## **ACTUARIAL LIABILITIES**

Present Value of Fully Projected Benefits									
(Dollars in Millions)	PERS			TRS			SERS		
	Plan 1	Plans 2/3	Total	Plan 1	Plans 2/3	Total	Plans 2/3		
Active Members									
Retirement	\$518	\$28,383	\$28,901	\$188	\$13,566	\$13,754	\$4,239		
Termination	0	3,295	3,295	0	2,979	2,979	704		
Death	3	169	172	1	95	96	30		
Disability	0	118	118	0	36	36	19		
<b>ROC<sup>1</sup> on Termination</b>	0	500	500	0	66	66	62		
ROC <sup>1</sup> on Death	5	183	189	1	29	31	17		
Total Active	\$527	\$32,648	\$33,175	\$190	\$16,772	\$16,961	\$5,071		
Inactive Members									
Terminated Vested	\$65	\$3,264	\$3,329	\$19	\$1,224	\$1,243	\$755		
Terminated Non-Vested <sup>2</sup>	7	316	323	3	61	63	39		
Service Retired <sup>3</sup>	10,031	14,552	24,583	7,620	4,573	12,193	2,044		
Disability Retired	96	152	248	70	13	83	18		
Survivors	719	497	1,216	382	95	476	56		
TAP Annuities	0	164	164	0	431	431	112		
Total Inactive	\$10,919	\$18,944	\$29,863	\$8,093	\$6,396	\$14,489	\$3,025		
Laws of 2020	130	1	131	132	0	132	0		
2019 Total	\$11,575	\$51,593	\$63,168	\$8,415	\$23,168	\$31,583	\$8,096		
2018 Total	\$11,999	\$48,354	\$60,353	\$8,598	\$19,837	\$28,436	\$7,109		

Note: Totals may not agree due to rounding.

<sup>1</sup> Return of Contributions.

<sup>2</sup> Members who terminated without a vested lifetime benefit but are eligible for a refund of their employee contributions with interest that currently reside in the trust.

<sup>3</sup> Includes liability from individuals who are entitled to a portion of the primary member's benefit (legal order payees).



**2019 ACTUARIAL VALUATION REPORT** 

Present Value of Fully Projected Benefits (Continued)								
ollars in Millions) <b>PSERS</b>			LEOFF					
Plan 2	Plan 1	Plan 2	Total	Plans 1/2				
Active Members								
\$1,069	\$25	\$10,001	\$10,027	\$636	\$58,626			
154	0	169	169	5	7,306			
4	0	110	110	4	416			
9	0	543	543	1	726			
41	0	111	111	3	783			
8	0	83	83	2	329			
\$1,285	\$25	\$11,018	\$11,044	\$649	\$68,185			
Inactive Members								
\$44	\$1	\$250	\$252	\$20	\$5,643			
17	0	16	16	1	459			
43	1,823	4,398	6,221	837	45,922			
2	1,538	281	1,819	4	2,172			
1	690	132	822	74	2,646			
0	0	0	0	0	707			
\$106	\$4,052	\$5,077	\$9,129	\$936	\$57,549			
0	0	1	1	3	267			
\$1,391	\$4,077	\$16,096	\$20,173	\$1,589	\$126,001			
\$1,349	\$4,096	\$14,846	\$18,942	\$1,517	\$117,706			
	Plan 2 \$1,069 154 4 9 41 8 <b>\$1,285</b> <b>\$1,285</b> 1 43 2 1 43 2 1 0 <b>\$44</b> 17 43 2 1 0 <b>\$106</b> 0 <b>\$106</b> 0 <b>\$106</b> 0	PSERS Plan 1   Plan 2 Plan 1       \$1,069 \$25   154 0   154 0   154 0   4 0   9 0   41 0   8 0   \$1,285 \$25   \$1,285 \$25   \$1,285 \$25   \$1 0   \$1,285 \$25   \$1,285 \$25   \$1,285 \$25   \$1 0   \$1,285 \$25   \$1,285 \$25   \$1,285 \$25   \$1,285 \$25   \$1,285 \$25   \$1,285 \$25   \$1,285 \$25   \$1 0   \$1,381 1,823   \$1,823 0   \$1,538 0   \$1 690   \$1 690   \$1 0	PSERS Plan 2LEOFF Plan 1Plan 2Plan 2\$1,069\$25\$10,00115401691540110905434101118083\$1,285\$25\$11,018\$1,285\$25\$11,018\$44\$1\$25017016431,8234,39821,5382811690132000\$106\$4,052\$5,077001\$1,391\$4,077\$16,096\$1,349\$4,096\$14,846	PSERS Plan 2Plan 1Plan 2TotalPlan 2Plan 1Plan 2Total </th <th>PSERSLEOFFWSPRSPlan 2Plan 1Plan 2TotalPlans 1/2Active MembersPlans 1/2\$1,069\$25\$10,001\$10,027\$6361540169169540110110490543543141011111138083832\$1,285\$25\$11,018\$11,044\$64917016161431,8234,3986,22183721,5382811,819416901328227400000\$106\$4,052\$5,077\$9,129\$93600113\$1,391\$4,077\$16,096\$20,173\$1,589\$1,349\$4,096\$14,846\$18,942\$1,517</th>	PSERSLEOFFWSPRSPlan 2Plan 1Plan 2TotalPlans 1/2Active MembersPlans 1/2\$1,069\$25\$10,001\$10,027\$6361540169169540110110490543543141011111138083832\$1,285\$25\$11,018\$11,044\$64917016161431,8234,3986,22183721,5382811,819416901328227400000\$106\$4,052\$5,077\$9,129\$93600113\$1,391\$4,077\$16,096\$20,173\$1,589\$1,349\$4,096\$14,846\$18,942\$1,517			

Note: Totals may not agree due to rounding.

<sup>1</sup> Return of Contributions.

<sup>2</sup> Members who terminated without a vested lifetime benefit but are eligible for a refund of their employee contributions with interest that currently reside in the trust.

<sup>3</sup> Includes liability from individuals who are entitled to a portion of the primary member's benefit (legal order payees).



Entry Age Normal Accrued Liability <sup>1</sup>									
(Dollars in Millions)	PE	RS	TF	SERS					
	Plan 1	Plans 2/3	Plan 1	Plans 2/3	Plans 2/3				
Active Members									
Retirement	\$485	\$21,726	\$179	\$8,765	\$3,081				
Termination	(6)	1,853	(1)	1,662	348				
Death	2	122	0	62	21				
Disability	0	54	0	12	7				
ROC <sup>2</sup> on Termination	(0)	(214)	(0)	(25)	(16)				
ROC <sup>2</sup> on Death	5	114	1	11	9				
Total Active	\$486	\$23,656	\$180	\$10,486	\$3,449				
Inactive Members									
Terminated Vested	\$65	\$3,264	\$19	\$1,224	\$755				
Terminated Non-Vested <sup>3</sup>	7	316	3	61	39				
Service Retired <sup>4</sup>	10,031	14,552	7,620	4,573	2,044				
Disability Retired	96	152	70	13	18				
Survivors	719	497	382	95	56				
TAP Annuities	0	164	0	431	112				
Total Inactive	\$10,919	\$18,944	\$8,093	\$6,396	\$3,025				
Laws of 2020	130	(0)	132	0	0				
2019 Total	\$11,535	\$42,600	\$8,405	\$16,883	\$6,474				
2018 Total	\$11,942	\$40,024	\$8,583	\$14,705	\$5,748				

Note: Totals may not agree due to rounding.

<sup>1</sup> Calculated using the EAN cost method. This method is used in the funded ratio calculation and is not used to determine contribution requirements.

<sup>2</sup> Return of Contributions.

<sup>3</sup> Members who terminated without a vested lifetime benefit but are eligible for a refund of their employee contributions with interest that currently reside in the trust.

<sup>4</sup> Includes liability from individuals who are entitled to a portion of the primary member's benefit (legal order payees).

Some line items in the Entry Age Normal (EAN) accrued liability tables are negative. This is a result of how these benefits are accrued, over a member's working career, under the EAN actuarial cost method. The accrued liability for a given benefit provision is the difference between (1) today's value of all future benefits for that benefit definition and (2) how much of those future benefits are assumed to be accrued over the rest of the member's career. Item (1) is essentially split into annual "pieces" that are spread evenly across a career from first hire date to last assumed exit. Item (2) is how many more "pieces" they have left to accrue. For benefits like "Return On Contributions (ROC) on Termination", while we assume members that are eligible for retirement will no longer elect an ROC benefit when they exit the system, they are still accruing the level piece of item (2) each year until they retire. So in this instance, item (1) is zero but item (2) is positive. This means we get a negative number when subtracting item (2) from item (1).

Please note GASB mandates this methodology for the accrued liability calculation in financial reporting. We use the same methods in this report – a funding valuation – for easier comparison with financial reporting results. An alternative method is to calculate the accrued liability through the date last eligible for the benefit instead of the end of career. This would eliminate the negative accrued liability components seen above.

Entry Age Normal Accrued Liability <sup>1</sup> (Continued)									
(Dollars in Millions)	PSERS	LEC	)FF	WSPRS	Total				
	Plan 2	Plan 1	Plan 2	Plans 1/2					
Active Members									
Retirement	\$519	\$25	\$6,569	\$429	\$41,776				
Termination	58	0	28	1	3,943				
Death	2	0	14	1	224				
Disability	3	0	291	0	368				
ROC <sup>2</sup> on Termination	(7)	0	(33)	(0)	(296)				
ROC <sup>2</sup> on Death	3	0	47	1	192				
Total Active	\$578	\$25	\$6,914	\$431	\$46,206				
Inactive Members									
Terminated Vested	\$44	\$1	\$250	\$20	\$5,643				
Terminated Non-Vested <sup>3</sup>	17	0	16	1	459				
Service Retired <sup>4</sup>	43	1,823	4,398	837	45,922				
Disability Retired	2	1,538	281	4	2,172				
Survivors	1	690	132	74	2,646				
Tap Annuities	0	0	0	0	707				
Total Inactive	\$106	\$4,052	\$5,077	\$936	\$57,549				
Laws of 2020	0	0	0	2	265				
2019 Total	\$685	\$4,077	\$11,992	\$1,370	\$104,020				
2018 Total	\$596	\$4,095	\$11,066	\$1,302	\$98,061				

Note: Totals may not agree due to rounding.

<sup>1</sup> Calculated using the EAN cost method. This method is used in the funded ratio calculation and is not used to determine contribution requirements.

<sup>2</sup> Return of Contributions.

<sup>3</sup> Members who terminated without a vested lifetime benefit but are eligible for a refund of their employee contributions with interest that currently reside in the trust.

<sup>4</sup> Includes liability from individuals who are entitled to a portion of the primary member's benefit (legal order payees).

We report the present and future value of benefit payments by year and by plan on our website. We also show how the present value of these benefit payments varies by interest rate assumptions. For more information or to view projected benefit payments, please visit the <u>Interactive Reports</u> page on our website.

