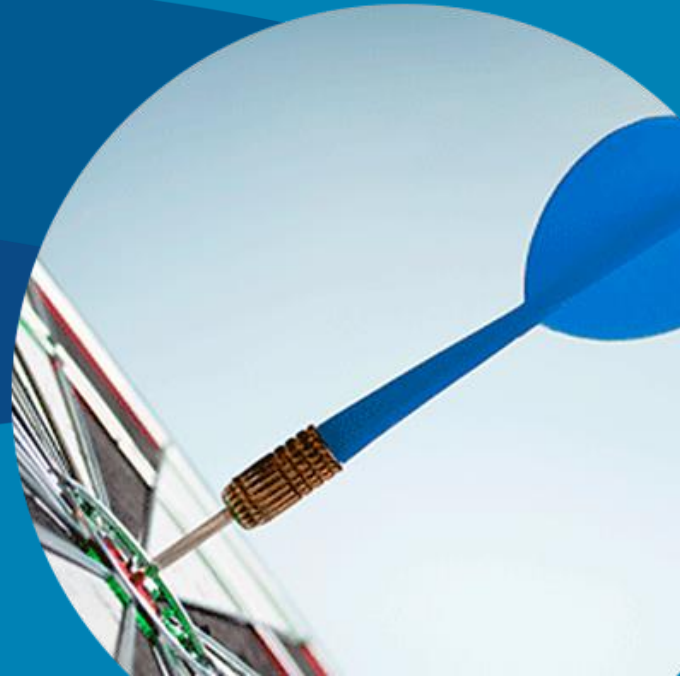




# State Employees' Retirement System of Illinois

Valuation Results as of  
June 30, 2022

October 25, 2022



# Agenda

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- Valuation Results
  - Funded status
  - Change in funded ratio
  - Cash flow comparison
  - Contribution requirements
  - Contribution shortfalls
- Experience Study
- Summary
- Appendix A: Projection Results: Phase-in of investment gains in the Actuarial Value of Assets (AVA) and contribution rate variances due to smoothing of changes in assumptions
- Appendix B: Membership Data

# Valuation Results: Funded Status

## (\$ in Millions)

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	<u>June 30, 2022</u>	<u>June 30, 2021</u>
<b>Actuarial Accrued Liability</b>	<b>\$ 52,050</b>	<b>\$ 51,828</b>
<b>Market Value of Assets (MVA)</b>	<b>\$ 22,273</b>	<b>\$ 23,825</b>
<b>Unfunded Actuarial Accrued Liability - MVA Basis</b>	<b>\$ 29,777</b>	<b>\$ 28,003</b>
<b>Funded Ratio - MVA Basis</b>	<b>42.79%</b>	<b>45.97%</b>
<b>Actuarial Value of Assets (AVA)</b>	<b>\$ 22,893</b>	<b>\$ 21,324</b>
<b>Unfunded Actuarial Accrued Liability - AVA Basis</b>	<b>\$ 29,157</b>	<b>\$ 30,504</b>
<b>Funded Ratio - AVA Basis</b>	<b>43.98%</b>	<b>41.14%</b>

# Valuation Results:

## Change in Funded Ratio

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### Change in Funded Ratio

	<u>June 30, 2022</u>	<u>June 30, 2021</u>	<u>June 30, 2020</u>
<b>Funded Ratio Beginning of Year</b>	<b>41.14%</b>	<b>38.67%</b>	<b>37.82%</b>
<b>Expected <sup>1</sup></b>	<b>1.45%</b>	<b>1.59%</b>	<b>1.68%</b>
<b>Contribution Shortfall</b>	<b>0.40%</b>	<b>-0.34%</b>	<b>-0.47%</b>
<b>Liability Experience</b>	<b>0.03%</b>	<b>-0.28%</b>	<b>-0.05%</b>
<b>Plan Provision Changes</b>	<b>0.14%</b>	<b>-0.01%</b>	<b>0.00%</b>
<b>Assumption Changes</b>	<b>0.73%</b>	<b>0.02%</b>	<b>0.00%</b>
<b>Asset Experience (Return on AVA)</b>	<b><u>0.09%</u></b>	<b><u>1.49%</u></b>	<b><u>-0.31%</u></b>
<b>Funded Ratio End of Year</b>	<b>43.98%</b>	<b>41.14%</b>	<b>38.67%</b>
<b>Return on AVA</b>	<b>7.76%</b>	<b>10.67%</b>	<b>5.90%</b>

<sup>1</sup> Assumes total contributions equal to normal cost plus interest.



# Valuation Results:

## Cash Flow Comparison (\$ in Millions)

### Cash Flow Comparison

	FYE 2022	Projected FYE 2023	Projected FYE 2024	Projected FYE 2025	Projected FYE 2026
Employer Contributions	\$ 2,666	\$ 2,475	\$ 2,473	\$ 2,491	\$ 2,516
Employee Contributions	\$ 289	\$ 272	\$ 273	\$ 276	\$ 278
Benefits	\$ (3,018)	\$ (3,100)	\$ (3,241)	\$ (3,374)	\$ (3,505)
Expenses	\$ (18)	\$ (21)	\$ (21)	\$ (21)	\$ (22)
Net Cash Flow	\$ (81)	\$ (374)	\$ (516)	\$ (628)	\$ (733)

- Benefits and expenses continue to exceed State and employee contributions.
- From 2023 to 2033, the percentage of investment income needed to pay ongoing benefits is projected to increase from approximately 24.4 percent to 56.3 percent.
  - This implies that a lower level of investment income is projected to be available for potential asset growth.

# Valuation Results:

## Contribution Requirements (\$ in Millions)

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### FY 2024 State contribution

	<u>Amount</u>	<u>Rate</u>
Basic Funding	\$ 2,473	50.276%
Debt Service	117	2.381%
Total	<u>\$ 2,590</u>	<u>52.657%</u>

### Compares to FY 2023 contribution

	<u>Amount</u>	<u>Rate</u>
Basic Funding	\$ 2,475	51.015%
Debt Service	109	2.243%
Total	<u>\$ 2,584</u>	<u>53.258%</u>

# Valuation Results:

## Contribution Shortfalls (\$ in millions)

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<u>2022 Valuation</u>	<u>Amount</u>	<u>Rate</u>
Actuarially Determined Contribution	\$ 2,995	60.894%
Basic funding	<u>2,473</u>	<u>50.276%</u>
Shortfall	\$ 522	10.618%
<u>2021 Valuation</u>	<u>Amount</u>	<u>Rate</u>
Actuarially Determined Contribution	\$ 3,046	62.779%
Basic funding	<u>2,475</u>	<u>51.015%</u>
Shortfall	\$ 571	11.764%

- The Actuarially Determined Contribution (ADC) is equal to the Normal Cost plus a 25-year level percent of capped payroll closed-period amortization of the Unfunded Actuarial Accrued Liability. As of June 30, 2022, the remaining amortization period is 18 years.

# Experience Study

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- Pursuant to Public Act 99-0232, SERS is required to conduct an actuarial experience review once every three years.
  - Most recent study completed in 2022 based on the period July 1, 2018 through June 30, 2021, and effective for the 2022 valuation.
    - Included updates to most demographic assumptions and the individual salary increase assumptions.
    - Impact on the 2022 valuation
      - Decreased actuarial accrued liability by \$877 million
      - Decreased employer normal cost by \$31 million
      - Decreased the FY 2024 statutory contribution rate by approximately 0.5% of capped payroll (or about \$25 million)
- Under this schedule, an experience review for the period from July 1, 2021 through June 30, 2024, will be performed after completion of the June 30, 2024, actuarial valuation with expected implementation of the recommended assumptions beginning with the June 30, 2025, actuarial valuation.



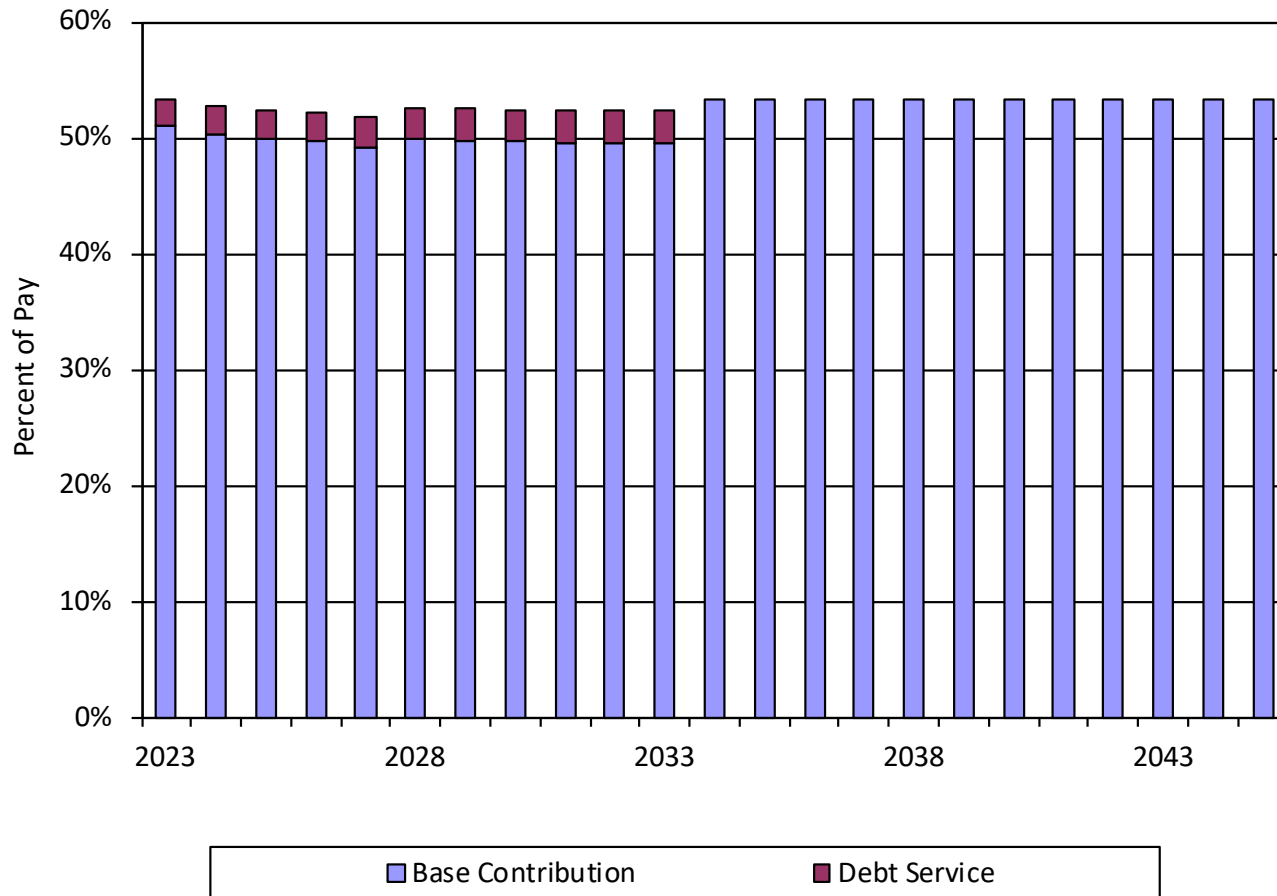
# Summary

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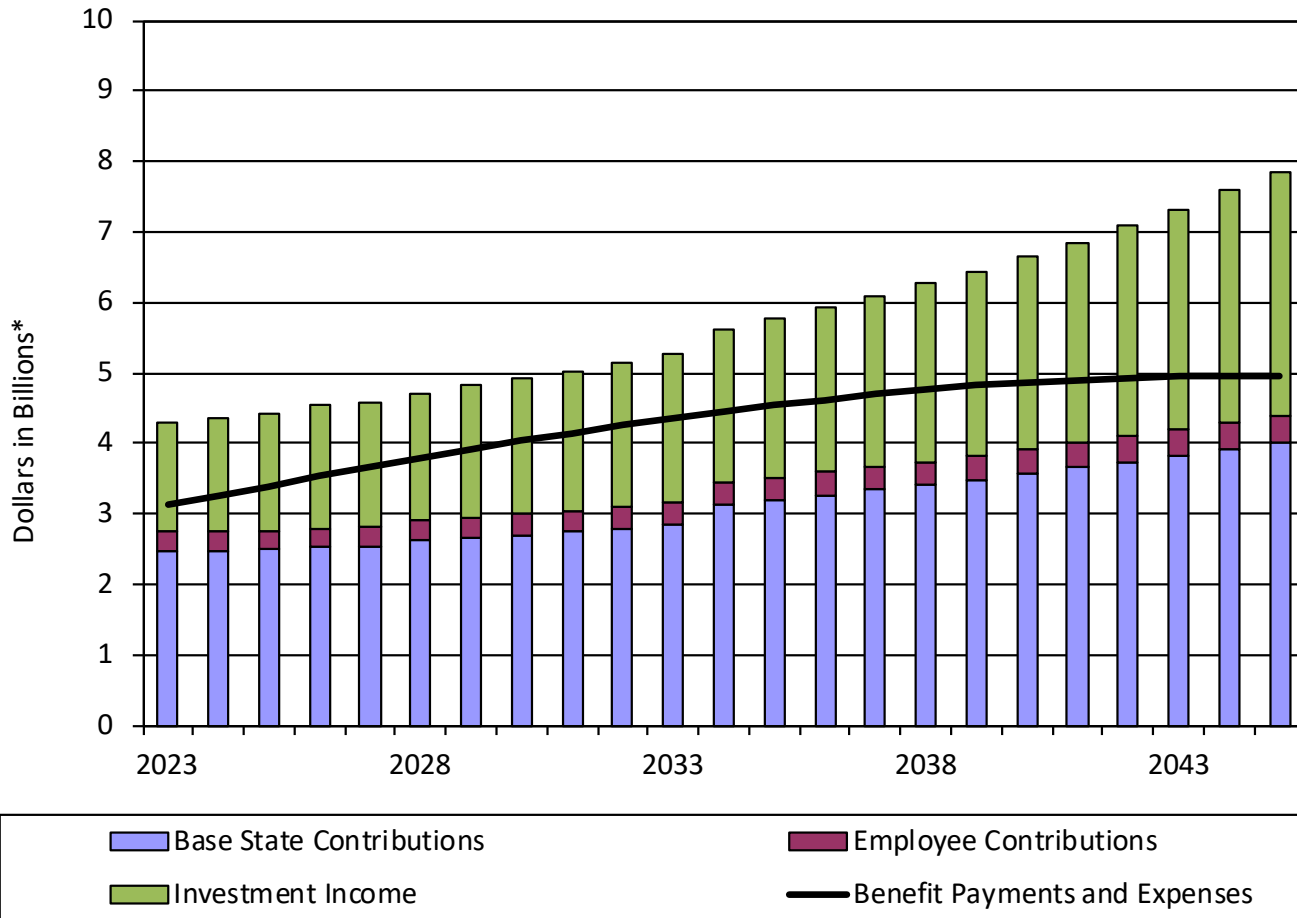
- Investment and liability gains increased the funded ratio slightly and decreased the State's contribution requirement.
- Funded ratio is projected to increase slowly from 44.0% in 2022 to 54.0% in 2033, and then increases rapidly to 90% by 2045.
- Updated actuarial assumptions and the buyout extension decreased the System's liabilities by 2%.

# APPENDIX A: PROJECTION RESULTS

# Projection Results: Phase-in of investment gains/losses in the AVA and Contribution Rate Variances due to Smoothing of Changes in Assumptions: Contributions – Rate



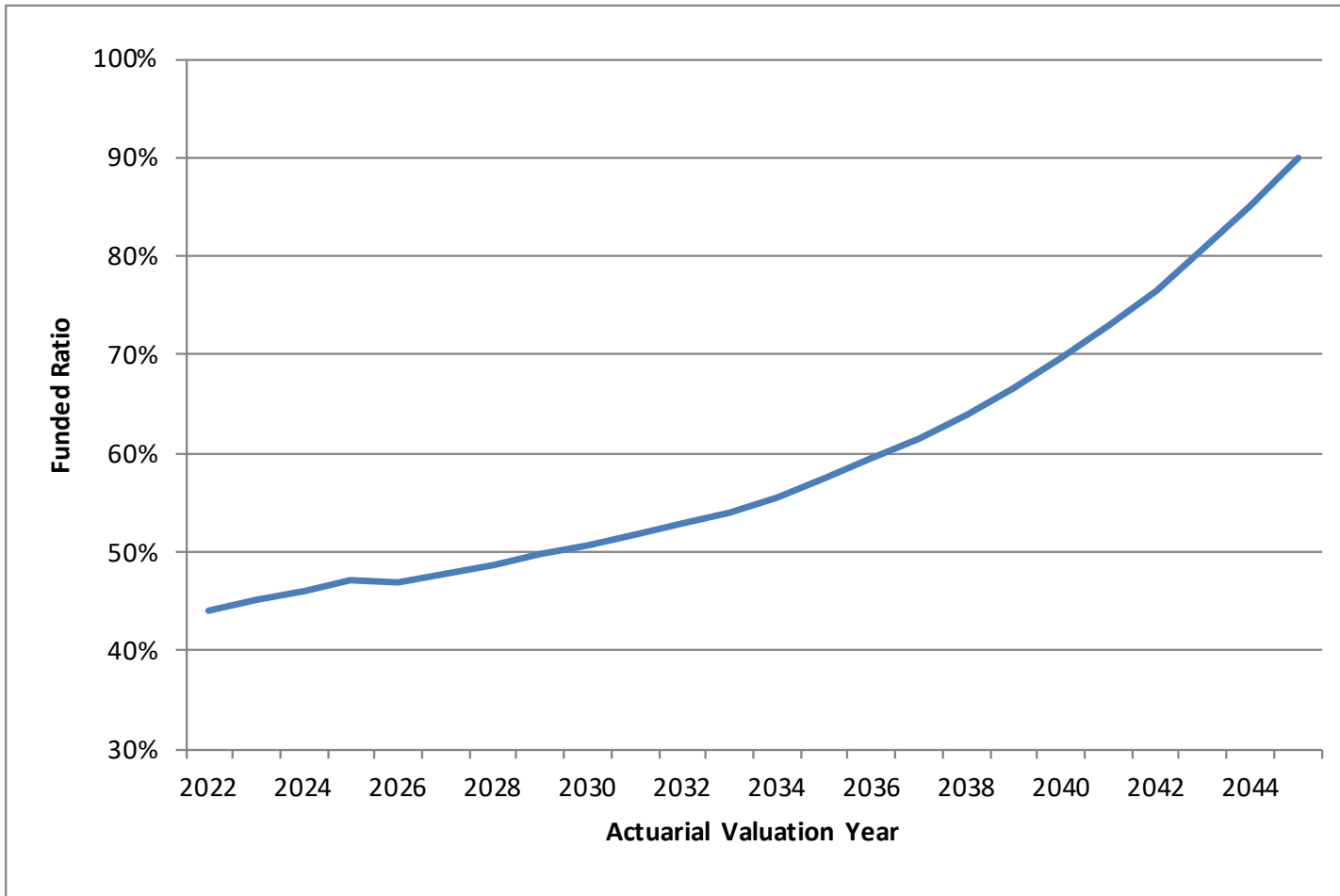
# Projection Results: Phase-in of investment gains/losses in the AVA and Contribution Rate Variances due to Smoothing of Changes in Assumptions: Cash Flow Comparison



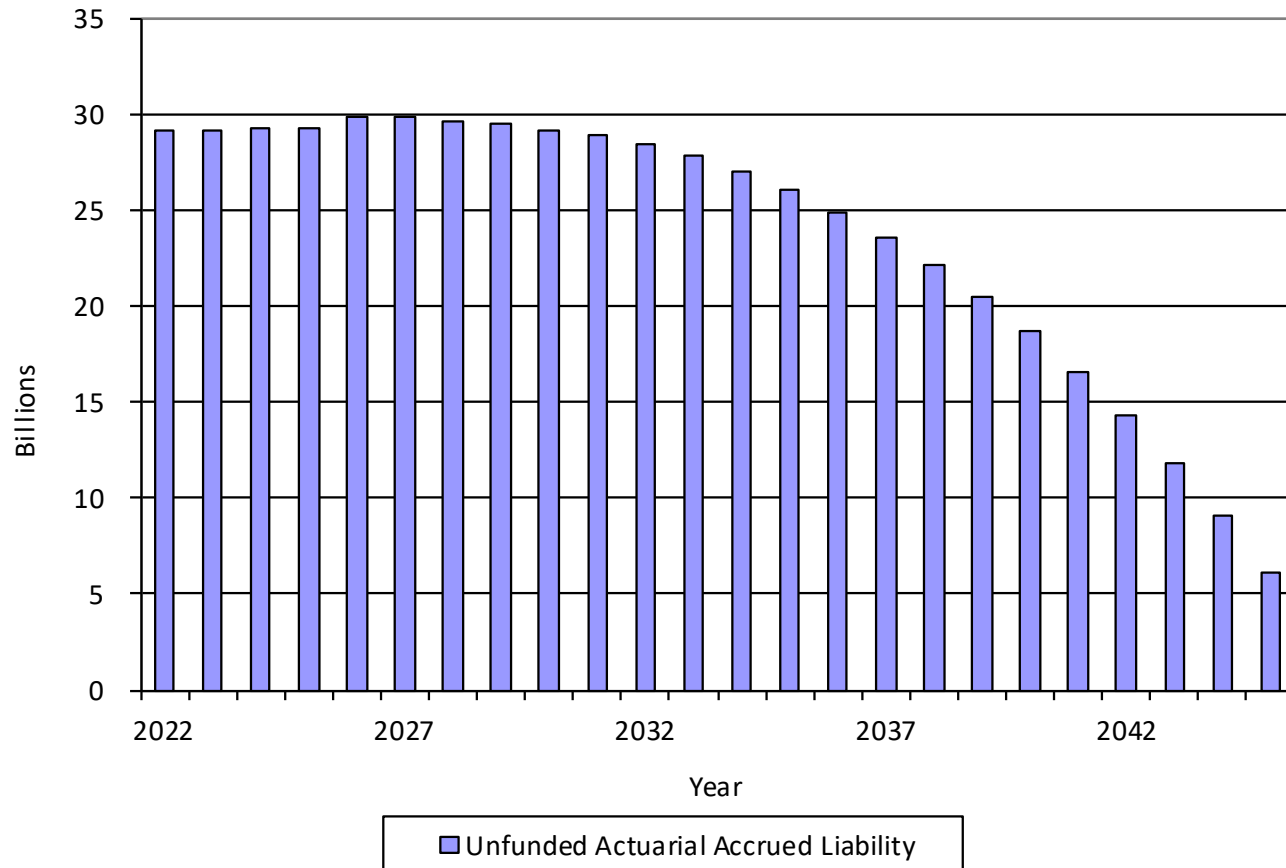
\*Future dollar amounts are based on assumed inflationary increases.



# Projection Results: Phase-in of investment gains/losses in the AVA and Contribution Rate Variances due to Smoothing of Changes in Assumptions: Funded Ratio



# Projection Results: Phase-in of investment gains/losses in the AVA and Contribution Rate Variances due to Smoothing of Changes in Assumptions: Unfunded Actuarial Accrued Liability



# APPENDIX B: MEMBERSHIP DATA

# Active Members

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	<u>June 30, 2022</u>	<u>June 30, 2021</u>
<b>Number as of Valuation Date</b>	<b>61,056</b>	<b>62,253</b>
<b>Covered Payroll for Fiscal Year</b>	<b>\$4.820 Billion</b>	<b>\$4.705 Billion</b>
<b>Average Annual Earnings</b>	<b>\$78,949</b>	<b>\$75,583</b>





# Active Members

Active Membership				
Fiscal Year Ending June 30,	Total	Annual Change in Membership	% Annual Change in Membership	Covered Payroll (\$ in Millions)
2012	62,729			\$4,329.08
2013	61,545	(1,184)	-1.89%	4,236.19
2014	62,844	1,299	2.11%	4,416.15
2015	63,273	429	0.68%	4,453.68
2016	61,317	(1,956)	-3.09%	4,284.36
2017	60,612	(705)	-1.15%	4,195.78
2018	61,397	785	1.30%	4,243.74
2019	62,026	629	1.02%	4,601.38
2020	62,621	595	0.96%	4,523.88
2021	62,253	(368)	-0.59%	4,705.25
2022	61,056	(1,197)	-1.92%	4,820.28
<b>Total Change</b>		<b>(1,673)</b>	<b>-0.26%</b>	

# Current Benefit Recipients

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	<u>June 30, 2022</u>	<u>June 30, 2021</u>
<b>Retirees</b>	<b>63,319</b>	<b>62,426</b>
<b>Survivors</b>	<b>11,912</b>	<b>11,707</b>
<b>Disabled</b>	<b>1,687</b>	<b>1,806</b>
<b>Eligible for Deferred Benefits</b>	<b>152</b>	<b>174</b>
<b>Total</b>	<b>77,070</b>	<b>76,113</b>
<b>Total Benefits</b>	<b>\$3.015 Billion</b>	<b>\$2.875 Billion</b>
<b>Average Benefits</b>	<b>\$39,115</b>	<b>\$37,779</b>

# QUESTIONS

# Disclosures

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- Circular 230 Notice: Pursuant to regulations issued by the IRS, to the extent this presentation concerns tax matters, it is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) marketing or recommending to another party any tax-related matter addressed within. Each taxpayer should seek advice based on the individual's circumstances from an independent tax advisor.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- The actuaries submitting this presentation (Alex Rivera, FSA, EA, MAAA, Heidi G. Barry, ASA, FCA, MAAA and Jeffrey T. Tebeau, FSA, EA, MAAA) are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.
- The primary purpose of the actuarial valuation is to measure the financial position of SERS.

# Disclosures

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- The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The major actuarial assumptions used in this analysis were provided by and are the responsibility of SERS. We are unable to judge the reasonableness of some of these assumptions without performing a substantial amount of additional work beyond the scope of the assignment.
- Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.
- This is one of multiple documents comprising the actuarial report for the SERS actuarial valuation. Additional information regarding actuarial assumptions and methods, and important additional disclosures are provided in the full actuarial valuation report as of June 30, 2022.
- If you need additional information to make an informed decision about the contents of this presentation, or if anything appears to be missing or incomplete, please contact us before relying on this presentation.