



# State Universities Retirement System of Illinois

Actuarial Valuation Report as of  
June 30, 2024

DRAFT





October 10, 2024

Board of Trustees  
State Universities Retirement System of Illinois  
1901 Fox Drive  
Champaign, Illinois 61820

Dear Members of the Board:

At your request, we present the report of the actuarial valuation of the State Universities Retirement System of Illinois ("SURS") as of June 30, 2024. GRS has prepared this report exclusively for the Trustees of the State Universities Retirement System of Illinois; GRS is not responsible for reliance upon this report by any other party. This report may be provided to parties other than SURS only in its entirety and only with the permission of the Trustees.

This actuarial valuation provides information on the funding status and the contribution requirements of SURS. This actuarial valuation includes a determination of the statutory State contribution requirement (the "Statutory Contribution") for the fiscal year ending June 30, 2026, and provides estimates of Statutory contributions for subsequent years under Section 15-155 of the SURS Article of the Illinois Pension Code as amended by the provisions of Public Act ("PA") 100-0023, 100-0587 and PA 101-0010. Information required by Governmental Accounting Standards Board ("GASB") Statement Nos. 67 and 68 is provided in a separate report. This report should not be relied on for any purpose other than the purpose described herein.

This actuarial valuation is based on the provisions of SURS in effect as of June 30, 2024, data on the SURS membership and information on the asset value of the trust fund as of that date. The actuarial valuation was based upon the information furnished by SURS staff, concerning SURS benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by SURS.

Public Act 103-0548, effective August 11, 2023, eliminates the requirement that a participant be employed for at least 15 calendar days in a month to receive one month of service credit; instead, a participant will receive service credit for any month in which they are a participating employee and make contributions to SURS. Public Act 103-0548 also repeals the part-time adjustment, which modified pension benefits for participants who worked 50% time or less for 3 or more years. Active members classified as part time for valuation purposes are now valued the same as members classified as full time active members (as a result of the changes from Public Act 103-0548).

Economic and demographic assumptions were updated from the prior actuarial valuation based on recommendations from the experience study report covering the period June 30, 2020 through June 30, 2023. The actuarial cost method (Projected Unit Credit, as required by statute) and the asset smoothing method (also as required by statute) are unchanged from the prior June 30, 2023 actuarial valuation of SURS.

The actuarial assumptions were adopted by the Board pursuant to Section 15-155 of 40 ILCS 5 of the Illinois Pension Code. In our opinion, the actuarial assumptions are reasonable for the purpose of the measurement. The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in Appendix G of this report entitled Actuarial Methods and Assumptions.

To the best of our knowledge, this actuarial statement is complete and accurate, fairly presents the actuarial position of SURS as of June 30, 2024, and has been prepared in accordance with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

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; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions, contribution amounts or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements in this report.

Actuarial valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this variance, with a view to funding the plan over time.

Although prior year statutory contribution requirements were met, the statutory funding method generates a contribution requirement that is less than a reasonable actuarially determined contribution.

Meeting the statutory requirement does not mean that the undersigned agree that adequate actuarial funding has been achieved; we recommend the development of and adherence to a funding policy that funds the normal cost of the plan, as well as an amortization payment based on the unfunded liability as of the valuation date that would seek to pay off the total unfunded accrued liability by 2045, or sooner if possible.

We recommend a funding policy that pays off the total current unfunded liability by 2045 or earlier, and have illustrated an alternate policy contribution in this report based on a 20-year closed amortization period as of June 30, 2024 (with payments that increase annually at the rate of assumed inflation of 2.40%), which pays off the unfunded liability by 2045.



This report was prepared using our proprietary valuation model and related software and spreadsheet models used to calculate the statutory contributions in each future year through 2045 under the SURS statutory funding policy. In our professional judgment, the models used have the capability to provide results that are consistent with the purposes of the valuation and have no material limitations or known weaknesses. We performed tests to ensure that the models reasonably represent that which is intended to be modeled.

The signing actuaries are independent of the plan sponsor.

Amy Williams, Mark Buis and Kevin Noelke are Members of the American Academy of Actuaries (“MAAA”) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

Gabriel, Roeder, Smith & Company

Amy Williams, ASA, EA, MAAA, FCA  
Senior Consultant

Mark Buis, FSA, EA, MAAA, FCA  
Senior Consultant

Kevin Noelke, ASA, MAAA, FCA  
Consultant

AW/MB/KN:rl



# Table of Contents

---

## Pages

### ***Summary of the Actuarial Valuation***

1-2	Executive Summary
3-9	Summary of the Actuarial Valuation
9-12	Recommendations
12	GASB Disclosure
13	Future Considerations
13-14	Actuarial Standards of Practice (ASOP) 4 Disclosures
15-19	Risk Associated with Measuring the Accrued Liability and Contributions
20-21	Low-Default-Risk Obligation Measure

### ***Appendix A: Asset Information***

22	Table 1 – Statement of Plan Net Position
23	Table 2 – Statement of Changes in Plan Net Position
24	Table 3 – Defined Benefit Plan Development of the Actuarial Value of Assets
25	Table 4 – Development of Market and Actuarial Value of Assets as of June 30, 2024, after Bonds (Valuation Basis) and before Bonds (Hypothetical Basis)

### ***Appendix B: Actuarial Determinations***

26	Table 5 – Summary of Actuarial Values
27	Table 6 – Analysis of Change in Actuarial Accrued Liability and Actuarial Value of Assets
28	Table 7 – Analysis of Change in Unfunded Actuarial Accrued Liability
29	Table 8 – Analysis of Actuarial (Gains) and Losses
30	Table 9 – Funded Ratio and Illustrative Contributions under Funding Policy of Net Normal Cost Plus Amortization of Unfunded Liability

### ***Appendix C: Actuarial Projections***

31	Table 10 – Baseline Projections
32	Graph 1 – Projected Funded Ratio Based on Statutory Contributions
33	Graph 2 – Projected Actuarial Accrued Liabilities
34	Graph 3 – Projected Benefit Payments
35	Graph 4 – Projected Cash Flows
36	Graph 5 – Projected Non-Investment Cash Flows as a Percent of Assets
37	Table 11 – Projected Statutory Contributions Before Impact of Bonds Issued in 2004
38	Table 12 – Projected Statutory Contributions Including Impact of Bonds Issued in 2004
39	Graph 6 – Projected Statutory Contributions vs. Contributions under Alternate Policy
40	Table 13 – Projected Net Normal Cost Contributions, Unfunded Liability Contributions and Single Equivalent Amortization Period Under the Statutory and Alternate Funding Policies
41	Graph 7 – Projected Unfunded Liability Contribution Rates Under the Statutory and Alternate Funding Policies

# Table of Contents

---

## **Appendix D: Additional Projection Details**

42	Table 14 – Projections Including Impact of Bonds Issued in 2004 (Does Not Reflect Recognition of Deferred Asset Gains and Losses in Projected Actuarial Value of Assets)
43	Table 15 – Projections Before Impact of Bonds Issued in 2004 (Reflects Recognition of Deferred Asset Gains and Losses in Projected Actuarial Value of Assets)
44	Table 16 – Projections Before Impact of Bonds Issued in 2004 (Does Not Reflect Recognition of Deferred Asset Gains and Losses in Projected Actuarial Value of Assets)
45	Table 17 – Additional Details – Total Normal Cost Dollars
46	Table 18 – Additional Details – Normal Cost Rates
47	Table 19 – Additional Details – Number of Members, Contributions and Payroll
48	Table 20 – Additional Details – Present Value of Future Benefits and Benefit Payments
49	Table 21 – Additional Details – Actuarial Accrued Liability and Employer Normal Cost Dollars
50	Table 22 – Additional Details – Payroll and Payroll in Excess of Governor’s Pay
51	Table 23 – Additional Details – Statutorily Required Employer Contributions

## **Appendix E: Historical Schedules**

52	Table 24 – Historical Schedule of Funding Status
53	Table 25 – Historical Comparison of ARC and State Contributions
54	Table 26 – Historical Schedule of Contributions

## **Appendix F: Membership Data**

55	Table 27 – Summary of Data Characteristics – Active, Inactive, Retired
56	Table 28 – Summary of Data Characteristics – Full Time Active
57	Table 29 – Summary of Data Characteristics – Part Time Active/Inactive
58	Table 30 – Summary of Data Characteristics – Academic/Non-Academic
59	Table 31 – Summary of Data Characteristics – Actives by Tier and Academic/Non-Academic
60	Table 32 – Distribution of Full Time Active Members by Age and Years of Service
61	Table 33 – Distribution of Benefit Recipients by Age
62	Table 34 – Summary of Fund Membership
63	Table 35 – Schedule of Active Defined Benefit Member Payroll
64	Table 36 – Member Population and Ratio of Actives to Non-Actives
65	Table 37 – Reconciliation of Defined Benefit Membership
66	Table 38 – Participating Employers

# Table of Contents

---

***Appendix G: Actuarial Methods and Assumptions***

67	Projected Unit Credit Method
67-68	Funding Policy to Calculate Statutory Contributions
68	Statutory Contributions Related to the Optional Hybrid Plan
68-69	Phase In of the Financial Impact of Assumption Changes
69	Contribution Related to Pay in Excess of Governor's Pay
70	Asset Valuation Method
71-81	Actuarial Assumptions

82-97	<b><i>Appendix H: Summary of Benefit Provisions of SURS</i></b>
-------	---

98-99	<b><i>Appendix I: Glossary of Terms</i></b>
-------	---

***Appendix J: Stress Testing Scenarios***

DRAFT

---

**SUMMARY OF THE ACTUARIAL VALUATION**

DRAFT



# Executive Summary

## (\$ in Millions)

Actuarial Valuation Date:	June 30, 2023		June 30, 2024	
Fiscal Year Ending:	June 30, 2025		June 30, 2026	
Estimated Statutory Contribution:		% of Payroll <sup>7</sup>		% of Payroll <sup>7</sup>
· Defined Benefit Plan Contribution Amount <sup>1</sup>	\$ 2,164.008	39.24%	\$ 2,267.053	37.97%
· Retirement Savings Plan Contribution Amount <sup>1</sup>	103.986	1.89%	111.492	1.87%
· Total Qualified Plan Contribution Amount	\$ 2,267.994	41.12%	\$ 2,378.545	39.83%
· Excess Benefit Arrangement (EBA) Contribution Amount <sup>2</sup>	18.300	0.33%	21.000	0.35%
· Deferred Compensation Plan (DCP) Administrative Expense	0.490	0.01%	0.468	0.01%
· Combined State and Employer Contribution Amount	\$ 2,286.784	41.46%	\$ 2,400.013	40.19%
Estimated Statutory Contribution from Other Sources:				
· Federal/Trust Contribution Amount <sup>6</sup>	\$ 70.500		\$ 76.000	
· Employer Contribution Amount Related to - Compensation in Excess of Governor's	\$ 3.474		\$ 3.386	
Net State Contribution:				
· Net Dollar Amount (Including EBA Contribution)	\$ 2,212.810	40.12%	\$ 2,320.627	38.86%
Actuarially Determined Contribution (ADC): <sup>3,4</sup>				
· Defined Benefit Plan Contribution Amount	\$ 2,605.187	47.24%	\$ 2,568.984	43.02%
· Defined Benefit Plan Contribution Amount as % of ADC	83.07%		88.25%	
Membership				
· Number of				
- Active Members (full time and part time)	74,645		76,637	
- Members Receiving Payments <sup>3</sup>	72,580		73,303	
- Inactive Members	100,738		103,041	
- Total	247,963		252,981	
· Covered Capped Payroll Provided as of Valuation Date (Total)	\$ 5,013.132		\$ 5,427.428	
· Covered Capped Payroll Provided as of Valuation Date (DB)	3,791.363		4,086.649	
· Projected Capped Payroll for Fiscal Year (Total)	5,515.213		5,971.082	
· Defined Benefit Plan Capped Payroll <sup>5</sup>	3,744.813		4,192.734	
· Annualized Benefit Payments for Year Ended on the Valuation Date <sup>3</sup>	2,976.876		3,070.776	

<sup>1</sup> RSP contributions are net of RSP forfeitures of \$8,978,000 for fiscal year 2025 and of \$7,904,000 for fiscal year 2026. Projected Retirement Savings Plan (RSP) contribution is updated based on the most recent actuarial valuation. Contribution amount for SURS defined benefit plans is the total qualified plan statutory contribution minus the RSP contribution.

<sup>2</sup> Amounts provided by SURS.

<sup>3</sup> Excludes RSP.

<sup>4</sup> 20-year closed amortization of the unfunded liability as of June 30, 2024, applicable to the fiscal year 2026 contribution, based on amortization payments that increase with the assumed rate of increase in inflation. Amount is updated to reflect actual employee contributions received during the year ending on the valuation date.

<sup>5</sup> Payroll for the year ending on the valuation date. Defined benefit payroll is based on the employee contributions in the financial statements for the fiscal year and an employee contribution rate of 8.00%.

<sup>6</sup> Pay increases in excess of 6% during FAS period for fiscal year 2025 and 2026 are included in the Federal/Trust Contribution Amount.

<sup>7</sup> Percent of projected capped payroll.



# Executive Summary

(\$ in Millions)

Actuarial Valuation Date:	June 30, 2023	June 30, 2024
<b>Assets<sup>1</sup></b>		
· Market Value of Assets (MVA)	\$ 23,193.248	\$ 24,266.494
· Actuarial Value of Assets (AVA)	23,381.241	24,297.861
· SURS Reported Market Value Rate of Return	5.34%	8.30%
· Estimated Return on MVA	5.99%	7.76%
· Estimated Return on AVA	6.69%	7.02%
· Ratio – AVA to MVA	101%	100%
<b>Actuarial Information<sup>2</sup></b>		
· FY 2024/2025 Total Normal Cost Rate	19.99%	19.89%
· FY 2024/2025 Employer Normal Cost Rate <sup>3</sup>	11.98%	11.88%
· FY 2024/2025 Employer Normal Cost Amount	\$ 472.041	\$ 503.343
· Actuarial Accrued Liability (AAL)	51,050.783	52,825.365
· Unfunded Actuarial Accrued Liability (UAAL)	27,669.542	28,527.504
· Funded Ratio based on AVA	45.80%	46.00%
· UAAL as % of Defined Benefit Plan Capped Payroll	738.88%	680.40%
· Funded Ratio based on MVA	45.43%	45.94%
· Defined Benefit Plan Capped Payroll <sup>3</sup>	3,744.813	4,192.734

<sup>1</sup> Amounts provided by SURS.

<sup>2</sup> Excludes RSP.

<sup>3</sup> Payroll for the year ending on the valuation date. Defined benefit payroll is based on the employee contributions in the financial statements for the fiscal year and an employee contribution rate of 8.00%.



# Summary of the Actuarial Valuation

---

At your request, we have performed an actuarial valuation of the State Universities Retirement System of Illinois (“SURS”) as of June 30, 2024.

The purposes of this actuarial valuation are as follows:

- To determine the funding status of SURS as of the valuation date based on the market value of assets and the actuarial value of assets; and
- To develop the level of contributions required under Section 15-155 of the SURS Article of the Illinois Pension Code as amended by the provisions of PA 100-0023, PA 100-0587 and PA 101-0010, (1) for the fiscal year ending June 30, 2026, and (2) to estimate contributions required under that Section for subsequent years of the funding period ending in the year 2045.

Accounting information required under Governmental Accounting Standards Board (“GASB”) Statement Nos. 67 and 68 is presented in a separate report.

## Report Highlights

The Statutory contribution (including the employer contribution and federal and trust fund contributions) for FY 2026 is \$2.400 billion and includes the State’s projected FY 2026 normal cost of \$493.9 million, an unfunded liability contribution of \$1.773 billion, a contribution to fund benefits from the Excess Benefit Arrangement (“EBA”) of \$21.0 million, a contribution to fund the administrative expenses of the DCP of \$0.5 million and the Retirement Savings Plan (“RSP”) contribution of \$111.5 million. The Statutory contribution for FY 2026 is \$2.379 billion excluding the EBA contribution and the Deferred Compensation Plan (“DCP”) projected administrative expense. The 2023 actuarial valuation had projected the Statutory contribution would increase, from \$2.268 billion for FY 2025 to \$2.321 billion for FY 2026 (excluding EBA and DCP administrative expense contributions). The primary reason for the increase in the Statutory contribution of about \$58 million over the projected amount from the prior actuarial valuation is due to an increase in the number of active members, higher projected payroll than expected from the 2023 actuarial valuation and a change in the actuarial assumptions from the last valuation.

Over the past 10 years, SURS experienced investment gains on a market value basis (compared to the actuarial assumption) in fiscal years 2017, 2018, 2021 and 2024. However, SURS incurred investment losses (or shortfalls in return compared to the actuarial assumption) in fiscal years 2015, 2016, 2019, 2020, 2022 and 2023. The market return for the year ending June 30, 2024, was approximately 8.30% and was 5.34% in FY 2023. The average market value investment return over the most recent 10 years has been approximately 6.60%.

The funded ratio increased from 45.4% as of June 30, 2023, to 45.9% as of June 30, 2024, based on the market value of assets, and increased from 45.8% as of June 30, 2023, to 46.0% as of June 30, 2024, based on the actuarial value of assets. The approximately \$31.4 million in net deferred asset losses will be recognized in the actuarial value of assets over the next four years.

The ratio of the market value of assets of the SURS defined benefit plan to the annual deductions (consisting of benefit payments, refunds of contributions and administrative expenses) and sometimes referred to as the liquidation ratio is about 7.6.



## Summary of the Actuarial Valuation

---

This means that less than eight years of retiree benefit payments can be paid from current assets. The ability to make such payments beyond that period is heavily dependent upon future State and employer contributions and future investment return.

### Actuarial Assumptions

The asset valuation method was changed from market value of assets to actuarial value of assets effective with the actuarial valuation as of June 30, 2009, as required by statute.

All other assumptions were first adopted by the Board for use with the actuarial valuation as of June 30, 2024 and were based on the recommendations from the experience study review performed for the period from June 30, 2020 through June 30, 2023.

The assumption for members electing the accelerated pension benefit payment options is 0%. The rationale for this assumption can be found in a separate letter issued to the Board. Buyout election statistics can be found on page 80.

A complete description of the assumptions can be found in Appendix G of the report.

In addition, we have assumed that the Statutory contribution will be calculated as a level percentage of pensionable payroll. Pensionable payroll for members hired on or after January 1, 2011 is limited by the pay cap for Tier 2 members. The basis for this assumption comes from 40 ILCS 5/1-160 (b-5) for Tier 2.

### SURS Benefits

Public Act 103-0548, effective August 11, 2023, eliminates the requirement that a participant be employed for at least 15 calendar days in a month to receive one month of service credit; instead, a participant will receive service credit for any month in which they are a participating employee and make contributions to SURS. Public Act 103-0548 also repeals the part-time adjustment, which modified pension benefits for participants who worked 50% time or less for 3 or more years. All other benefit provisions valued in this June 30, 2024 actuarial valuation are identical to those valued in the prior actuarial valuation as of June 30, 2023.

Active members classified as part time for valuation purposes are valued the same as members classified as full time active members (as a result of the changes from Public Act 103-0548).

Projected administrative expenses for the Deferred Compensation Plan (“DCP”), an optional defined contribution plan, are included in the Statutory contribution. Other costs are not reflected in this valuation.

### Experience during 2024

The System assets earned approximately 8.30% on a market value basis during FY 2024, which was more than the investment return assumption of 6.50% for FY 2024. The System assets earned 7.02% on an actuarial value of assets basis during FY 2024, due to recognition of a portion of current year asset gains and net deferred investment gains from prior years under the asset smoothing method. Because 7.02% is more than the assumed rate of investment return of 6.50% for FY 2024, there was an asset gain of \$118.4 million on the actuarial value of assets.



## Summary of the Actuarial Valuation

---

The experience of the population determines the liability gain or loss for the year. There was a net loss of \$384.0 million from actuarial liabilities, which is comprised of a loss of approximately \$92.8 million from demographic experience, and a loss of \$291.2 million from higher than expected pay increases.

From last year to this year, there were demographic losses from termination, and active and retiree mortality experience and a gain from retirements and disabilities. Other assumptions not easily attributable to one of the other categories generated an actuarial loss.

The SURS defined benefit programs experienced an overall actuarial loss of \$265.6 million.

See Table 8 (page 29), Appendix B, for detail of the gains and losses by source.

Active members classified as part time for valuation purposes are now valued the same as members classified as full time active members as a result of PA 103-0548. This increased the actuarial accrued liability by \$3.4 million. The estimated increase of \$3.4 million in the liability does not include the cost of crediting additional service (if fewer than 15 days in a month are worked) or the elimination of the part time adjustment.

The changes in assumptions due to the experience study review performed for the period from June 30, 2020 through June 30, 2023 increased the actuarial liabilities by \$533.8 million.

The estimated reduction in the actuarial liabilities due to the buyouts during fiscal year 2024 is \$7.2 million.

There was a contribution made during fiscal year 2024 of \$38.8 million from the Pension Stabilization Fund in addition to the fiscal year 2024 statutory contribution.

### Statutory Appropriations for the 2026 Fiscal Year and Beyond

Section 15-155, which governs the development of Employer/State contributions to SURS, provides that:

1. Employer/State contributions are determined under the following process:
  - a) The overall objective of the statute is to achieve a funded ratio of 90% by the end of fiscal year ("FY") 2045.
  - b) The Employer/State contribution for FY 2012 and each year thereafter to and including FY 2045 is to be based on a (theoretically) constant percentage of the payroll<sup>1</sup> of active members of SURS based on the actuarial value of assets at the actuarial valuation date and assuming the actuarial value of assets earns the assumed investment return in the future.

<sup>1</sup> We have assumed the contribution would be based on pensionable payroll. Pensionable payroll for members hired on or after January 1, 2011, is limited by the pay cap.

- i. Requires any change in an actuarial assumption that increases or decreases the required State contribution to be implemented in equal annual amounts over a five-year period

# Summary of the Actuarial Valuation

---

- beginning in the State fiscal year in which the change first applies to the required State contribution.
- For changes that first applied in FY 2014, FY 2015, FY 2016 or FY 2017, the impact is calculated based on a five-year period and the applicable portion is recognized during the remaining fiscal years in that five-year period.
  - ii. Requires employers to make contributions as follows:
    - Requires employers to contribute the employer normal cost of the portion of an employee's earnings that exceeds the amount of salary set for the governor, for academic years beginning on or after July 1, 2017. (Applicable to Tier 1 and Tier 2 employees.)
  - c) After 2045, the Employer/State contribution rate is to be sufficient to maintain the funding level at 90%.
    - Employers continue to make the required normal cost and unfunded liability contributions.
    - The financial impact of changes in actuarial assumptions continue to be phased in over a five-year period.
2. During the period of amortization of the 2003 bond issue, the Employer/State contribution in any fiscal year may not exceed the difference between:
- a) The contribution, as developed in the preceding number 1., assuming that the special contribution (from the bond proceeds) has not been made; and
  - b) The debt service on the bond issue for the fiscal year.
3. Pursuant to Public Act 97-0694, Section 15-165, the dollar amount of the proposed Employer/State contribution required for a fiscal year shall be certified to the Governor no later than November 1 for the fiscal year commencing on the following July 1. The required amounts are budgeted pursuant to the continuing appropriations process. The State Actuary is required to review the actuarial assumptions and actuarial valuation and issue a preliminary report. After the Board considers the State Actuary's report, the certification is finalized no later than January 15.

SURS is currently not moving forward with the implementation of the Optional Hybrid Plan (OHP) created under PA 100-0023. Additional clarifying legislation is needed for SURS to be able to do so. Therefore, contributions related to the OHP are not included in the actuarial valuation, including contributions for employer normal cost, additional 2% of payroll contributions and unfunded liability contributions. Estimates of Statutory contributions through 2045, assuming that 55% of academic and 75% of non-academic future new members elect the Tier 2 Plan, 45% of academic and 25% of non-academic future new members elect RSP and all other actuarial assumptions are realized, are set out in Table 12 (page 38).

The Statutory contributions set out in this report represent the contribution amount determined consistent with the State Statute. The net State appropriation certified to the Governor is the total calculated in this report for the qualified plan, plus an estimated amount to fund the annual benefit payments payable from the Excess Benefit Arrangement (EBA), adjusted by contributions from federal and trust funds and employers. The estimated contributions from the federal and trust funds for FY 2026



# Summary of the Actuarial Valuation

is \$76,000,000, as estimated by SURS.

## Asset Information

Prior to the actuarial valuation as of June 30, 2009, the market value, without adjustment, was used for all actuarial purposes. Legislation in 2009 required that first effective for the actuarial valuation as of June 30, 2009, contribution projections would be calculated based on the actuarial value of assets. Funding status determinations and the contribution requirements were calculated based on the actuarial value of assets.

The market value of the assets of the System that is available for benefits increased from \$23,193.2 million as of June 30, 2023, to \$24,266.5 million as of June 30, 2024. The actuarial value of assets as of June 30, 2024, is \$24,297.9 million, which is \$31.4 million more than the market value of assets. This difference is due to the continuing recognition of deferred investment gains and losses. Twenty percent of each of these gains and losses are recognized each year. The \$31.4 million, which is the value of net deferred losses, will be smoothed into the actuarial value of assets over the next four years. The remaining unrecognized net asset gains from FY 2021 and FY 2024 will be smoothed in over the next one year and four years, respectively, and the remaining asset losses from FY 2022 and FY 2023 will be smoothed in over the next two and three years, respectively.

The detailed determinations of asset values utilized in this valuation and asset growth in the last year are set out in Appendix A.

## Funding Status

The funding status of SURS is measured by the Funded Ratio. The Funded Ratio is the ratio of the assets available for benefits compared to the actuarial accrued liability of the System. Thus, it reflects the portion of benefits earned to date by SURS members, which are covered by current System assets.

A funded ratio of 100% would mean that all of the benefits earned to date by SURS members are covered by assets and assumed future investment returns. By monitoring changes in the funded ratio each year, we can determine whether or not funding progress is being made.

As shown below, the SURS funded ratio increased slightly from 45.4% as of June 30, 2023, to 45.9% as of June 30, 2024, based on the market value of assets, and increased from 45.8% as of June 30, 2023, to 46.0% as of June 30, 2024, based on the actuarial value of assets. There are net deferred losses that will be smoothed into the actuarial value of assets over the next four years. As a result of the approximately \$31.4 million in net deferred losses and the funding policy, the funded ratio is projected to increase from fiscal year 2024 to fiscal year 2025, decrease from fiscal year 2025 to fiscal year 2026 and then increase thereafter, if all assumptions are realized and all employer contributions are made on a timely basis.

Fiscal Year	Funded Ratio	
	AVA	MVA
2020	42.2 %	41.2 %
2021	43.9	48.6
2022	45.2	45.2
2023	45.8	45.4
2024	46.0	45.9

## Summary of the Actuarial Valuation

### Short Condition Test

The following table shows a comparison, for fiscal years 2015 through 2024, of the percentage of actuarial accrued liabilities that are covered by the actuarial value of assets. The employer financed liabilities for current active and inactive members are 0% funded by the assets. Only a portion of the retiree liabilities are funded by current assets and the percentage covered increased from 46.8% as of June 30, 2023, to 47.4% as of June 30, 2024.

Percentage of Actuarial Accrued Liabilities Covered by Net Assets (in Millions)							
Fiscal Year	Actuarial Accrued Liabilities for				% of Liabilities Covered by		
	Member Acc Contrib. (1)	Members Receiving Benefits (2)	Act/Inact Employer Portion (3)	Net Actuarial Value of Assets	(1)	(2)	(3)
2015	\$ 6,196.6	\$ 26,042.4	\$ 7,281.7	\$ 17,104.6	100.0%	41.9%	0.0%
2016	6,145.8	27,342.2	7,435.3	17,701.6	100.0%	42.3%	0.0%
2017	6,348.8	28,226.0	7,278.6	18,594.3	100.0%	43.4%	0.0%
2018	6,516.3	30,710.7	8,031.7	19,347.9	100.0%	41.8%	0.0%
2019	6,594.1	31,856.5	7,993.4	19,661.9	100.0%	41.0%	0.0%
2020	6,651.0	32,862.0	8,067.5	20,091.7	100.0%	40.9%	0.0%
2021	6,843.1	33,661.7	8,393.6	21,484.8	100.0%	43.5%	0.0%
2022	6,800.0	34,632.8	8,437.2	22,554.8	100.0%	45.5%	0.0%
2023	6,844.1	35,360.2	8,846.4	23,381.2	100.0%	46.8%	0.0%
2024	7,109.5	36,230.4	9,485.5	24,297.9	100.0%	47.4%	0.0%

### Actuarial Funding and Statutory Funding

Measuring the Statutory Contribution against a funding policy under which the sum of the normal cost and amortization of the unfunded accrued liability is contributed helps evaluate the funding adequacy of the current Statutory funding method. The rationale for contributions based on an accrual pattern of normal cost plus amortization of the unfunded liability is to have benefits accrued within the same generation that has earned them as well as to ensure that all benefit obligations will be met. Table 12 and Table 13 illustrate an “alternative policy contribution” which is the sum of the employer normal cost and 20-year closed period amortization of the unfunded liability as of the actuarial valuation date of June 30, 2024 with assumed annual increases in the amortization payment of 2.40% (assumed increases in inflation) that is applicable to the fiscal year 2026 contribution. The alternative funding policy would require higher contributions in the near term compared to the Statutory funding policy. However, as shown in Graph 1 (page 32) and Graph 6 (page 39), the funded ratio would increase more quickly and require lower contributions than under the Statutory policy starting in fiscal year 2041. The Statutory contributions are projected to continue to increase at a faster rate than under the alternative funding policy in order to meet the ultimate funding objective of a 90% funded ratio in 2045.

Based on projections assuming that the Statutory contributions are made every year (as shown in



## Summary of the Actuarial Valuation

---

Table 10, page 31) and an investment return of 6.50% each year, the funded ratio is projected to begin to increase from about 46% funded to 90% funded at 2045. The funded ratio is not projected to exceed 60% until 2037, 70% until 2041 and is projected to increase to 90% during the four-year period from 2041 until 2045. If the Statutory contributions are not made or investment return is less than the assumption of 6.50%, the funded ratio will be lower and the cash flow strain will be higher. If another significant market downturn occurred while the System's funded ratio is low, the System could be required to liquidate assets in order to pay benefits which could have a further adverse effect on the funded status of the System.

The projected actuarial accrued liability of current retirees, current active and inactive members and future members is expected to increase from \$52.825 billion as of the end of FY 2024 to \$58.356 billion as of the end of FY 2037 and decrease to \$58.138 billion as of the end of FY 2045 (as shown in Graph 2, page 33, and Table 21, page 49). There is a projected decrease in the actuarial accrued liability after FY 2037 due to the increasing number of Tier 2 participants and the decreasing number of Tier 1 participants. Total benefit payments are projected to increase from \$3.160 billion in fiscal year 2024 to \$4.525 billion in fiscal year 2045. Graph 3 (page 34, and Table 20, page 48) shows projected benefit payments separately for retirees as of June 30, 2024, active and inactive members as of June 30, 2024, and future members.

Graph 4 (page 35) shows there is significant net cash outflow required from the System. A significant portion of the annual projected total investment return is needed to pay annual benefit payments through FY 2037. Graph 5 (page 36) shows projected non-investment cash flows as a percent of assets. Non-investment cash outflows are projected to be more than 3.0% of assets through 2035 and more than 2.0% of assets through 2039.

### Additional Projection Details

At the request of the State Actuary, we have included exhibits with additional projection details that can be found in Appendix D. The additional projections illustrate the impact on contributions and funded status if deferred asset gains and losses are not recognized.

## Recommendations

The calculations in this report were prepared based on the methods required by the Statutory funding policy including the asset smoothing method that was adopted for the first time in the June 30, 2009 actuarial valuation. GRS does not endorse this funding policy because the Statutory funding policy defers funding for these benefits into the future and places a higher burden on future generations of taxpayers.

We recommend the following changes:

1. Implementing a funding policy that contributes normal cost plus closed period amortization of the unfunded liability as of the valuation date, with payments that increase annually at the rate of assumed inflation of 2.40%. (A policy which recognizes unfunded liability at the valuation date and not projected liability in the year 2045.)
2. If the current Statutory funding policy is retained, we recommend:
  - a. Eliminating the maximum contribution cap;



## Summary of the Actuarial Valuation

---

- b. Calculating contributions as a level percentage of defined benefit plan pensionable payroll only instead of total payroll (including RSP payroll); and
  - c. Eliminating smoothing of the change in the contribution requirement due to assumption changes.
3. Implementing an asset corridor to constrain the actuarial value of assets within a certain percentage of the market value of assets (for example, 20%).
4. Changing the actuarial cost method for calculating liabilities from the Projected Unit Credit method to the Entry Age Normal method.
5. Considering whether a decrease in total active membership is expected to occur in the future, and if so, incorporating this into the projections used to calculate the Statutory contribution requirements.

### Change Funding Policy to a More Standard Actuarial Method

We recommend a funding policy that contributes normal cost plus closed period amortization of the unfunded liability as of the valuation date, with payments that increase annually at the rate of assumed inflation of 2.40%. (i.e., the amortization period declines by one year with each actuarial valuation) such that the funded ratio is projected to be 100% funded at the end of the amortization period. We recommend a funding policy that pays off the total current unfunded liability by 2045 or earlier, we have illustrated an alternate policy contribution in this report based on a 20-year closed amortization period as of June 30, 2024 (with payments that increase annually at the rate of assumed inflation of 2.40%), which pays off the unfunded liability by 2045.

A closed amortization period methodology (with 20 years remaining as of the June 30, 2024 actuarial valuation) pays off the unfunded accrued liability in full by the end of the period in 2045. The Fiscal Year 2026 contribution would be \$2,680.476 (\$2,568.984 million for the SURS contribution and \$111.492 million for RSP) under this alternate funding policy. The current Statutory contribution does not comply with this recommendation. Underfunding the System creates the risk that ultimately benefit obligations cannot be met from the trust, and will require a greater amount of funding from other State resources. In addition, continually underfunding the System also creates more of a funding need from contributions since less is available from investment return – thereby creating a more expensive plan. Projected contributions under the current Statutory policy and the recommended policy are shown in Graph 6 on page 39 and projected funded ratios are shown in Graph 1 on page 32.

### Eliminate Maximum Contribution Cap

If the current statutory funding policy is not changed, we recommend that the provision that establishes a maximum contribution cap be eliminated. The contribution cap is based on the projected hypothetical contributions if the proceeds from the 2003 bond issue had not been received. The cap is projected to lower contributions during certain fiscal years 2025 through 2033 compared to if no maximum contribution methodology were in place.

## Summary of the Actuarial Valuation

### Calculate Defined Benefit Plan Contributions Based on Defined Benefit Payroll Only

Currently, the Statutory contributions to the SURS defined benefit plan are calculated based on a level percentage of total pensionable payroll, including RSP payroll. If the current statutory funding policy is not changed, we recommend that the contributions be calculated as a level percentage of defined benefit plan pensionable payroll only.

### Implement an Asset Corridor

In addition, we recommend that an asset corridor on the actuarial value of assets be implemented, in case there is another significant market downturn similar to Fiscal Year 2009. The following table compares the ratio of the actuarial value of assets to the market value of assets since Fiscal Year 2009. Using an actuarial value of assets that is significantly higher than the market value of assets delays funding to the System by further deferring contributions into the future. The plan is already in serious funding jeopardy, and we cannot recommend an asset valuation method that does not include a corridor, because it could add additional risk to the funding of the benefit obligations if another downturn occurred.

(\$ in Millions)				
Year	Actuarial Value of Assets	Market Value of Assets	Ratio of Actuarial Value	
2010	\$ 13,966.643	\$ 12,121.542	115 %	
2011	13,945.680	14,274.003	98	
2012	13,949.905	13,705.143	102	
2013	14,262.621	15,037.102	95	
2014	15,844.714	17,391.323	91	
2015	17,104.607	17,462.968	98	
2016	17,701.646	17,005.630	104	
2017	18,594.326	18,484.820	101	
2018	19,347.886	19,321.076	100	
2019	19,661.891	19,717.348	100	
2020	20,091.675	19,617.016	102	
2021	21,484.799	23,768.313	90	
2022	22,554.752	22,523.123	100	
2023	23,381.241	23,193.248	101	
2024	24,297.861	24,266.494	100	

### Change the Actuarial Cost Method to the Entry Age Normal Method

The current actuarial cost method is the Projected Unit Credit method, which is required by statute. The Projected Unit Credit method recognizes costs such that the normal cost for an individual member increases as a percentage of payroll throughout his/her career. The Entry Age Normal cost method is the most commonly used method in the public sector. It is also the method required to be used for financial reporting under GASB Statement Nos. 67 and 68. The Entry Age Normal method recognizes costs as a level percentage of payroll over a member's career. We recommend a change to the Entry Age Normal method. The actuarial accrued liability under the Entry Age Normal method is about \$1.3 billion higher as of the current actuarial valuation date than under the Projected Unit Credit method.

## Summary of the Actuarial Valuation

### Number of Projected Future Active Members

The statutory contribution is based on performing an open group projection through the year 2045. The projection is based on assuming that new active members are hired to replace the current members who leave active membership (through termination, retirement, death or disability). The number of active members has decreased by about 5% between 2014 and 2024, which is an average annualized decrease of about 0.5%.

Currently, the actuarial valuation assumes that the total number of active members in the future will be equal to the number of active members in the current actuarial valuation. The total number of active members has increased the past two years. We will continue to monitor the total number of active members and may recommend an update to the population projection assumption if there is another trend of a decreasing number of active members.

Total Active Members (Full and Part Time)						
June 30	Traditional & Portable	RSP	Total	Annual Change in Membership	% Annual Change in Membership	Earnings (\$ in Millions)
2014	69,436	11,409	80,845			\$4,131.0
2015	69,381	11,928	81,309	464	0.6%	4,280.5
2016	66,245	11,880	78,125	(3,184)	-3.9%	4,218.4
2017	64,117	11,852	75,969	(2,156)	-2.8%	4,184.5
2018	62,844	12,106	74,950	(1,019)	-1.3%	4,264.3
2019	62,589	12,531	75,120	170	0.2%	4,356.6
2020	63,206	13,129	76,335	1,215	1.6%	4,583.9
2021	60,397	13,046	73,443	(2,892)	-3.8%	4,639.1
2022	60,281	13,026	73,307	(136)	-0.2%	4,714.7
2023	61,509	13,136	74,645	1,338	1.8%	5,013.1
2024	63,063	13,574	76,637	1,992	2.7%	5,427.4
Total Change (10 years)				(4,208)	-0.5%	
Total Change (5 years)				1,517	0.4%	
Total Change (3 years)				3,194	1.4%	

**We recognize that the State Statute governs the funding policy of the System. The purpose of these comments is to highlight the difference between the Statutory appropriation methodology and the recommended actuarial funding policy and to highlight the risks and additional costs of continuing to underfund the System. We believe that the State Statute would allow the Board to change the assumption regarding the projected number of future active members.**

## GASB Disclosure

A separate actuarial valuation report with calculations completed in accordance with the provisions of GASB Statement Nos. 67 and 68 has been issued.



# Summary of the Actuarial Valuation

---

## Future Considerations

Changes (such as the phase-in of assumption changes, five-year asset smoothing and the addition of the new benefit tiers) have had the effect of reducing the Statutory contribution amounts that would have otherwise been made. However, the change in the investment return assumption and other changes to more closely align the actuarial assumptions with current market expectations have increased the contribution amounts that would otherwise have been made. Assuming the statutory contributions are received (and the actuarial assumptions are met including a 6.50% investment rate of return, each year through 2045), SURS is currently projected to have contributions sufficient to increase the funded ratio from the current level of 46% to 90.0% by 2045. While capital market assumptions have improved over the past year, policy makers should be aware that if return expectations decrease (similar to expectations in 2021 and 2022), average future returns may be lower than 6.50%.

**This is a severely underfunded plan and the ability of the plan to reach 90% funding by 2045 is heavily dependent on the plan sponsor contributing the statutory contributions each and every year until 2045. We are not able to assess the plan sponsor's ability to make contributions when due.**

## Actuarial Standards of Practice (ASOP) 4 Disclosures

### General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 6.50% on the actuarial value of assets and the active member group size remaining unchanged), it is expected that:

1. The combined State and employer contribution rate will be level as a percentage of total capped payroll through 2045 (after all assumption changes and deferred asset gains and losses are fully recognized);
2. The unfunded liability will increase for the next two years and then decrease in dollar amount;
3. The unfunded actuarial accrued liabilities will never be fully amortized; and
4. The funded status of the plan will increase gradually towards a 90% funded ratio in 2045.

### Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

1. The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations; in other words, of transferring the obligations to an unrelated third party in an arm's length market value type transaction.
2. The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. A

## Summary of the Actuarial Valuation

---

funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).

3. The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets.

Limitation of Project Scope: Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

DRAFT

# Summary of the Actuarial Valuation

---

## Risks Associated with Measuring the Accrued Liability and Contributions

The determination of the accrued liability and the statutory and actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the statutory and actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

The three areas of risk that may reasonably be anticipated to significantly affect the SURS' future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll or other relevant contribution factor;
3. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease).

As shown on Table 8, investment risk is a main driver in the change in the unfunded actuarial accrued liability from year to year for SURS, which also impacts the annual statutory contribution requirement. The use of asset smoothing helps dampen the annual volatility due to this risk. Because the funded ratio is less than 50%, SURS is currently less impacted by investment risk than it will be when the assets and funded ratio are projected to be higher (closer to 2045).

Due to the current funded status and statutory contribution policy, SURS is subject to higher contribution risk than many plans. Under the statutory contribution policy, contributions are calculated as a level percentage of payroll such that the funded ratio is projected to be 90% in 2045. As shown on Graph 6, annual statutory contributions are projected to increase from over \$2 billion to almost \$4 billion by 2045.

## Summary of the Actuarial Valuation

Adverse experience (especially closer to 2045), could increase the contributions to even higher levels.

There is also contribution risk for SURS associated with the assumptions related to projecting the actuarial accrued liability, benefits and payroll to 2045 (as required under the statutory funding policy). To the extent that certain assumptions differ from actual experience, significant changes in contributions could occur. Examples of such assumptions include: the number of total active members remains the same as the number as of the date of the most recent actuarial valuation, the percentage of new hires that elect the RSP or the SURS defined benefit plans and the assumed new hire demographics.

The statutory contribution may be considered as a minimum contribution that complies with State statute. Contributions above this minimum level would improve the plan's funding level and would be expected to enhance benefit security. The timely receipt of contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made in accordance with the funding policy do not necessarily guarantee benefit security.

As shown on Table 8 and in the stress testing, salary and payroll risk is another main driver in the change in the unfunded actuarial accrued liability from year to year for SURS, which also impacts the annual statutory contribution requirement.

Although there are other areas of risk, such as demographic experience (including mortality, retirement, termination and disability) differing from the assumptions used in the actuarial valuation, as shown in Table 8, demographic gains and losses have been mostly offsetting and not a significant driver in the change in unfunded liability for SURS. In addition, there is asset/liability mismatch risk; however, we believe for SURS that it is a component of investment risk.

### Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	2020	2021	2022	2023	2024
Ratio of the market value of assets to total payroll	4.28	5.12	4.78	4.63	4.47
Ratio of actuarial accrued liability to payroll	10.38	10.54	10.58	10.18	9.73
Ratio of actives to retirees and beneficiaries	1.10	1.05	1.03	1.03	1.05
Ratio of net non-investment cash flow to market value of assets	-3.3%	-2.6%	-2.5%	-2.8%	-2.9%
Approximate modified duration of the present value of future benefits	13.33	13.29	13.16	13.10	13.40

*Payroll used in the above table includes RSP payroll.*

### Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.





# Summary of the Actuarial Valuation

---

## Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself to changes in assumptions or to actuarial gains and losses. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

## Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

## Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

## Duration of the Present Value of Future Benefits

The duration of the present value of future benefits may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1% from its current level.

## Additional Risk Assessment

We are providing an estimate to the change in the statutory contribution of potential reductions in the discount rate. Public Act 100-0023 requires any change in an actuarial assumption that increases or decreases the required State contribution to be implemented in equal annual amounts over a five-year period beginning in the State fiscal year in which the change first applies to the required State contribution. A 50 basis point decrease in the investment return assumption/discount rate from 6.50% to 6.00% is estimated to increase the statutory contribution by about 2% for the first year of the five-year phase in. The statutory contribution will continue to increase as the full impact of the assumption change is phased in.

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

# Summary of the Actuarial Valuation

## Risk Measures Summary (\$ in Millions)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Market		Market				
	Accrued	Market	Value	Valuation	Value	Retiree	RetLiab /	AAL /	Assets /
Valuation	Liabilities	Value of	Unfunded	Payroll	Funded	Liabilities	AAL	Payroll	Payroll
Date (6/30)	(AAL)	Assets	AAL		Ratio	(RetLiab)	(6)/(1)	(1)/(4)	(2)/(4)
					(2)/(1)				
2015	\$ 39,521	\$ 17,463	\$ 22,058	\$ 4,281	44.2%	\$ 26,042	65.9%	923.3%	408.0%
2016	40,923	17,006	23,918	4,218	41.6%	27,342	66.8%	970.1%	403.1%
2017	41,853	18,485	23,369	4,184	44.2%	28,226	67.4%	1,000.2%	441.7%
2018	45,259	19,321	25,938	4,264	42.7%	30,711	67.9%	1,061.3%	453.1%
2019	46,444	19,717	26,727	4,357	42.5%	31,857	68.6%	1,066.1%	452.6%
2020	47,580	19,617	27,963	4,584	41.2%	32,862	69.1%	1,038.0%	428.0%
2021	48,898	23,768	25,130	4,639	48.6%	33,662	68.8%	1,054.1%	512.4%
2022	49,870	22,523	27,347	4,715	45.2%	34,633	69.4%	1,057.8%	477.7%
2023	51,051	23,193	27,858	5,013	45.4%	35,360	69.3%	1,018.3%	462.6%
2024	52,825	24,266	28,559	5,427	45.9%	36,230	68.6%	973.3%	447.1%

	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				Non-		Market	5-Year
	Portfolio	Std Dev %	Unfunded	Investment	NICF /	Rate of	Trailing
Valuation	StdDev	of Pay	/ Payroll	Cash Flow	Assets	Return	Average
Date (6/30)				(NICF)	(13)/(2)		
2015			515.3%	\$ (432)	-2.5%	2.9%	
2016			567.0%	(474)	-2.8%	0.1%	13.6%
2017			558.5%	(515)	-2.8%	11.9%	11.1%
2018			608.3%	(664)	-3.4%	8.3%	6.5%
2019			613.5%	(734)	-3.7%	6.0%	8.9%
2020	10.9%	46.6%	610.0%	(643)	-3.3%	2.8%	5.8%
2021	11.9%	61.0%	541.7%	(612)	-2.6%	24.7%	10.5%
2022	11.5%	54.9%	580.0%	(560)	-2.5%	-2.9%	7.4%
2023	10.9%	50.4%	555.7%	(660)	-2.8%	6.0%	6.9%
2024	10.5%	46.9%	526.2%	(699)	-2.9%	7.8%	7.3%

- (5). The Funded ratio is the most widely known measure of a plan's financial strength, but the trend in the funded ratio is much more important than the absolute ratio. The funded ratio should trend to 100%. As it approaches 100%, it is important to re-evaluate the level of investment risk in the portfolio and potentially to re-evaluate the assumed rate of return.
- (6) and (7). The ratio of Retiree liabilities to total accrued liabilities gives an indication of the maturity of the system. As the ratio increases, cash flow needs increase, and the liquidity needs of the portfolio change. A ratio on the order of 50% indicates a maturing system.
- (8) and (9). The ratios of liabilities and assets to payroll gives an indication of both maturity and volatility.



## Summary of the Actuarial Valuation

---

Many systems have ratios between 500% and 700%. Ratios significantly above that range may indicate difficulty in supporting the benefit level as a level % of payroll.

- (10) and (11). The portfolio standard deviation measures the volatility of investment return. When multiplied by the ratio of assets to payroll it gives the effect of a one standard deviation asset move as a percent of payroll. This figure helps users understand the difficulty of dealing with investment volatility and the challenges volatility brings to sustainability. This ratio is likely to increase as the plan approaches full funding which is expected to lead to increasing volatility of contribution rates.
- (12). The ratio of unfunded liability to payroll gives an indication of the plan sponsor's ability to actually pay off the unfunded liability. A ratio above approximately 300% or 400% may indicate difficulty in discharging the unfunded liability within a reasonable time frame.
- (13) and (14). The ratio of Non-Investment Cash Flow to assets is an important measure of sustainability. A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.
- (15) and (16). Investment return is probably the largest single risk that most systems face. The year-by-year return and the 5-year geometric average both give an indication of the reasonableness of the system's assumed return. Of course, past performance is not a guarantee of future results. Market rate shown is based on actuarial estimation methods and differs modestly from figures reported by SURS.

DRAFT

# Summary of the Actuarial Valuation

---

## Low-Default-Risk Obligation Measure

### INTRODUCTION

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the “Low-Default-Risk Obligation Measure” (LDROM).

### What is the LDROM?

The LDROM is a particular measure of the benefits earned (or costs accrued if appropriate under the actuarial cost method used for this purpose) as of the measurement date.

### How is the LDROM Calculated?

The LDROM is calculated using an immediate gain actuarial cost method, one in which gains and losses become part of the unfunded actuarial accrued liabilities. Examples would be Entry Age Normal Cost, Projected Unit Credit and Traditional Unit Credit. It is based upon a discount rate or discount rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.

### What Does the LDROM Tell Me?

The LDROM gives an approximate measure of the cost as of the measurement date of securing benefits by constructing a Low Default Risk Bond portfolio whose cash flows match the pattern of benefits expected to be paid in the future. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa.

### Is the LDROM the “Right” Liability that Should Be Reported?

No single number, including the LDROM, can provide all of the information necessary to understand the financial condition of a pension plan. The rationale that the ASB cited for the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below:

The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure is not intended to suggest that this is the “right” liability measure for a pension plan. However, the ASB does believe that this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.

### COMPARING THE ACCRUED LIABILITIES AND THE LDROM

The LDROM results presented in this report are based on the Projected Unit Credit (PUC) actuarial cost method and discount rates based upon the June 2024 (end of month) FTSE Pension Discount Curve (PDC). The PDC is calculated based on a universe of AA rated corporate bonds from the FTSE US Broad Investment-Grade Bond Index (USBIG®) of varying maturities and the yields of the Treasury model curve.

The 1-, 5-, 10-, 20- and 30-year rates follow: 5.50%, 4.86%, 5.09%, 5.59% and 5.33%.



## Summary of the Actuarial Valuation

---

The funding actuarial accrued liability is based on the PUC actuarial cost method and discount rate (the expected long-term rate of return on assets) of 6.50%.

Presented below is a comparison of the funding actuarial accrued liability and the LDROM as of June 30, 2024 for SURS:

\$ in millions	
Funding Valuation Actuarial Accrued Liability (PUC)	\$ 52,825
LDROM (PUC)	60,644
Difference	(7,819)

The difference between the funding actuarial accrued liability and the LDROM (\$7.8 billion) is one illustration of the potential savings in contributions (on a present value basis) due to the additional investment earnings that SURS anticipates from taking on the risk in its well-diversified portfolio (which would not be earned by investing in low-default-risk fixed income securities).

The funded status based on the LDROM is lower than the funded status based on the funding actuarial accrued liability. Since plan assets are not invested in a portfolio of low-default-risk fixed income securities, LDROM does not provide relevant information on the statutory contribution requirements. (The funded status and statutory contributions are based on the funding valuation actuarial accrued liability using a discount rate of 6.50%.) Benefit security for members of the plan relies on a combination of the current assets in the plan, the future investment returns generated on those assets, and the promise of future contributions from the plan sponsor.

The LDROM liability contained in this report was provided solely to comply with the requirements of ASOP No. 4 section 3.11 and should not be used for any other purpose. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation if the portfolio market interest rates used to settle the benefit obligations are significantly different from those used in the LDROM liability measurement.

---

**APPENDICES**

DRAFT

## **APPENDIX A**

---

### **ASSET INFORMATION**

**DRAFT**

# Table 1

## Statement of Plan Net Position

### as of June 30, 2023 and June 30, 2024

	Defined Benefit Plan	
	2023	2024
Assets		
Cash and short-term investments	\$ 237,096,814	\$ 222,096,905
Receivables		
Members	12,060,620	13,613,379
Non-employer contributing entity	-	164,327
Federal, trust funds, and other	6,670,893	5,793,003
Pending investment sales	28,349,977	149,373,271
Interest and dividends	65,494,336	69,733,191
Total receivables	112,575,826	238,677,171
Prepaid expenses	213,682,809	1,197,286
Investments, at fair value		
Equity investments	8,298,495,950	8,290,246,191
Fixed income investments	5,547,651,496	5,997,406,086
Real estate investments	2,600,700,821	2,688,603,042
Alternative investments	6,249,490,239	6,981,827,328
Total investments	22,696,338,506	23,958,082,647
Securities lending collateral	3,287,942,382	3,401,485,659
Capital assets, at cost, net of accum deprec	22,237,138	31,513,528
Total assets	26,569,873,475	27,853,053,196
Liabilities		
Benefits payable	16,345,740	16,522,947
Refunds payable	3,891,456	4,806,416
Securities lending collateral	3,287,946,154	3,401,485,659
Payable to brokers for unsettled trades	56,010,310	141,331,556
Reverse repurchase agreements	-	1,943,606
Investment expenses payable	6,502,729	11,662,286
Administrative expenses payable	5,929,185	8,806,624
Total liabilities	3,376,625,574	3,586,559,094
Plan Net Position	\$ 23,193,247,901	\$ 24,266,494,102



## Table 2

### Statement of Changes in Plan Net Position for Years Ended June 30, 2023 and June 30, 2024

	Defined Benefit Plan	
	2023	2024
Additions		
Contributions		
Employer	\$ 63,759,762	\$ 66,619,594
Non-employer contributing entity <sup>1</sup>	2,074,951,940	2,082,878,551
Member	299,585,024	335,418,683
Total Contributions	<u>2,438,296,726</u>	<u>2,484,916,828</u>
Investment Income		
Net appreciation		
in fair value of investments	1,000,441,425	1,396,793,686
Interest	181,395,783	212,419,165
Dividends	261,258,010	286,661,686
Securities lending	3,901,358	8,007,472
Gross Investment Income	<u>1,446,996,576</u>	<u>1,903,882,009</u>
Less investment expense		
Asset management expense	116,960,634	130,886,975
Securities lending expense	314,311	556,228
Net investment income	<u>1,329,721,631</u>	<u>1,772,438,806</u>
Total additions	3,768,018,357	4,257,355,634
Deductions		
Benefits	2,995,372,248	3,081,323,542
Refunds of contributions	79,236,365	78,824,843
Administrative expense	23,715,248	23,961,048
Total deductions	<u>3,098,323,861</u>	<u>3,184,109,433</u>
Net increase (decrease)	669,694,496	1,073,246,201
Plan Net Position		
Beginning of year	<u>22,523,123,405</u>	<u>23,193,247,901</u>
Impact of adoption of new accounting standards	430,000	-
Plan Net Position		
End of year	<u>\$ 23,193,247,901</u>	<u>\$ 24,266,494,102</u>

<sup>1</sup> Includes a contribution from the Pension Stabilization Fund of \$38,759,300 for 2023 and \$38,759,300 for 2024.

**Table 3**  
**Defined Benefit Plan Development of the Actuarial Value of Assets**  
**for the Year Ending June 30, 2024**

	2023	2024	2025	2026	2027	2028
Beginning of Year:						
(1) Market Value of Assets	\$ 22,523,123,405	\$ 23,193,247,901				
(1a) Adjustment as of June 30, 2022	430,000	0				
(2) Actuarial Value of Assets	22,554,752,340	23,381,240,592				
(2a) Adjustment as of June 30, 2022	430,000	0				
End of Year:						
(3) Market Value of Assets	23,193,247,901	24,266,494,102				
(4) Net of Contributions and Disbursements	(660,027,135)	(699,192,605)				
(5) Total Investment Return						
=(3)-(1)-(1a)-(4)	1,329,721,631	1,772,438,806				
(6) Projected Rate of Return	6.50%	6.50%				
(7) Projected Investment Return						
=([1)+(1a)]x(6)+([1+(6)] <sup>5-1</sup> )x(4)	1,442,917,778	1,485,195,080				
(8) Investment Return in Excess of Projected Return	(113,196,147)	287,243,726				
(9) Excess Investment Return Recognized This Year (5 year recognition)						
(9a) From This Year	(22,639,229)	57,448,745				
(9b) From One Year Ago	(442,534,802)	(22,639,229)	\$ 57,448,745			
(9c) From Two Years Ago	691,825,575	(442,534,802)	(22,639,229)	\$ 57,448,745		
(9d) From Three Years Ago	(153,482,516)	691,825,575	(442,534,802)	(22,639,229)	\$ 57,448,745	
(9e) From Four Years Ago	(30,001,419)	(153,482,517)	691,825,577	(442,534,804)	(22,639,231)	\$ 57,448,746
(9f) Total Phased-In Return	43,167,609	130,617,772	284,100,291	(407,725,288)	34,809,514	57,448,746
(10) Change in Actuarial Value of Assets						
=(4)+(7)+(9f)	826,058,252	916,620,247				
End of Year:						
<b>(3) Market Value of Assets</b>	<b>23,193,247,901</b>	<b>24,266,494,102</b>				
<b>(11) Final Actuarial Value of Assets</b>	<b>23,381,240,592</b>	<b>24,297,860,839</b>				
(12) Difference Between Market & Actuarial Values	(187,992,691)	(31,366,737)				
(13) Actuarial Value Rate of Return	6.69 %	7.02 %				
(14) Estimated Market Value Rate of Return	5.99 %	7.76 %				
(15) Ratio of Actuarial Value to Market Value	101 %	100 %				
(16) SURS Reported Market Value Rate of Return	5.34 %	8.30 %				

*Excludes RSP.*



**Table 4**  
**Development of Market and Actuarial Value of Assets as of June 30, 2024**  
**after Bonds (Valuation Basis) and before Bonds (Hypothetical Basis)**

		After Bonds (Valuation Basis)	Before Bonds (Hypothetical)
1	Market Value at 6/30/2023	\$23,193,247,901	\$20,661,712,492
2a	Employer and Non-Employer Contributing Entity Contributions <sup>1</sup>	2,149,498,145	2,292,435,842
2b	Member Contributions	335,418,683	335,418,683
2c	Benefits and Expenses	3,184,109,433	3,184,109,433
2d	Net Non-Investment Cash Flow	(699,192,605)	(556,254,908)
3	Investment Return (Based on Estimated Rate of 7.76%)	1,772,438,806	1,581,513,264
4	Expected Return (Based on Estimated Rate of 6.50%)	1,485,195,080	1,325,217,623
5	Market Value at 6/30/2024 (1+2d+3)	24,266,494,102	21,686,970,848
6	Expected Market Value at 6/30/2024 (1+2d+4)	23,979,250,376	21,430,675,207
7a	Actuarial Gain/(Loss) Current Year	287,243,726	256,295,641
7b	Actuarial Gain/(Loss) 1 Year Prior	(113,196,147)	(100,433,469)
7c	Actuarial Gain/(Loss) 2 Years Prior	(2,212,674,012)	(1,962,348,325)
7d	Actuarial Gain/(Loss) 3 Years Prior	3,459,127,877	3,062,643,460
7e	Actuarial Gain/(Loss) 4 Years Prior	(767,412,581)	(676,460,110)
8	Actuarial Value at 6/30/2023	23,381,240,592	20,829,702,879
9	Actuarial Value at 6/30/2024 (8+2d+4+.2*(7a+7b+7c+7d+7e))	24,297,860,839	21,714,605,032

<sup>1</sup> Hypothetical contributions (before bonds) are equal to the total contributions of \$2,356,030,000 minus actual fiscal year 2024 RSP contributions of \$102,353,458 plus the actual fiscal year 2024 contribution of \$38,759,300 from the Pension Stabilization Fund.

## **APPENDIX B**

---

### **ACTUARIAL DETERMINATIONS**

DRAFT

**Table 5**  
**Summary of Actuarial Values**  
**as of June 30, 2024**  
(\$ in Millions)

	Actuarial Present Value of Projected Benefits (APV)	Projected Unit Credit Values		Gross NC % of Pay <sup>1</sup>
		Actuarial Accrued Liability (AAL)	Gross Normal Cost (NC) <sup>1</sup>	
<b>1. Active Members</b>				
a. Retirement	\$18,093.5	\$ 11,789.4	\$645.1	15.07%
b. Death	285.3	170.3	12.0	0.28%
c. Disability	309.2	167.5	20.0	0.47%
d. Termination	1,937.5	1,100.2	144.5	3.38%
Total - Active Members	\$20,625.5	\$ 13,227.5	\$821.6	19.20%
<b>2. Benefit Recipients</b>				
a. Retirement	\$33,755.2	\$33,755.2	\$ 0.0	
b. Survivor	2,184.0	2,184.0	0.0	
c. Disability	291.2	291.2	0.0	
Total - Benefit Recipients	\$36,230.4	\$36,230.4	\$ 0.0	
<b>3. Other Inactive</b>	\$ 3,367.5	\$ 3,367.5		
<b>4. Grand Total</b>	\$60,223.4	\$52,825.4	\$821.6	19.20%
<b>5. Operating Expense</b>			\$ 29.7	0.69%
<b>6. Fiscal Year 2025 Total Normal Cost<sup>2</sup></b>			\$851.2	19.89%
<b>7. Expected Pay During Fiscal Year 2025 for Defined Benefit Plans<sup>1</sup></b>				\$ 4,280.0
<b>8. Present Value of Future Salaries (PVFS)<sup>1</sup></b>				\$ 37,364.7

<sup>1</sup> For members currently active as of June 30, 2024, in the Traditional and Portable defined benefit plans and includes the use of capped payroll for members hired on or after January 1, 2011.

<sup>2</sup> The normal cost as a percent of capped pay is 12.19% for Tier 2 members and 27.40% of payroll for Tier 1 members.

Excludes RSP.

Values may not add due to rounding.



**Table 6**  
**Analysis of Change in**  
**Actuarial Accrued Liability and Actuarial Value of Assets**  
**for the Year Ending June 30, 2024**  
**(\$ in Millions)**

1. Actuarial (Gain)/Loss on Actuarial Accrued Liability ("AAL")		
(a) AAL 6/30/2023		\$ 51,050.8
(b) Normal Cost FY 2024	\$ 795.6	
(c) Benefits and Admin Expenses Paid FY 2024	(3,184.1)	
(d) Interest on (a), (b), and (c) at 6.50%	3,241.9	
(e) Expected AAL 6/30/2024 (a+b+c+d)		51,904.2
(f) Actual AAL 6/30/2024 Before Assumption and Method Changes		52,288.2
(g) Actuarial (Gain)/Loss on AAL (f-e)		<u>\$ 384.0</u>
(h) Impact of Benefit Changes <sup>1</sup>		3.4
(i) Impact of Change in Actuarial Assumptions and Methods		533.8
(j) Actual AAL After Changes (f+h+i)		<u>\$ 52,825.4</u>
2. Actuarial (Gain)/Loss on Assets		
(a) Actuarial Value of Assets 6/30/2023		\$ 23,381.2
(b) Contributions FY 2024	2,484.9	
(c) Benefits and Administrative Expenses	(3,184.1)	
(d) Interest on (a), (b), and (c) at 6.50%	1,497.4	
(e) Expected Assets 6/30/2024 (a+b+c+d)		\$ 24,179.5
(f) Actual Actuarial Value of Assets 6/30/2024		24,297.9
(g) Actuarial (Gain)/Loss on Assets (e-f)		<u>\$ (118.4)</u>
3. Total Actuarial (Gain)/Loss		
(a) (Gain)/Loss on AAL		\$ 384.0
(b) (Gain)/Loss on Assets		(118.4)
(c) Net (Gain)/Loss (a+b)		<u>\$ 265.6</u>

<sup>1</sup> Beginning with the actuarial valuation as of June 30, 2024, members classified as part time for valuation purposes are valued the same as members classified as full time active members based on changes from Public Act 103-0548. The estimated increase of \$3.4 million in the liability does not include the cost of crediting additional service (if fewer than 15 days in a month are worked) or the elimination of the part time adjustment.

Excludes RSP.

Values may not add due to rounding.



**Table 7**  
**Analysis of Change in**  
**Unfunded Actuarial Accrued Liability**  
**for the Year Ending June 30, 2024**  
**(\$ in Millions)**

1. Unfunded Actuarial Accrued Liability (UAAL) at 06/30/2023	\$	27,669.5
2. Contributions		
a. Contributions equal to normal cost plus interest on UAAL		
i Interest on 1)	\$	1,798.5
ii Member contributions		335.4
iii Employer/State normal cost		460.2
iv Interest on ii and iii		25.4
v Total due	\$	2,619.6
b. Contributions paid based on funding policy		
i Member contributions	\$	335.4
ii Employer/State contributions		2,149.5 <sup>1</sup>
iii Interest on i and ii		79.5
iv Total paid	\$	2,564.4
c. Expected increase in UAAL (2a.v-2b.iv)		55.2
3. Expected UAAL at 06/30/2024 (1+2c)		27,724.7
4. (Gains)/Losses		
a. Investment income	\$	(118.4)
b. Salary increases		291.2
c. Demographic and other		92.8
d. Total	\$	265.6
5. Plan Provision Changes <sup>2</sup>		3.4
6. Assumption Changes		533.8
7. Total Change in UAAL (2c + 4d + 5 + 6)		858.0
8. UAAL at 06/30/2024 (1 + 7)	\$	28,527.5

<sup>1</sup> Includes a contribution of \$38,759,300 from the Pension Stabilization Fund.

<sup>2</sup> Beginning with the actuarial valuation as of June 30, 2024, members classified as part time for valuation purposes are valued the same as members classified as full time active members based on changes from Public Act 103-0548. The estimated increase of \$3.4 million in the liability does not include the cost of crediting additional service (if fewer than 15 days in a month are worked) or the elimination of the part time adjustment.

Excludes RSP.

Values may not add due to rounding.



## Table 8

### Analysis of Actuarial (Gains) and Losses

(\$ in Millions)

	Amount of (Gain) or Loss			
	FY 2021	FY 2022	FY 2023	FY 2024
Investment Return <sup>1</sup>	\$ (668.9)	\$ (250.9)	\$ (41.5)	\$ (118.4)
Salary Increase	(88.5)	22.9	293.9	291.2
Age and Service Retirement	9.6	15.2	(62.9)	(56.1)
General Employment Termination	28.8	0.1	0.4	10.6
Disability Incidence	(2.0)	3.4	2.9	(2.9)
In Service Mortality	3.8	1.5	0.5	7.1
Benefit Recipient <sup>2</sup>	(61.8)	(7.4)	108.2	77.6
Other <sup>3</sup>	62.8	47.7	1.5	56.5
<b>Total Actuarial (Gain)/Loss</b>	<b>\$ (716.2)</b>	<b>\$ (167.5)</b>	<b>\$ 303.0</b>	<b>\$ 265.6</b>
BOY Actuarial Accrued Liability (AAL)	\$ 47,580.5	\$ 48,898.5	\$ 49,869.9	\$ 51,050.8
(Gain)/Loss as a % of BOY AAL	(1.5)%	(0.3)%	0.6%	0.5%
<b>Total Non-Investment (Gain)/Loss</b>	<b>\$ (47.3)</b>	<b>\$ 83.4</b>	<b>\$ 344.5</b>	<b>\$ 384.0</b>
(Gain)/Loss as a % of BOY AAL	(0.1)%	0.2%	0.7%	0.8%

<sup>1</sup> Gain/Loss is based on actuarial value of assets.

<sup>2</sup> Benefit recipient (gain)/loss includes gains and losses due to mortality and unexpected changes in benefit amounts from year to year. Unexpected changes may occur when benefits that are initially paid as preliminary estimates are finalized. Mortality gains and losses include deviations in the assumed demographics of future beneficiaries compared to the actual demographics of new beneficiaries.

There is an additional load of 5% on the liabilities of retirees who are currently receiving benefits as a preliminary estimate for whom Staff provided a best formula benefit and a 10% load on the liabilities of retirees who are currently receiving benefits as a preliminary estimate for whom Staff has not provided a best formula benefit.

<sup>3</sup> Includes other experience such as deviations between actual and expected benefit payments and refunds that were not easily attributable to one of the categories above.

Excludes RSP.





**Table 9**  
**Funded Ratio and Illustrative Contributions under Funding Policy of**  
**Net Normal Cost Plus Amortization of Unfunded Liability**  
**(\$ in Millions)**

Fiscal Year	DB Payroll <sup>1</sup>	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Total Normal Cost	Member Contributions <sup>2</sup>	Amortization of UAAL (30-year open) <sup>3</sup>	Net State Contribution (30-year open) <sup>3</sup>	Amortization of UAAL (30-year closed) <sup>4</sup>	Net State Contribution (30-year closed) <sup>4</sup>	Net State 30-year closed with 1 year Interest Adjustment <sup>4</sup>
2015	\$3,606.537	\$17,104.607	\$39,520.687	\$22,416.080	43.28 %	\$730.020	\$267.682	\$1,160.318	\$1,622.656			
2016	3,513.108	17,701.646	40,923.301	23,221.655	43.26	739.549	278.884	1,205.004	1,665.669	\$1,350.394	\$1,811.060	\$1,942.361
2017	3,458.320	18,594.326	41,853.348	23,259.022	44.43	719.225	278.643	1,248.309	1,688.891	1,424.261	1,864.843	2,000.044
2018	3,470.226	19,347.886	45,258.751	25,910.865	42.75	701.871	282.726	1,250.317	1,669.462	1,442.888	1,862.033	1,997.030
2019	3,506.650	19,661.891	46,443.937	26,782.046	42.33	730.265	280.018	1,392.034	1,842.281	1,789.119	2,239.366	2,390.524
2020	3,642.617	20,091.675	47,580.470	27,488.795	42.23	729.332	282.367	1,414.304	1,861.269	1,852.066	2,299.031	2,454.215
2021	3,638.244	21,484.799	48,898.480	27,413.681	43.94	739.676	288.476	1,451.626	1,902.826	1,852.066	2,303.266	2,458.736
2022	3,613.383	22,554.752	49,869.932	27,315.180	45.23	765.300	289.071	1,449.109	1,925.338	1,901.545	2,377.774	2,532.330
2023	3,744.813	23,381.241	51,050.783	27,669.542	45.80	767.538	299.585	1,443.902	1,911.855	1,905.047	2,373.000	2,527.245
2024	4,192.734	24,297.861	52,825.365	28,527.504	46.00	795.584	335.419	1,462.634	1,922.799	1,986.020	2,446.185	2,605.187
2025						851.239	347.896	1,480.527	1,983.870	2,065.641	2,568.984	2,568.984

<sup>1</sup> Defined benefit payroll for Fiscal Year 2022 and after is based on the employee contributions in the financial statements for the fiscal year and an employee contribution rate of 8.00%. Defined Benefit Plan payroll prior to Fiscal Year 2022 is rolled forward with one year of salary scale at 3.00% (3.25% from 2018 through 2020, 3.75% prior to fiscal year 2018) and uses capped payroll for members hired on and after January 1, 2011.

<sup>2</sup> Projected for Fiscal Year 2025 and actual for years prior to Fiscal Year 2025.

<sup>3</sup> A 30-year open period amortization policy is not a funding policy recommended by GRS. This illustrative contribution was included at the request of the Governor's Office. The amortization payment was calculated as a level percentage of total uncapped payroll (assumed to increase by 3.15% each year, 3.00% for fiscal years 2022 through 2024, 3.25% for fiscal years 2018 through 2021 and 3.75% for years prior to Fiscal Year 2019).

<sup>4</sup> GRS recommends the development of and adherence to a funding policy that funds the normal cost of the plan as well as an amortization payment that would seek to pay off the total unfunded accrued liability. A 20-year closed amortization period was used for Fiscal Year 2025. (The statutory contribution would apply to Fiscal Year 2026; therefore, a one-year interest adjustment was applied). The amortization payment was calculated as a level percentage of defined benefit plan pensionable (capped) payroll for fiscal year 2024 and earlier and beginning with fiscal year 2025 is based on amortization payments that increase with the assumed rate of increase in inflation.

## **APPENDIX C**

---

### **ACTUARIAL PROJECTIONS**

**DRAFT**

## Table 10

### Baseline Projections – Actuarial Valuation June 30, 2024

#### Assumes Contributions Based on Table 12 & Investment Return of 6.50% Each Year

(\$ in Millions)

Fiscal Year Ending	Total Payroll <sup>1</sup>	RSP Payroll	DB Payroll <sup>1</sup>	SURS Contributions <sup>2</sup>	Member Contributions	Benefits	Expenses	Assets EOY	AAL	Funding Ratio	UAAL	Debt Service	Maximum Contribution <sup>3</sup>	SURS Contribution % of Total Payroll
2024	\$ 5,427.428	\$ 1,340.779	\$ 4,086.649	\$ 2,149.498	\$ 335.419	\$ 3,160.148	\$ 23.961	\$ 24,297.861	\$ 52,825.365	46.00 %	\$ 28,527.504	\$ 164.417	\$ 2,128.018	39.60 %
2025	5,812.462	1,469.196	4,343.267	2,164.008	347.896	3,361.025	29.669	25,252.382	53,638.325	47.08	28,385.943	174.604	2,167.366	37.23
2026	5,971.082	1,553.288	4,417.794	2,267.053	353.865	3,456.683	30.604	25,571.474	54,400.870	47.01	28,829.396	179.149	2,272.643	37.97
2027	6,143.199	1,641.515	4,501.684	2,307.723	360.585	3,560.398	31.568	26,321.222	55,102.381	47.77	28,781.159	183.195	2,313.596	37.57
2028	6,320.890	1,730.677	4,590.213	2,410.152	367.676	3,666.214	32.562	27,142.876	55,737.434	48.70	28,594.558	191.634	2,410.152	38.13
2029	6,501.606	1,821.360	4,680.245	2,475.686	374.888	3,769.120	33.588	27,924.572	56,304.587	49.60	28,380.015	199.325	2,475.686	38.08
2030	6,684.473	1,912.497	4,771.976	2,536.905	382.235	3,872.824	34.646	28,719.726	56,798.706	50.56	28,078.980	211.160	2,536.905	37.95
2031	6,869.887	2,005.466	4,864.421	2,602.295	389.640	3,973.065	35.737	29,537.113	57,219.199	51.62	27,682.086	221.997	2,602.295	37.88
2032	7,059.644	2,101.049	4,958.595	2,675.360	397.183	4,066.586	36.863	30,393.143	57,568.742	52.79	27,175.599	226.944	2,675.360	37.90
2033	7,255.601	2,199.741	5,055.860	2,756.614	404.974	4,153.085	38.024	31,306.244	57,850.977	54.12	26,544.733	226.249	2,756.614	37.99
2034	7,455.748	2,301.396	5,154.352	2,844.044	412.864	4,235.599	39.222	32,290.675	58,066.942	55.61	25,776.267	NA	3,065.146	38.15
2035	7,659.151	2,405.658	5,253.494	2,921.633	420.805	4,307.967	40.457	33,351.403	58,223.214	57.28	24,871.811	NA	3,148.767	38.15
2036	7,865.522	2,512.357	5,353.165	3,000.354	428.789	4,378.281	41.732	34,496.678	58,318.080	59.15	23,821.402	NA	3,233.609	38.15
2037	8,074.670	2,621.795	5,452.875	3,080.135	436.775	4,440.677	43.046	35,741.223	58,355.563	61.25	22,614.340	NA	3,319.592	38.15
2038	8,288.580	2,734.568	5,554.012	3,161.733	444.876	4,500.835	44.402	37,095.749	58,334.629	63.59	21,238.880	NA	3,407.533	38.15
2039	8,508.594	2,850.050	5,658.544	3,245.658	453.249	4,551.320	45.801	38,580.028	58,262.787	66.22	19,682.759	NA	3,497.983	38.15
2040	8,734.567	2,968.921	5,765.646	3,331.857	461.828	4,491.922	47.243	40,318.403	58,251.860	69.21	17,933.457	NA	3,590.883	38.15
2041	8,967.626	3,089.746	5,877.880	3,420.759	470.818	4,516.350	48.732	42,244.051	58,221.836	72.56	15,977.785	NA	3,686.697	38.15
2042	9,206.839	3,213.161	5,993.678	3,512.009	480.094	4,531.718	50.267	44,381.162	58,183.803	76.28	13,802.641	NA	3,785.040	38.15
2043	9,451.926	3,338.496	6,113.430	3,605.498	489.686	4,537.392	51.850	46,756.076	58,149.882	80.41	11,393.806	NA	3,885.798	38.15
2044	9,701.859	3,466.473	6,235.386	3,700.837	499.454	4,534.615	53.483	49,395.009	58,131.257	84.97	8,736.248	NA	3,988.549	38.15
2045	9,955.698	3,596.916	6,358.782	3,797.666	509.338	4,524.972	55.168	52,323.811	58,137.568	90.00	5,813.757	NA	4,092.905	38.15

Projections are based on 55% of academic and 75% of non-academic new hires electing Tier 2 and 45% of academic and 25% of non-academic new hires electing RSP and 76,637 total active members (73,018 full time and 3,619 part time) in each future year.

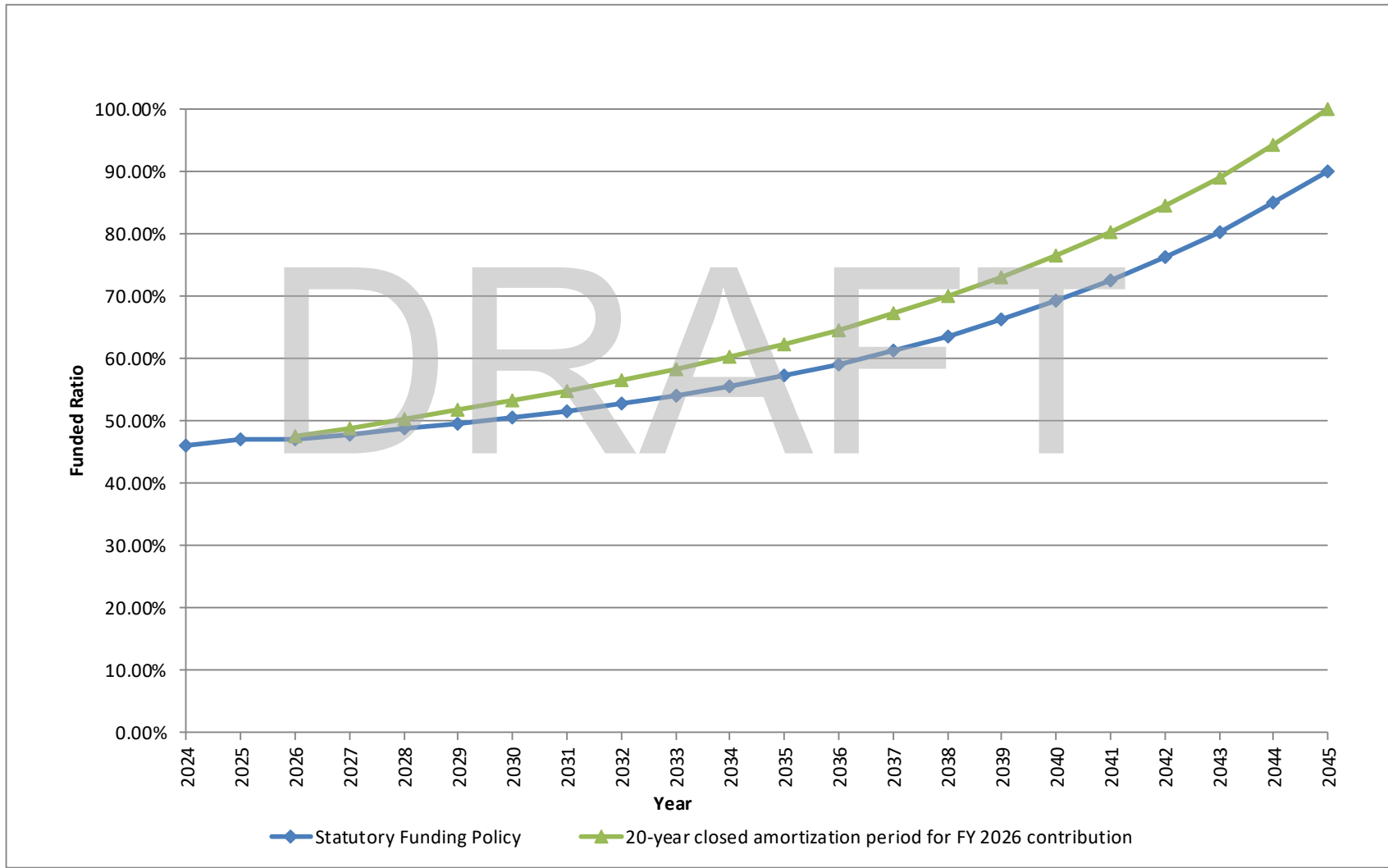
- <sup>1</sup> Payroll shown is pensionable pay. It does not include amounts in excess of the pay caps applicable to members in Tier 2 participating in the Traditional and Portable plans.
- <sup>2</sup> Excludes RSP contributions. Includes employer contributions.
- <sup>3</sup> Maximum contribution after the impact of debt service. Maximum contribution is equal to the SURS contribution shown on Table 16 (before the impact of the bonds issued in 2004) minus the debt service.



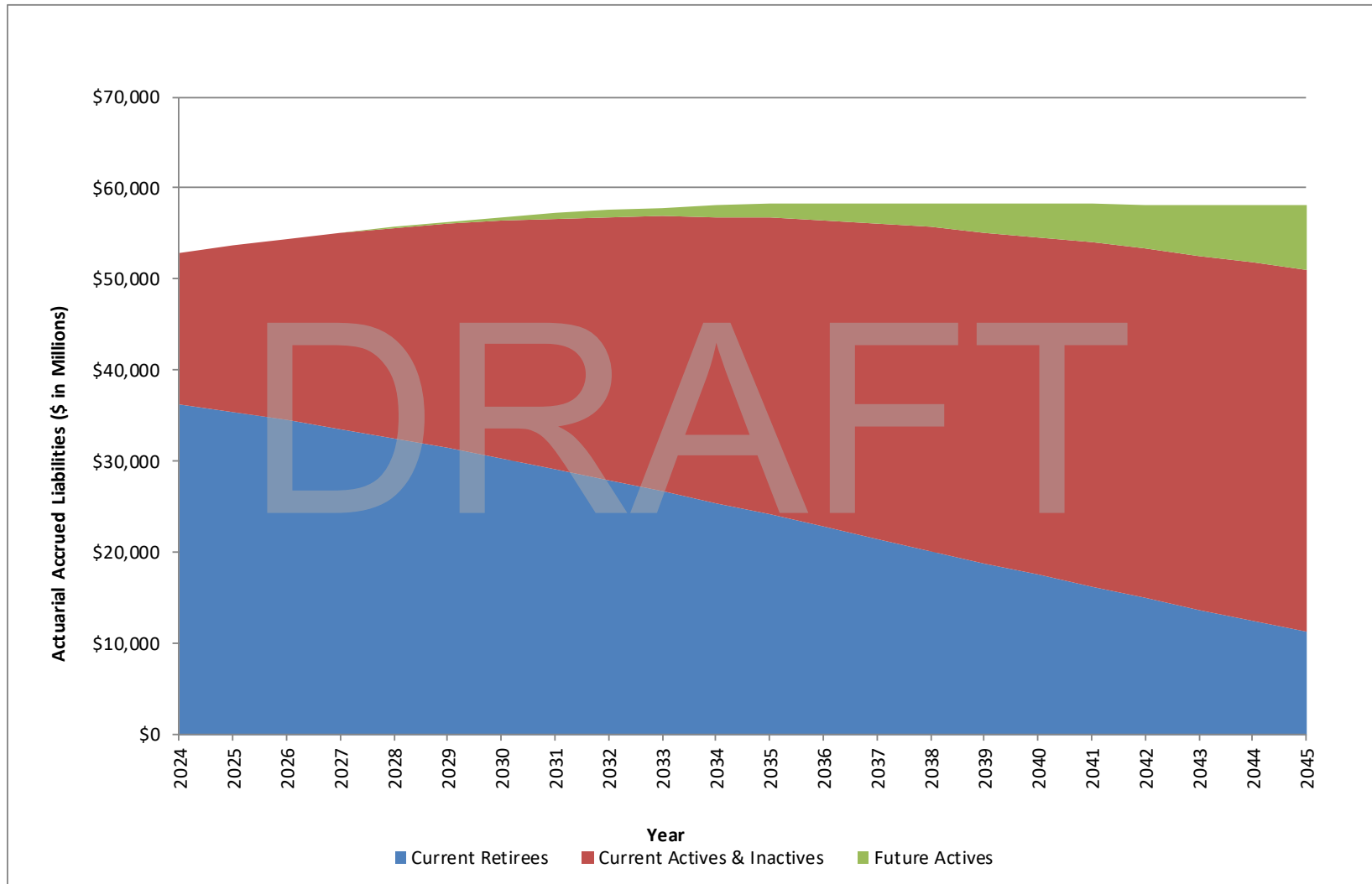
# Graph 1

## Projected Funded Ratio Based on Statutory Contributions and Alternate Policy Contributions

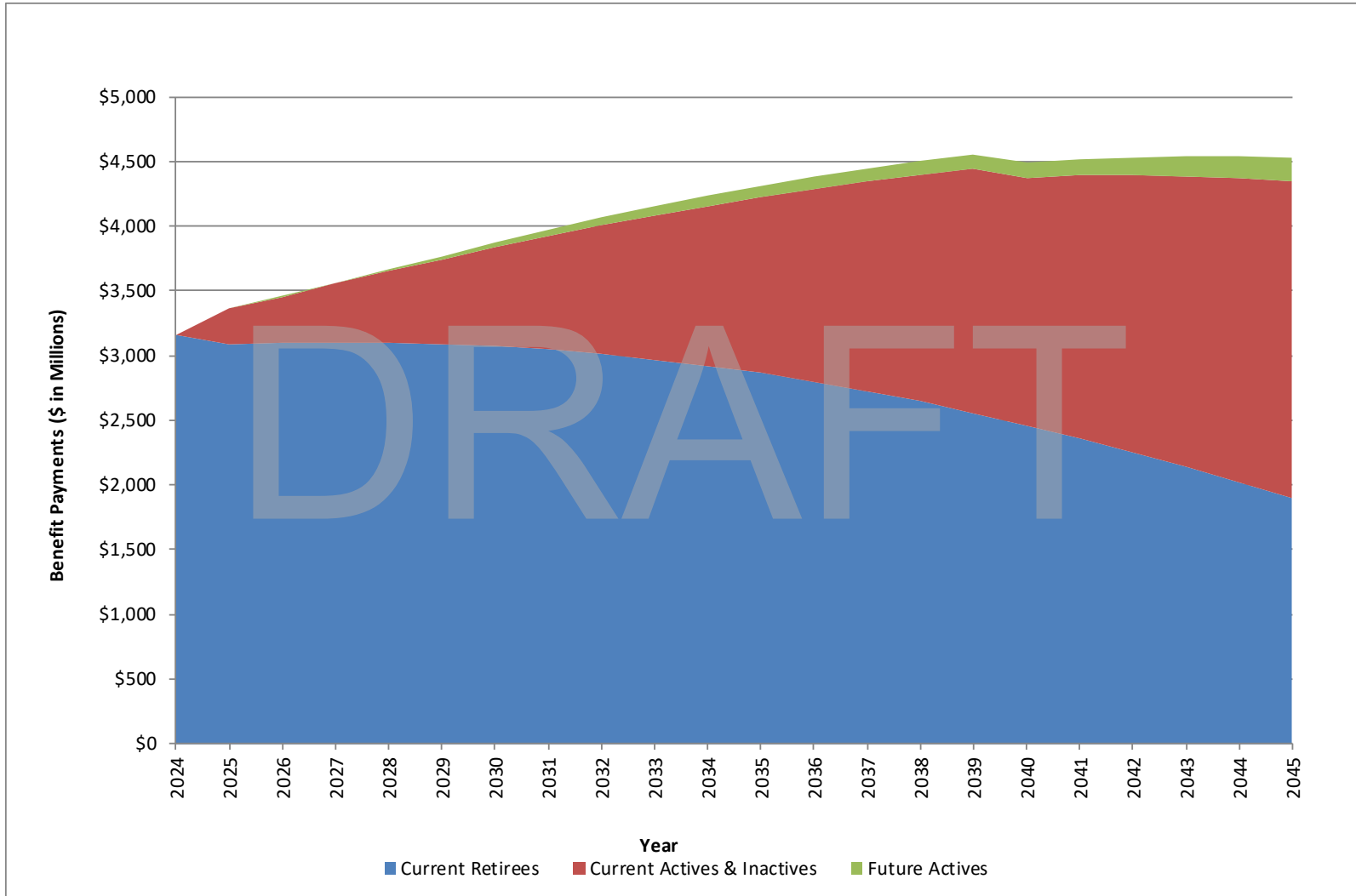
### Actuarial Valuation as of June 30, 2024 (\$ in Millions)



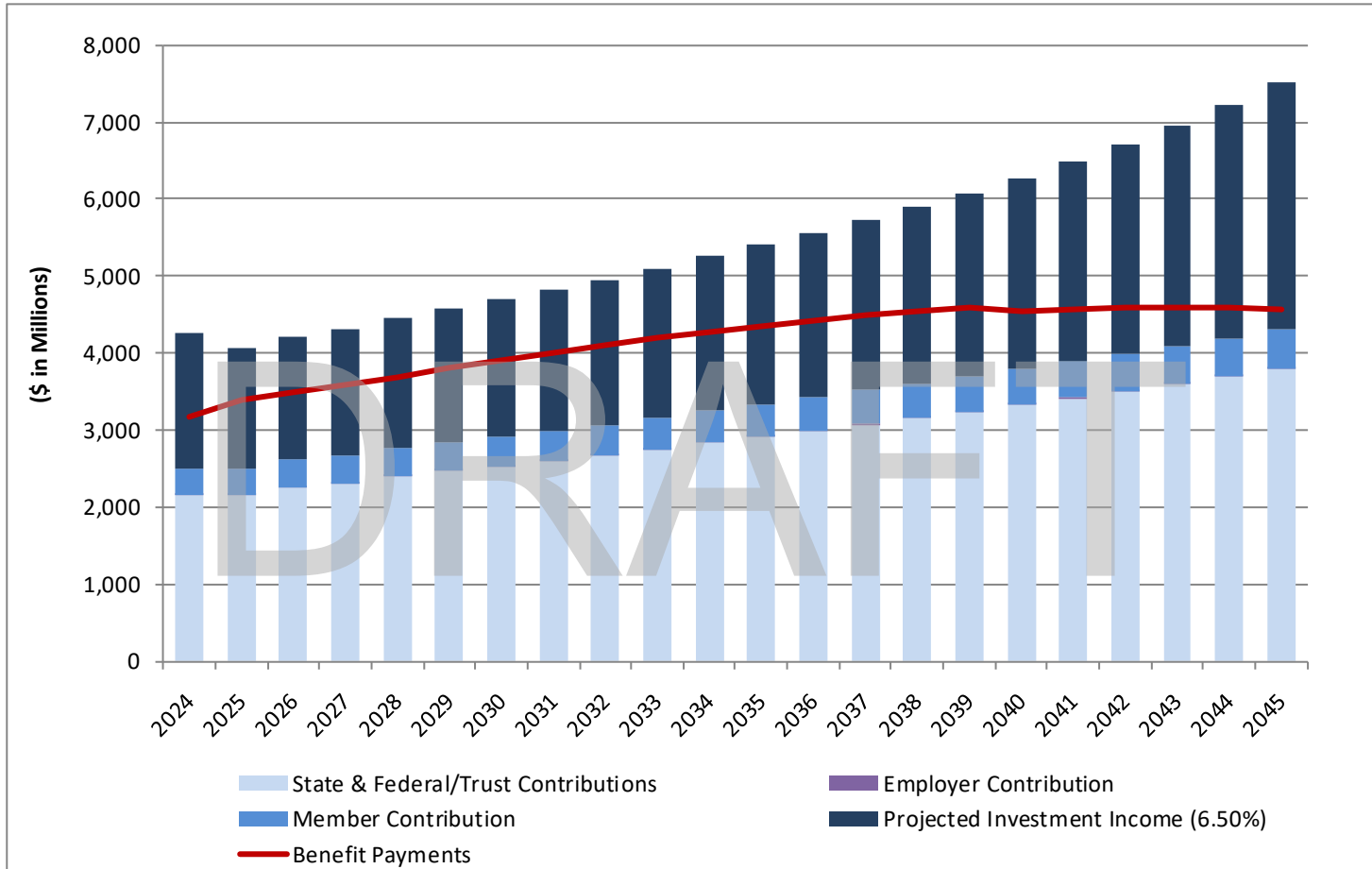
**Graph 2**  
**Projected Actuarial Accrued Liabilities**  
**Actuarial Valuation as of June 30, 2024**  
 (\$ in Millions)



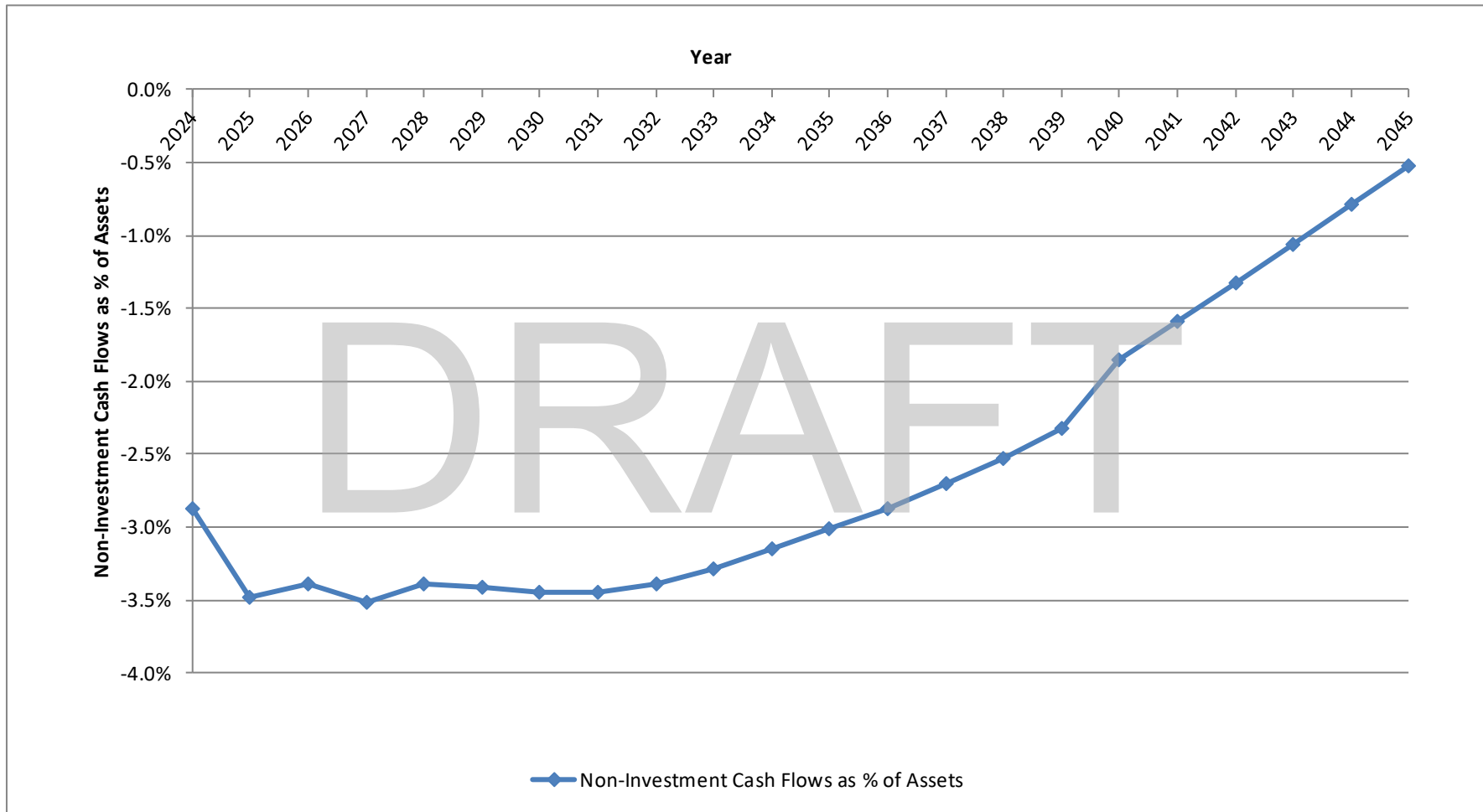
### Graph 3 Projected Benefit Payments Actuarial Valuation as of June 30, 2024 (\$ in Millions)



# Graph 4 Projected Cash Flows Actuarial Valuation as of June 30, 2024 (\$ in Millions)



## Graph 5 Projected Non-Investment Cash Flows as a Percent of Assets Actuarial Valuation as of June 30, 2024 (\$ in Millions)





**Table 11**  
**Projected Statutory Contributions for the Actuarial Valuation as of June 30, 2024**  
**Before Impact of Bonds Issued in 2004**  
(\$ in Millions)

FYE	SURS Cont. <sup>1</sup>	RSP Cont. <sup>1</sup>	Combined State and Employer Contribution	
			\$	% of Pay <sup>2</sup>
2025	\$ 2,341.969	\$ 103.986	\$ 2,445.955	42.08 %
2026	2,451.791	111.492	2,563.283	42.93
2027	2,496.790	116.682	2,613.472	42.54
2028	2,601.786	122.991	2,724.777	43.11
2029	2,675.012	129.408	2,804.420	43.13
2030	2,748.066	135.857	2,883.923	43.14
2031	2,824.292	142.438	2,966.730	43.18
2032	2,902.303	149.203	3,051.506	43.22
2033	2,982.863	156.188	3,139.051	43.26
2034	3,065.146	163.383	3,228.529	43.30
2035	3,148.767	170.763	3,319.530	43.34
2036	3,233.609	178.316	3,411.925	43.38
2037	3,319.592	186.063	3,505.655	43.42
2038	3,407.533	194.046	3,601.579	43.45
2039	3,497.983	202.221	3,700.204	43.49
2040	3,590.883	210.636	3,801.519	43.52
2041	3,686.697	219.191	3,905.888	43.56
2042	3,785.040	227.929	4,012.969	43.59
2043	3,885.798	236.805	4,122.603	43.62
2044	3,988.549	245.868	4,234.417	43.65
2045	4,092.905	255.107	4,348.012	43.67
Total	\$66,727.374	\$3,658.573	\$70,385.947	

<sup>1</sup> Assumes 75% of new hires elect Tier 2 and 25% elect to participate in the Retirement Savings Plan (RSP) for the Non-Academic members and 55% of new hires elect Tier 2 and 45% elect to participate in the Retirement Savings Plan (RSP) for the Academic members.

<sup>2</sup> Percent of pay amounts are calculated based on pensionable pay. Pensionable pay does not include amounts in excess of the pay caps applicable to members in Tier 2 participating in the Traditional and Portable plans.

**Table 12**  
**Projected Statutory Contributions for the Actuarial Valuation as of June 30, 2024**  
**Including Impact of Bonds Issued in 2004**  
**(\$ in Millions)**

FYE	SURS Cont. <sup>1</sup>	RSP Cont. <sup>1</sup>	Combined State and Employer Contribution		Debt Service		SURS Alternate Policy Contribution <sup>3</sup>		Projected % of Alternate Policy Contributed <sup>4</sup>	Employer Contributions	Federal/Trust Fund Contributions <sup>5</sup>	Qualified Plan State Contribution
			\$	% of Pay <sup>2</sup>	\$	% of Pay <sup>2</sup>	SURS Cont.	Total (w/RSP)				
2025	\$ 2,164.008	\$ 103.986	\$ 2,267.994	39.02 %	\$ 174.604	3.00 %	\$ 2,164.008	\$ 2,267.994		\$ 3.474	\$ 70.500	\$ 2,194.020
2026	2,267.053	111.492	2,378.545	39.83	179.149	3.00	2,568.984	2,680.476	88.74 %	3.386	76.000	2,299.159
2027	2,307.723	116.682	2,424.405	39.46	183.195	2.98	2,588.173	2,704.855	89.63	4.070	76.000	2,344.335
2028	2,410.152	122.991	2,533.143	40.08	191.634	3.03	2,666.046	2,789.037	90.82	3.677	76.000	2,453.466
2029	2,475.686	129.408	2,605.094	40.07	199.325	3.07	2,707.775	2,837.183	91.82	3.479	76.000	2,525.615
2030	2,536.905	135.857	2,672.762	39.98	211.160	3.16	2,748.647	2,884.504	92.66	3.279	76.000	2,593.483
2031	2,602.295	142.438	2,744.733	39.95	221.997	3.23	2,796.338	2,938.776	93.40	3.067	76.000	2,665.666
2032	2,675.360	149.203	2,824.563	40.01	226.944	3.21	2,846.166	2,995.369	94.30	2.860	76.000	2,821.703
2033	2,756.614	156.188	2,912.802	40.15	226.249	3.12	2,898.049	3,054.237	95.37	2.647	76.000	2,910.155
2034	2,844.044	163.383	3,007.427	40.34			2,952.469	3,115.852	96.52	2.458	76.000	3,004.969
2035	2,921.633	170.763	3,092.396	40.38			3,010.004	3,180.767	97.22	2.279	76.000	3,090.117
2036	3,000.354	178.316	3,178.670	40.41			3,069.874	3,248.190	97.86	2.103	76.000	3,176.567
2037	3,080.135	186.063	3,266.198	40.45			3,131.820	3,317.883	98.44	1.936	76.000	3,264.262
2038	3,161.733	194.046	3,355.779	40.49			3,195.830	3,389.876	98.99	1.763	76.000	3,354.016
2039	3,245.658	202.221	3,447.879	40.52			3,262.601	3,464.822	99.51	1.592	76.000	3,446.287
2040	3,331.857	210.636	3,542.493	40.56			3,333.343	3,543.979	99.96	1.424	76.000	3,541.069
2041	3,420.759	219.191	3,639.950	40.59			3,409.172	3,628.363	100.32	1.275	76.000	3,638.675
2042	3,512.009	227.929	3,739.938	40.62			3,491.768	3,719.697	100.54	1.133	76.000	3,738.805
2043	3,605.498	236.805	3,842.303	40.65			3,583.843	3,820.648	100.57	1.002	76.000	3,841.301
2044	3,700.837	245.868	3,946.705	40.68			3,689.811	3,935.679	100.28	0.887	76.000	3,945.818
2045	3,797.666	255.107	4,052.773	40.71			3,828.270	4,083.377	99.25	0.786	76.000	4,051.987
Total	\$ 61,817.979	\$ 3,658.573	\$ 65,476.552		\$ 1,814.256		\$ 63,942.994	\$ 67,601.567		\$ 48.578	\$ 1,590.500	\$ 64,901.474

<sup>1</sup> Assumes 75% of new hires elect Tier 2 and 25% elect to participate in the Retirement Savings Plan (RSP) for the Non-Academic members and 55% of new hires elect Tier 2 and 45% elect to participate in the Retirement Savings Plan (RSP) for the Academic members.

<sup>2</sup> Percent of pay amounts are calculated based on pensionable pay. Pensionable pay does not include amounts in excess of the pay caps applicable to members in Tier 2 participating in the Traditional and Portable plans.

<sup>3</sup> Alternate funding policy of normal cost plus 20-year closed period amortization for FY 2026 with assumed annual increases in the amortization payment of 2.40% (assumed increases in inflation).

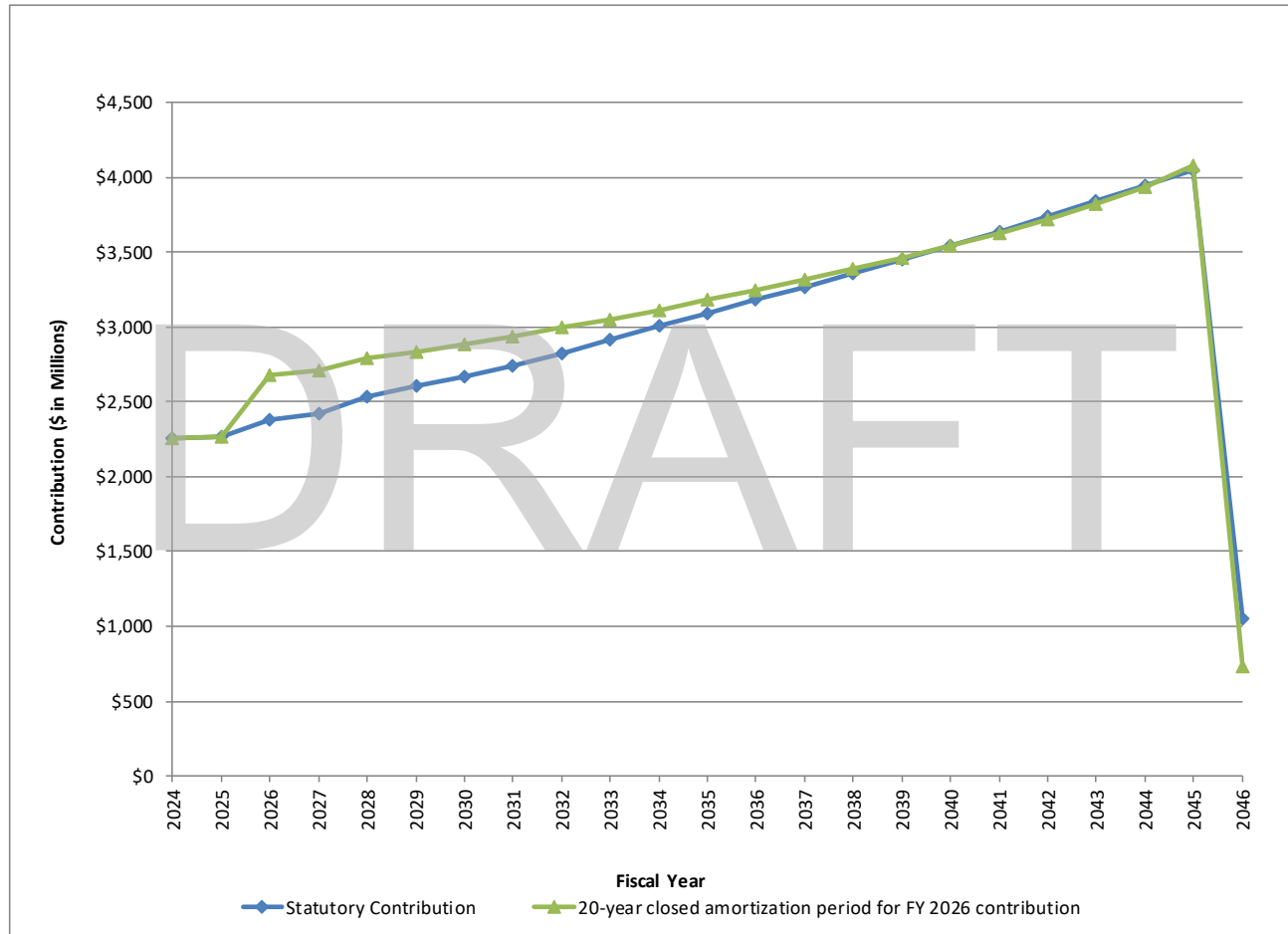
<sup>4</sup> Compares the SURS Statutory contribution (targets a funded ratio of 90% in 2045) against a reasonable Actuarially Determined Contribution that fully amortizes the current unfunded liability by fiscal year 2045.

<sup>5</sup> Federal/Trust fund contributions for fiscal years 2024 and 2025 were provided by SURS staff. Projected amounts for fiscal years 2026 and after are assumed to remain the same as the fiscal year 2025 amount.



## Graph 6

### Projected Statutory Contributions vs. Contributions under Alternate Policy (Net Normal Cost Plus Closed Period Amortization) (20 years remaining in Amortization Period for FY 2026 Contribution) (\$ in Millions)



*Alternate funding policy of net normal cost plus closed period amortization of the unfunded liability based on amortization payments that increase at the assumed rate of increase in inflation that would seek to pay off the total unfunded accrued liability by 2045 (20-year closed amortization for the FY 2026 contribution). Alternate funding policy contributions are based on actual assets as of the current valuation date and the alternate policy contribution being made beginning in FY 2026.*

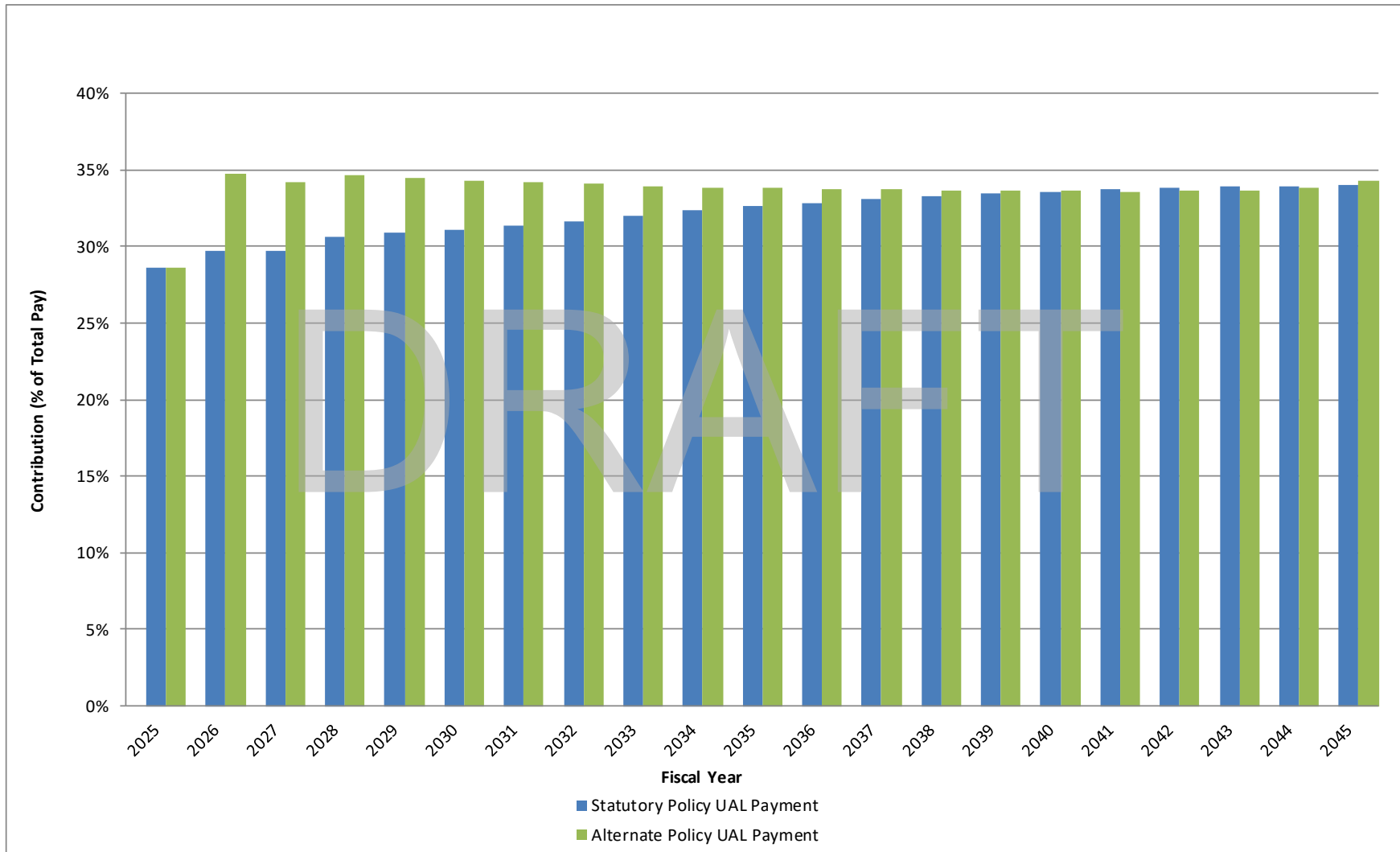
**Table 13**  
**Projected Net Normal Cost Contributions, Unfunded Liability Contributions and**  
**Single Equivalent Amortization Period under the**  
**Statutory and Alternate Funding Policies**  
**(\$ in Millions)**

Fiscal Year Ending	Alternate Policy			SURS Contributions (Excludes RSP)					Alternate Policy Contributions				
	UAL	UAL	DB Payroll <sup>1</sup>	RSP Payroll	Total Payroll	Net Normal Cost	UAL Payment	Equivalent Total	Amort. Period (Yrs)	Net Normal Cost	UAL Payment	Total	Amortization Period (Yrs)
2025	\$ 28,385.943	\$ 28,385.943	\$ 4,343.267	\$ 1,469.196	\$ 5,812.462	\$ 503.343	\$ 1,660.665	\$ 2,164.008		\$ 503.343	\$ 1,660.665	\$ 2,164.008	
2026	28,829.396	28,517.807	4,417.794	1,553.288	5,971.082	493.909	1,773.144	2,267.053		493.909	2,075.075	2,568.984	20
2027	28,781.159	28,159.895	4,501.684	1,641.515	6,143.199	484.696	1,823.027	2,307.723		484.696	2,103.477	2,588.173	19
2028	28,594.558	27,668.832	4,590.213	1,730.677	6,320.890	475.833	1,934.319	2,410.152		475.833	2,190.213	2,666.046	18
2029	28,380.015	27,154.604	4,680.245	1,821.360	6,501.606	466.760	2,008.926	2,475.686		466.760	2,241.015	2,707.775	17
2030	28,078.980	26,555.402	4,771.976	1,912.497	6,684.473	457.680	2,079.225	2,536.905		457.680	2,290.968	2,748.647	16
2031	27,682.086	25,859.224	4,864.421	2,005.466	6,869.887	449.143	2,153.152	2,602.295		449.143	2,347.196	2,796.338	15
2032	27,175.599	25,057.981	4,958.595	2,101.049	7,059.644	441.010	2,234.350	2,675.360		441.010	2,405.157	2,846.166	14
2033	26,544.733	24,143.511	5,055.860	2,199.741	7,255.601	433.644	2,322.970	2,756.614		433.644	2,464.406	2,898.049	13
2034	25,776.267	23,107.071	5,154.352	2,301.396	7,455.748	427.471	2,416.573	2,844.044		427.471	2,524.998	2,952.469	12
2035	24,871.812	21,937.920	5,253.494	2,405.658	7,659.151	421.691	2,499.942	2,921.633		421.691	2,588.313	3,010.004	11
2036	23,821.402	20,625.065	5,353.165	2,512.357	7,865.522	415.947	2,584.407	3,000.354		415.947	2,653.927	3,069.874	10
2037	22,614.340	19,156.902	5,452.875	2,621.795	8,074.670	410.092	2,670.043	3,080.135		410.092	2,721.729	3,131.820	9
2038	21,238.880	17,521.520	5,554.012	2,734.568	8,288.580	404.539	2,757.194	3,161.733		404.539	2,791.292	3,195.830	8
2039	19,682.759	15,706.286	5,658.544	2,850.050	8,508.594	400.036	2,845.622	3,245.658		400.036	2,862.565	3,262.601	7
2040	17,933.457	13,696.980	5,765.646	2,968.921	8,734.567	397.055	2,934.802	3,331.857		397.055	2,936.288	3,333.343	6
2041	15,977.785	11,477.896	5,877.880	3,089.746	8,967.626	396.165	3,024.594	3,420.759		396.165	3,013.007	3,409.172	5
2042	13,802.641	9,031.147	5,993.678	3,213.161	9,206.839	397.922	3,114.087	3,512.009		397.922	3,093.846	3,491.768	4
2043	11,393.806	6,334.513	6,113.430	3,338.496	9,451.926	401.968	3,203.530	3,605.498		401.968	3,181.875	3,583.843	3
2044	8,736.248	3,359.480	6,235.386	3,466.473	9,701.859	408.014	3,292.823	3,700.837		408.014	3,281.798	3,689.811	2
2045	5,813.757	55.915	6,358.782	3,596.916	9,955.698	415.510	3,382.156	3,797.666		415.510	3,412.761	3,828.270	1
<b>Total</b>						9,102.427	52,715.553	61,817.979		9,102.427	54,840.567	63,942.994	

*The alternative funding policy would require higher contributions in the near term compared to the Statutory funding policy. However, the funded ratio would increase more quickly and require lower contributions than under the Statutory policy starting in fiscal year 2041. The Statutory contributions are projected to continue to increase at a faster rate than under the alternative funding policy in order to meet the ultimate funding objective of a 90% funded ratio in 2045.*

# Graph 7

## Projected Unfunded Liability Contribution Rates Under the Statutory and Alternate Funding Policies (\$ in Millions)



Contribution rates are calculated based on total projected payroll (including RSP payroll).



## **APPENDIX D**

---

### **ADDITIONAL PROJECTION DETAILS**

DRAFT

Table 14

**Projections – Does Not Reflect Recognition of Deferred Asset Gains and Losses in Projected Actuarial Value of Assets (Impact of Bonds Issued in 2004 Included)**  
**Assumes Investment Return of 6.50% Each Year on Actuarial Value of Assets**  
**(\$ in Millions)**

Fiscal Year Ending	Total Payroll <sup>1</sup>	RSP Payroll	DB Payroll <sup>1</sup>	SURS Contributions <sup>2</sup>	Member Contributions	Benefits	Expenses	Assets EOY	AAL	Funding Ratio	UAAL	Debt Service	Maximum Contribution <sup>3</sup>	SURS Contribution % of Total Payroll
2024	\$ 5,427.428	\$ 1,340.779	\$ 4,086.649	\$ 2,149.498	\$ 335.419	\$ 3,160.148	\$ 23.961	\$ 24,297.861	\$ 52,825.365	46.00 %	\$ 28,527.504	\$ 164.417	\$ 2,128.018	39.60 %
2025	5,812.462	1,469.196	4,343.267	2,164.008	347.896	3,361.025	29.669	24,970.321	53,638.325	46.55	28,668.004	174.604	2,167.366	37.23
2026	5,971.082	1,553.288	4,417.794	2,267.053	353.865	3,456.683	30.604	25,699.310	54,400.870	47.24	28,701.560	179.149	2,272.643	37.97
2027	6,143.199	1,641.515	4,501.684	2,331.172	360.585	3,560.398	31.568	26,440.760	55,102.381	47.98	28,661.621	183.195	2,333.127	37.95
2028	6,320.890	1,730.677	4,590.213	2,399.367	367.676	3,666.214	32.562	27,197.872	55,737.434	48.80	28,539.562	191.634	2,399.367	37.96
2029	6,501.606	1,821.360	4,680.245	2,467.704	374.888	3,769.120	33.588	27,974.905	56,304.587	49.68	28,329.682	199.325	2,467.704	37.96
2030	6,684.473	1,912.497	4,771.976	2,533.557	382.235	3,872.824	34.646	28,769.875	56,798.706	50.65	28,028.831	211.160	2,533.557	37.90
2031	6,869.887	2,005.466	4,864.421	2,598.854	389.640	3,973.065	35.737	29,586.971	57,219.199	51.71	27,632.228	221.997	2,598.854	37.83
2032	7,059.644	2,101.049	4,958.595	2,671.823	397.183	4,066.586	36.863	30,442.593	57,568.742	52.88	27,126.149	226.944	2,671.823	37.85
2033	7,255.601	2,199.741	5,055.860	2,752.980	404.974	4,153.085	38.024	31,355.158	57,850.977	54.20	26,495.819	226.249	2,752.980	37.94
2034	7,455.748	2,301.396	5,154.352	2,838.941	412.864	4,235.599	39.222	32,337.502	58,066.942	55.69	25,729.440	NA	3,061.412	38.08
2035	7,659.151	2,405.658	5,253.494	2,916.391	420.805	4,307.967	40.457	33,395.863	58,223.214	57.36	24,827.351	NA	3,144.931	38.08
2036	7,865.522	2,512.357	5,353.165	2,994.971	428.789	4,378.281	41.732	34,538.472	58,318.080	59.22	23,779.608	NA	3,229.669	38.08
2037	8,074.670	2,621.795	5,452.875	3,074.609	436.775	4,440.677	43.046	35,780.030	58,355.563	61.31	22,575.533	NA	3,315.547	38.08
2038	8,288.580	2,734.568	5,554.012	3,156.060	444.876	4,500.835	44.402	37,131.225	58,334.629	63.65	21,203.404	NA	3,403.381	38.08
2039	8,508.594	2,850.050	5,658.544	3,239.835	453.249	4,551.320	45.801	38,611.800	58,262.787	66.27	19,650.987	NA	3,493.722	38.08
2040	8,734.567	2,968.921	5,765.646	3,325.879	461.828	4,491.922	47.243	40,346.070	58,251.860	69.26	17,905.790	NA	3,586.508	38.08
2041	8,967.626	3,089.746	5,877.880	3,414.621	470.818	4,516.350	48.732	42,267.183	58,221.836	72.60	15,954.653	NA	3,682.205	38.08
2042	9,206.839	3,213.161	5,993.678	3,505.707	480.094	4,531.718	50.267	44,399.294	58,183.803	76.31	13,784.509	NA	3,780.429	38.08
2043	9,451.926	3,338.496	6,113.430	3,599.029	489.686	4,537.392	51.850	46,768.710	58,149.882	80.43	11,381.172	NA	3,881.064	38.08
2044	9,701.859	3,466.473	6,235.386	3,694.197	499.454	4,534.615	53.483	49,401.612	58,131.257	84.98	8,729.645	NA	3,983.689	38.08
2045	9,955.698	3,596.916	6,358.782	3,790.852	509.338	4,524.972	55.168	52,323.811	58,137.568	90.00	5,813.757	NA	4,087.918	38.08

<sup>1</sup> Payroll shown is pensionable pay. It does not include amounts in excess of the pay caps applicable to members in Tier 2 participating in the Traditional and Portable plans.

<sup>2</sup> Excludes RSP contributions. Includes employer contributions.

<sup>3</sup> Maximum contribution after impact of debt service.



Table 15

Hypothetical Assets to Determine Maximum Contribution

Projections – Reflects Recognition of Deferred Asset Gains and Losses in Projected Actuarial Value of Assets (Before Impact of Bonds Issued in 2004)  
(\$ in Millions)

Fiscal Year Ending	Total Payroll <sup>1</sup>	RSP Payroll	DB Payroll <sup>1</sup>	SURS Contributions <sup>2</sup>	Member Contributions	Benefits	Expenses	Assets EOY	AAL	Funding Ratio	UAAL	Debt Service	SURS Contribution % of Total Payroll
2024	\$ 5,427.428	\$ 1,340.779	\$ 4,086.649	\$ 2,292.436	\$ 335.419	\$ 3,160.148	\$ 23.961	\$ 21,714.605	\$ 52,825.365	41.11 %	\$ 31,110.760	NA	42.24 %
2025	5,812.462	1,469.196	4,343.267	2,341.969	347.896	3,361.025	29.669	22,652.243	53,638.325	42.23	30,986.082	NA	40.29
2026	5,971.082	1,553.288	4,417.794	2,451.791	353.865	3,456.683	30.604	23,041.780	54,400.870	42.36	31,359.090	NA	41.06
2027	6,143.199	1,641.515	4,501.684	2,496.790	360.585	3,560.398	31.568	23,817.938	55,102.381	43.22	31,284.443	NA	40.64
2028	6,320.890	1,730.677	4,590.213	2,601.786	367.676	3,666.214	32.562	24,668.051	55,737.434	44.26	31,069.383	NA	41.16
2029	6,501.606	1,821.360	4,680.245	2,675.012	374.888	3,769.120	33.588	25,494.585	56,304.587	45.28	30,810.002	NA	41.14
2030	6,684.473	1,912.497	4,771.976	2,748.066	382.235	3,872.824	34.646	26,349.704	56,798.706	46.39	30,449.002	NA	41.11
2031	6,869.887	2,005.466	4,864.421	2,824.292	389.640	3,973.065	35.737	27,242.139	57,219.199	47.61	29,977.060	NA	41.11
2032	7,059.644	2,101.049	4,958.595	2,902.303	397.183	4,066.586	36.863	28,183.198	57,568.742	48.96	29,385.544	NA	41.11
2033	7,255.601	2,199.741	5,055.860	2,982.863	404.974	4,153.085	38.024	29,186.140	57,850.977	50.45	28,664.837	NA	41.11
2034	7,455.748	2,301.396	5,154.352	3,065.146	412.864	4,235.599	39.222	30,260.939	58,066.942	52.11	27,806.003	NA	41.11
2035	7,659.151	2,405.658	5,253.494	3,148.767	420.805	4,307.967	40.457	31,424.134	58,223.214	53.97	26,799.080	NA	41.11
2036	7,865.522	2,512.357	5,353.165	3,233.609	428.789	4,378.281	41.732	32,684.852	58,318.080	56.05	25,633.228	NA	41.11
2037	8,074.670	2,621.795	5,452.875	3,319.592	436.775	4,440.677	43.046	34,058.745	58,355.563	58.36	24,296.818	NA	41.11
2038	8,288.580	2,734.568	5,554.012	3,407.533	444.876	4,500.835	44.402	35,557.573	58,334.629	60.95	22,777.056	NA	41.11
2039	8,508.594	2,850.050	5,658.544	3,497.983	453.249	4,551.320	45.801	37,202.267	58,262.787	63.85	21,060.520	NA	41.11
2040	8,734.567	2,968.921	5,765.646	3,590.883	461.828	4,491.922	47.243	39,118.399	58,251.860	67.15	19,133.461	NA	41.11
2041	8,967.626	3,089.746	5,877.880	3,686.697	470.818	4,516.350	48.732	41,240.492	58,221.836	70.83	16,981.344	NA	41.11
2042	9,206.839	3,213.161	5,993.678	3,785.040	480.094	4,531.718	50.267	43,594.137	58,183.803	74.92	14,589.666	NA	41.11
2043	9,451.926	3,338.496	6,113.430	3,885.798	489.686	4,537.392	51.850	46,207.160	58,149.882	79.46	11,942.722	NA	41.11
2044	9,701.859	3,466.473	6,235.386	3,988.549	499.454	4,534.615	53.483	49,107.328	58,131.257	84.48	9,023.929	NA	41.11
2045	9,955.698	3,596.916	6,358.782	4,092.905	509.338	4,524.972	55.168	52,322.114	58,137.568	90.00	5,815.454	NA	41.11

<sup>1</sup> Payroll shown is pensionable pay. It does not include amounts in excess of the pay caps applicable to members in Tier 2 participating in the Traditional and Portable plans.

<sup>2</sup> Excludes RSP contributions. Includes employer contributions.





**Table 16**  
**Hypothetical Assets to Determine Maximum Contribution**

**Projections – Does Not Reflect Recognition of Deferred Asset Gains and Losses in Projected Actuarial Value of Assets  
(Before Impact of Bonds Issued in 2004)**

**Assumes Investment Return of 6.50% Each Year on Actuarial Value of Assets  
(\$ in Millions)**

Fiscal Year Ending	Total Payroll <sup>1</sup>	RSP Payroll	DB Payroll <sup>1</sup>	SURS Contributions <sup>2</sup>	Member Contributions	Benefits	Expenses	Assets EOY	AAL	Funding Ratio	UAAL	Debt Service	SURS Contribution % of Total Payroll
2024	\$ 5,427.428	\$ 1,340.779	\$ 4,086.649	\$ 2,292.436	\$ 335.419	\$ 3,160.148	\$ 23.961	\$ 21,714.605	\$ 52,825.365	41.11 %	\$ 31,110.760	NA	42.24 %
2025	5,812.462	1,469.196	4,343.267	2,341.969	347.896	3,361.025	29.669	22,402.807	53,638.325	41.77	31,235.518	NA	40.29
2026	5,971.082	1,553.288	4,417.794	2,451.791	353.865	3,456.683	30.604	23,155.555	54,400.870	42.56	31,245.315	NA	41.06
2027	6,143.199	1,641.515	4,501.684	2,516.321	360.585	3,560.398	31.568	23,922.733	55,102.381	43.42	31,179.648	NA	40.96
2028	6,320.890	1,730.677	4,590.213	2,591.002	367.676	3,666.214	32.562	24,713.938	55,737.434	44.34	31,023.496	NA	40.99
2029	6,501.606	1,821.360	4,680.245	2,667.030	374.888	3,769.120	33.588	25,535.217	56,304.587	45.35	30,769.370	NA	41.02
2030	6,684.473	1,912.497	4,771.976	2,744.718	382.235	3,872.824	34.646	26,389.522	56,798.706	46.46	30,409.184	NA	41.06
2031	6,869.887	2,005.466	4,864.421	2,820.851	389.640	3,973.065	35.737	27,280.993	57,219.199	47.68	29,938.206	NA	41.06
2032	7,059.644	2,101.049	4,958.595	2,898.767	397.183	4,066.586	36.863	28,220.930	57,568.742	49.02	29,347.812	NA	41.06
2033	7,255.601	2,199.741	5,055.860	2,979.229	404.974	4,153.085	38.024	29,222.573	57,850.977	50.51	28,628.404	NA	41.06
2034	7,455.748	2,301.396	5,154.352	3,061.412	412.864	4,235.599	39.222	30,295.886	58,066.942	52.17	27,771.056	NA	41.06
2035	7,659.151	2,405.658	5,253.494	3,144.931	420.805	4,307.967	40.457	31,457.393	58,223.214	54.03	26,765.821	NA	41.06
2036	7,865.522	2,512.357	5,353.165	3,229.669	428.789	4,378.281	41.732	32,716.208	58,318.080	56.10	25,601.872	NA	41.06
2037	8,074.670	2,621.795	5,452.875	3,315.547	436.775	4,440.677	43.046	34,087.965	58,355.563	58.41	24,267.598	NA	41.06
2038	8,288.580	2,734.568	5,554.012	3,403.381	444.876	4,500.835	44.402	35,584.408	58,334.629	61.00	22,750.221	NA	41.06
2039	8,508.594	2,850.050	5,658.544	3,493.722	453.249	4,551.320	45.801	37,226.448	58,262.787	63.89	21,036.339	NA	41.06
2040	8,734.567	2,968.921	5,765.646	3,586.508	461.828	4,491.922	47.243	39,139.637	58,251.860	67.19	19,112.223	NA	41.06
2041	8,967.626	3,089.746	5,877.880	3,682.205	470.818	4,516.350	48.732	41,258.475	58,221.836	70.86	16,963.361	NA	41.06
2042	9,206.839	3,213.161	5,993.678	3,780.429	480.094	4,531.718	50.267	43,608.530	58,183.803	74.95	14,575.273	NA	41.06
2043	9,451.926	3,338.496	6,113.430	3,881.064	489.686	4,537.392	51.850	46,217.602	58,149.882	79.48	11,932.280	NA	41.06
2044	9,701.859	3,466.473	6,235.386	3,983.689	499.454	4,534.615	53.483	49,113.434	58,131.257	84.49	9,017.823	NA	41.06
2045	9,955.698	3,596.916	6,358.782	4,087.918	509.338	4,524.972	55.168	52,323.472	58,137.568	90.00	5,814.096	NA	41.06

<sup>1</sup> Payroll shown is pensionable pay. It does not include amounts in excess of the pay caps applicable to members in Tier 2 participating in the Traditional and Portable plans.

<sup>2</sup> Excludes RSP contributions. Includes employer contributions.



**Table 17**  
**Additional Details – Total Normal Cost Dollars**  
(\$ in Millions)

Fiscal Year Ending	Total Normal Cost <sup>1</sup>				Admin Expense				Normal Cost with Admin Expense			
	Tier 2				Tier 2				Tier 2			
	Tier 1	Current	Future	Total	Tier 1	Current	Future	Total	Tier 1	Current	Future	Total
2025	\$ 578.439	\$ 243.130	\$ 0.000	\$ 821.570	\$ 15.014	\$ 14.655	\$ 0.000	\$ 29.669	\$ 593.453	\$ 257.785	\$ 0.000	\$ 851.239
2026	547.136	238.117	31.919	817.172	14.260	14.196	2.148	30.604	561.395	252.313	34.066	847.774
2027	517.462	234.189	62.063	813.714	13.524	13.778	4.266	31.568	530.986	247.967	66.328	845.281
2028	488.656	231.265	91.027	810.948	12.797	13.428	6.336	32.562	501.453	244.693	97.363	843.509
2029	459.749	229.063	119.248	808.060	12.072	13.159	8.356	33.588	471.821	242.223	127.604	841.648
2030	430.354	227.620	147.295	805.269	11.340	12.958	10.347	34.646	441.694	240.578	157.643	839.915
2031	400.809	226.961	175.275	803.045	10.605	12.805	12.327	35.737	411.414	239.766	187.603	838.783
2032	371.311	226.713	203.306	801.330	9.870	12.679	14.314	36.863	381.181	239.392	217.620	838.193
2033	342.501	226.596	231.496	800.593	9.147	12.570	16.307	38.024	351.649	239.166	247.803	838.618
2034	314.472	226.596	260.046	801.114	8.438	12.472	18.312	39.222	322.910	239.068	278.357	840.335
2035	286.538	226.911	288.589	802.038	7.735	12.392	20.330	40.457	294.274	239.303	308.919	842.496
2036	258.289	227.649	317.067	803.005	7.030	12.327	22.374	41.732	265.319	239.976	339.441	844.736
2037	229.732	228.578	345.511	803.821	6.324	12.271	24.451	43.046	236.056	240.849	369.962	846.867
2038	201.279	229.579	374.156	805.014	5.622	12.210	26.569	44.402	206.901	241.789	400.725	849.415
2039	173.793	230.675	403.016	807.484	4.941	12.140	28.720	45.801	178.734	242.815	431.736	853.285
2040	147.979	231.639	432.022	811.640	4.296	12.052	30.894	47.243	152.276	243.691	462.916	858.883
2041	124.794	232.279	461.179	818.252	3.708	11.941	33.083	48.732	128.501	244.220	494.262	866.983
2042	104.846	232.462	490.442	827.750	3.188	11.799	35.280	50.267	108.033	244.261	525.722	878.016
2043	87.757	232.134	519.913	839.804	2.731	11.626	37.493	51.850	90.488	243.760	557.406	891.654
2044	73.135	231.222	549.628	853.985	2.331	11.426	39.727	53.483	75.465	242.648	589.355	907.468
2045	60.635	229.429	579.615	869.679	1.980	11.193	41.995	55.168	62.615	240.622	621.611	924.848

<sup>1</sup> Normal Cost excludes expense portion.

Values may not add due to rounding.



**Table 18**  
**Additional Details – Normal Cost Rates**  
(\$ in Millions)

Fiscal Year Ending	Expected Defined Benefit Plan Pay <sup>1</sup>				Total Normal Cost Rate <sup>1</sup>					Employer Normal Cost Rate		
	Tier 1	Tier 2		Total	Tier 1	Tier 2		Total	Combined Tier 2	Tier 1	Tier 2	Total
		Current	Future			Current	Future					
2025	\$ 2,165.899	\$ 2,114.121	\$ 0.000	\$ 4,280.020	27.40%	12.19%		19.89%	12.19%	19.39%	4.18%	11.88%
2026	2,027.257	2,018.226	305.342	4,350.825	27.69%	12.50%	11.16%	19.49%	12.33%	19.68%	4.31%	11.48%
2027	1,897.569	1,933.229	598.512	4,429.310	27.98%	12.83%	11.08%	19.08%	12.41%	19.97%	4.40%	11.07%
2028	1,774.053	1,861.517	878.357	4,513.927	28.27%	13.14%	11.08%	18.69%	12.48%	20.26%	4.47%	10.68%
2029	1,653.697	1,802.554	1,144.627	4,600.878	28.53%	13.44%	11.15%	18.29%	12.55%	20.52%	4.54%	10.28%
2030	1,534.860	1,753.779	1,400.460	4,689.099	28.78%	13.72%	11.26%	17.91%	12.62%	20.77%	4.61%	9.90%
2031	1,418.109	1,712.209	1,648.361	4,778.679	29.01%	14.00%	11.38%	17.55%	12.72%	21.00%	4.71%	9.54%
2032	1,304.178	1,675.382	1,891.395	4,870.955	29.23%	14.29%	11.51%	17.21%	12.81%	21.22%	4.80%	9.20%
2033	1,194.615	1,641.587	2,129.575	4,965.777	29.44%	14.57%	11.64%	16.89%	12.91%	21.43%	4.90%	8.88%
2034	1,089.247	1,609.922	2,363.770	5,062.939	29.65%	14.85%	11.78%	16.60%	13.02%	21.64%	5.01%	8.59%
2035	986.573	1,580.480	2,592.911	5,159.964	29.83%	15.14%	11.91%	16.33%	13.14%	21.82%	5.13%	8.32%
2036	885.766	1,553.199	2,819.122	5,258.087	29.95%	15.45%	12.04%	16.07%	13.25%	21.94%	5.24%	8.06%
2037	786.842	1,526.764	3,042.194	5,355.800	30.00%	15.78%	12.16%	15.81%	13.37%	21.99%	5.36%	7.80%
2038	690.707	1,500.076	3,264.113	5,454.896	29.95%	16.12%	12.28%	15.57%	13.49%	21.94%	5.48%	7.56%
2039	599.501	1,472.938	3,484.695	5,557.134	29.81%	16.49%	12.39%	15.35%	13.61%	21.80%	5.60%	7.34%
2040	514.971	1,444.592	3,702.977	5,662.540	29.57%	16.87%	12.50%	15.17%	13.73%	21.56%	5.72%	7.16%
2041	439.163	1,414.360	3,918.626	5,772.149	29.26%	17.27%	12.61%	15.02%	13.85%	21.25%	5.84%	7.01%
2042	373.265	1,381.516	4,131.002	5,885.783	28.94%	17.68%	12.73%	14.92%	13.97%	20.93%	5.96%	6.91%
2043	316.177	1,346.060	4,340.871	6,003.108	28.62%	18.11%	12.84%	14.85%	14.09%	20.61%	6.08%	6.84%
2044	266.827	1,308.174	4,548.473	6,123.474	28.28%	18.55%	12.96%	14.82%	14.21%	20.27%	6.20%	6.81%
2045	224.184	1,267.038	4,753.964	6,245.186	27.93%	18.99%	13.08%	14.81%	14.32%	19.92%	6.31%	6.80%
2046	187.532	1,222.482	4,958.473	6,368.487	27.57%	19.44%	13.20%	14.82%	14.43%	19.56%	6.42%	6.81%

<sup>1</sup> Expected pay for members in the defined benefit plans at June 30. Used to develop normal cost as a percent of pay.

Values may not add due to rounding.



**Table 19**  
**Additional Details – Number of Members, Contributions and Payroll**  
(\$ in Millions)

Fiscal Year Ending	RSP Total Active Members	Number of Defined Benefit Plan Active				Defined Benefit Plan Payroll <sup>1</sup>				Member Contributions			
		Tier 2				Tier 2				Tier 2			
		Tier 1	Current	Future	Total	Tier 1	Current	Future	Total	Tier 1	Current	Future	Total
2024	13,574	26,549	36,514	0	63,063	\$ 2,150.878	\$ 1,935.771	\$ 0.000	\$ 4,086.649				\$ 335.419
2025	14,756	24,328	32,596	5,550	62,474	2,048.774	1,999.685	294.808	4,343.267	\$ 164.107	\$ 160.175	\$ 23.614	347.896
2026	15,729	21,826	29,425	10,179	61,430	1,919.686	1,918.910	579.198	4,417.794	153.766	153.705	46.394	353.865
2027	16,558	19,587	26,826	14,129	60,542	1,797.108	1,847.108	857.468	4,501.684	143.949	147.953	68.683	360.585
2028	17,274	17,569	24,692	17,513	59,774	1,679.313	1,787.283	1,123.617	4,590.213	134.513	143.161	90.002	367.676
2029	17,897	15,714	22,925	20,465	59,104	1,562.293	1,737.896	1,380.056	4,680.245	125.141	139.205	110.542	374.888
2030	18,444	14,018	21,431	23,068	58,517	1,447.272	1,696.733	1,627.971	4,771.976	115.927	135.908	130.400	382.235
2031	18,934	12,451	20,142	25,397	57,990	1,333.974	1,660.650	1,869.797	4,864.421	106.851	133.018	149.771	389.640
2032	19,383	11,030	18,984	27,495	57,509	1,224.276	1,627.558	2,106.761	4,958.595	98.064	130.367	168.752	397.183
2033	19,792	9,740	17,931	29,400	57,071	1,119.412	1,596.660	2,339.788	5,055.860	89.665	127.892	187.417	404.974
2034	20,170	8,569	16,976	31,124	56,669	1,017.820	1,567.662	2,568.870	5,154.352	81.528	125.570	205.766	412.864
2035	20,518	7,481	16,118	32,699	56,298	918.094	1,541.009	2,794.391	5,253.494	73.539	123.435	223.831	420.805
2036	20,840	6,482	15,340	34,135	55,957	819.986	1,516.024	3,017.155	5,353.165	65.681	121.434	241.674	428.789
2037	21,140	5,554	14,616	35,468	55,638	723.891	1,490.741	3,238.243	5,452.875	57.984	119.408	259.383	436.775
2038	21,419	4,708	13,937	36,698	55,343	631.244	1,465.202	3,457.566	5,554.012	50.562	117.363	276.951	444.876
2039	21,676	3,951	13,293	37,827	55,071	544.888	1,438.829	3,674.827	5,658.544	43.645	115.250	294.354	453.249
2040	21,914	3,288	12,671	38,861	54,820	465.331	1,410.533	3,889.782	5,765.646	37.272	112.984	311.572	461.828
2041	22,128	2,729	12,067	39,799	54,595	396.229	1,380.247	4,101.404	5,877.880	31.738	110.558	328.522	470.818
2042	22,322	2,255	11,475	40,659	54,389	336.099	1,346.931	4,310.648	5,993.678	26.922	107.889	345.283	480.094
2043	22,496	1,857	10,895	41,453	54,205	284.272	1,311.383	4,517.775	6,113.430	22.770	105.042	361.874	489.686
2044	22,657	1,524	10,324	42,187	54,035	239.279	1,272.998	4,723.109	6,235.386	19.166	101.967	378.321	499.454
2045	22,807	1,245	9,754	42,878	53,877	200.615	1,230.820	4,927.347	6,358.782	16.069	98.589	394.680	509.338

<sup>1</sup> Payroll shown is pensionable pay. It does not include amounts in excess of the pay caps applicable to members in the Tier 2 participating in the Traditional and Portable plans.

Values may not add due to rounding.



**Table 20**  
**Additional Details – Present Value of Future Benefits and Benefit Payments**  
(\$ in Millions)

Fiscal Year Ending	Present Value of Future Benefits						Benefit Payments					
	Current Retirees	Current Inactives	Tier 1 Actives	Tier 2 Actives		Total	Current Retirees	Current Inactives	Tier 1 Actives	Tier 2 Actives		Total
				Current	Future					Current	Future	
2024	\$ 36,230.426	\$ 3,367.487	\$ 16,000.357	\$ 4,625.175	\$ 0.000	\$ 60,223.445						\$ 3,160.148
2025	35,401.591	3,493.170	16,908.339	4,866.330	348.646	61,018.076	\$ 3,085.125	\$ 90.315	\$ 127.948	\$ 57.637	\$ 0.000	3,361.025
2026	34,508.000	3,608.358	17,813.469	5,117.816	721.464	61,769.107	3,095.668	108.401	187.901	62.816	1.897	3,456.683
2027	33,552.494	3,719.719	18,694.309	5,382.141	1,122.972	62,471.635	3,099.382	119.363	268.449	66.215	6.989	3,560.398
2028	32,538.025	3,823.556	19,543.594	5,662.479	1,551.016	63,118.670	3,096.333	133.669	354.505	67.347	14.360	3,666.214
2029	31,468.206	3,917.451	20,355.855	5,962.422	2,007.385	63,711.319	3,086.072	149.843	443.874	66.006	23.325	3,769.120
2030	30,346.964	3,998.953	21,123.084	6,283.413	2,492.654	64,245.068	3,068.518	167.767	538.671	64.503	33.365	3,872.824
2031	29,178.744	4,064.908	21,842.450	6,627.905	3,005.272	64,719.279	3,043.418	187.964	633.373	61.949	46.361	3,973.065
2032	27,968.474	4,115.943	22,506.236	6,998.805	3,545.012	65,134.470	3,010.585	206.576	732.541	58.057	58.827	4,066.586
2033	26,721.746	4,151.937	23,112.002	7,394.891	4,112.935	65,493.511	2,969.684	224.365	830.570	57.012	71.454	4,153.085
2034	25,444.533	4,171.233	23,658.244	7,812.041	4,709.523	65,795.574	2,920.699	242.813	926.404	61.549	84.134	4,235.599
2035	24,143.221	4,173.224	24,140.472	8,244.179	5,348.845	66,049.941	2,863.604	260.797	1,022.839	73.300	87.427	4,307.967
2036	22,824.497	4,155.928	24,551.321	8,691.167	6,031.779	66,254.692	2,798.513	279.611	1,122.378	86.129	91.650	4,378.281
2037	21,495.437	4,118.663	24,887.929	9,152.470	6,761.703	66,416.202	2,725.471	297.872	1,220.195	100.410	96.729	4,440.677
2038	20,163.511	4,059.062	25,143.211	9,627.471	7,539.194	66,532.449	2,644.535	317.168	1,320.203	116.193	102.736	4,500.835
2039	18,836.148	3,976.255	25,316.033	10,115.675	8,364.698	66,608.809	2,556.222	335.901	1,416.185	133.317	109.695	4,551.320
2040	17,520.820	3,974.660	25,404.275	10,616.091	9,240.093	66,755.939	2,460.956	251.990	1,509.029	152.233	117.714	4,491.922
2041	16,224.945	3,960.669	25,411.649	11,127.274	10,166.329	66,890.866	2,359.259	263.902	1,592.948	173.319	126.922	4,516.350
2042	14,955.724	3,935.220	25,338.644	11,647.239	11,145.849	67,022.676	2,251.809	274.124	1,671.301	197.006	137.478	4,531.718
2043	13,720.021	3,898.471	25,188.213	12,173.890	12,180.845	67,161.440	2,139.389	283.471	1,741.728	223.277	149.527	4,537.392
2044	12,524.319	3,851.094	24,962.872	12,704.798	13,273.718	67,316.801	2,022.797	291.454	1,804.840	252.324	163.200	4,534.615
2045	11,374.515	3,793.089	24,666.861	13,235.994	14,427.716	67,498.175	1,903.010	298.769	1,859.128	285.483	178.582	4,524.972

Values may not add due to rounding.



**Table 21**  
**Additional Details – Actuarial Accrued Liability and Employer Normal Cost Dollars**  
(\$ in Millions)

Fiscal Year Ending	Actuarial Accrued Liability						Fiscal Year Ending	Employer Normal Cost Dollar		
	Current Retirees	Current Inactives	Tier 1 Actives	Tier 2 Actives		Total		Tier 1	Tier 2	Total
				Current	Future					
2024	\$ 36,230.426	\$ 3,367.487	\$ 11,799.468	\$ 1,427.984	\$ 0.000	\$ 52,825.365	2025	\$ 429.347	\$ 73.996	\$ 503.343
2025	35,401.591	3,493.170	13,031.335	1,712.229	0.000	53,638.325	2026	407.629	86.280	493.909
2026	34,508.000	3,608.358	14,249.098	2,004.432	30.982	54,400.870	2027	387.037	97.659	484.696
2027	33,552.494	3,719.719	15,432.269	2,308.067	89.832	55,102.381	2028	366.940	108.893	475.833
2028	32,538.025	3,823.556	16,573.809	2,627.253	174.791	55,737.434	2029	346.680	120.080	466.760
2029	31,468.206	3,917.451	17,667.489	2,966.298	285.143	56,304.587	2030	325.767	131.913	457.680
2030	30,346.964	3,998.953	18,704.095	3,327.442	421.252	56,798.706	2031	304.563	144.580	449.143
2031	29,178.744	4,064.908	19,679.858	3,714.017	581.672	57,219.199	2032	283.117	157.893	441.010
2032	27,968.474	4,115.943	20,586.263	4,129.480	768.582	57,568.742	2033	261.984	171.660	433.644
2033	26,721.746	4,151.937	21,420.689	4,572.904	983.701	57,850.977	2034	241.382	186.089	427.471
2034	25,444.533	4,171.233	22,181.526	5,040.470	1,229.180	58,066.942	2035	220.735	200.956	421.691
2035	24,143.221	4,173.224	22,863.471	5,526.625	1,516.673	58,223.214	2036	199.638	216.309	415.947
2036	22,824.497	4,155.928	23,457.867	6,031.903	1,847.885	58,318.080	2037	178.072	232.020	410.092
2037	21,495.437	4,118.663	23,960.480	6,556.245	2,224.738	58,355.563	2038	156.339	248.200	404.539
2038	20,163.511	4,059.062	24,363.195	7,099.413	2,649.448	58,334.629	2039	135.089	264.947	400.036
2039	18,836.148	3,976.255	24,664.670	7,661.348	3,124.366	58,262.787	2040	115.004	282.051	397.055
2040	17,520.820	3,974.660	24,863.287	8,241.281	3,651.812	58,251.860	2041	96.763	299.402	396.165
2041	16,224.945	3,960.669	24,964.282	8,837.810	4,234.130	58,221.836	2042	81.111	316.811	397.922
2042	14,955.724	3,935.220	24,970.397	9,448.859	4,873.603	58,183.803	2043	67.718	334.250	401.968
2043	13,720.021	3,898.471	24,886.594	10,072.175	5,572.621	58,149.882	2044	56.299	351.715	408.014
2044	12,524.319	3,851.094	24,717.123	10,705.090	6,333.631	58,131.257	2045	46.546	368.964	415.510
2045	11,374.515	3,793.089	24,467.712	11,343.073	7,159.179	58,137.568	2046	40.601	373.506	414.107

Values may not add due to rounding.



**Table 22**  
**Additional Details – Payroll and Payroll in Excess of Governor’s Pay**  
(\$ in Millions)

Fiscal Year Ending	Defined Benefit Plan Payroll <sup>1</sup>				Defined Benefit Plan Payroll in Excess of Governor’s Pay <sup>2</sup>		
	Tier 1	Tier 2		Total	Tier 1	Tier 2	
		Current	Future			Current	Total
2024	\$ 2,150.878	\$ 1,935.771	\$ 0.000	\$ 4,086.649	\$ 40.964	\$ 0.000	\$ 40.964
2025	2,048.774	1,999.685	294.808	4,343.267	50.666	0.000	50.666
2026	1,919.686	1,918.910	579.198	4,417.794	47.435	0.000	47.435
2027	1,797.108	1,847.108	857.468	4,501.684	46.555	0.000	46.555
2028	1,679.313	1,787.283	1,123.617	4,590.213	45.547	0.000	45.547
2029	1,562.293	1,737.896	1,380.056	4,680.245	44.249	0.000	44.249
2030	1,447.272	1,696.733	1,627.971	4,771.976	42.817	0.000	42.817
2031	1,333.974	1,660.650	1,869.797	4,864.421	41.114	0.000	41.114
2032	1,224.276	1,627.558	2,106.761	4,958.595	39.560	0.000	39.560
2033	1,119.412	1,596.660	2,339.788	5,055.860	37.905	0.000	37.905
2034	1,017.820	1,567.662	2,568.870	5,154.352	36.121	0.000	36.121
2035	918.094	1,541.009	2,794.391	5,253.494	34.327	0.000	34.327
2036	819.986	1,516.024	3,017.155	5,353.165	32.288	0.000	32.288
2037	723.891	1,490.741	3,238.243	5,452.875	30.068	0.000	30.068
2038	631.244	1,465.202	3,457.566	5,554.012	27.706	0.000	27.706
2039	544.888	1,438.829	3,674.827	5,658.544	25.453	0.000	25.453
2040	465.331	1,410.533	3,889.782	5,765.646	23.087	0.000	23.087
2041	396.229	1,380.247	4,101.404	5,877.880	20.732	0.000	20.732
2042	336.099	1,346.931	4,310.648	5,993.678	18.507	0.000	18.507
2043	284.272	1,311.383	4,517.775	6,113.430	16.489	0.000	16.489
2044	239.279	1,272.998	4,723.109	6,235.386	14.668	0.000	14.668
2045	200.615	1,230.820	4,927.347	6,358.782	12.906	0.000	12.906

<sup>1</sup> Payroll shown is pensionable pay. It does not include amounts in excess of the pay caps applicable to members in Tier 2 participating in the Traditional and Portable plans.

<sup>2</sup> Governor’s pay is \$226,800 in 2025 and is projected to increase annually by 1.20%.

Values may not add due to rounding.



**Table 23**  
**Additional Details – Statutorily Required Employer Contributions**  
(\$ in Millions)

Fiscal Year	Applicable Employer Normal Cost Rates		Employer Normal Cost Contributions for Pay in Excess of the Governor's Pay <sup>1</sup>			Total Employer Contributions Required by Statute <sup>2</sup>		
	Tier 1	Total	Tier 1	Tier 2	Total	Tier 1	Tier 2	Total
2026	19.39%	11.88%			\$ 3.386	\$ 0.000	\$ 0.000	\$ 3.386
2027	19.68%	11.48%	\$ 4.070	\$ 0.000	4.070	4.070	0.000	4.070
2028	19.97%	11.07%	3.677	0.000	3.677	3.677	0.000	3.677
2029	20.26%	10.68%	3.479	0.000	3.479	3.479	0.000	3.479
2030	20.52%	10.28%	3.279	0.000	3.279	3.279	0.000	3.279
2031	20.77%	9.90%	3.067	0.000	3.067	3.067	0.000	3.067
2032	21.00%	9.54%	2.860	0.000	2.860	2.860	0.000	2.860
2033	21.22%	9.20%	2.647	0.000	2.647	2.647	0.000	2.647
2034	21.43%	8.88%	2.458	0.000	2.458	2.458	0.000	2.458
2035	21.64%	8.59%	2.279	0.000	2.279	2.279	0.000	2.279
2036	21.82%	8.32%	2.103	0.000	2.103	2.103	0.000	2.103
2037	21.94%	8.06%	1.936	0.000	1.936	1.936	0.000	1.936
2038	21.99%	7.80%	1.763	0.000	1.763	1.763	0.000	1.763
2039	21.94%	7.56%	1.592	0.000	1.592	1.592	0.000	1.592
2040	21.80%	7.34%	1.424	0.000	1.424	1.424	0.000	1.424
2041	21.56%	7.16%	1.275	0.000	1.275	1.275	0.000	1.275
2042	21.25%	7.01%	1.133	0.000	1.133	1.133	0.000	1.133
2043	20.93%	6.91%	1.002	0.000	1.002	1.002	0.000	1.002
2044	20.61%	6.84%	0.887	0.000	0.887	0.887	0.000	0.887
2045	20.27%	6.81%	0.786	0.000	0.786	0.786	0.000	0.786
2046	19.92%	6.80%	0.698	0.000	0.698	0.698	0.000	0.698

<sup>1</sup> FY 2026 amount based on excess pay amount as provided by SURS and the total employer normal cost rate. Amounts in FY 2027 and thereafter based on excess pay amount projected by GRS and the total employer normal cost rate. SURS may want to consider having employer normal cost contributions be based on the normal cost rate by tier. 30% of future Tier 1 excess pay employer contributions that would have been calculated are not included because they are already assumed to be part of the federal and trust funds contributions.

<sup>2</sup> Projected employer contributions do not include 6% employer billing contributions. No additional assumption is made for earnings greater than 6% during the final average salary (FAS) period. The participant's employer is required to make contributions equal to the present value of the increase in benefits attributable to member pay increases in excess of 6% during the FAS period. These contributions are collected when the participant retires.

Values may not add due to rounding.





## **APPENDIX E**

---

### **HISTORICAL SCHEDULES**

DRAFT

**Table 24**  
**Historical Schedule of Funding Status**  
(\$ in Thousands)

As of June 30	Actuarial Value of Assets	AAL	UAAL	Funded Ratio	Payroll/DB*	UAAL as % of Payroll
2010 **	\$ 13,966,643	\$ 30,120,427	\$16,153,784	46.37 %	\$3,491,071	462.72 %
2011	13,945,680	31,514,336	17,568,656	44.25	3,460,838	507.64
2012	13,949,905	33,170,216	19,220,311	42.06	3,477,166	552.76
2013	14,262,621	34,373,104	20,110,483	41.49	3,533,858	569.08
2014 **	15,844,714	37,429,515	21,584,801	42.33	3,522,246	612.81
2015	17,104,607	39,520,687	22,416,080	43.28	3,606,537	621.54
2016	17,701,646	40,923,301	23,221,655	43.26	3,513,108	661.00
2017	18,594,326	41,853,348	23,259,022	44.43	3,458,320	672.55
2018 **	19,347,886	45,258,751	25,910,865	42.75	3,470,226	746.66
2019	19,661,891	46,443,937	26,782,046	42.33	3,506,650	763.75
2020	20,091,675	47,580,470	27,488,795	42.23	3,642,617	754.64
2021 **	21,484,799	48,898,480	27,413,681	43.94	3,638,244	753.49
2022	22,554,752	49,869,932	27,315,180	45.23	3,613,383	755.94
2023	23,381,241	51,050,783	27,669,542	45.80	3,744,813	738.88
2024	24,297,861	52,825,365	28,527,504	46.00	4,192,734	680.40

AAL – Actuarial Accrued Liability.

UAAL – Unfunded Actuarial Accrued Liability.

\* Defined benefit payroll as of June 30, 2022 and later is based on the employee contributions in the financial statements for the fiscal year and an employee contribution rate of 8.00%. Payroll prior to June 30, 2022 is rolled forward with salary scale for one year and uses capped payroll for members hired on and after January 1, 2011.

\*\* Investment rate of return assumption decreased from 8.50% to 7.75% in plan year 2010, decreased from 7.75% to 7.25% in plan year 2014, decreased from 7.25% to 6.75% in plan year 2018, and decreased from 6.75% to 6.50% in plan year 2021.



**Table 25**  
**Historical Comparison of ARC and State Contributions**  
(\$ in Millions)

Fiscal Year	(1) Total Normal Cost	(2) Amortization of UAAL	(3) (1) + (2) Total ADC	(4) Member Contribution	(5) (3) - (4) Net State ARC*	(6) Actual State Contribution	(7) (6) / (5) State Cont. as Percent of Net ARC
2003			\$ 843.8	\$ 246.3	\$ 597.5	\$ 285.3	47.74 %
2004			934.8	243.8	691.0	1,757.5	254.36
2005			859.7	251.9	607.8	285.4	46.96
2006			914.9	252.9	662.0	180.0	27.19
2007			968.3	262.4	705.9	261.1	36.99
2008			971.6	264.1	707.5	344.9	48.75
2009			1,147.3	273.3	874.0	451.6	51.67
2010 **			1,278.3	275.0	1,003.3	696.6	69.43
2011 ***	\$ 723.798	\$ 795.427	1,519.2	260.2	1,259.0	773.6	61.44
2012	700.972	1,000.612	1,701.584	258.236	1,443.348	985.815	68.30
2013	699.747	1,094.681	1,794.428	245.141	1,549.287	1,401.481	90.46
2014	698.225	1,145.380	1,843.605	283.081	1,560.524	1,502.864	96.31

\* ARC - Annual Required Contribution as defined in GASB Statements No. 25 and 27. The ARC is the Actuarially Determined Contribution ("ADC") net of member contributions.

\*\* Assets at Actuarial Value (Market Value through 2009, then Actuarial Value beginning with Fiscal Year 2010).

\*\*\* Investment rate of return assumption decreased from 8.50% to 7.75% in Fiscal Year 2011.

Beginning in Fiscal Year 2011, dollars are shown rounded to three decimal places.

Information beginning with Fiscal Year 2015 can be found in Table 9 of the report.



**Table 26**  
**Historical Schedule of Contributions**  
(\$ in Thousands)

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Estimated Covered Payroll	Actual Contribution as a % of Covered Payroll
2015	\$ 1,622,656	\$ 1,528,525	\$ 94,130	\$ 3,606,537	42.38 %
2016	1,811,060	1,582,295	228,765	3,513,108	45.04
2017	1,864,843	1,650,551	214,292	3,458,320	47.73
2018	1,862,033	1,607,880	254,153	3,470,226	46.33
2019	2,239,366	1,642,054	597,312	3,506,650	46.83
2020	2,299,031	1,838,786	460,245	3,642,617	50.48
2021	2,303,266	1,978,743	324,523	3,638,244	54.39
2022	2,377,774	2,136,059	241,715	3,613,383	59.12
2023	2,373,000	2,138,712	234,288	3,744,813	57.11
2024	2,446,185	2,149,498	296,687	4,192,734	51.27

*For Fiscal Years 2015 and prior, the Actuarially Determined Contribution is equal to normal cost plus 30-year open period amortization of the unfunded actuarial accrued liability as a level percentage of total payroll.*

*For Fiscal Years 2016 and after, the Actuarially Determined Contribution is equal to the net normal cost plus closed period amortization of the unfunded actuarial accrued liability as a level percentage of defined benefit plan pensionable (capped) payroll to pay off the total unfunded liability by 2045.*

*Covered employee payroll as of June 30, 2022 and later is based on the employee contributions in the financial statements for the fiscal year and an employee contribution rate of 8.00%. Covered employee payroll prior to June 30, 2022 is equal to defined benefit payroll from the actuarial valuation as of the same date and rolled forward with one year of wage inflation.*

## APPENDIX F

---

MEMBERSHIP DATA

DRAFT

## Table 27

### Summary of Data Characteristics – Active, Inactive, Retired

(\$ in Millions)

	June 30, 2023		June 30, 2024	
	Number	Earnings	Number	Earnings
<b>Active Members</b>				
Full time				
Traditional SURS	40,820	\$2,455.2	41,572	\$2,640.2
Portable SURS	17,552	1,311.2	18,279	1,417.6
RSP	12,749	1,217.7	13,167	1,335.8
Total Full Time <sup>1</sup>	71,121	\$4,984.1	73,018	\$5,393.6
Part time				
Traditional SURS	2,588	\$ 19.6	2,668	\$ 23.1
Portable SURS	549	5.3	544	5.8
RSP	387	4.1	407	5.0
Total Part Time <sup>2</sup>	3,524	\$ 29.0	3,619	\$ 33.8
Total	74,645	\$5,013.1	76,637	\$5,427.4
<b>Inactive Members</b>				
Traditional SURS	75,007		76,624	
Portable SURS	14,717		15,115	
RSP	11,014		11,302	
Total <sup>3</sup>	100,738		103,041	
<b>Benefit Recipients</b>				
Retirement				
Traditional SURS	52,876	\$ 2,354.7	53,018	\$ 2,406.4
Portable SURS	9,091	367.7	9,467	396.9
Total Retirement	61,967	\$ 2,722.4	62,485	\$ 2,803.3
Survivor				
Traditional SURS	9,351	\$ 223.2	9,534	\$ 235.2
Portable SURS	389	8.6	425	9.4
Total Survivor	9,740	\$ 231.8	9,959	\$ 244.6
Disability				
Traditional SURS	684	\$ 16.7	672	\$ 16.9
Portable SURS	189	5.9	187	6.0
Total Disability	873	\$ 22.6	859	\$ 22.9
Total	72,580	\$ 2,976.9	73,303	\$ 3,070.8
<b>Total Participants</b>				
Total Traditional SURS	181,326		184,088	
Total Portable SURS	42,487		44,017	
Total RSP	24,150		24,876	
Total	247,963		252,981	

<sup>1</sup> Includes 643 police officers (including RSP) as of June 30, 2023, and 653 as of June 30, 2024.

<sup>2</sup> Beginning with the actuarial valuation as of June 30, 2024, members classified as part time for valuation purposes are valued the same as members classified as full time active members based on changes from Public Act 103-0548.

<sup>3</sup> Based on SURS service plus reciprocal service, 22,731 defined benefit members are vested as of June 30, 2023, and 22,278 as of June 30, 2024.

Values may not add due to rounding.



## Table 28

### Summary of Data Characteristics – Full Time Active

(\$ in Millions)

	June 30, 2023		June 30, 2024	
	Number	Earnings	Number	Earnings
<b>Active Members</b>				
Full time				
Continuing Full Time Actives and Full Time Actives from Inactive and Part Time status - Tier 1				
Traditional SURS	19,250	\$ 1,422.1	18,217	\$ 1,432.6
Portable SURS	7,512	693.3	7,182	698.3
RSP	4,299	442.5	4,079	446.6
Total	31,061	\$ 2,557.9	29,478	\$ 2,577.5
Continuing Full Time Actives and Full Time Actives from Inactive and Part Time status - Tier 2				
Traditional SURS	16,824	\$ 913.8	18,830	\$ 1,085.7
Portable SURS	8,314	553.3	9,402	652.8
RSP	7,357	711.0	7,886	814.8
Total	32,495	\$ 2,178.2	36,118	\$ 2,553.3
New Actives - Tier 1				
Traditional SURS	437	\$ 12.2	373	\$ 10.9
Portable SURS	87	3.6	85	2.9
RSP	38	1.8	29	1.4
Total	562	\$ 17.6	487	\$ 15.2
New Actives - Tier 2				
Traditional SURS	4,309	\$ 107.1	4,152	\$ 111.0
Portable SURS	1,639	61.0	1,610	63.6
RSP	1,055	62.4	1,173	73.0
Total	7,003	\$ 230.5	6,935	\$ 247.5
Total Actives - Tier 1				
Traditional SURS	19,687	\$ 1,434.2	18,590	\$ 1,443.5
Portable SURS	7,599	696.9	7,267	701.3
RSP	4,337	444.3	4,108	448.0
Total	31,623	\$ 2,575.4	29,965	\$ 2,592.8
Total Actives - Tier 2				
Traditional SURS	21,133	\$ 1,020.9	22,982	\$ 1,196.6
Portable SURS	9,953	614.3	11,012	716.4
RSP	8,412	773.4	9,059	887.8
Total	39,498	\$ 2,408.6	43,053	\$ 2,800.8
Total Actives - Tier 1 and Tier 2				
Traditional SURS	40,820	\$ 2,455.2	41,572	\$ 2,640.2
Portable SURS	17,552	1,311.2	18,279	1,417.6
RSP	12,749	1,217.7	13,167	1,335.8
Total	71,121	\$ 4,984.1	73,018	\$ 5,393.6

Values may not add due to rounding.



## Table 29

### Summary of Data Characteristics – Part Time Active/Inactive

(\$ in Millions)

	June 30, 2023		June 30, 2024	
	Number	Earnings	Number	Earnings
<b>Active Members</b>				
Part time				
Total Actives - Tier 1				
Traditional SURS	563	\$ 4.1	560	\$ 4.7
Portable SURS	157	1.3	132	1.3
RSP	70	0.5	71	0.6
Total	790	\$ 6.0	763	\$ 6.7
Total Actives - Tier 2				
Traditional SURS	2,025	\$ 15.5	2,108	\$ 18.3
Portable SURS	392	4.0	412	4.5
RSP	317	3.5	336	4.4
Total	2,734	\$ 23.1	2,856	\$ 27.1
Total Actives - Tier 1 and Tier 2				
Traditional SURS	2,588	\$ 19.6	2,668	\$ 23.1
Portable SURS	549	5.3	544	5.8
RSP	387	4.1	407	5.0
Total	3,524	\$ 29.0	3,619	\$ 33.8
<b>Inactive Members</b>				
Total Inactives - Tier 1				
Traditional SURS	52,099		51,315	
Portable SURS	8,591		8,390	
RSP	6,275		6,121	
Total	66,965		65,826	
Total Inactives - Tier 2				
Traditional SURS	22,908		25,309	
Portable SURS	6,126		6,725	
RSP	4,739		5,181	
Total	33,773		37,215	
Total Inactives - Tier 1 and Tier 2				
Traditional SURS	75,007		76,624	
Portable SURS	14,717		15,115	
RSP	11,014		11,302	
Total	100,738		103,041	

Values may not add due to rounding.





## Table 30

### Summary of Data Characteristics – Academic/Non-Academic

(\$ in Millions)

	June 30, 2023				June 30, 2024			
	Academic		Non-Academic <sup>1</sup>		Academic		Non-Academic <sup>1</sup>	
	Number	Earnings	Number	Earnings	Number	Earnings	Number	Earnings
<b>Full time</b>								
Traditional SURS	13,145	\$ 881.1	27,675	\$ 1,574.1	13,122	\$ 930.7	28,450	\$ 1,709.5
Portable SURS	5,933	536.3	11,619	775.0	5,967	561.2	12,312	856.5
RSP	5,345	615.7	7,404	602.0	5,470	670.1	7,697	665.7
<b>Total</b>	<b>24,423</b>	<b>\$ 2,033.1</b>	<b>46,698</b>	<b>\$ 2,951.0</b>	<b>24,559</b>	<b>\$ 2,162.0</b>	<b>48,459</b>	<b>\$ 3,231.6</b>
<b>Part time</b>								
Traditional SURS	1,959	\$ 14.9	629	\$ 4.8	2,029	\$ 17.5	639	\$ 5.5
Portable SURS	406	3.9	143	1.4	419	4.3	125	1.5
RSP	323	3.3	64	0.8	336	4.1	71	0.9
<b>Total</b>	<b>2,688</b>	<b>\$ 22.0</b>	<b>836</b>	<b>\$ 7.0</b>	<b>2,784</b>	<b>\$ 25.9</b>	<b>835</b>	<b>\$ 7.9</b>
<b>Inactive</b>								
Traditional SURS	38,304		36,703		38,581		38,043	
Portable SURS	6,384		8,333		6,458		8,657	
RSP	5,711		5,303		5,738		5,564	
<b>Total</b>	<b>50,399</b>		<b>50,339</b>		<b>50,777</b>		<b>52,264</b>	
	<b>Number</b>	<b>Annual Benefit</b>	<b>Number</b>	<b>Annual Benefit</b>	<b>Number</b>	<b>Annual Benefit</b>	<b>Number</b>	<b>Annual Benefit</b>
<b>Benefit Recipients</b>								
Traditional SURS	28,170	\$ 1,387.6	34,741	\$ 1,207.0	28,237	\$ 1,410.4	34,987	\$ 1,248.1
Portable SURS	4,130	189.6	5,539	192.6	4,322	204.2	5,757	208.0
<b>Total</b>	<b>32,300</b>	<b>1,577.2</b>	<b>40,280</b>	<b>1,399.7</b>	<b>32,559</b>	<b>1,614.7</b>	<b>40,744</b>	<b>1,456.1</b>
<b>Total Participants</b>								
Total Traditional SURS	81,578		99,748		81,969		102,119	
Total Portable SURS	16,853		25,634		17,166		26,851	
Total RSP	11,379		12,771		11,544		13,332	
<b>Total</b>	<b>109,810</b>		<b>138,153</b>		<b>110,679</b>		<b>142,302</b>	

<sup>1</sup> Police officers included in Non-Academic in this exhibit.

Values may not add due to rounding.



**Table 31**  
**Summary of Data Characteristics –**  
**Actives by Tier and Academic/Non-Academic**  
**(\$ in Millions)**

	June 30, 2023				June 30, 2024			
	Academic		Non-Academic		Academic		Non-Academic	
	Number	Earnings	Number	Earnings	Number	Earnings	Number	Earnings
<b>Full time - Tier 1</b>								
Traditional SURS	8,002	\$ 625.3	11,685	\$ 809.0	7,533	\$ 632.0	11,057	\$ 811.5
Portable SURS	3,407	361.9	4,192	335.1	3,223	362.3	4,044	339.0
RSP	2,415	280.0	1,922	164.3	2,294	283.2	1,814	164.8
<b>Total</b>	<b>13,824</b>	<b>\$ 1,267.1</b>	<b>17,799</b>	<b>\$ 1,308.3</b>	<b>13,050</b>	<b>\$ 1,277.5</b>	<b>16,915</b>	<b>\$ 1,315.3</b>
<b>Full time - Tier 2</b>								
Traditional SURS	5,143	\$ 255.8	15,990	\$ 765.1	5,589	\$ 298.7	17,393	\$ 898.0
Portable SURS	2,526	174.4	7,427	439.9	2,744	198.9	8,268	517.5
RSP	2,930	335.7	5,482	437.7	3,176	386.9	5,883	500.9
<b>Total</b>	<b>10,599</b>	<b>\$ 765.9</b>	<b>28,899</b>	<b>\$ 1,642.7</b>	<b>11,509</b>	<b>\$ 884.5</b>	<b>31,544</b>	<b>\$ 1,916.3</b>
<b>Full time - Total</b>								
Traditional SURS	13,145	\$ 881.1	27,675	\$ 1,574.1	13,122	\$ 930.7	28,450	\$ 1,709.5
Portable SURS	5,933	536.3	11,619	775.0	5,967	561.2	12,312	856.5
RSP	5,345	615.7	7,404	602.0	5,470	670.1	7,697	665.7
<b>Total</b>	<b>24,423</b>	<b>\$ 2,033.1</b>	<b>46,698</b>	<b>\$ 2,951.0</b>	<b>24,559</b>	<b>\$ 2,162.0</b>	<b>48,459</b>	<b>\$ 3,231.6</b>
<b>Part time - Tier 1</b>								
Traditional SURS	444	\$ 3.2	119	\$ 0.9	453	\$ 3.7	107	\$ 1.0
Portable SURS	113	1.0	44	0.4	93	0.9	39	0.5
RSP	60	0.4	10	0.1	62	0.6	9	0.1
<b>Total</b>	<b>617</b>	<b>\$ 4.6</b>	<b>173</b>	<b>\$ 1.4</b>	<b>608</b>	<b>\$ 5.1</b>	<b>155</b>	<b>\$ 1.6</b>
<b>Part time - Tier 2</b>								
Traditional SURS	1,515	\$ 11.7	510	\$ 3.9	1,576	\$ 13.8	532	\$ 4.5
Portable SURS	293	3.0	99	1.0	326	3.4	86	1.0
RSP	263	2.9	54	0.7	274	3.6	62	0.8
<b>Total</b>	<b>2,071</b>	<b>\$ 17.5</b>	<b>663</b>	<b>\$ 5.6</b>	<b>2,176</b>	<b>\$ 20.8</b>	<b>680</b>	<b>\$ 6.4</b>
<b>Part time - Total</b>								
Traditional SURS	1,959	\$ 14.9	629	\$ 4.8	2,029	\$ 17.5	639	\$ 5.5
Portable SURS	406	3.9	143	1.4	419	4.3	125	1.5
RSP	323	3.3	64	0.8	336	4.1	71	0.9
<b>Total</b>	<b>2,688</b>	<b>\$ 22.0</b>	<b>836</b>	<b>\$ 7.0</b>	<b>2,784</b>	<b>\$ 25.9</b>	<b>835</b>	<b>\$ 7.9</b>

Values may not add due to rounding.



**Table 32**  
**Distribution of Full Time Active Members by Age and Years of Service**  
**as of June 30, 2024**

Age	Years of Service								Totals
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
Under 20	18	25	-	-	-	-	-	-	43
	\$ 155,288	\$ 622,416	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 777,704
20-24	520	1,090	12	-	-	-	-	-	1,622
	\$ 6,180,610	\$ 41,638,471	\$ 408,414	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,227,496
25-29	871	3,896	627	6	-	-	-	-	5,400
	\$ 14,295,162	\$ 198,886,965	\$ 34,390,619	\$ 352,934	\$ -	\$ -	\$ -	\$ -	\$ 247,925,681
30-34	723	4,172	2,096	317	6	-	-	-	7,314
	\$ 13,734,819	\$ 264,397,338	\$ 137,116,724	\$ 20,528,365	\$ 390,212	\$ -	\$ -	\$ -	\$ 436,167,459
35-39	550	3,323	2,903	1,486	347	10	-	-	8,619
	\$ 12,793,756	\$ 232,444,056	\$ 221,775,351	\$ 112,408,199	\$ 27,125,254	\$ 816,885	\$ -	\$ -	\$ 607,363,500
40-44	428	2,683	2,717	2,164	1,390	364	13	-	9,759
	\$ 9,343,793	\$ 182,140,795	\$ 215,446,721	\$ 181,538,278	\$ 121,502,680	\$ 30,581,231	\$ 1,245,361	\$ -	\$ 741,798,858
45-49	335	1,940	2,193	1,893	1,771	1,167	344	9	9,652
	\$ 7,017,052	\$ 128,996,743	\$ 170,030,166	\$ 168,225,971	\$ 172,367,503	\$ 113,413,751	\$ 30,660,098	\$ 626,810	\$ 791,338,094
50-54	262	1,752	1,802	1,539	1,703	1,499	991	186	9,734
	\$ 5,694,804	\$ 114,203,151	\$ 128,192,807	\$ 128,980,269	\$ 167,564,041	\$ 155,734,277	\$ 98,825,652	\$ 17,895,738	\$ 817,090,740
55-59	219	1,332	1,480	1,351	1,388	1,364	1,038	431	8,603
	\$ 4,807,734	\$ 83,820,378	\$ 97,647,742	\$ 100,615,059	\$ 125,969,546	\$ 138,396,530	\$ 114,341,895	\$ 44,397,143	\$ 709,996,027
60-64	124	892	1,173	1,087	1,126	1,043	842	510	6,797
	\$ 3,126,444	\$ 53,157,293	\$ 77,941,830	\$ 75,993,713	\$ 90,995,692	\$ 102,390,575	\$ 93,135,862	\$ 66,271,169	\$ 563,012,579
65 & Over	64	571	911	918	906	801	591	713	5,475
	\$ 968,688	\$ 30,412,624	\$ 50,998,152	\$ 56,183,519	\$ 66,219,953	\$ 70,646,697	\$ 59,889,507	\$ 94,562,070	\$ 429,881,211
<b>Total Count</b>	<b>4,114</b>	<b>21,676</b>	<b>15,914</b>	<b>10,761</b>	<b>8,637</b>	<b>6,248</b>	<b>3,819</b>	<b>1,849</b>	<b>73,018</b>
<b>Total Payroll</b>	<b>\$ 78,118,150</b>	<b>\$ 1,330,720,232</b>	<b>\$ 1,133,948,525</b>	<b>\$ 844,826,308</b>	<b>\$ 772,134,880</b>	<b>\$ 611,979,947</b>	<b>\$ 398,098,376</b>	<b>\$ 223,752,931</b>	<b>\$ 5,393,579,349</b>

*Includes the use of capped payroll for defined benefit plan members hired on or after January 1, 2011. Includes RSP.*



**Table 33**  
**Distribution of Benefit Recipients by Age**  
**as of June 30, 2024**

<u>Age</u>	<u>Number</u>	<u>Annual Benefit</u>
<b>Retirees and Survivors</b>		
Under 50	401	\$ 3,347,484
50-54	333	13,672,123
55-59	2,501	91,995,823
60-64	7,126	268,626,633
65-69	12,719	499,891,591
70-74	15,801	650,491,930
75-79	14,355	627,236,181
80-84	9,929	480,555,309
85-89	5,736	268,441,540
90 & Over	3,543	143,599,146
<b>Total</b>	<b>72,444</b>	<b>\$ 3,047,857,760</b>
<b>Disabilitants</b>		
Under 50	112	\$ 3,136,442
50-54	105	2,977,241
55-59	134	4,250,393
60-64	189	4,988,465
65-69	159	4,385,906
70-74	86	1,847,966
75-79	43	833,236
80-84	21	340,713
85-89	6	89,086
90 & Over	4	68,981
<b>Total</b>	<b>859</b>	<b>\$ 22,918,429</b>

*Excludes RSP.*



# Table 34

## Summary of Fund Membership as of June 30, 2024

	Year Ended		Change from Prior Year	
	June 30, 2023	June 30, 2024	Amount	%
<b>Active Members (RSP)</b>				
Number	13,136	13,574	438	3.3%
Average Age	47.7	47.7	0.0	
Average Service	9.4	9.4	0.0	
Total Fiscal Year Pay	\$1,221,768,513	\$1,340,779,284	\$119,010,770	9.7%
Average Pay	\$93,009	\$98,776	\$5,766	6.2%
Academic Members	5,668	5,806	138	2.4%
Non-Academic Members	7,410	7,712	302	4.1%
Police Officers	58	56	-2	-3.4%
Tier 1 Members	4,407	4,179	-228	-5.2%
Tier 2 Members	8,729	9,395	666	7.6%
<b>Active Members (SURS DB, Excluding RSP)</b>				
Number	61,509	63,063	1,554	2.5%
Average Age	46.9	46.7	-0.2	
Average Service	10.1	10.0	-0.1	
Total Fiscal Year Pay	\$3,791,363,453	\$4,086,648,591	\$295,285,138	7.8%
Average Pay	\$61,639	\$64,803	\$3,163	5.1%
Total Active Vested Participants	28,828	28,744	-84	-0.3%
Academic Members	21,443	21,537	94	0.4%
Non-Academic Members	39,460	40,908	1,448	3.7%
Police Officers	606	618	12	2.0%
Tier 1 Members	28,006	26,549	-1,457	-5.2%
Tier 2 Members	33,503	36,514	3,011	9.0%
<b>Active Members (Total SURS DB and RSP)</b>				
Number	74,645	76,637	1,992	2.7%
Average Age	47.0	46.9	-0.1	-0.3%
Average Service	10.0	9.9	-0.1	-1.0%
Total Fiscal Year Pay	\$5,013,131,967	\$5,427,427,875	\$414,295,908	8.3%
Average Pay	\$67,160	\$70,820	\$3,660	5.5%
Academic Members	27,111	27,343	232	0.9%
Non-Academic Members	46,870	48,620	1,750	3.7%
Police Officers	664	674	10	1.5%
Tier 1 Members	32,413	30,728	-1,685	-5.2%
Tier 2 Members	42,232	45,909	3,677	8.7%
<b>Inactive Vested Members (SURS DB)</b>				
Number	22,731	22,278	-453	-2.0%
Average Age	52.6	53.0	0.4	
Average Service (Including Reciprocal Service)	14.2	14.4	0.1	
Average Service (Excluding Reciprocal Service)	6.3	6.4	0.1	
<b>Inactive Non-Vested Members (SURS DB)</b>				
Number	66,993	69,461	2,468	3.7%
<b>Total Inactive Members (SURS DB)</b>				
Number	89,724	91,739	2,015	2.2%
<b>Inactive (RSP)</b>				
Number	11,014	11,302	288	2.6%
<b>Retirees</b>				
Number	61,967	62,485	518	0.8%
Average Age	73.4	73.8	0.4	
Total Annual Benefit	\$2,722,426,931	\$2,803,291,996	\$80,865,065	3.0%
Average Annual Benefit	\$43,933	\$44,863	\$930	2.1%
<b>Disabled Retirees</b>				
Number	873	859	-14	-1.6%
Average Age	61.3	61.5	0.2	
Total Annual Benefit	\$22,600,017	\$22,918,429	\$318,412	1.4%
Average Annual Benefit	\$25,888	\$26,680	\$793	3.1%
<b>Beneficiaries and Survivors</b>				
Number	9,740	9,959	219	2.2%
Average Age	77.3	77.7	0.4	
Total Annual Benefit	\$231,848,794	\$244,565,764	\$12,716,971	5.5%
Average Annual Benefit	\$23,804	\$24,557	\$753	3.2%
<b>Total Benefit Recipients</b>	72,580	73,303	723	1.0%
<b>Total Members (SURS DB)</b>	223,813	228,105	4,292	1.9%
<b>Total Members (SURS DB and RSP)</b>	247,963	252,981	5,018	2.0%



**Table 35**  
**Schedule of Active Defined Benefit Member Payroll**  
**as of June 30, 2024**

---

Valuation Date June 30,	Number	Covered Payroll	Average Annual Payroll	% Increase in Avg. Payroll
2015	69,381	\$3,476,179,772	\$ 50,103	
2016	66,245	3,386,128,143	51,115	2.02%
2017	64,117	3,333,320,083	51,988	1.71%
2018	62,844	3,360,993,750	53,482	2.87%
2019	62,589	3,396,270,719	54,263	1.46%
2020	63,206	3,527,958,368	55,817	2.86%
2021	60,397	3,532,275,680	58,484	4.78%
2022	60,281	3,567,480,023	59,181	1.19%
2023	61,509	3,791,363,453	61,639	4.15%
2024	63,063	4,086,648,591	64,803	5.13%

DRAFT

**Table 36**  
**Member Population and Ratio of Actives to Non-Actives**  
**as of June 30, 2024**

Year Ended June 30,	Active Participants			SURS DB				
	Total	RSP	SURS DB	Inactive Participants	Benefit Recipients	Total Non-Actives	Ratio of SURS DB Actives to	
							Benefit Recipients	Total Non-Actives
2011	81,611	9,723	71,888	72,903	51,370	124,273	1.40	0.58
2012	81,156	10,100	71,056	74,034	54,532	128,566	1.30	0.55
2013	81,302	10,746	70,556	74,569	57,229	131,798	1.23	0.54
2014	80,845	11,409	69,436	75,492	59,406	134,898	1.17	0.51
2015	81,309	11,928	69,381	76,984	61,020	138,004	1.14	0.50
2016	78,125	11,880	66,245	79,495	63,146	142,641	1.05	0.46
2017	75,969	11,852	64,117	81,316	64,545	145,861	0.99	0.44
2018	74,950	12,106	62,844	82,115	66,169	148,284	0.95	0.42
2019	75,120	12,531	62,589	83,044	67,842	150,886	0.92	0.41
2020	76,335	13,129	63,206	83,744	69,172	152,916	0.91	0.41
2021	73,443	13,046	60,397	86,135	70,111	156,246	0.86	0.39
2022	73,307	13,026	60,281	87,829	71,458	159,287	0.84	0.38
2023	74,645	13,136	61,509	89,724	72,580	162,304	0.85	0.38
2024	76,637	13,574	63,063	91,739	73,303	165,042	0.86	0.38

**Table 37**  
**Reconciliation of Defined Benefit Membership**  
**as of June 30, 2024**

SURS Defined Benefit Plan Participants	Actives	Inactive	Retirees	Disabilities	Beneficiaries/ Survivors	Total
<b>Totals as of the June 30, 2023 Actuarial Valuation</b>	<b>61,509</b>	<b>89,724</b>	<b>61,967</b>	<b>873</b>	<b>9,740</b>	<b>223,813</b>
<b>New Entrants</b>	7,638	875	5	-	-	8,518
<b>Rehires — Members with Service</b>	1,741	(1,176)	(2)	(25)	-	538
<b>Change to Inactive Status</b>	(5,309)	5,442	(1)	(23)	-	109
<b>Service Retirements</b>	(1,264)	(863)	2,161	(34)	-	-
<b>Disabilities</b>	(64)	(39)	(1)	108	-	4
<b>Deaths</b>	(92)	(119)	(1,644)	(37)	(566)	(2,458)
<b>New Beneficiaries</b>	-	-	-	-	785	785
<b>Refunds and Benefit Terminations</b>	(912)	(2,087)	-	(3)	-	(3,002)
<b>Data Adjustments/Change of plan choice to RSP</b>	(183)	(10)	-	-	-	(193)
<b>Vested Inactive Buyout</b>	(1)	(8)	-	-	-	(9)
<b>Net Change</b>	1,554	2,015	518	(14)	219	4,292
<b>Totals as of the June 30, 2024 Actuarial Valuation</b>	<b>63,063</b>	<b>91,739</b>	<b>62,485</b>	<b>859</b>	<b>9,959</b>	<b>228,105</b>



## Table 38 Participating Employers as of June 30, 2024

Employer Name	Number (SURS DB)			Number (RSP)			Number (Total SURS DB and RSP)		
	Tier 1	Tier 2	Total	Tier 1	Tier 2	Total	Tier 1	Tier 2	Total
Chicago State University	291	287	578	18	28	46	309	315	624
Eastern Illinois University	456	498	954	84	98	182	540	596	1,136
Governors State University	352	400	752	34	86	120	386	486	872
Illinois Mathematics & Science Academy	73	118	191	7	17	24	80	135	215
Illinois State University	1,222	1,531	2,753	219	428	647	1,441	1,959	3,400
Northeastern Illinois University	507	382	889	49	69	118	556	451	1,007
Northern Illinois University	1,075	1,163	2,238	206	378	584	1,281	1,541	2,822
Southern Illinois University - Carbondale	1,499	2,337	3,836	264	702	966	1,763	3,039	4,802
Southern Illinois University - Edwardsville	744	1,025	1,769	147	300	447	891	1,325	2,216
University of Illinois-Chicago	4,208	8,924	13,132	678	2,559	3,237	4,886	11,483	16,369
University of Illinois at Springfield	288	465	753	49	99	148	337	564	901
University of Illinois-Urbana	4,239	6,175	10,414	961	2,569	3,530	5,200	8,744	13,944
Western Illinois University	539	424	963	120	114	234	659	538	1,197
Illinois Board of Higher Education	18	24	42	1	1	2	19	25	44
Illinois Community College Board	28	29	57	1	3	4	29	32	61
Illinois Community College Trustees' Association	2		2			0	2	0	2
State University Civil Service System	4	4	8		1	1	4	5	9
State Universities Retirement System	58	79	137	2	29	31	60	108	168
University of Illinois-Alumni Assoc	7	3	10	3	5	8	10	8	18
University of Illinois-Foundation	43	81	124	17	34	51	60	115	175
Southwestern Illinois College	351	498	849	43	67	110	394	565	959
Black Hawk College	132	193	325	35	34	69	167	227	394
Carl Sandburg College	95	111	206	11	10	21	106	121	227
City Colleges of Chicago	1,934	2,028	3,962	121	177	298	2,055	2,205	4,260
College of DuPage	875	1,129	2,004	110	170	280	985	1,299	2,284
College of Lake County	569	693	1,262	77	128	205	646	821	1,467
Danville Area Community College	90	122	212	9	16	25	99	138	237
Elgin Community College	441	526	967	36	74	110	477	600	1,077
Heartland Community College	190	228	418	31	39	70	221	267	488
Highland Community College	95	87	182	14	19	33	109	106	215
Illinois Central College	368	445	813	40	77	117	408	522	930
Illinois Eastern Community College	191	237	428	19	42	61	210	279	489
Illinois Valley Community College	125	132	257	18	21	39	143	153	296
John A Logan College	166	166	332	10	21	31	176	187	363
John Wood Community College	95	161	256	14	16	30	109	177	286
Joliet Junior College	490	468	958	49	43	92	539	511	1,050
Kankakee Community College	132	142	274	20	19	39	152	161	313
Kaskaskia College	116	143	259	15	31	46	131	174	305
Kishwaukee College	120	154	274	12	28	40	132	182	314
Lake Land College	201	248	449	20	37	57	221	285	506
Lewis & Clark Community College	160	203	363	20	52	72	180	255	435
Lincoln Land Community College	249	264	513	41	44	85	290	308	598
McHenry College	230	233	463	46	45	91	276	278	554
Moraine Valley Community College	444	405	849	51	49	100	495	454	949
Morton College	131	153	284	9	15	24	140	168	308
Oakton Community College	461	415	876	56	76	132	517	491	1,008
Parkland College	264	308	572	52	87	139	316	395	711
Prairie State College	160	184	344	17	30	47	177	214	391
Rend Lake College	126	167	293	16	22	38	142	189	331
Richland Community College	81	146	227	16	24	40	97	170	267
Rock Valley College	188	287	475	27	50	77	215	337	552
Sauk Valley College	78	95	173	12	21	33	90	116	206
Shawnee College	59	80	139	5	9	14	64	89	153
South Suburban College	172	146	318	13	6	19	185	152	337
Southeastern Illinois College	56	76	132	3	5	8	59	81	140
Spoon River College	82	77	159	9	11	20	91	88	179
Triton College	378	557	935	37	49	86	415	606	1,021
Waubonsee Community College	301	401	702	53	76	129	354	477	831
William Rainey Harper College	475	452	927	127	132	259	602	584	1,186
Illinois Board of Examiners	2	2	4			0	2	2	4
ILCS Section 15-107(i) Members	2		2			0	2	0	2
ILCS Section 15-107(c) Members	4	2	6		2	2	4	4	8
Illinois Department of Innovation and Technology	14		14	4		4	18	0	18
Northern Illinois University Foundation	3	1	4	1	1	2	4	2	6
<b>Total</b>	<b>26,549</b>	<b>36,514</b>	<b>63,063</b>	<b>4,179</b>	<b>9,395</b>	<b>13,574</b>	<b>30,728</b>	<b>45,909</b>	<b>76,637</b>

Shaded employers have more than 2,000 total active members.



## **APPENDIX G**

---

### **ACTUARIAL METHODS AND ASSUMPTIONS**

**DRAFT**

# Actuarial Methods and Assumptions

---

## Projected Unit Credit Method

The Projected Unit Credit Method is mandated under Section 15-155 of the SURS Article of the Illinois Pension Code as the funding method to be used for SURS.

The concept of this method is that funding of benefits should occur as benefits are accrued (earned) by active members of SURS.

The Normal Cost (“NC”) for a fiscal year under this method is the actuarial present value of all benefits expected to be accrued during the fiscal year adjusted for future expected salary increases. The Actuarial Accrued Liability (“AAL”) under this method is the actuarial present value of all benefits accrued to the valuation date. To the extent that the assets of the fund are insufficient to cover the AAL, an Unfunded Actuarial Accrued Liability (“UAAL”) develops. Under the classical application of this method, the contribution for a year is the NC for that year plus an amount to amortize the UAAL.

## Funding Policy to Calculate Statutory Contributions

Under Section 15-155 of the Illinois Pension Code, the employer/State contribution is determined such that the assets of SURS reach 90% of the AAL by the end of FY 2045.

This contribution is determined as a level percentage of pay for all years except that the contribution rates through 2010 shall grade in equal steps to the desired level contribution rate. *We have assumed the contribution would be based on pensionable (capped) payroll for members hired on or after January 1, 2011 (“Tier 2 members”).* Pensionable pay does not include amounts in excess of the pay cap (\$123,489 in fiscal year 2024 for Tier 2, increased by the lesser of 3% and 1/2 of the increase in CPI-U as measured in the preceding 12-month calendar year) that is applicable to members hired on or after January 1, 2011, participating in the defined benefit plans.

Public Act 100-0023 (Effective July 6, 2017) made the following changes to the SURS funding policy:

### State Contributions

- Requires the State to make additional contributions to SURS in FY 2018, FY 2019 and FY 2020 equal to 2% of the total payroll of each employee who participates in the Optional Hybrid Plan or who participates in the Tier 2 plan in lieu of the Optional Hybrid Plan.
- Requires any change in an actuarial assumption that increases or decreases the required State contribution to be implemented in equal annual amounts over a five-year period beginning in the State fiscal year in which the change first applies to the required State contribution.
  - For changes that first applied in FY 2014, FY 2015, FY 2016 or FY 2017, the impact is calculated based on a five-year period and the applicable portion is recognized during the remaining fiscal years in that five-year period.

# Actuarial Methods and Assumptions

---

## Employer Contributions

- Requires employers to contribute the employer normal cost of the portion of an employee's earnings that exceeds the amount of salary set for the governor, for academic years beginning on or after July 1, 2017. (Applicable to Tier 1 and Tier 2 employees.)

Public Act 100-0587 (Effective June 4, 2018) made the following changes to the SURS funding policy:

## Employer Contributions

- For academic years beginning on or after July 1, 2018, and for earnings paid under a contract or collective bargaining agreement entered into, amended or renewed on or after the effective date of the amendatory Act (June 5, 2018), if a participant's earnings for any academic year with the same employer as the previous academic year used to determine the final average salary increased by more than 3.00%, then the participant's employer shall pay the System the present value of the increase in benefits resulting from the portion of the increase in earnings that is in excess of 3.00%. Prior to the effective date of Public Act 100-0587, the payment from employers was for pay increases in excess of 6.00%.

PA 101-0010 rescinded the change to 3% from PA 100-0587. Therefore, employers make contributions equal to the present value of the increase in benefit attributable to members who receive pay increases in excess of 6% during the final average salary (FAS) period.

The 6% employer billing rule is assumed to apply to all current and future Tier 1 and Tier 2 members.

## Statutory Contributions Related to the Optional Hybrid Plan

SURS is currently not moving forward with the implementation of the Optional Hybrid Plan (OHP) created under PA 100-0023. Additional clarifying legislation is needed for SURS to be able to do so. Therefore, contributions related to the OHP are not included in the actuarial valuation, including contributions for employer normal cost, additional 2% of payroll contributions and unfunded liability contributions.

## Phase In of the Financial Impact of Assumption Changes

On the following page is a table with the recognition schedule for the phase in of actuarial assumption changes required under Public Act 100-0023. The following actuarial assumption changes were made:

1. Beginning with the June 30, 2021 actuarial valuation, there were changes to the economic and demographic actuarial assumptions.
2. Beginning with the June 30, 2024 actuarial valuation, there were changes to the economic and demographic actuarial assumptions.

## Actuarial Methods and Assumptions

Valuation Year Ending 6/30	2023	2024	2025	2026	2027	2028
Applicable Fiscal Year Ending 6/30	2025	2026	2027	2028	2029	2030
	<b>\$ in Millions</b>					
	<b>After Impact of Bonds</b>					
Contribution Before Assumption Change:						
(1) Contribution Dollar	\$ 2,268.0	\$ 2,361.5				
(2) Contribution Rate	41.12%	39.75%				
Contribution After Assumption Change:						
(3) Contribution Dollar	2,268.0	2,387.4				
(4) Contribution Rate	41.12%	39.98%				
(5) Assumption Impact as Percentage of Payroll						
=(4)-(2)	0.00%	0.23%				
(6) Assumption Change Impact Recognized						
This Year (5 year recognition)						
(6a) From This Year	0.00%	0.05%				
(6b) From One Year Ago	0.00%	0.00%	0.05%			
(6c) From Two Years Ago	-0.09%	0.00%	0.00%	0.05%		
(6d) From Three Years Ago	0.00%	-0.09%	0.00%	0.00%	0.05%	
(6e) From Four Years Ago	0.00%	0.00%	-0.07%	0.00%	0.00%	0.03%
(6f) Total Recognized Assumption Change Impact	-0.09%	-0.04%	-0.02%	0.05%	0.05%	0.03%

### Contribution Related to Pay in Excess of Governor's Pay

Following is a table with the estimated contributions required under Public Act 100-0023 to be made by employers for pay in excess of the Governor's pay. (Information calculated and provided by SURS.)

<b>\$ in Millions</b>									
Contribution Year	Governor's Pay		Pay for Preceding Fiscal Year for Affected Members						
	Fiscal Year	Amount	Year of Member Pay	Excess Pay	Employer Normal Cost Rate	Excess Pay * ER NC Rate	Additional Adjustments <sup>1</sup>	Estimated Employer Contributions	
<b>2018</b>	2017	\$ 177,500	2017	\$ 46.831	12.46%	\$ 5.835	\$ (1.579)	\$ 4.256	
<b>2019</b>	2018	177,500	2017	47.193	12.29%	5.800	(1.654)	4.146	
<b>2020</b>	2019	177,500	2018	55.726	13.02%	7.256	(2.132)	5.124	
<b>2021</b>	2020	177,500	2019	60.295	12.70%	7.657	(2.128)	5.529	
<b>2022</b>	2021	181,700	2020	58.515	12.32%	7.209	(1.840)	5.369	
<b>2023</b>	2022	184,800	2021	54.838	12.83%	7.036	(1.988)	5.048	
<b>2024</b>	2023	190,700	2022	54.291	12.53%	6.803	(1.810)	4.993	
<b>2025</b>	2024	216,000	2023	40.034	11.98%	4.796	(1.322)	3.474	
<b>2026</b>	2025	226,800	2024	40.964	11.88%	4.867	(1.481)	3.386	

<sup>1</sup> Additional adjustments for members with pay in excess of the Governor's pay whose employers' already make normal cost contributions.

# Actuarial Methods and Assumptions

---

## Asset Valuation Method

Prior to the actuarial valuation as of June 30, 2009, market value of assets was used. Under Section 15-155(l) of the Illinois Pension Code, beginning with the actuarial valuation as of June 30, 2009, the asset value is the actuarial value of assets which is calculated by recognizing 20% of the investment gain or loss (the difference between the actual investment return and the expected investment return) on the market value of assets for each of the five following fiscal years. This method was not applied retroactively to recognize a portion of investment gains or losses from previous fiscal years.

Following is a table with the investment return assumption used in recent actuarial valuations.

Valuation Date	Investment Return Assumption
Prior to June 30, 2010	8.50%
June 30, 2010 through June 30, 2013	7.75%
June 30, 2014 through June 30, 2017	7.25%
June 30, 2018 through June 30, 2020	6.75%
June 30, 2021 to present	6.50%

DRAFT

# Actuarial Methods and Assumptions

## Actuarial Assumptions

### (Most Adopted Effective with the June 30, 2024, Actuarial Valuation)

Under Section 15-155(a) of the Illinois Pension Code, the Board adopts the assumptions after consultation with the actuary. All actuarial assumptions are expectations of future experience and are not market measures. The rationale for the actuarial assumptions may be found in the experience study report covering the period June 30, 2020 through June 30, 2023, issued to the Board of Trustees on May 23, 2024.

**Rate of Investment Return.** For all purposes under the system the rate of investment return is assumed to be 6.50% per annum beginning with the **June 30, 2021** actuarial valuation. This assumption is net of investment expenses.

**Price Inflation (Increase in Consumer Price Index “CPI”).** The assumed rate is 2.40% per annum, beginning with the June 30, 2024, actuarial valuation.

**Effective Rate of Interest.** The assumed rate credited to member accounts is 7.00% per annum, beginning with the June 30, 2024, actuarial valuation.

**Cost of Living Adjustment “Automatic Annual Increase (AAI).”** The assumed rate is 3.00% per annum for members hired before January 1, 2011, based on the benefit provision of 3.00% annual compound increases. The assumed rate is 1.20% for members hired on or after January 1, 2011, based on the benefit provision of increases equal to ½ of the increase in CPI with a maximum increase of 3.00%, beginning with the June 30, 2024, actuarial valuation.

**Annual Compensation Increases.** Each member’s compensation is assumed to increase by 3.15% each year, 2.40% reflecting salary inflation and 0.75% reflecting standard of living increases. That rate is increased for members with less than 34 years of service to reflect merit, longevity and promotion increases. The rates are based on service at the beginning of the year and are as follows:

Service Year	Total Increase - Academic		Total Increase - Non-Academic	
	Under Age 50	50 and Older	Under Age 50	50 and Older
0-1	15.00%	13.00%	12.00%	11.00%
2	9.00%	9.25%	9.00%	8.25%
3	7.75%	7.50%	8.00%	7.00%
4	6.75%	6.75%	7.00%	6.00%
5	6.25%	6.25%	6.50%	5.50%
6	6.00%	5.75%	6.25%	5.25%
7	5.50%	5.25%	5.75%	4.75%
8-10	5.00%	4.25%	5.25%	4.50%
11-14	4.75%	3.75%	5.00%	4.00%
15-18	4.50%	3.50%	4.75%	3.75%
19	4.50%	3.25%	4.50%	3.50%
20-24	4.25%	3.25%	4.25%	3.50%
25-29	4.00%	3.25%	4.00%	3.50%
30-33	3.75%	3.25%	3.75%	3.50%
34+	3.50%	3.15%	3.50%	3.15%



## Actuarial Methods and Assumptions

**General Wage Inflation.** The assumed rate of general wage inflation is 3.15%.

**Mortality.** The mortality assumptions are as follows:

Members classified as an employee type of academic:

Applicable Group	Base Mortality Table	Male Scaling Factor	Female Scaling Factor
Pre-retirement	Pub-2010 Employee Mortality Table (for Teachers)	99%	100%
Post-retirement (non-disabled)	Pub-2010 Healthy Retiree Mortality Table (for Teachers)	96%	103%
Post-retirement (disabled)	Pub-2010 Disabled Retiree Mortality Table (for Non-Safety Employees)	122%	106%

Members classified as an employee type of non-academic:

Applicable Group	Base Mortality Table	Male Scaling Factor	Female Scaling Factor
Pre-retirement	Pub-2010 Employee Mortality Table (for General Employees)	120%	104%
Post-retirement (non-disabled)	Pub-2010 Healthy Retiree Mortality Table (for General Employees)	102%	104%
Post-retirement (disabled)	Pub-2010 Disabled Retiree Mortality Table (for Non-Safety Employees)	122%	106%

Members classified as an employee type of police:

Applicable Group	Base Mortality Table	Male Scaling Factor	Female Scaling Factor
Pre-retirement	Pub-2010 Employee Mortality Table (for Safety Employees)	100%	100%
Post-retirement (non-disabled)	Pub-2010 Healthy Retiree Mortality Table (for Safety Employees)	100%	100%
Post-retirement (disabled)	Pub-2010 Disabled Retiree Mortality Table (for Safety Employees)	100%	100%

Future mortality improvements are reflected by projecting the base mortality tables from 2010 using the MP-2021 projection scale.



## Actuarial Methods and Assumptions

Following are the future life expectancies for post-retirement (non-disabled) mortality:

Age	Future Life Expectancy (years) in 2024				Future Life Expectancy (years) in 2035			
	Academic		Non-Academic		Academic		Non-Academic	
	Male	Female	Male	Female	Male	Female	Male	Female
35	53.95	55.62	51.03	53.94	54.77	56.37	52.05	54.81
40	48.70	50.37	45.76	48.64	49.52	51.12	46.78	49.51
45	43.47	45.13	40.52	43.36	44.29	45.88	41.53	44.23
50	38.26	39.90	35.42	38.19	39.08	40.66	36.40	39.05
55	33.14	34.76	30.54	33.22	33.94	35.51	31.49	34.06
60	28.17	29.80	25.83	28.36	28.95	30.52	26.72	29.16
65	23.38	24.97	21.33	23.63	24.11	25.64	22.14	24.37
70	18.81	20.28	17.07	19.11	19.47	20.89	17.77	19.76
75	14.57	15.83	13.14	14.88	15.12	16.37	13.72	15.44

Age	Future Life Expectancy (years) in 2024		Future Life Expectancy (years) in 2035	
	Police		Police	
	Male	Female	Male	Female
35	53.60	55.87	54.43	56.60
40	48.35	50.61	49.18	51.35
45	43.12	45.37	43.95	46.12
50	37.92	40.14	38.75	40.89
55	32.80	35.00	33.61	35.74
60	27.84	30.03	28.62	30.75
65	23.06	25.19	23.80	25.86
70	18.52	20.49	19.17	21.10
75	14.30	16.03	14.85	16.56

## Actuarial Methods and Assumptions

**Disability.** A table of disability incidence with rates follows:

Age	Academic		Non-Academic		Police	
	Male	Female	Male	Female	Male	Female
20	0.007410%	0.013120%	0.027170%	0.036080%	0.054340%	0.072160%
21	0.007590%	0.013880%	0.027830%	0.038170%	0.055660%	0.076340%
22	0.007770%	0.014640%	0.028490%	0.040260%	0.056980%	0.080520%
23	0.007950%	0.015400%	0.029150%	0.042350%	0.058300%	0.084700%
24	0.008130%	0.016160%	0.029810%	0.044440%	0.059620%	0.088880%
25	0.008310%	0.016920%	0.030470%	0.046530%	0.060940%	0.093060%
26	0.008490%	0.017680%	0.031130%	0.048620%	0.062260%	0.097240%
27	0.008670%	0.018440%	0.031790%	0.050710%	0.063580%	0.101420%
28	0.008850%	0.019240%	0.032450%	0.052910%	0.064900%	0.105820%
29	0.009000%	0.020000%	0.033000%	0.055000%	0.066000%	0.110000%
30	0.009450%	0.021640%	0.034650%	0.059510%	0.069300%	0.119020%
31	0.009900%	0.023280%	0.036300%	0.064020%	0.072600%	0.128040%
32	0.010350%	0.024920%	0.037950%	0.068530%	0.075900%	0.137060%
33	0.010770%	0.026560%	0.039490%	0.073040%	0.078980%	0.146080%
34	0.011220%	0.028200%	0.041140%	0.077550%	0.082280%	0.155100%
35	0.011850%	0.029800%	0.043450%	0.081950%	0.086900%	0.163900%
36	0.012450%	0.031440%	0.045650%	0.086460%	0.091300%	0.172920%
37	0.013080%	0.033080%	0.047960%	0.090970%	0.095920%	0.181940%
38	0.013710%	0.034720%	0.050270%	0.095480%	0.100540%	0.190960%
39	0.014310%	0.036360%	0.052470%	0.099990%	0.104940%	0.199980%
40	0.016080%	0.038000%	0.058960%	0.104500%	0.117920%	0.209000%
41	0.017850%	0.039640%	0.065450%	0.109010%	0.130900%	0.218020%
42	0.019620%	0.041280%	0.071940%	0.113520%	0.143880%	0.227040%
43	0.021390%	0.042920%	0.078430%	0.118030%	0.156860%	0.236060%
44	0.023160%	0.044560%	0.084920%	0.122540%	0.169840%	0.245080%
45	0.025350%	0.046200%	0.092950%	0.127050%	0.185900%	0.254100%
46	0.027570%	0.047840%	0.101090%	0.131560%	0.202180%	0.263120%
47	0.029790%	0.049480%	0.109230%	0.136070%	0.218460%	0.272140%
48	0.031980%	0.051120%	0.117260%	0.140580%	0.234520%	0.281160%
49	0.034200%	0.052760%	0.125400%	0.145090%	0.250800%	0.290180%
50	0.036420%	0.054400%	0.133540%	0.149600%	0.267080%	0.299200%
51	0.038610%	0.056040%	0.141570%	0.154110%	0.283140%	0.308220%
52	0.040830%	0.057680%	0.149710%	0.158620%	0.299420%	0.317240%
53	0.043050%	0.059320%	0.157850%	0.163130%	0.315700%	0.326260%
54	0.045240%	0.060960%	0.165880%	0.167640%	0.331760%	0.335280%
55 & Older	0.046560%	0.062600%	0.170720%	0.172150%	0.341440%	0.344300%

Disability rates apply during the retirement eligibility period. Members are assumed to first receive disability benefits (DB) and then receive disability retirement annuity (DRA) benefits.

For police officers, 50% of disabilities are assumed to occur in the line of duty and 50% of disabilities are assumed to be ordinary.

## Actuarial Methods and Assumptions

**Retirement.** Upon eligibility, active members are assumed to retire as follows:

Nearest Age @ Retirement	Tier 1					Tier 2				
	Normal (Unreduced) Retirement			Early (Reduced) Retirement		Normal (Unreduced) Retirement			Early (Reduced) Retirement	
	Police	Academic	Non-Academic	Academic	Non-Academic	Police	Academic	Non-Academic	Academic	Non-Academic
Under 50		55.0%	55.0%							
50	50.0%	55.0%	40.0%							
51	40.0%	40.0%	30.0%							
52	40.0%	40.0%	30.0%							
53	40.0%	30.0%	30.0%							
54	40.0%	30.0%	30.0%							
55	50.0%	20.0%	25.0%	4.0%	8.5%					
56	30.0%	18.0%	25.0%	3.0%	5.5%					
57	30.0%	18.0%	25.0%	4.0%	6.0%					
58	30.0%	18.0%	25.0%	4.0%	6.0%					
59	30.0%	18.0%	25.0%	4.0%	8.0%					
60	20.0%	12.0%	20.0%			60.0%				
61	15.0%	12.0%	15.0%			25.0%				
62	15.0%	12.0%	17.0%			25.0%			15.0%	20.0%
63	15.0%	13.0%	17.0%			25.0%			10.0%	12.0%
64	15.0%	13.0%	17.0%			25.0%			10.0%	12.0%
65	40.0%	17.0%	25.0%			15.0%			10.0%	12.0%
66	40.0%	17.0%	25.0%			15.0%			10.0%	12.0%
67	40.0%	17.0%	25.0%			15.0%	30.0%	30.0%		
68	40.0%	17.0%	25.0%			25.0%	17.0%	25.0%		
69	40.0%	17.0%	25.0%			25.0%	17.0%	25.0%		
70	100.0%	17.0%	22.0%			100.0%	17.0%	22.0%		
71-79	100.0%	17.0%	22.0%				17.0%	22.0%		
80+	100.0%	100.0%	100.0%				100.0%	100.0%		

Members who retire are assumed to elect the most valuable option on a present value basis – refund of contributions (or portable lump sum retirement, if applicable) or a retirement annuity.

For purposes of the projections in the actuarial valuation, members of the Retirement Savings Plan are assumed to retire in accordance with the Tier 1 and Tier 2 retirement rates (based on hire date).



## Actuarial Methods and Assumptions

---

**General Turnover.** A table of termination rates based on experience in the 2020-2023 period. The assumption is a table of turnover rates by years of service. A sample of these rates follows:

Years of Service	Academic	Non-Academic
0	15.00%	14.00%
1	15.00	14.00
2	11.00	14.00
3	10.00	13.00
4	9.00	12.00
5	8.00	10.50
6	7.00	8.50
7	6.00	7.50
8	5.50	6.50
9	5.00	6.00
10	4.00	5.00
11	3.50	5.00
12	3.00	4.00
13	2.50	3.00
14	2.50	3.00
15	2.00	3.00
16	2.00	2.50
17	2.00	2.50
18	2.00	2.50
19	2.00	2.50
20	1.50	2.00
21	1.50	2.00
22	1.50	2.00
23	1.50	2.00
24	1.50	2.00
25	1.25	1.25
26	1.25	1.25
27	1.25	1.25
28	1.25	1.25
29	1.25	1.25

DRAFT

Members who terminate with at least five years of service (10 years of service for Tier 2 members) are assumed to elect the most valuable option on a present value basis – refund of contributions or a deferred benefit.

Termination rate for 29 years of service used for Tier 2 members until retirement eligibility is met.

Beginning with the actuarial valuation as of June 30, 2024, active members classified as part time for valuation purposes are valued the same as members classified as full time active members based on changes from Public Act 103-0548. Therefore, the turnover rates above also apply to part time active members.



# Actuarial Methods and Assumptions

---

**Operational Expenses.** The amount of operational expenses for administration incurred in the latest fiscal year are supplied by SURS staff and incorporated in the Normal Cost. Estimated administrative expenses for FY 2026 and after are assumed to increase by 3.00%.

**Marital Status.** Members are assumed to be married in the following proportions:

Age	Males	Females
20-24	10 %	25 %
25-29	35	45
30-34	60	65
35-39	70	70
40-44	75	75
45-49	80	75
50-54	80	75
55-59	80	75
60-64	80	70
65-69	80	70
70-74	80	70
75-79	80	70
80-84	80	70
85-89	80	70

**Spouse Age.** The female spouse is assumed to be three years younger than the male spouse.

**Benefit Commencement Age.** Inactive members eligible for a deferred benefit are assumed to commence benefits at their earliest normal retirement age. For Tier 1 members, this is age 62 with at least five years of service, age 60 with at least eight years of service or immediately if at least 30 years of service. For Tier 2 members, this is age 67 with 10 or more years of service.

**Load on Final Average Salary.** No load is assumed to account for higher than assumed pay increases in final years of employment before retirement.

**Load on Liabilities for Service Retirees with Non-finalized Benefits.** A load of 10% on liabilities for service retirees whose benefits have not been finalized as of the valuation date is assumed to account for finalized benefits that on average are 10% higher than 100% of the preliminary estimated benefit. A load of 5% is used if a “best formula” benefit was provided in the data by Staff.

**Valuation of Inactives.** An annuity benefit is estimated based on information provided by staff for Tier 1 inactive members with five or more years of service and Tier 2 members with 10 or more years of service.

**Assumption for Missing Data.** Members with an unknown gender are assumed to be female. Active and inactive members with an unknown date of birth are assumed to be 37 years old at the valuation date. An assumed spouse date of birth is calculated for current service retirees in the traditional plan for



## Actuarial Methods and Assumptions

purposes of calculating future survivor benefits. The female spouse is assumed to be three years younger than the male spouse. 70% of current total male retirees and 80% of current total female retirees in the traditional plan who have not elected a survivor refund are assumed to have a spouse at the valuation date.

**Reciprocal Service.** Reciprocal service is included for current inactive members for purposes of determining vesting eligibility and eligibility age to commence benefits.

The recently updated actuarial assumptions (including retirement and termination rates) were based on SURS service only. Therefore, reciprocal service was not included for current active members.

**Projection Assumptions.** The number of total active members throughout the projection period will remain the same as the total number of active members in the defined benefit plans and the RSP in the current valuation.

Future new hires are assumed to elect to participate in the offered plans as follows:

- Academic
  - 45% elect to participate in the Retirement Savings Plan
  - 55% elect to participate in the Tier 2 Plan
- Non-Academic
  - 25% elect to participate in the Retirement Savings Plan
  - 75% elect to participate in the Tier 2 Plan

New entrants have an average age of 37.7 and average capped pay of 53,935 and average uncapped pay of 56,231 (2024 dollars). These values are based on the estimated average age and average pay of current members at plan entry. The new entrant data is based on the age at hire and assumed pay at hire (using the actuarial assumptions, inflated to 2024 dollars) of current active members with hire dates between July 1, 2020 and July 1, 2023.

### Academic

Summary of New Entrants - Academic									
Age	Number Males	Average Pay		Number Females	Average Pay		Total Number	Average Pay	
		Tier 2 Capped	Uncapped		Tier 2 Capped	Uncapped		Tier 2 Capped	Uncapped
		Male	Male		Female	Female		Total	Total
<20	-	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -
20 - 24	76	35,153	35,153	69	33,517	33,517	145	34,375	34,375
25 - 29	215	45,339	46,292	323	46,881	47,618	538	46,265	47,088
30 - 34	443	65,808	72,026	593	59,432	63,826	1,036	62,159	67,332
35 - 39	411	67,730	75,144	482	58,164	62,579	893	62,567	68,362
40 - 44	278	63,167	70,400	360	53,328	56,579	638	57,615	62,602
45 - 49	192	52,414	58,196	262	51,526	56,760	454	51,902	57,367
50 - 54	139	54,767	60,409	192	49,158	52,607	331	51,513	55,883
55 - 59	123	55,464	67,999	143	50,213	56,381	266	52,641	61,753
60 - 64	102	40,156	50,915	73	41,082	43,815	175	40,543	47,954
65 - 69	11	37,338	46,790	7	48,224	67,672	18	41,572	54,911
Total	1,990	\$58,279	\$64,638	2,504	\$53,270	\$57,021	4,494	\$55,488	\$60,394

# Actuarial Methods and Assumptions

## Non-Academic

Summary of New Entrants - Non-Academic									
Age	Average Pay			Average Pay			Total Number	Average Pay	
	Number Males	Tier 2		Number Females	Tier 2			Tier 2	
		Capped Male	Uncapped Male		Capped Female	Uncapped Female		Capped Total	Uncapped Total
<20	25	\$30,661	\$30,661	34	\$28,751	\$28,751	59	\$29,560	\$29,560
20 - 24	600	40,307	40,318	1,005	39,467	39,467	1,605	39,781	39,785
25 - 29	1,316	51,215	51,230	2,103	49,337	49,360	3,419	50,060	50,080
30 - 34	1,103	56,161	57,680	1,594	55,010	55,563	2,697	55,481	56,429
35 - 39	731	63,086	66,279	1,208	55,187	56,258	1,939	58,164	60,036
40 - 44	623	64,997	67,570	1,000	55,243	56,926	1,623	58,987	61,012
45 - 49	458	63,417	68,363	788	54,930	57,149	1,246	58,049	61,271
50 - 54	450	61,675	65,412	708	54,660	58,025	1,158	57,386	60,895
55 - 59	322	58,656	62,447	519	52,186	55,034	841	54,663	57,872
60 - 64	183	56,777	66,199	242	51,204	53,446	425	53,604	58,937
65 - 69	12	72,002	87,187	10	58,152	60,322	22	65,706	74,975
<b>Total</b>	<b>5,823</b>	<b>\$56,302</b>	<b>\$58,485</b>	<b>9,211</b>	<b>\$51,681</b>	<b>\$52,775</b>	<b>15,034</b>	<b>\$53,471</b>	<b>\$54,987</b>

**RSP Contribution Assumptions.** The projected RSP contributions are equal to 7.6% of RSP payroll, plus estimated RSP expenses minus RSP employer forfeitures. Estimated RSP expenses for FY 2025 are \$1,304,401 and actual FY 2024 RSP employer forfeitures used to reduce the certified contributions for FY 2026 are \$7,903,822 (as provided by SURS). Estimated RSP expenses for FY 2026 and after are assumed to increase by 3.00%. Estimated RSP employer forfeitures used to reduce the certified contributions for FY 2027 and after are assumed to be 7.5% of the gross RSP employer contribution.

**Pensionable Earnings Greater than 6%.** The participant's employer is required to pay the present value of the increase in benefits resulting from the portion of the increase in excess of 6.00% for earnings used in the calculation of the final average salary. The projections include a component paid for by employers for earnings increases greater than 6.00% in the calculation of the final average salary.

**Governor's Pay.** The governor's pay is \$216,000 as of June 30, 2024, and budgeted as \$226,800 for fiscal year ending June 30, 2025, and is expected to increase each year by the assumed rate of increase in the Tier 2 pay cap (1/2 the increase in CPI or 1.20%).

## Actuarial Methods and Assumptions

**Buyout Election Assumption.** 0% of eligible Tier 1 active members are assumed to elect to receive a reduced and delayed AAI benefit at retirement and an accelerated pension benefit option in accordance with Public Acts 100-0587 and 101-0010. 0% of eligible inactive members are assumed to elect to receive an accelerated pension benefit option in lieu of an annuity at retirement in accordance with Public Acts 100-0587 and 101-0010.

\$ in millions			
Buyout Activity from Inception Through 6/30/2024			
	AAI	VIB	Total
Number Eligible for the buyout*	13,418	13,457	26,875
Buyout applications received	501	187	688
Buyout election forms sent	333	146	479
Buyout election forms approved	210	108	318
Application %	3.7%	1.4%	2.6%
Approved %	1.6%	0.8%	1.2%
Approved buyout amount**	\$19.6	\$26.4	\$46.0
Estimated Approved buyout (non EBA)	19.6	18.0	37.6
Estimated Liability Reduction	28.0	30.0	58.1

\* Number eligible for the VIB buyout on an annual basis is the number of vested Tier 1 inactive members (based on SURS service only) included in the actuarial valuation as of June 30 at the end of the prior year, who are in the Traditional or Portable Plan.

Number eligible for the VIB buyout on a cumulative basis (shown above) is the average annual number eligible for the VIB buyout through the reporting date.

Number eligible for the AAI buyout is the number of total Tier 1 retirement claims (as provided by SURS).

\*\* Includes amounts attributable to benefits that would have been payable from the Excess Benefit Arrangement (EBA). There was one \$11.2 million VIB buyout of which \$8.4 million was payable from the EBA during the year ended June 30, 2021.

**Treatment of Benefits in Excess of the Internal Revenue Code Section 415 Limits.** The benefit amounts in excess of the IRC Section 415 limits for current retirees are paid through the Excess Benefit Arrangement (EBA) and are not reported in the actuarial valuation data. Therefore, the liabilities and the required contributions for these EBA benefits are not reflected in the actuarial valuation results. The amount of the estimated EBA payments for the upcoming fiscal year are provided by SURS Staff and included in the Statutory contribution requirement. Following are the estimates used in the previous and current valuations:

Valuation Year	Applicable Fiscal Year	Estimated EBA Payments
2018	2020	\$17.065 million
2019	2021	\$18.000 million
2020	2022	\$21.500 million
2021	2023	\$24.200 million
2022	2024	\$17.300 million
2023	2025	\$18.300 million
2024	2026	\$21.000 million



## Actuarial Methods and Assumptions

---

**Estimated Federal/Trust Fund Employer Contributions.** Following are the estimated employer contributions provided by SURS that reduce the estimated State contributions.

Valuation Year	Applicable Fiscal Year	Estimated Federal/Trust Fund Payments
2018	2020	\$52.0 million
2019	2021	\$52.5 million
2020	2022	\$57.0 million
2021	2023	\$62.0 million
2022	2024	\$65.5 million
2023	2025	\$70.5 million
2024	2026	\$76.0 million

DRAFT

## **APPENDIX H**

---

### **SUMMARY OF BENEFIT PROVISIONS OF SURS**

**DRAFT**

## Summary of Benefit Provisions of SURS

---

It should be noted that the purpose of this Appendix is to describe the benefit structures of SURS for which actuarial values have been generated. There is no description of the Retirement Savings Plan (RSP) and many portions of the defined plans are described in a manner which may not be legally complete or precise.

It is not our intent to provide an exhaustive description of all benefits provided under SURS or the policies and procedures utilized by SURS staff. A more precise description of the provisions of SURS is contained in the Member's Guide, published by SURS staff. Of course, the statute is controlling.

DRAFT

# Summary of Benefit Provisions of SURS

## Plans

There are two defined benefit plans available under SURS, the Traditional Plan and the Portable Plan, and one defined contribution plan, the Retirement Savings Plan (RSP). A Member must select one of these plans within the first six months of participation. If no choice is made in that time, the Traditional Plan is deemed chosen. Effective September 1, 2020, the Self Managed Plan (SMP) was renamed the Retirement Savings Plan (RSP).

New tiers of benefits have been established for members hired on or after January 1, 2011 (“Tier 2”). Members hired before January 1, 2011, participate in Tier 1. Members in Tiers 1 and 2 are eligible to choose either the Traditional or the Portable Plan. **SURS is currently not moving forward with the implementation of the optional hybrid plan created under PA 100-0023. Additional clarifying legislation is needed for SURS to be able to do so.**

Tier 2 members who participate in the Traditional and Portable Plans are subject to the pay caps established under Public Act 96-0889. The Tier 2 pay cap was \$106,800 in fiscal year 2012 and increases by the lesser of (1) 3% and (2) ½ the increase in the Consumer Price Index-Urban (“CPI-U”) for the 12 months ending with the September proceeding each November 1.

The pay cap history is as follows:

Fiscal Year	CPI-U	½ CPI-U	Increase	Tier 2 Pensionable Pay Cap
2012				\$106,800.00
2013	3.90%	1.95%	1.95%	\$108,882.60
2014	2.00%	1.00%	1.00%	\$109,971.43
2015	1.20%	0.60%	0.60%	\$110,631.26
2016	1.70%	0.85%	0.85%	\$111,571.63
2017	0.00%	0.00%	0.00%	\$111,571.63
2018	1.50%	0.75%	0.75%	\$112,408.42
2019	2.20%	1.10%	1.10%	\$113,644.91
2020	2.30%	1.15%	1.15%	\$114,951.83
2021	1.70%	0.85%	0.85%	\$115,928.92
2022	1.40%	0.70%	0.70%	\$116,740.42
2023	5.40%	2.70%	2.70%	\$119,892.41
2024	8.20%	4.10%	3.00%	\$123,489.18
2025	3.70%	1.85%	1.85%	\$125,773.73

The Tier 2 pay cap is calculated annually by the Illinois Department of Insurance.

The Retirement Savings Plan is a defined contribution plan under which members contribute 8.0% of compensation and the State contributes 7.6% of compensation. A portion of the employer contribution is used to fund disability benefits for RSP participants. Members hired on or after January 1, 2011 who participate in the RSP are not subject to the Tier 2 pay cap.

# Summary of Benefit Provisions of SURS

The provisions of the Traditional and Portable defined benefit plans are identical in many areas. The description below is primarily of the Traditional Plan. Where different, the Portable plan provisions will be described in *italics*.

## Member Contributions

Most members in Tier 1 and Tier 2 contribute a total of 8% of pensionable compensation. Police officers and firefighters contribute a total of 9.5% of pensionable compensation, with the additional 1.5% allocated to the retirement annuity.

The total contribution is broken down as follows:

	Tier 1 and Tier 2	
	Police/Fire	All Others
Retirement Annuity	8.0%	6.5%
Survivor Benefits	1.0%	1.0%
Annual Increases in Retirement	0.5%	0.5%
Total Contribution	9.5%	8.0%

*Portable Plan members contribute the same percent of compensation, but the breakdown set out above does not apply.*

The retirement annuity portion of the total contribution (8.0% of compensation for police officers and firefighters and 6.5% of compensation for all others) is annuitized for the money purchase formula (Rule 2) calculation for Tier 1 members.

Contributions for Tier 2 members are assumed not to be made on pay in excess of the pay cap.

Since January 1, 1981, the member contributions under SURS have been “picked up” for IRS purposes by employers.

## Effective Rate of Interest

The Effective Rate of Interest (“ERI”) is the interest rate that is applied to member contribution balances. Effective for the 2006 fiscal year, the ERI for the purpose of determining the money purchase benefit is established by the State Comptroller annually. The ERI for other purposes, such as the calculation of purchases of service credit, refunds for excess contributions, portable plan refunds and lump sum portable retirements is determined by the SURS Board annually and certified to the Governor. For purposes of the actuarial valuation, the assumed ERI is 7.00% beginning with the actuarial valuation as of June 30, 2024.

For the purposes of withdrawal of contributions at termination or death by Traditional Plan Members, this rate is not greater than 4.5% by statute.



# Summary of Benefit Provisions of SURS

## Retirement Benefits

### Final Average Salary

Final average salary is equal to:

<b>Tier 1</b>	High four consecutive year average compensation or the average of the last 48 consecutive months of employment.
<b>Tier 2</b>	High final eight consecutive year average compensation within the last 10 years or the average of the last 96 consecutive months within the last 120 months.

The Tier 2 pay cap history is shown in a table earlier in this section. We have assumed that the pay cap each year applies to the individual pay amounts that are used to develop the final average compensation.

The present value of the benefits for pay increases in excess of 6% during the final average earnings period immediately preceding retirement will be paid by the employer. The employer will pay this amount in a lump sum to the Retirement System.

### Normal Retirement

#### Eligibility

For police officers and firefighters, separation from service on or after the attainment of the earlier of:

Tier 1	Tier 2
Age 55/20 Years of Service	Age 60/20 Years of Service
Age 50/25 Years of Service	Age 67/10 Years of Service

For all other Tier 1 and Tier 2 members, separation from service on or after attainment of the earlier of:

Tier 1	Tier 2
Age 62/5 Years of Service	Age 67/10 Years of Service
Age 60/8 Years of Service	
Any age/30 Years of Service	

#### Initial Benefit Amount

There are three alternate formulae. The initial benefit is the largest produced by one of the three:

1. General Formula (Applicable to all Tiers)
2. Money Purchase Formula (Applicable to Tier 1 only, hired before July 1, 2005)
3. Minimum Benefit (Applicable to all Tiers)

Following is a description of the benefits provided under each of the three alternate formulae.



## Summary of Benefit Provisions of SURS

1. General Formula (Applicable to all Tiers): The following percentages of final average compensation for each year of service:

Year of Service	Tier 1 and Tier 2	
	General	Police/Fire
1 <sup>st</sup> 10 Years	2.20 %	2.25 %
Next 10 Years	2.20	2.50
Over 20	2.20	2.75

2. Money Purchase Formula (Applicable to Tier 1 only, hired before July 1, 2005):
  - a) The member contributions for retirement benefits (8.0% of compensation for police officers and firefighters and 6.5% of compensation for all others) accumulated with interest at the ERI, plus
  - b) An imputed employer contribution match at \$1.40 per dollar of member contribution accumulated with interest at the ERI.
  - c) The total of the accumulations in (a) and (b) is converted into an annuity using a life annuity factor that takes into account neither the automatic 50% spousal survivor benefit nor the automatic annual increases.

Members hired on or after July 1, 2005 no longer receive the Money Purchase Formula under the plan.

3. Minimum Benefit (Applicable to all Tiers) – A benefit for each year of service, up to 30, based on final annual pay, as follows:

Under 3,500	\$ 8
\$3,500 - \$4,500	9
\$4,500 - \$5,500	10
\$5,500 - \$6,500	11
\$6,500 - \$7,500	12
\$7,500 - \$8,500	13
\$8,500 - \$9,500	14
Over \$9,500	15

Minimum Retirement Annuity – No retiree shall receive a retirement annuity less than \$25 per month for each year of service up to 30. The comparable benefit for survivor benefit recipients is \$17.50 per month for each year of service up to 30.

### Maximum Benefit

All Tiers have a maximum benefit equal to 80% of final average compensation.

## Summary of Benefit Provisions of SURS

---

Contribution waivers are applicable to members whose benefits are capped at 80% of final average compensation. Member contributions made once the maximum benefit is achieved are refunded to the member with interest (at the Effective Rate of Interest).

### Benefit Duration

The Normal Retirement benefit is payable for the lifetime of the retired member. If the retiree under the Traditional Plan has a spouse at date of retirement and if that spouse survives the retiree, the spouse will receive, upon the death of the retiree, a survivor benefit equal to the following percentage of the monthly benefit being paid to the retiree as of the date of death.

1. The survivor benefit for Tier 1 members is equal to 50% of the monthly benefit being paid to the retiree as of the date of death.
2. The survivor benefit for Tier 2 members is equal to 66 2/3% of the monthly benefit being paid to the retiree as of the date of death.

Such benefit will continue for the lifetime of the surviving spouse.

*For retirees under the Portable Plan, the normal form of benefit is a single-life annuity for unmarried participants and a reduced 50% joint and survivor benefit for married participants. With spousal consent, a member may designate a contingent annuitant to receive a joint and survivor annuity or elect a single-life annuity or lump sum distribution. Those receiving a joint and survivor annuity will have their benefit reduced to cover the cost of the option. The available joint and survivor options are 50%, 75% and 100%. A member may elect the 75% or 100% spousal joint and survivor annuity without consent.*

*Portable Plan members may also elect to receive their retirement benefit as a lump sum equal to member contributions with an equal employer match (if have the required years of service), accumulated with interest (at the Effective Rate of Interest that is certified annually by the SURS Board).*

*The required years of service is five years for all plans. (Must have 10 years if retirement age.)*

### Annual Increases

For Tier 1 members who have not elected the Automatic Annual Increase (AAI) buyout, each January 1 subsequent to retirement date, the monthly benefit being paid each retiree shall be increased by 3% (compound COLA). The adjustment for the first January after retirement shall be proportional based on the portion of the year retired. See Accelerated Pension Benefit Options on pages 96 and 97 for a description of the increase for members who have elected the AAI buyout.

For Tier 2 members, each January 1 subsequent to retirement date, the monthly benefit being paid each retiree shall be increased by fifty percent of the Consumer Price Index-Urban ("CPI-U") up to a maximum of 3% applied to the original benefit (simple COLA). The first increase will be



## Summary of Benefit Provisions of SURS

granted upon the later of the attainment of age 67 or the first anniversary of the commencement of the annuity.

The historical development of the Tier 2 Annual Increase as determined by the Illinois Department of Insurance can be found in the following table.

Calendar Year	CPI-U *	½ CPI-U *	Annual Increase
2011			3.00%
2012	3.90%	1.95%	1.95%
2013	2.00%	1.00%	1.00%
2014	1.20%	0.60%	0.60%
2015	1.70%	0.85%	0.85%
2016	0.00%	0.00%	0.00%
2017	1.50%	0.75%	0.75%
2018	2.20%	1.10%	1.10%
2019	2.30%	1.15%	1.15%
2020	1.70%	0.85%	0.85%
2021	1.40%	0.70%	0.70%
2022	5.40%	2.70%	2.70%
2023	8.20%	4.10%	3.00%
2024	3.70%	1.85%	1.85%

*Increase effective January 1.*

*\*Measured based on the change in CPI-U from September to September of the calendar year preceding the year in which the annual increase applies.*

### Early Retirement

#### Eligibility

For Tier 1 members other than police and fire employees, separation from service on or after attainment of age 55 with 8 years of service, but not eligible for Normal Retirement.

For Tier 2 members, separation from service on or after attainment of age 62 with 10 years of service, but not eligible for Normal Retirement.

#### Benefits

The benefit amounts and all terms of benefit payment are the same as that for Normal Retirement, except that the benefit amounts calculated under the General Formula and the Minimum Formula shall be reduced by .5% for each month by which the retirement date precedes the 60<sup>th</sup> birthday for Tier 1 members and the 67<sup>th</sup> birthday for Tier 2 members.

# Summary of Benefit Provisions of SURS

---

## Benefits on Death before Retirement

### Survivor Benefits

#### Traditional Plan

##### Eligibility

Payable to eligible survivor(s) (spouse, child or dependent parent) for the death of an active member with at least 1.5 years of service or a terminated member with at least 10 years of service. For this purpose, service under the State Employees' Retirement System, the Teachers' Retirement System of the State of Illinois and the Public School Teachers' Pension Fund of Chicago is recognized.

##### Benefits

For Tier 1 members, an annuity to the eligible survivor(s) equal to the greater of:

1. 50% of the benefit accrued to the date of the death of the member, and
2. The lowest applicable benefit from the following list:
  - a) \$400 per month to a single eligible survivor or \$600 per month to two or more eligible survivors.
  - b) 30% (one survivor), or 60% (two survivors), or 80% (three or more survivors) of the member's final rate of earnings.
  - c) If member inactive, 80% of base retirement annuity.

For Tier 2 members, an annuity to the survivor(s) equal to 66 2/3% of the benefit accrued to the date of the death of the member.

Supplemental Minimum Survivor Annuity of \$17.50 per month times number of years of service credit, up to 30 years. No annual increases payable on the supplemental minimum survivor annuity.

##### Benefit Duration

###### *Surviving spouse*

May receive a lifetime benefit commencing at the later of the day following the member's date of death and the spouse's attainment of age 50. May be payable the day following the member's date of death if a dependent child in their care is also receiving benefits.

###### *Dependent child*

Payable to unmarried child(ren) under age 18 (over 18 if disabled prior to age 18), and children age 18-22 if a qualified full time student.

# Summary of Benefit Provisions of SURS

---

## *Dependent parent*

Payable to a parent of the member who was dependent upon the member at the time of their death. Payable at the later of the day following the member's date of death and the parent's attainment of age 55. The benefit continues until the parent dies.

## **Annual Increases**

For Tier 1 members, each January 1 subsequent to retirement date the monthly benefit being paid each survivor annuity recipient shall be increased by 3%. The first increase begins with the first January closest to the first anniversary of the survivor annuity.

For Tier 2 members, each January 1 subsequent to retirement date the monthly benefit being paid each survivor annuity recipient shall be increased fifty percent of the Consumer Price Index-Urban ("CPI-U") up to a maximum of 3% of the originally granted survivor annuity (simple COLA). The first increase will be granted upon January 1 following the first anniversary of the commencement of the survivor annuity.

## **Portable Plan**

### **Eligibility**

Payable to an eligible spouse for the death of an active or inactive member with at least 1.5 years of SURS service.

### **Benefits**

An annuity to the eligible spouse equal to 50% of the member's earned retirement benefit after the reductions to pay for the cost of providing the pre-retirement survivor annuity. (Applicable to Tier 1 and Tier 2 members.)

### **Benefit Duration**

#### *Surviving spouse*

May receive a lifetime benefit commencing at the member's earliest retirement age.

### **Annual Increases**

For members hired before January 1, 2011 and for all members hired on or after January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each survivor annuity recipient shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

## **Lump Sum Death Benefit**

### **Eligibility**

Death of member prior to retirement.



# Summary of Benefit Provisions of SURS

---

## Traditional Plan

### Benefit

#### With Eligible Survivor

- $\frac{7}{8}$ <sup>ths</sup> of accumulated member contributions balance (includes all contributions and interest)

#### Without Eligible Survivor

- Refund of the total accumulated member contribution and interest; and
- An amount up to \$5,000 based on the annual final average earnings amount to a dependent beneficiary or \$2,500 to a non-dependent beneficiary. The additional death benefit is only payable if the member was active at death. If the member was inactive, this additional death benefit is not payable.

## Portable Plan

### Benefit

#### With Eligible Spouse

- Refund of total accumulated member contributions at the full Effective Rate of Interest, plus, if the member has at least 1.5 years of service at death, a like amount of imputed employer contributions – less the actuarial equivalent of the Pre-Retirement Survivor Annuity.

#### Without Eligible Spouse

- Refund of total accumulated member contributions at the full Effective Rate of Interest, plus, if the member has at least 1.5 years of service at death, a like amount of imputed employer contributions.

## Benefits on Death after Retirement

In addition to survivor/spouse benefits payable from the System, the following death benefit is payable if a member does not have an eligible survivor/spouse/contingent annuitant:

- The greater of the total accumulated member contributions and interest minus the total retirement annuities paid to the member through the date of their death or \$1,000.

### Eligibility

Payable to eligible survivor(s) (spouse, child or dependent parent) as long as the member did not take a refund of their survivor contributions at retirement.



# Summary of Benefit Provisions of SURS

---

## Traditional Plan

### Benefits

For Tier 1 members, an annuity to the eligible survivor(s) equal to the greater of:

1. 50% of the annuity at the time of the member's death.
2. The lowest applicable benefit from the following list:
  - a) \$400 per month to a single eligible survivor or \$600 per month to two or more eligible survivors.
  - b) 30% (one survivor), or 60% (two survivors), or 80% (three or more survivors) of the member's final rate of earnings.
  - c) 80% of base retirement annuity.

For Tier 2 members, an annuity to the survivor(s) equal to 66 2/3% of retirement annuity at the time of the member's death.

Supplemental Minimum Survivor Annuity of \$17.50 per month times number of years of service credit, up to 30 years. No annual increases payable on the supplemental minimum survivor annuity.

### Benefit Duration

DRAFT

#### *Surviving spouse*

May receive a lifetime benefit commencing at the later of the day following the member's date of death and the spouse's attainment of age 50. May be payable the day following the members' date of death if a dependent child in their care is also receiving benefits.

#### *Dependent child*

Payable to unmarried child(ren) under age 18 (over 18 if disabled prior to age 18), and children age 18-22 if a qualified full time student.

#### *Dependent parent*

Payable to a parent of the member who was dependent upon the member at the time of their death. Payable at the later of the day following the member's date of death and the parent's attainment of age 55. The benefit continues until the parent dies.

# Summary of Benefit Provisions of SURS

---

## Portable Plan

### Benefits

A 50%, 75% or 100% Joint and Survivor annuity is payable to the Contingent Annuitant that the member chose at the time of retirement, if any. The member's retirement annuity is reduced to pay for the Joint and Survivor Annuity.

### Benefit Duration

*Surviving spouse*

May receive a lifetime benefit commencing at the member's earliest retirement age.

### Annual Increases

For members hired before January 1, 2011, and for all members hired on or after January 1, 2011, each January 1 on or after the survivor annuity shall be increased by 3% compounded. The first AAI begins with the January 1 on or after the commencement of the survivor annuity if retired January 14, 1991 or later. If the member retired prior to January 14, 1991, then January 1 on or closest to the 1st anniversary of the Survivor Annuity shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

## Benefits for Disability

## Disability Benefit

### Eligibility

Disablement after completing two years of service. The service requirement is waived if the disablement is accidental.

Disability definition – inability to perform the duties of “own occupation.”

Pregnancy and childbirth are, by definition, disablement.

### Benefit

The greater of 50% of the basic compensation paid at date of disablement or 50% of the average earnings for the 24 months prior to the date of disablement. This base benefit level is offset dollar for dollar by each of the following:

1. Earnings while disabled in excess of the disability benefit.
2. Other disability insurance either fully or partially employer provided.
3. Worker's compensation benefits.



# Summary of Benefit Provisions of SURS

---

## Duration of Benefit

Benefits become payable on the later of the termination of salary and sick leave, or the 61<sup>st</sup> day after disablement and continue to the earlier of the following:

1. Recovery or death.
2. Benefits paid equal 50% of total compensation during the period of SURS service.
3. If disablement occurs prior to age 65, the disability benefit may not continue past the August 31 following 70<sup>th</sup> birthday.
4. If disablement occurs at or after attainment of age 65, completion of five years in disablement.

Survivor and death benefits are payable if a member dies while receiving disability benefits.

If, at discontinuance of the disability benefit, the member is eligible for a retirement benefit (based on service, which includes the period of disability and may also include time receiving a disability retirement annuity), the member may retire and receive that benefit. The member may commence the retirement benefit once age and service requirements are met. The early retirement reduction does not apply for members who began first participating prior to January 1, 2011 (Tier 1). The benefit is based on the greatest of three formulas (General Formula, Money Purchase and Minimum Benefit), subject to applicable maximums. Contributions are not made during the disability period. However, accumulated contributions continue to accrue interest.

For police officers who are disabled in the line of duty, benefits and duration of benefits are based on 65% instead of 50%.

## Annual Increases

Each January 1 subsequent to retirement date, the monthly benefit being paid each retiree shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

## Disability Retirement Annuity

### Eligibility

Continuing disablement after discontinuation of the disability benefit as a result of reaching the "50% of total earnings" limitation (65% of total earning for police officers disabled in the line of duty). Disability is defined in accordance with the Social Security disability definition.

### Benefit

35% of the compensation being earned at disablement.



# Summary of Benefit Provisions of SURS

---

## Duration of Benefit

Benefits become payable upon discontinuance of the disability benefit and continue to the earlier of the following:

1. Recovery or death
2. Election to receive a retirement benefit

Survivor and death benefits are payable if a member dies while receiving a disability retirement annuity.

## Annual Increases

Each January 1 subsequent to retirement date, the monthly benefit being paid each retiree shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

For members hired on or after January 1, 2011, if the member converts to a service retirement annuity (item 2 above), each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased fifty percent of the Consumer Price Index ("CPI") up to a maximum of 3% of the originally granted benefit. The first increase will be granted upon the later of the attainment of age 67 or the first anniversary of the commencement of the annuity.

## Benefits for Deferred Members

## Eligibility

For members hired before January 1, 2011, separation from employment with at least five years of service and separation from employment with at least 10 years of service for members hired on or after January 1, 2011.

## Benefit

Benefit as defined for normal retirement purposes, but calculated based on final average compensation and service at date of termination.

## Commencement of Benefit

Benefits commence when member reaches the age condition for either normal or early retirement.

## Annual Increases

For members hired before January 1, 2011, who have not elected the AAI buyout, each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased by 3%. The adjustment for the first January after retirement shall be proportional. See Accelerated





## Summary of Benefit Provisions of SURS

---

Pension Benefit Options on pages 96 and 97 for a description of the increase for members who have elected the AAI buyout.

For members hired on or after January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased fifty percent of the Consumer Price Index ("CPI") up to a maximum of 3% applied to the original benefit. The first increase will be granted upon the later of the attainment of age 67 or the first anniversary of the commencement of the annuity.

### Member Refunds

Non-vested terminated members and members who elect a refund in lieu of a vested benefit receive the following amounts.

#### Traditional Plan

Refund of the total accumulated member contribution at 4.5% interest.

#### Portable Plan

Refund of total accumulated member contributions at the full Effective Rate of Interest that is certified annually by the SURS Board, plus, if the member has the required years of service, a like amount of imputed employer contributions.

The required years of service is five years for all plans. (Must have 10 years if retirement age.)

### Accelerated Pension Benefit Options

Under Public Act (PA) 100-0587 and PA 101-0010, SURS shall offer an accelerated pension benefit payment to eligible members beginning on the implementation date and until June 30, 2024. Public Act 102-0718 extended the buyout period through June 30, 2026.

There are two accelerated pension benefit payment options that will be offered:

1. For vested inactive members, a payment equal to 60% of the present value of the member's pension benefit in lieu of receiving any pension benefit.
2. For members eligible for retirement, a payment equal to 70% of the difference between: (i) the present value of the automatic annual increases (AAI) to a Tier 1 member's retirement and survivor's annuity under the current AAI provisions and (ii) the present value of the automatic annual increases to the Tier 1 member's retirement annuity under revised AAI provisions:
  - a. The current AAI provisions are an annual 3% increase of the prior year's benefit (compound COLA) payable as of the January 1 following the annuity start date (first increase is prorated).
  - b. The revised AAI provisions are an annual 1.5% increase of the originally granted benefit

## Summary of Benefit Provisions of SURS

---

(simple COLA). The delayed AAI begins the January 1 following the first anniversary of the retirement date, or the January 1 following age 67, whichever is later. The survivor AAI is first payable 1 year after the survivor annuity commences.

### Defined Contribution Plan

Public Act 100-0769, effective August 10, 2018, requires the SURS Board of Trustees, as soon as practicable after the effective date of the legislation, to establish and maintain a defined contribution plan. The defined contribution benefit must be an optional benefit to any member who chooses to participate. SURS has established the Deferred Compensation Plan (DCP).

Projected administrative expenses for this plan are included in the Statutory contribution. Other costs are not reflected in this valuation.

DRAFT

## **APPENDIX I**

---

### **GLOSSARY OF TERMS**

DRAFT

## Glossary of Terms

---

**Actuarial Accrued Liability (“AAL”).** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

**Actuarial Assumptions.** Estimates of future plan experience such as investment return, expected lifetimes and the likelihood of receiving a pension from the Pension Plan. Demographic, or “people” assumptions, include rates of mortality, retirement and separation. Economic, or “money” assumptions, include expected investment return, inflation and salary increases.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

**Actuarial Present Value of Future Plan Benefits (“APV”).** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Actuarial Value of Assets (“AVA”).** Smoothed value of assets that recognizes the difference between the expected investment return using the valuation assumption of 6.5 percent and the actual investment return over a five-year period. Dampens volatility of asset value over time.

**Actuarially Determined Contribution (“ADC”).** The sum of the gross normal cost (including employee contributions) and amortization of the unfunded actuarial accrued liability over a period not to exceed 30 years.

**Amortization.** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**Annual Required Contribution (“ARC”).** The sum of the normal cost (net of employee contributions) and amortization of the unfunded actuarial accrued liability over a period not to exceed 30 years. Was required for accounting purposes by the Governmental Accounting Standards Board (GASB) Statement Nos. 25 and 27.

**Asset Return.** The net investment return for the asset divided by the mean asset value. Example: if \$1.00 is invested and yields \$1.065 after a year, the asset return is 6.50%.

**Funded Ratio.** The actuarial value of assets divided by the actuarial accrued liability. Measures the portion of the actuarial accrued liability that is currently funded.

**Market Value of Assets (“MVA”).** The value of assets currently held in the trust available to pay for benefits of the Pension Plan. Each of the investments in the trust is valued at market price which is the price at which buyers and sellers trade similar items in the open market.



## Glossary of Terms

---

**Normal Cost (“NC”).** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Unfunded Actuarial Accrued Liability (“UAAL”).** The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

DRAFT

## APPENDIX J

---

### STRESS TESTING SCENARIOS

DRAFT