				
о.	Change In Plan Provisions (Laws of 2020)	0.00%	0.00%	0.16%				
р.	Calculated Member Contribution Rate (n + o)	6.50%	7.68%	8.61%				
	2. Calculated Employer Normal C	ost Rate						
a.	Present Value of Fully Projected Benefits	\$1,391	\$16,095	\$1,586				
b.	Valuation Assets ¹	690	13,294	1,301				
с.	Unfunded Benefits (a - b)	701	2,802	285				
d.	Present Value of Member Contributions	351	1,401	139				
e.	Past Liability Balance	0	0	6				
f.	Employer Responsibility (c - d - e)	\$351	\$1,401	\$139				
	Present Value of Projected Salaries to Curr		s (PVS)					
•	Plan 1 PVS	N/A	N/A	\$ 238				
	Plan 2 PVS	5,390	24,130	854				
i.	Plan 3 PVS	N/A	N/A	N/A				
j.	Total PVS (g + h + i)	\$5,390	\$24,130	\$1,092				
	Employer Normal Cost (f / j)	6.50%	5.81%	12.77%				
	Employer Minimum Contribution Rate	5.51%	7.68%	7.31%				
	Employer Contribution Rate with Minimum	6.50%	7.68%	12.77%				
n.	Excess Employer Rate	N/A	N/A	4.32%				
0.	······································	N/A	N/A	1.32%				
p.	č	0.00%	0.00%	0.16%				
q.	Calculated Employer Contribution Rate (m + n + o + p)	6.50%	7.68%	18.56%				
6	3. Adopted Normal Cost Rates for		0 500/	0.040/				
	Member Contribution Rate	6.50%	8.53%	8.61%				
b.		6.50%	5.12%	17.66%				
	State Contribution Rate	N/A	3.41%	N/A				
	Total Contribution Rate (a + b + c)	13.00%	17.06%	26.27%				

Note: Totals may not agree due to rounding.

¹ LEOFF 2's assets for 2019 exclude the \$22 million held in the LEOFF 2 BIA and have been further reduced by \$300 million payable to the BIA effective 7/1/2019 (C 366 L 19).

² WSPRS liability is attributable to past costs for improved survivor benefits.

³ LEOFF 2 rates adopted by LEOFF 2 Board; all others adopted by the PFC. LEOFF 2 rate: 50% Member, 30% Employer, 20% State.

	Amortization of the Plan 1 Unfunded Actuarial	Accrued Lia	bility (UAA	L)
(D	ollars in Millions)	PERS 1	TRS 1	LEOFF 1
a.	Future Value of Fully Projected Benefits	\$24,134	\$17,306	\$8,997
b.	Present Value of Fully Projected Benefits (PVFB)	11,445	8,283	4,077
с	Valuation Assets	7,461	5,558	5,734
d.	Actuarial Present Value of Future Normal Costs	40	11	0
e.	Balance of Plan 1 Benefit Improvements ¹	185	134	N/A
f.	UAAL (b - c - d - e)	\$3,759	\$2,580	(\$1,657)
g.	Amortization Date	N/A	N/A	6/30/2024
h.	Present Value of Projected Salaries ²	\$127,043	\$62,008	\$6,017
i.	Contribution Rate Before Adjustments (f / h)	2.96%	4.16%	(27.53%)
j.	Minimum Contribution Rate	3.50%	5.75%	N/A
k.	Preliminary Contribution Rate	3.50%	5.75%	(27.53%)
I.	Plan 1 Benefit Improvements	0.10%	0.21%	N/A
m.	Change In Plan Provisions (Laws of 2020)	0.11%	0.23%	0.00%
n.	Calculated Plan 1 UAAL Contribution Rates (k + I + m) ³	3.71%	6.19%	(27.53%)
Ad	opted UAAL Contribution Rates for 2021-2023	3.71%	6.19%	0.00%

Note: Totals may not agree due to rounding.

¹ As stated in RCW 41.45.060, the cost of funding Plan 1 benefit improvents shall be amortized over a fixed 10-year period.

² Measured under the plan's mortization method.

³ No LEOFF 1 UAAL contributions are required when the plan is fully funded under current methods and assumptions.

