

REQUIRED SUPPLEMENTARY INFORMATION PENSION PLANS

Required supplementary information for pension plans provides information on the sources of changes in net pension liabilities, information about the components of net pension liabilities, employer contributions, and investment returns.

The Required Supplementary Information for Pension Plans includes the following schedules:

Schedule of Changes in the Net Pension Liability and Related Ratios: Cost-Sharing, Multiple-Employer, Defined Benefit Pension Plans

Schedule of Changes in the Net Pension Liability and Related Ratios: Single-Employer, Defined Benefit Pension Plans

Schedule of Employer and Nonemployer Contributions: Cost-Sharing, Multiple-Employer, Defined Benefit Pension Plans

Schedule of Employer and Nonemployer Contributions: Single-Employer, Defined Benefit Pension Plans

Schedule of Investment Returns: All Defined Benefit Pension Plans

Notes to Required Supplementary Information: Schedule of Employer Contributions

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS COST-SHARING, MULTIPLE-EMPLOYER, DEFINED BENEFIT PENSION PLANS

Last Nine Fiscal Years
(Dollars in Thousands)

(Dollars in Thousands)					
	2022	2021	2020	2019	2018
Teachers' and State Employees'					
Total pension liability Service Cost	\$ 1,918,712	\$ 1,906,954	\$ 1,851,058	\$ 1,782,475	\$ 1,630,323
Interest	5,874,188	5,857,546	5,663,045	5,460,427	5,281,004
Changes of benefit terms	205,169	- (141.706)	- 259 502	- F3F 960	44,339
Differences between expected and actual experience Changes of assumptions	(175,206) -	(141,796) 2,341,992	258,502 -	535,860 -	815,911 1,637,700
Benefit payments, including refunds of member contributions	(5,324,253)	(5,055,075)	(4,934,999)	(4,835,144)	(4,666,391)
Net change in total pension liability	2,498,610	4,909,621	2,837,606	2,943,618	4,742,886
Total pension liability - beginning	91,073,632	86,164,011	83,326,405	80,382,787	75,639,901
Total pension liability - ending (a)	\$ 93,572,242	\$ 91,073,632	\$ 86,164,011	\$ 83,326,405	\$ 80,382,787
Plan fiduciary net position Contributions-employer	\$ 2,761,946	\$ 2,373,252	\$ 2,055,075	\$ 1,915,146	\$ 1,602,901
Contributions-member	1,030,635	981,051	964,544	951,566	910,797
Net investment income	(6,118,110)	14,023,684	3,050,585	4,514,117	4,885,354
Benefit payments, including refunds of member contributions Administrative expense	(5,324,253) (13,945)	(5,055,075) (13,870)	(4,934,999) (12,910)	(4,835,144) (11,815)	(4,666,391) (11,604)
Other	2,700	(25)	271	(1,120)	<u> </u>
Net change in plan fiduciary net position	(7,661,027)	12,309,017	1,122,566	2,532,750	2,721,238
Plan fiduciary net position - beginning	86,391,031	74,082,014	72,959,448	70,426,698	67,705,460
Plan fiduciary net position - ending (b)	\$ 78,730,004	\$ 86,391,031	\$ 74,082,014	\$ 72,959,448	\$ 70,426,698
TSERS's net pension liability - ending (a) - (b)	<u>\$ 14,842,238</u>	\$ 4,682,601	\$ 12,081,997	\$ 10,366,957	\$ 9,956,089
Plan fiduciary net position as a percentage of the total	04.440/	04.0007	05.000	07.500/	07.040/
pension liability	84.14%	94.86%	85.98%	87.56%	87.61%
Covered payroll	\$ 16,861,697	\$ 16,057,185	\$ 15,844,834	\$ 15,582,963	\$ 14,869,212
Net pension liability as a percentage of covered payroll	88.02%	29.16%	76.25%	66.53%	66.96%
Local Governmental Employees'					
Total pension liability					
Service Cost	\$ 904,200	\$ 876,765	\$ 841,148	\$ 798,120	\$ 713,227
Interest Changes of benefit terms	2,225,081 33,159	2,139,954 -	2,037,306 -	1,934,144 -	1,838,989 -
Differences between expected and actual experience	(31,778)	296,054	177,954	252,859	378,665
Changes of assumptions Benefit payments, including refunds of member contributions	- (1,732,564)	1,125,778 (1,630,148)	- (1,551,217)	- (1,472,856)	595,781 (1,402,793)
Net change in total pension liability	1,398,098	2,808,403	1,505,191	1,512,267	2,123,869
Total pension liability - beginning	34,180,463	31,372,060	29,866,869	28,354,602	26,230,733
Total pension liability - ending (a)	\$ 35,578,561	\$ 34,180,463	\$ 31,372,060	\$ 29,866,869	\$ 28,354,602
Plan fiduciary net position					
Contributions-employer	\$ 880,449	\$ 745,308	\$ 640,969	\$ 534,107	\$ 492,317
Contributions-member Net investment income	477,001 (2,331,589)	453,112 5,283,300	436,754 1,139,009	420,437 1,675,331	401,632 1,789,337
Benefit payments, including refunds of member contributions	(1,732,564)	(1,630,148)	(1,551,217)	(1,472,856)	(1,402,793)
Administrative expense	(5,415)	(5,295)	(4,889)	(4,634)	(4,324)
Other Net change in plan fiduciary net position	2,384 (2,709,734)	1,956 4,848,233	2,061 662,687	1,302	3,081 1,279,250
Plan fiduciary net position - beginning	32,646,867	27,798,634	27,135,947	25,982,260	24,703,010
Plan fiduciary net position - ending (b)	\$ 29,937,133	\$ 32,646,867	\$ 27,798,634	\$ 27,135,947	\$ 25,982,260
LGERS's net pension liability (asset) - ending (a) - (b)	\$ 5,641,428	\$ 1,533,596	\$ 3,573,426	\$ 2,730,922	\$ 2,372,342
Plan fiduciary net position as a percentage of the total					
pension liability	84.14%	95.51%	88.61%	90.86%	91.63%
Covered payroll	\$ 7,570,499	\$ 7,166,423	\$ 6,914,444	\$ 6,665,378	\$ 6,368,275
Net pension liability (asset) as a					
percentage of covered payroll	74.52%	21.40%	51.68%	40.97%	37.25%

2017	2016	2015		2014
\$ 1,469,395	\$ 1,580,544	\$ 1,562,846		1,556,027
5,195,104	4,937,464	4,803,766		4,648,995
449,563 229,339	35,605 (190,178)	- (278,170)		355,224 (345,392)
381,934	1,743,836	(270,170)		(343,332)
(4,545,296)	(4,339,637)	(4,184,410)	(3,989,397)
3,180,039	3,767,634	1,904,032		2,225,457
72,459,862	68,692,228	66,788,196	_ 6	4,562,739
\$ 75,639,901	\$ 72,459,862	\$ 68,692,228	\$ 6	6,788,196
\$ 1,441,194	\$ 1,275,003	\$ 1,262,988	\$	1,177,341
894,538	864,151	854,306		825,548
6,656,652	472,174	1,468,624		9,121,005
(4,545,296)	(4,339,637)	(4,184,410)	((3,989,397)
(11,265) 808	(10,217) 325	(10,646) 393		(10,762) 320
4,436,631	(1,738,201)	(608,745)		7,124,055
				, ,
\$ 67,705,460	65,007,030 \$ 63,268,829	\$ 65,615,775 \$ 65,007,030		68,491,720 65,615,775
	-			
\$ 7,934,441	\$ 9,191,033	\$ 3,685,198	\$	1,172,421
89.51%	87.32%	94.64%		98.24%
\$ 14,440,822	\$ 13,934,459	\$ 13,803,148	\$ 1	3,548,227
54.94%	65.96%	26.70%		8.65%
	,			
\$ 656,231	\$ 684,288	\$ 670,936	\$	654,735
1,803,590	1,707,699	1,628,373		1,555,958
-	12,581	65,914		(7,790)
73,083	50,205	(72,177)		(80,590)
138,096	183,019	- (4.470.570)		-
<u>(1,322,277)</u> 1,348,723	(1,251,918) 1,385,874	(1,172,578) 1,120,468		1,106,799) 1,015,514
		, ,		
24,882,010	23,496,136	22,375,668		1,360,154
\$ 26,230,733	\$ 24,882,010	\$ 23,496,136	\$ 2	2,375,668
\$ 461,329	\$ 414,168	\$ 408,694	\$	413,175
391,459	375,572	363,863		346,961
2,413,758 (1,322,277)	175,189 (1,251,918)	520,578 (1,172,578)		3,161,964 (1,106,799)
(4,264)	(3,926)	(4,086)	((3,974)
3,330	3,248	3,285		3,297
1,943,335	(287,667)	119,756		2,814,624
22,759,675	23,047,342	22,927,586	2	0,112,962
\$ 24,703,010	\$ 22,759,675	\$ 23,047,342		2,927,586
\$ 1,527,723	\$ 2,122,335	\$ 448,794	\$	(551,918)
94.18%	91.47%	98.09%		102.47%
\$ 6,192,808	\$ 5,860,574	\$ 5,650,694	\$	5,553,383
24.67%	36.21%	7.94%		(9.94%)

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS COST-SHARING, MULTIPLE-EMPLOYER, DEFINED BENEFIT PENSION PLANS

Last Nine Fiscal Years

(Dollars in Thousands)									
		2022		2021		2020		2019	2018
Firefighters' and Rescue Squad Workers'									
Total pension liability Service Cost Interest	\$	7,262 32,013	\$	7,675 33,116	\$	7,733 32,500	\$	7,640 32,140	\$ 7,542 31,686
Changes of benefit terms Differences between expected and actual experience Changes of assumptions		(8,484) -		- (4,881) 6,525		(1,376) -		(4,922) -	- (121) 10,593
Benefit payments, including refunds of member contributions Net change in total pension liability		(30,369) 422		(30,147) 12,288		(29,953) 8,904		(29,502) 5,356	<u>(31,727)</u> 17,973
Total pension liability - beginning		500,196	_	487,908		479,004		473,648	455,675
Total pension liability - ending (a)	\$	500,618	\$	500,196	\$	487,908	\$	479,004	\$ 473,648
Plan fiduciary net position Contributions-member Contributions-nonemployer Net investment income Benefit payments, including refunds of member contributions Administrative expense Other Net change in plan fiduciary net position	\$	2,318 19,352 (37,515) (30,369) (975) 18 (47,171)	\$	2,569 19,002 85,952 (30,147) (987) 15 76,404	\$	2,581 18,652 18,593 (29,953) (885) 14 9,002	\$	2,770 18,302 27,363 (29,502) (1,002) (18) 17,913	\$ 2,790 17,952 29,505 (31,727) (885) 10 17,645
Plan fiduciary net position - beginning		528,127		451,723		442,721		424,808	407,163
Plan fiduciary net position - ending (b)	\$	480,956	\$	528,127	\$	451,723	\$	442,721	\$ 424,808
FRSWPF's's net pension liability (asset) - ending (a) - (b)	\$	19,662	\$	(27,931)	\$	36,185	\$	36,283	\$ 48,840
	<u> </u>		=		<u> </u>		<u> </u>		
Plan fiduciary net position as a percentage of the total pension liability		96.07%		105.58%		92.58%		92.43%	89.69%
Covered payroll		N/A		N/A		N/A		N/A	N/A
Net pension liability as a percentage of covered payroll		N/A		N/A		N/A		N/A	N/A
Registers of Deeds'									
Total pension liability Service Cost Interest Differences between expected and actual experience Changes of assumptions Benefit payments, including refunds of member contributions	\$	1,107 1,025 (360) - (1,844)	\$	1,120 1,134 308 2,101 (1,802)	\$	1,125 1,122 (124) - (1,788)	\$	1,117 1,133 (770) - (1,754)	\$ 1,086 1,157 (1,125) - (1,793)
Net change in total pension liability		(72)		2,861		335		(274)	(675)
Total pension liability - beginning	_	33,990	_	31,129	_	30,794		31,068	31,743
Total pension liability - ending (a)	\$	33,918	\$	33,990	\$	31,129	\$	30,794	\$ 31,068
Plan fiduciary net position Contributions-employer Net investment income Benefit payments, including refunds of member contributions Administrative expense Net change in plan fiduciary net position	\$	1,146 (5,334) (1,844) (13) (6,045)	\$	1,200 (228) (1,802) (14) (844)	\$	958 4,353 (1,788) (12) 3,511	\$	950 3,721 (1,754) (12) 2,905	\$ 856 (230) (1,793) (14) (1,181)
Plan fiduciary net position - beginning		53,203		54,047		50,536		47,631	48,812
Plan fiduciary net position - ending (b)	\$	47,158	\$	53,203	\$	54,047	\$	50,536	\$ 47,631
RODSPF's net pension asset - ending (a) - (b)	\$	(13,240)	\$	(19,213)	\$	(22,918)	\$	(19,742)	\$ (16,563)
Plan fiduciary net position as a percentage of the total		120.040/		156.53%		173.62%		164.11%	153.31%
pension liability		139.04%		100.0070					
		139.04% N/A		N/A		N/A		N/A	N/A

_	2017		2016	2015		2014
\$	4,841	\$	5,610	\$	5,884	\$ 5,710
•	31,475	,	30,035		29,671	29,394
	-		118		- (0.700)	8,770
	2,048 2,549		(2,177)		(2,799)	2,714
	(29,070)		15,577 (27,998)		- (26,912)	(16,688) (25,614)
	11,843		21,165	_	5,844	4,286
	443,832		422,667		416,823	412,537
\$	455,675	\$	443,832	\$	422,667	\$ 416,823
\$	2,594	\$	2,778	\$	2,822	\$ 2,781
	17,602		13,900		13,900	14,627
	39,928		2,867		8,711	53,842
	(29,070)		(27,998)		(26,912)	(25,614)
	(919) 15		(860) 18		(1,622) 4	(1,045) 2
	30,150	_	(9,295)	_	(3,097)	44,593
	377,013		386,308		389,405	344,812
\$	407,163	\$	377,013	\$	386,308	\$ 389,405
\$	48,512	\$	66,819	\$	36,359	\$ 27,418
—	.0,012	*	55,515	<u> </u>	23,000	
	89.35%		84.94%		91.40%	93.42%
	N/A		N/A		N/A	N/A
	N/A		N/A		N/A	N/A
						-
\$	860	\$		\$		\$ 563
\$	860 1.164	\$	579	\$	578	\$ 563 1.342
\$	860 1,164 440	\$	579 1,354	\$	578 1,372	1,342
\$	1,164 440 -	\$	579 1,354 (45) 7,082	\$	578 1,372 (558)	1,342 302
\$	1,164 440 - (1,793)	\$	579 1,354 (45) 7,082 (1,718)	\$	578 1,372 (558) - (1,715)	1,342 302 - (1,666)
\$	1,164 440 - (1,793) 671	\$	579 1,354 (45) 7,082 (1,718) 7,252	\$	578 1,372 (558) - (1,715) (323)	1,342 302
\$	1,164 440 - (1,793)	\$	579 1,354 (45) 7,082 (1,718)	\$	578 1,372 (558) - (1,715)	1,342 302 - (1,666) 541 23,602
\$	1,164 440 - (1,793) 671	\$	579 1,354 (45) 7,082 (1,718) 7,252	\$	578 1,372 (558) - (1,715) (323)	1,342 302 - (1,666) 541
_	1,164 440 - (1,793) 671 31,072	_	579 1,354 (45) 7,082 (1,718) 7,252 23,820		578 1,372 (558) - (1,715) (323) 24,143	1,342 302 - (1,666) 541 23,602
_	1,164 440 - (1,793) 671 31,072	_	579 1,354 (45) 7,082 (1,718) 7,252 23,820		578 1,372 (558) - (1,715) (323) 24,143	1,342 302 - (1,666) 541 23,602
<u> </u>	1,164 440 - (1,793) 671 31,072 31,743 869 (13)	\$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072	\$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714
<u> </u>	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793)	\$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718)	\$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715)	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666)
<u> </u>	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19)	\$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47)	\$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16)	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18)
<u> </u>	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956)	\$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774	\$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847
\$	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956) 49,768	\$ \$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774 46,994	\$ \$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185 46,809	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847 44,962
<u> </u>	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956)	\$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774	\$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847
\$	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956) 49,768	\$ \$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774 46,994	\$ \$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185 46,809	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847 44,962
\$ \$	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956) 49,768 48,812	\$ \$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774 46,994 49,768	\$ \$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185 46,809 46,994	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847 44,962 \$ 46,809
\$ \$	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956) 49,768 48,812	\$ \$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774 46,994 49,768	\$ \$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185 46,809 46,994	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847 44,962 \$ 46,809
\$ \$	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956) 49,768 48,812 (17,069)	\$ \$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774 46,994 49,768 (18,696)	\$ \$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185 46,809 46,994 (23,174)	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847 44,962 \$ 46,809 \$ (22,666)
\$ \$	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956) 49,768 48,812 (17,069) 153.77% N/A	\$ \$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774 46,994 49,768 (18,696)	\$ \$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185 46,809 46,994 (23,174)	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847 44,962 \$ 46,809 \$ (22,666) 193.88% N/A
\$ \$	1,164 440 - (1,793) 671 31,072 31,743 869 (13) (1,793) (19) (956) 49,768 48,812 (17,069)	\$ \$	579 1,354 (45) 7,082 (1,718) 7,252 23,820 31,072 817 3,722 (1,718) (47) 2,774 46,994 49,768 (18,696)	\$ \$	578 1,372 (558) - (1,715) (323) 24,143 23,820 802 1,114 (1,715) (16) 185 46,809 46,994 (23,174)	1,342 302 - (1,666) 541 23,602 \$ 24,143 \$ 817 2,714 (1,666) (18) 1,847 44,962 \$ 46,809 \$ (22,666)

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS SINGLE-EMPLOYER, DEFINED BENEFIT PENSION PLANS

Last Nine Fiscal Years

(Dollars in Thousands)										
		2022		2021		2020		2019		2018
Consolidated Judicial										
Total pension liability										
Service Cost	\$	14,320	\$	19,545	\$	18,869	\$	18,710	\$	17,192
Interest Changes of benefit terms		51,397 2,127		49,700		48,149		46,838		45,397 430
Differences between expected and actual experience		22,417		2,451		4,583		845		7,660
hanges of assumptions		,		46,622		-		-		12,836
enefit payments, including refunds of member contributions		(53,819)		(50,001)		(48,920)		(46,451)	_	(43,392)
et change in total pension liability		36,442		68,317		22,681		19,942		40,123
otal pension liability - beginning		802,893		734,576		711,895	_	691,953	_	651,830
otal pension liability - ending (a)	\$	839,335	\$	802,893	\$	734,576	\$	711,895	\$	691,953
an fiduciary net position										
ontributions-employer	\$	33,428	\$	29,259	\$	26,637	\$	25,636	\$	23,988
ontributions-member et investment income		5,470 (51,610)		5,585 118,772		5,224 25,923		5,151 38,211		5,706 41,123
enefit payments, including refunds of member contributions		(53,819)		(50,001)		(48,920)		(46,451)		(43,392)
Iministrative expense		(29)		(34)		(27)		(30)		(24)
her	_	4	_	<u>-` ´</u>			_	(119)	_	- '
t change in plan fiduciary net position		(66,556)		103,581		8,837		22,398		27,401
an fiduciary net position - beginning	_	731,320	_	627,739		618,902	_	596,504	_	569,103
an fiduciary net position - ending (b)	\$	664,764	\$	731,320	\$	627,739	\$	618,902	\$	596,504
IRS's net pension liability - ending (a) - (b)	\$	174,571	\$	71,573	\$	106,837	\$	92,993	\$	95,449
an fiduciary net position as a percentage of the total	_									
nsion liability		79.20%		91.09%		85.46%		86.94%		86.21%
vered payroll	\$	83,528	\$	80,294	\$	79,277	\$	75,712	\$	77,255
pension liability as a	Ψ	00,020	Ψ	00,201	Ψ	10,211	Ψ	70,712	Ψ	11,200
centage of covered payroll		209.00%		89.14%		134.76%		122.82%		123.55%
gislative										
al pension liability	Φ.	700	Φ	4.004	Ф	4.050	Φ.	4.000	Φ.	4.000
vice Cost rest	\$	796 1,925	\$	1,034 2,053	\$	1,058 2,051	\$	1,088 2,052	\$	1,006 2,028
nges of benefit terms		94		-		-		-		24
erences between expected and actual experience		(281)		(815)		(617)		(596)		207
anges of assumptions		- (0.050)		(353)		- (0.000)		- (0.700)		511
nefit payments, including refunds of member contributions t change in total pension liability		(2,358)		(2,516)		(2,388)	_	(2,732)	_	(2,531) 1,245
				` ,				` ,		
tal pension liability - beginning	_	29,974	_	30,571	_	30,467	_	30,655	_	29,410
al pension liability - ending (a)	\$	30,150	\$	29,974	\$	30,571	\$	30,467	\$	30,655
an fiduciary net position	•	4 000	^	207	•	050	*	222	•	205
ntributions-employer ntributions-member	\$	1,029 253	\$	987 253	\$	956 253	\$	809 257	\$	689 253
t investment income		(2,183)		5,162		253 1,151		1,726		1,975
nefit payments, including refunds of member contributions		(2,358)		(2,516)		(2,388)		(2,732)		(2,531)
ministrative expense		(15)		(13)		(13)		(14)		(14)
ner		(1)		- 0.070	_	6	_	(50)	_	-
t change in plan fiduciary net position		(3,275)		3,873		(35)		(4)		372
n fiduciary net position - beginning		31,895	_	28,022	_	28,057	_	28,061	_	27,689
n fiduciary net position - ending (b)	\$	28,620	\$	31,895	\$	28,022	\$	28,057	\$	28,061
S's net pension liability (asset) - ending (a) - (b)	\$	1,530	\$	(1,921)	\$	2,549	\$	2,410	\$	2,594
an fiduciary net position as a percentage of the total										
nsion liability		94.93%		106.41%		91.66%		92.09%		91.54%
vered payroll	\$	3,619	\$	3,615	\$	3,613	\$	3,611	\$	3,618
t pension liability (asset) as a	•	,		,		,		,-		.,.
ercentage of covered payroll		42.28%		(53.14%)		70.55%		66.74%		71.70%
				` '						

	2017	_	2016		2015		2014
\$	15,630	\$	16,904	\$	16,812	\$	16,637
	44,837		42,009		40,846		39,405
	4,349		332		-		3,031
	2,193		(4,295)		(2,289)		(2,484)
	3,032 (42,053)		26,588 (40,462)		(38,364)		(35,428)
_	27,988	_	41,076	_	17,005	_	21,161
	623,842		582,766		565,761		544,600
<u>\$</u>	651,830	\$	623,842	\$	582,766	\$	565,761
\$	19,592	\$	18,908	\$	18,949	\$	21,390
Ψ	7,399	Ψ	7,561	Ψ	6,238	Ψ	5,598
	55,762		3,972		12,176		74,294
	(42,053)		(40,462)		(38,364)		(35,428)
	(37)		(73)		(30)		(48)
_	40,663		(10,094)	_	(1,030)	_	65,809
	528,440		538,534		539,564		473,755
\$	569,103	\$	528,440	\$	538,534	\$	539,564
\$	82,727	\$	95,402	\$	44,232	\$	26,197
	87.31%		84.71%		92.41%		95.37%
\$	66,504	\$	69,489	\$	69,638	\$	76,367
	124.39%		137.29%		63.52%		34.30%
\$	872	\$	822	\$	844	\$	747
	2,056		1,708 22		1,742		1,678 146
	215 (122)		(520)		(579)		762
	121		5,151		-		-
	(2,437)		(2,430)		(2,473)		(2,614)
	705		4,753	_	(466)		719
_	28,705		23,952		24,418	_	23,699
\$	29,410	\$	28,705	\$	23,952	\$	24,418
\$	675	\$	65	\$	_	\$	_
Ψ	253	Ψ	253	Ψ	253	Ψ	253
	2,744		181		642		4,293
	(2,437)		(2,430)		(2,473)		(2,614)
	(18)		(53)		(17)		(37)
	1,217	_	(1,984)	_	(1,595)	_	1,895
	26,472		28,456	_	30,051	_	28,156
\$	27,689	\$	26,472	\$	28,456	\$	30,051
\$	1,721	\$	2,233	\$	(4,504)	\$	(5,633)
	04.450/		02 220/		110 000/		102.070/
Φ.	94.15%	¢.	92.22%	۴	118.80%	٠	123.07%
\$	3,705	\$	3,616	\$	3,611	\$	3,608
	46.45%		61.75%		(124.73%)		(156.13%)

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS SINGLE-EMPLOYER, DEFINED BENEFIT PENSION PLANS

Last Nine Fiscal Years
(Dollars in Thousands)

(Dollars in Thousands)										
		2022		2021		2020		2019		2018
North Carolina National Guard										
Total pension liability										
Service Cost	\$	196	\$	276	\$	315	\$	327	\$	304
Interest		11,070		11,097		11,746		12,368		12,288
Changes of benefit terms		(06.704)		- 4 E00		- (40.064)		- (40.704)		- (4.740)
Differences between expected and actual experience Changes of assumptions		(26,734)		4,599 4,601		(12,364)		(12,701)		(1,748) 3,926
Benefit payments, including refunds of member contributions		(9,049)		(8,915)		(9,018)		(8,736)		(8,766)
Net change in total pension liability		(24,517)	_	11,658	_	(9,321)		(8,742)		6,004
Total pension liability - beginning		174,571		162,913		172,234		180,976		174,972
Total pension liability - ending (a)	\$	150,054	\$	174,571	\$	162,913	\$	172,234	\$	180,976
Plan fiduciary net position										
Contributions-nonemployer	\$	11,032	\$	11,032	\$	11,032	\$	9,072	\$	8,923
Net investment income		(12,272)		27,365		5,871		8,463		8,766
Benefit payments, including refunds of member contributions		(9,049)		(8,915)		(9,018)		(8,736)		(8,766)
Administrative expense Other		(91) (4)		(94)		(83)		(13) (16)		(249)
Net change in plan fiduciary net position	_	(10,384)	_	29,389	_	7,803	_	8.770		8.676
Plan fiduciary net position - beginning		175,765		146,376		138,573		129,803		121,127
	\$	165,381	\$	175,765	\$	146,376	\$	138,573	\$	129,803
Plan fiduciary net position - ending (b)	÷		Φ_		<u> </u>		=		÷	
NGPF's net pension liability (asset) - ending (a) - (b)	<u>\$</u>	(15,327)	\$	(1,194)	\$	16,537	\$	33,661	<u>\$</u>	51,173
Plan fiduciary net position as a percentage of the total pension liability		110.21%		100.68%		89.85%		80.46%		71.72%
Covered payroll		N/A		N/A		N/A		N/A		N/A
Net pension liability as a percentage of covered payroll		N/A		N/A		N/A		N/A		N/A

_	2017	_	2016		2015		2014
\$	305 11,975 - 1,204 955 (8,677) 5,762	\$	593 10,700 - 30 15,149 (8,512) 17,960	\$	550 9,916 8,734 (198) - (7,958) 11,044	\$	512 9,330 5,752 192 - (7,502) 8,284
\$	169,210 174,972	\$	151,250 169,210	\$	140,206 151,250	\$	131,922 140,206
\$	8,517 11,626 (8,677) (168)	\$	7,066 842 (8,512) (97) 1	\$	6,039 2,493 (7,958) (75)	\$	7,007 14,942 (7,502) (73) 1
	11,298 109,829		(700) 110,529		499 110,030		14,375 95,655
\$	121,127 53,845	\$ \$	109,829 59,381	\$ \$	110,529 40,721	\$ \$	110,030 30,176
	69.23% N/A		64.91% N/A		73.08% N/A		78.48% N/A
	N/A		N/A		N/A		N/A

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER AND NONEMPLOYER CONTRIBUTIONS COST-SHARING, MULTIPLE-EMPLOYER, DEFINED BENEFIT PENSION PLANS

Last Ten Fiscal Years (Dollars in Thousands)

Teachers' and State Employees' 2022 2021 2020 2019 2018

Teachers' and State Employees'	_	2022	_	2021	_	2020	_	2019	_	2018
Actuarially determined contribution	\$	2,761,946	\$	2,373,252	\$	2,055,075	\$	1,915,146	\$	1,565,728
Contributions in relation to the actuarially determined contribution (1)		2,761,946		2,373,252		2,055,075		1,915,146		1,602,901
Contribution deficiency (excess)	\$	-	\$	-	\$	-	\$	-	\$	(37,173
Covered payroll	\$	16,861,697	\$	16,057,185	\$	15,844,834	\$	15,582,963	\$	14,869,212
Contributions as a percentage of covered payroll		16.38%		14.78%		12.97%		12.29%		10.78%
Local Governmental Employees'										
Actuarially determined contribution Contributions in relation to the	\$	886,620	\$	763,653	\$	625,511	\$	512,287	\$	483,559
actuarially determined contribution (1)	_	880,449	_	745,308	_	640,969	_	534,107	_	492,317
Contribution excess	\$	6,171	\$	18,345	\$	(15,458)	<u>\$</u>	(21,820)	\$	(8,758
Covered payroll	\$	7,570,499	\$	7,166,423	\$	6,914,444	\$	6,665,378	\$	6,368,275
Contributions as a percentage of covered payroll		11.63%		10.40%		9.27%		8.01%		7.73%
Firefighters' and Rescue Squad Workers' (2)						-				
Actuarially determined contribution	\$	15,183	\$	14,846	\$	14,324	\$	14,544	\$	14,287
Contributions in relation to the actuarially determined contribution (1)		19,352		19,002		18,652		18,302		17,952
Contribution deficiency (excess)	\$	(4,169)	\$	(4,156)	\$	(4,328)	\$	(3,758)	\$	(3,665
Covered payroll		N/A		N/A		N/A		N/A		N/A
Contributions as a percentage of covered payroll		N/A		N/A		N/A		N/A		N/A
Registers of Deeds'										
Actuarially determined contribution Contributions in relation to the	\$	-	\$	-	\$	-	\$	-	\$	-
actuarially determined contribution (1)	_	1,146	_	1,200	_	958	_	950	_	856
Contribution excess	\$	(1,146)	\$	(1,200)	\$	(958)	\$	(950)	\$	(856
Covered payroll		N/A		N/A		N/A		N/A		N/A
Contributions as a percentage of										

⁽¹⁾ Contributions in relation to the actuarially determined contribution are the same as the contractually required contribution (CRC). The CRC was the same as the actuarially determined contribution except in years where there is a deficiency (excess).

N/A

N/A

N/A

N/A

covered payroll

Note: Changes in benefit terms, methods and assumptions are presented in Notes to the Required Supplementary Information (RSI) schedules following the pension RSI tables.

N/A

⁽²⁾ Nonemployer contributing entity

_	2017	_	2016	_	2015	_	2014	_	2013
\$	1,438,306	\$	1,210,904	\$	1,262,988	\$	1,177,341	\$	1,078,783
	1,441,194		1,275,003		1,262,988		1,177,341		1,120,482
\$	(2,888)	\$	(64,099)	\$	-	\$	-	\$	(41,699)
\$	14,440,822	\$	13,934,459	\$	13,803,148	\$	13,548,227	\$	13,451,164
_	9.98%		9.15%		9.15%		8.69%		8.33%
\$	453,193	\$	393,920	\$	402,429	\$	397,462	\$	370,152
	461,329		414,168		408,694		413,175		383,889
\$	(8,136)	\$	(20,248)	\$	(6,265)	\$	(15,713)	\$	(13,737)
\$	6,192,808	\$	5,860,574	\$	5,650,694	\$	5,553,383	\$	5,421,364
	7.45%		7.07%		7.23%		7.44%		7.08%
\$	17,705	\$	13,241	\$	13,900	\$	14,620	\$	14,074
	17,602		13,900		13,900		14,627		15,447
\$	103	\$	(659)	\$		\$	(7)	\$	(1,373)
	N/A								
	N/A								
\$	-	\$	-	\$	-	\$	-	\$	-
	869		817		802		817		937
\$	(869)	\$	(817)	\$	(802)	\$	(817)	\$	(937)
	N/A								
	N/A								

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER AND NONEMPLOYER CONTRIBUTIONS SINGLE-EMPLOYER, DEFINED BENEFIT PENSION PLANS

Last Ten Fiscal Years

(Dollars in Thousands)

Consolidated Judicial	2022	 2021	2020	 2019	2018
Actuarially determined contribution	\$ 33,428	\$ 29,259	\$ 26,637	\$ 24,947	\$ 23,988
Contributions in relation to the actuarially determined contribution	33,428	29,259	26,637	25,636	23,988
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ (689)	\$ -
Covered payroll	\$ 83,528	\$ 80,294	\$ 79,277	\$ 75,712	\$ 77,255
Contributions as a percentage of covered payroll	40.02%	36.44%	33.60%	33.86%	31.05%
Legislative					
Actuarially determined contribution	\$ 1,029	\$ 987	\$ 956	\$ 809	\$ 689
Contributions in relation to the actuarially determined contribution	1,029	987	956	809	689
Contribution deficiency (excess)	\$ _	\$ -	\$ -	\$ -	\$ -
Covered payroll	\$ 3,619	\$ 3,615	\$ 3,613	\$ 3,611	\$ 3,618
Contributions as a percentage of covered payroll	28.43%	27.30%	26.46%	22.40%	19.04%
North Carolina National Guard *					
Actuarially determined contribution	\$ 11,032	\$ 11,032	\$ 11,032	\$ 9,072	\$ 8,923
Contributions in relation to the actuarially determined contribution	11,032	11,032	11,032	9,072	8,923
Contribution excess	\$ -	\$ -	\$ 	\$ -	\$ -
Covered payroll	N/A	N/A	N/A	N/A	N/A
Contributions as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A

^{*} Nonemployer contributing entity

Note: Changes in benefit terms, methods and assumptions are presented in Notes to the Required Supplementary Information (RSI) schedules following the pension RSI tables.

2017	2016	2015	2014	2013
\$ 19,592	\$ 18,324	\$ 18,949	\$ 21,390	\$ 18,992
19,592	18,908	18,949	21,390	18,992
\$ -	\$ (584)	\$ -	\$ -	\$ -
\$ 66,504	\$ 69,489	\$ 69,638	\$ 76,367	\$ 71,533
29.46%	 27.21%	 27.21%	28.01%	26.55%
\$ 675	\$ 65	\$ _	\$ _	\$ _
675	65	_	_	_
\$ 	\$ 	\$ 	\$ 	\$
\$	\$ 3,616	\$ 3,611	\$ 3,608	\$ 3,600
18.22%	1.80%	0.00%	0.00%	0.00%
\$ 8,517	\$ 7,066	\$ 6,039	\$ 5,349	\$ 5,667
8,517	7,066	6,039	7,007	7,007
\$ -	\$ 	\$ 	\$ (1,658)	\$ (1,340)
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF INVESTMENT RETURNS ALL DEFINED BENEFIT PENSION PLANS

Last Nine Fiscal Years

Annual money-weighted rate of return, net of investment expense	2022	2021	2020	2019	2018
Cost-Sharing, Multiple Employer					
Teachers' and State Employees'	(7.18%)	19.13%	4.35%	6.57%	7.61%
Local Governmental Employees'	(7.20%)	19.10%	4.34%	6.58%	7.59%
Firefighters' and Rescue Squad Workers'	(7.15%)	19.10%	4.33%	6.55%	7.59%
Registers of Deeds'	(10.13%)	(0.43%)	8.72%	7.91%	(0.47%)
Single-Employer Consolidated					
Judicial	(7.17%)	19.13%	4.36%	6.57%	7.60%
Legislative	(7.00%)	18.81%	4.30%	6.43%	7.64%
North Carolina National Guard	(6.90%)	18.40%	4.28%	6.52%	7.44%

2017	2016	2015	2014		
10.75%	0.74%	2.27%	15.88%		
10.74%	0.77%	2.27%	15.86%		
10.76%	0.75%	2.26%	15.62%		
(0.03%)	8.04%	2.26%	6.04%		
10.75%	0.75%	2.27%	15.87%		
10.72%	0.66%	2.25%	15.91%		
10.63%	0.77%	2.25%	15.63%		

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS

For the Fiscal Year Ended June 30, 2022

Changes of benefit terms.										
		Cost	of Living	Increase						
	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>
Cost-Sharing, Multiple-Employer Teachers' and State Employees'	N/A	N/A	N/A	N/A	1.00%	N/A	N/A	N/A	1.00%	N/A
* *	IN/A	IN/A	IN/A	IN/A	1.0070	IN/A	1 N /A	IN/A	1.00/0	1 N /A
Local Governmental Employees'	N/A	N/A	N/A	N/A	N/A	0.11%	0.63%	N/A	N/A	N/A
Firefighters' and Rescue Squad Workers'	N/A	N/A	N/A	N/A						
Registers of Deeds'	N/A	N/A	N/A	N/A						
Single-Employer Consolidated Judicial	N/A	N/A	N/A	N/A	1.00%	N/A	N/A	N/A	1.00%	N/A
Legislative	N/A	N/A	N/A	N/A	1.00%	N/A	N/A	N/A	1.00%	N/A
North Carolina National Guard (1)	N/A	N/A	N/A	N/A						

Beginning in FY 2015, with the implementation of GASB 68, the above table reflects COLA's in the period of the legislative session or Board of Trustees meeting when it was passed. The COLA is effective as of July 1 of that period and the fiscal year end plan liability is affected at June 30 of that year because the COLA is included in the actuarial assumptions used to calculate the plan NPL.

(1) In 2015, basic benefits were increased from \$95 to \$99 and total potential benefits were increased from \$190 to \$198. In 2016, basic benefits were increased from \$99 to \$105 and total benefits were increased from \$198 to \$210.

N/A - not applicable

Effective July 1, 2017, the definition of law enforcement officer related to TSERS members was changed by the General Assembly to include Probation/Parole officers for retirement benefit purposes. The change includes officers with respect to service rendered on or after July 1, 2017 and provides for unreduced retirement at age 55 with five years of service as a law enforcement officer or reduced retirement at age 50 with 15 years of service as a law enforcement officer.

Effective July 1, 2017, retirees and beneficiaries of deceased retirees receiving benefits from the TSERS, CJRS and LRS as of July 1, 2016 received a 1% cost-of-living adjustment. Retirees and beneficiaries of retirees with retirement effective dates between July 1, 2016 and before June 30, 2017 received a prorated amount. These benefit enhancements reflect legislation enacted by the North Carolina General Assembly.

In December 2021 for the fiscal year ended June 30, 2022, retirees and beneficiaries of deceased retirees receiving benefits from the TSERS, CJRS, and LRS as of September 1, 2021, received a one-time cost-of-living supplement payment, equal to 2% of the beneficiary's annual retirement allowance.

Benefit recipients of the TSERS, CJRS, and LRS will receive a one-time benefit supplement payment equal to 4% of the member's annual benefit amount, paid by October 2022, as granted by the North Carolina General Assembly for the fiscal year ending June 30, 2023. LGERS benefit recipients will receive a one-time benefit supplement payment equal to 2% of the member's annual benefit amount for the fiscal year ending June 30, 2023, paid by October 2022. The one-time supplements do not change the ongoing monthly benefits, and absent additional action by governing authorities, the payments will not recur in future years.

Methods and assumptions used in calculations of actuarially determined contributions.

An actuarial valuation is performed for each plan each year. The actuarially determined contribution rates in the Schedule of Employer Contributions are calculated by the actuary as a projection of the required employer contribution for the fiscal year beginning 18 months following the date of the valuation results. See Note 12 for more information on the specific assumptions for each plan. The actuarially determined contributions for those items with covered payroll were determined using the actuarially

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS

For the Fiscal Year Ended June 30, 2022

determined contribution rate from the actuary and covered payroll as adjusted for timing differences and other factors such as differences in employee class. Other actuarially determined contributions are disclosed in the schedule as expressed by the actuary in reports to the plans.

Changes of assumptions. In January 2021, the actuarial assumptions were updated to more closely reflect actual experience. These assumptions pertain to the Teachers' and State Employees' Retirement System, the Local Governmental Employees' Retirement System, the Firefighters' and Rescue Squad Workers' Pension Fund, the Registers of Deeds' Pension Fund, the Consolidated Judicial Retirement System, the Legislative Retirement System and the North Carolina National Guard Pension Fund.

In 2020, the North Carolina Retirement Systems' consulting actuaries performed the quinquennial investigation of each retirement system's actual demographic and economic experience (known as the "Experience Review"). The Experience Review provides the basis for selecting the actuarial assumptions and methods used to determine plan liabilities and funding requirements. The most recent experience review examined each plan's experience during the period between January 1, 2015, and December 31, 2019. Based on the findings, the Boards of Trustees of the Teachers' and State Employees' Retirement System and the Local Governmental Employees' Retirement System adopted a number of new actuarial assumptions and methods. The most notable changes to the assumptions include updates to the mortality tables and mortality improvements. These assumptions were adjusted to be based on the Pub-2010 mortality tables reflecting the mortality projection scale MP-2019, released by the Society of Actuaries in 2019. In addition, the assumed rates of retirement, salary increases, and rates of termination from active employment were updated to more closely reflect actual experience.

The discount rate for Teachers' and State Employees' Retirement System, the Local Governmental Employees' Retirement System, the Firefighters' and Rescue Squad Workers' Pension Fund, the Consolidated Judicial Retirement System, the Legislative Retirement System and the North Carolina National Guard Pension Fund was lowered from 7.00% to 6.50%, and for the Register of Deeds' Supplemental Pension Fund from 3.75% to 3.00%, effective for the December 31, 2020 valuation, with the resulting effect on minimum actuarially determined employer contribution rates (or amounts) to be gradually recognized over a five-year period beginning July 1, 2022.