

State Police Retirement System

GASB No. 67 Accounting Valuation Report

As of June 30, 2022





December 1, 2022

Board of Trustees
Kentucky Retirement Systems
Perimeter Park West
1260 Louisville Road
Frankfort, KY 40601

Re: GASB 67 Reporting – Actuarial Information – State Police Retirement System

Dear Members of the Board:

This report provided herein contains certain information for the **State Police Retirement System (SPRS)** in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67, “Financial Reporting for Pension Plans” for the fiscal year ending June 30, 2022. A separate report will be provided at a later date with additional accounting information determined in accordance with GASB Statement No. 68, “Accounting and Financial Reporting for Pensions”.

The liability calculations presented in this report were performed for the purpose of satisfying the requirements of GASB No. 67 and are not applicable for other purposes, such as determining the plan’s funding requirements. The plan’s liability for other purposes may produce significantly different results. This report may be provided to parties other than the Board of Trustees of the Kentucky Retirement Systems only in its entirety and only with the permission of the Board.

The total pension liability, net pension liability, and sensitivity information shown in this report are based on an actuarial valuation date of June 30, 2021. The total pension liability was rolled-forward from the valuation date to the plan’s fiscal year ending June 30, 2022 using generally accepted actuarial principles. GASB 67 requires the disclosure of a 10-year history of certain information in the Required Supplementary Information within the annual financial report. The exhibits provided in this report include the applicable information for historical years that were calculated in accordance with this accounting standard. Information disclosed for years prior to June 30, 2017 were prepared by the prior actuary.

Actuarial Assumptions and Plan Provisions

There have been no actuarial assumption or method changes since June 30, 2021. House Bill 259 passed during the 2022 legislative session and will increase the benefits in the Tier 3 cash balance plan by allowing the conversion of unused sick leave in excess of 480 hours to cash balance pay credits at the end of each fiscal year. Similarly, House Bill 259 will also allow the conversion of a member’s balance of unused sick leave to cash balance pay credits upon termination of employment. The total pension liability as of June 30, 2022 is determined using these updated benefit provisions. There have been no other plan provision changes that would materially impact the total pension liability since June 30, 2021.

House Bill 259 also provided meaningful salary increases effective July 1, 2022 for eligible State Troopers. While these salary increases may produce an actuarial loss with respect to the liability attributable to Tier 1 and Tier 2 active members (i.e. a higher total pension liability than expected based on current actuarial assumptions), there is not sufficient information available at this time to make a reasonable adjustment to the roll-forward Total Pension Liability to reflect these anticipated salary increases. It is our opinion that these procedures for determining the information contained in this report are reasonable, appropriate, and comply with applicable requirements under GASB No. 67.

Single Discount Rate

A single discount rate of 5.25% was used to measure the total pension liability for the fiscal year ending June 30, 2022. This single discount rate was based on the expected rate of return on pension plan investments. Based on the stated assumptions and the projection of cash flows as of each fiscal year ending, the pension plan's fiduciary net position and future contributions were projected to be sufficient to finance all the future benefit payments of the current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of the projected benefit payments to determine the total pension liability.

The projection of cash flows used to determine the single discount rate must include an assumption regarding actual employer contributions made each future year. Future contributions are projected assuming that the entire actuarially determined employer contribution is received each future year, calculated in accordance with the current funding policy.

401(h) Subaccount

Based on guidance issued by GASB in connection with GASB Statement No. 74, the 1% of pay member contributions for Tier 2 and Tier 3 members to a 401(h) subaccount is considered an OPEB asset. As a result, the reported fiduciary net positions as of June 30, 2017 and later are net of the 401(h) asset balance.

Additional Disclosures

This report is based upon information, furnished to us by the Kentucky Public Pensions Authority (KPPA), which includes benefit provisions, membership information, and financial data. We did not audit this data and information, but we did apply a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided by KPPA. Please see the "Actuarial Valuation Report as of June 30, 2021" for additional discussion of the nature of the actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. These reports should be considered together as a complete report for the fiscal year ending June 30, 2022.



To the best of our knowledge, this report is complete and accurate and is in accordance with generally recognized actuarial practices and methods. Both of the undersigned are Enrolled Actuaries, members of the American Academy of Actuaries and meet all of the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. In addition, both are independent of KPPA and are experienced in performing valuations for large public retirement systems. This communication shall not be construed to provide tax advice, legal advice or investment advice.

Sincerely,

Gabriel Roeder Smith & Co.



Daniel J. White, FSA, EA, MAAA
Senior Consultant and Actuary



Janie Shaw, ASA, EA, MAAA
Consultant and Actuary



Table of Contents

			Page
	COVER LETTER		
SECTION 1	SUPPORTING EXHIBITS		
	EXHIBIT 1	— SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY	2
	EXHIBIT 2	— SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY	3
	EXHIBIT 3	— SCHEDULE OF EMPLOYERS' CONTRIBUTIONS	4
	EXHIBIT 4	— SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE	6



SECTION 1

EXHIBIT 1

Schedule of the Employers' Net Pension Liability – SPRS Plan (\$ in thousands)

Fiscal Year Ending June 30, (1)	Total Pension Liability (2)	Plan Fiduciary Net Position (3)	Employers' Net Pension Liability (Asset) (4) = (2) - (3)	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (5) = (3) / (2)	Covered Employee Payroll ¹ (6)	Net Pension Liability as a Percentage of Covered Employee Payroll (7) = (4) / (6)
2022	\$ 1,057,752	\$ 551,699	\$ 506,053	52.16%	\$ 48,061	1,052.94%
2021	1,055,824	356,346	699,478	33.75%	47,873	1,461.11%
2020	1,049,237	293,949	755,288	28.02%	49,019	1,540.81%
2019	1,035,000	286,165	748,835	27.65%	49,515	1,512.34%
2018	969,622	267,572	702,050	27.60%	50,346	1,394.45%
2017	943,271	255,737	687,534	27.11%	54,065	1,271.68%
2016	795,421	218,012	577,409	27.41%	46,685	1,236.82%
2015	734,156	247,228	486,928	33.68%	45,765	1,063.97%
2014	681,118	260,974	420,144	38.32%	44,616	941.69%

Note:

¹ Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.



EXHIBIT 2

Schedule of the Employers' Net Pension Liability – SPRS Plan (\$ in thousands)

Change in the Net Pension Liability	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service Cost	\$ 12,158	\$ 12,530	\$ 13,192	\$ 11,726	\$ 11,890	\$ 8,297	\$ 8,402	\$ 7,695	\$ 7,142
Interest	53,740	53,417	52,697	49,301	47,978	51,769	52,951	50,661	50,391
Benefit Changes	3,130	35	0	0	184	0	0	0	0
Difference between actual and expected experience	(2,700)	4,127	10,859	20,952	25,126	8,143	0	9,331	0
Assumption Changes	0	0	0	44,510	0	136,602	56,191	40,201	0
Benefit Payments	(64,400)	(63,522)	(62,511)	(61,111)	(58,827)	(56,960)	(56,279)	(54,850)	(53,239)
Net Change in Total Pension Liability	\$ 1,928	\$ 6,587	\$ 14,237	\$ 65,378	\$ 26,351	\$ 147,850	\$ 61,265	\$ 53,038	\$ 4,294
Total Pension Liability - Beginning	\$ 1,055,824	\$ 1,049,237	\$ 1,035,000	\$ 969,622	\$ 943,271	\$ 795,421	\$ 734,156	\$ 681,118	\$ 676,824
Total Pension Liability - Ending (a)	\$ 1,057,752	\$ 1,055,824	\$ 1,049,237	\$ 1,035,000	\$ 969,622	\$ 943,271	\$ 795,421	\$ 734,156	\$ 681,118
Plan Fiduciary Net Position¹									
Contributions - Employer	\$ 277,341	\$ 59,650	\$ 59,453	\$ 60,048	\$ 46,877	\$ 63,239	\$ 25,822	\$ 31,990	\$ 20,279
Contributions - Member ²	4,773	4,752	4,767	5,062	5,522	5,348	5,263	5,244	5,075
Refunds of contributions to members	(280)	(273)	(88)	(162)	(22)	(26)	(11)	(85)	(213)
Retirement benefits	(64,120)	(63,249)	(62,423)	(60,949)	(58,805)	(56,934)	(56,268)	(54,765)	(53,026)
Net Investment Income ²	(22,088)	61,729	6,341	14,816	18,437	26,795	(3,843)	3,426	40,374
Administrative Expense	(273)	(212)	(266)	(225)	(194)	(181)	(178)	(201)	(215)
Other	0	0	0	3 ⁵	21 ⁵	(517) ⁴	0	645	0
Net Change in Plan Fiduciary Net Position	\$ 195,353	\$ 62,397	\$ 7,784	\$ 18,593	\$ 11,836	\$ 37,724	\$ (29,215)	\$ (13,746)	\$ 12,274
Plan Fiduciary Net Position - Beginning	\$ 356,346	\$ 293,949	\$ 286,165	\$ 267,572	\$ 255,737	\$ 218,012	\$ 247,228	\$ 260,974	\$ 248,700
Prior Year Adjustment	0	0	0	0	(1)	0	0	0	0
Plan Fiduciary Net Position - Ending (b)	\$ 551,699	\$ 356,346	\$ 293,949	\$ 286,165	\$ 267,572	\$ 255,737	\$ 218,012	\$ 247,228	\$ 260,974
Net Pension Liability - Ending (a) - (b)	\$ 506,053	\$ 699,478	\$ 755,288	\$ 748,835	\$ 702,050	\$ 687,534	\$ 577,409	\$ 486,928	\$ 420,144
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	52.16%	33.75%	28.02%	27.65%	27.60%	27.11%	27.41%	33.68%	38.32%
Covered Employee Payroll³	\$ 48,061	\$ 47,873	\$ 49,019	\$ 49,515	\$ 50,346	\$ 54,065	\$ 46,685	\$ 45,765	\$ 44,616
Net Pension Liability as a Percentage of Covered Employee Payroll	1052.94%	1461.11%	1540.81%	1512.34%	1394.45%	1271.68%	1236.82%	1063.97%	941.69%

Notes:

¹ Does not include 401(h) assets for fiscal years 2017 and later. Assets totaled \$1,227,000 as of June 30, 2022

² Does not include 401(h) contributions or associated investment income for fiscal years 2017 and later
For fiscal year 2022, 401(h) contributions equalled -\$26,000; and associated investment return equalled -\$61,000

³ Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later

⁴ Adjustment due to 401(h) plan asset balance being considered an OPEB asset under GASB 74 for fiscal years 2017 and later

⁵ Northern Trust Settlement



EXHIBIT 3

Schedule of Employers' Contributions – SPRS Plan (\$ in thousands)

Fiscal Year Ending	Actuarially Determined Contribution ¹	Total Employer Contributions	Contribution Deficiency (Excess)	Covered Employee Payroll ²	Actual Contributions as a Percentage of Covered Payroll
2022	\$ 62,341	\$ 277,341	\$ (215,000)	\$ 48,061	577.06%
2021	59,263	59,650	(387)	47,873	124.60%
2020	58,358	59,453	(1,095)	49,019	121.29%
2019	58,948	60,048	(1,100)	49,515	121.27%
2018	36,033	46,877	(10,844)	50,346	93.11%
2017	35,937	63,240	(27,303)	54,065	116.97%
2016	25,723	25,822	(99)	46,685	55.31%
2015	31,444	31,990	(546)	45,765	69.90%
2014	25,808	20,279	5,529	44,616	45.45%
2013	23,117	18,501	4,616	45,256	40.88%

Notes:

¹ Actuarially determined contribution for fiscal year ending 2022 is based on the contribution rate calculated with the June 30, 2020 actuarial valuation.

² Based on derived compensation using the provided employer contribution information for fiscal years 2017 and later.

Notes to Schedule of Employers' Contributions for FYE 2022

The actuarially determined contribution effective for fiscal year ending 2022 that is documented in the schedule on the previous page was calculated as of June 30, 2020. Based on the June 30, 2020 actuarial valuation report, the actuarial methods and assumptions used to calculate these contribution rates are below:

Item	SPRS Plan
Determined by the Actuarial Valuation as of:	June 30, 2020
Actuarial Cost Method:	Entry Age Normal
Asset Valuation Method:	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized
Amortization Method:	Level Percent of Pay
Amortization Period:	30-year closed period at June 30, 2019 <i>Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases</i>
Payroll Growth Rate	0.00%
Investment Return:	5.25%
Inflation:	2.30%
Salary Increases:	3.55% to 16.05%, varies by service
Mortality:	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019

EXHIBIT 4

Sensitivity of the Net Pension Liability to Changes in the Discount Rate (\$ in thousands)

1.00% Decrease (4.25%)	Current Discount Rate (5.25%)	1.00% Increase (6.25%)
\$ 642,237	\$ 506,053	\$ 395,014