













## Section I – Summary of Principal Results

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below (all dollar amounts are in thousands):

| Valuation Date   | June 30, 2023        | June 30, 2022        |
|--|----------------------|----------------------|
| Number of active members                                   | 54,781               | 52,526               |
| Annual earnable compensation                               | \$ 2,913,330         | \$ 2,572,445         |
| Number of retired members and beneficiaries                | 54,688               | 54,378               |
| Annual allowances*   | \$ 1,443,255         | \$ 1,421,659         |
| Number of deferred vested members                          | 6,839                | 6,793                |
| Annual allowances  | \$ 83,475            | \$ 81,896            |
| Assets:  |                      |                      |
| Fair Value   | \$ 14,749,438        | \$ 13,830,510        |
| Actuarial Value  | 15,033,459           | 14,632,266           |
| <b>Valuation Interest Rate</b>                             | <b>7.10%</b>         | <b>7.20%</b>         |
| Unfunded actuarial accrued liability                       | \$ 5,860,477         | \$ 5,628,490         |
| Blended Amortization period (years)                        | 15.3                 | 18.0                 |
| Funded Ratio based on Actuarial Value of Assets            | 72.0%                | 72.2%                |
| <b>Contribution Rates for Fiscal Year Ending</b>           | <b>June 30, 2026</b> | <b>June 30, 2025</b> |
| Actuarially Determined Employer Contribution Rates (ADEC): |                      |                      |
| Old Plan (employed prior to 7/1/1982)                      |                      |                      |
| Initial Normal Rate**                                      | 7.16%                | 7.14%                |
| Employer Rate Paid on Behalf of Employee                   | <u>(4.75)</u>        | <u>(4.75)</u>        |
| Normal Rate**  | 2.41%                | 2.39%                |
| Accrued Liability Rate                                     | <u>21.99%</u>        | <u>22.06%</u>        |
| Total  | 24.40%               | 24.45%               |
| New Plan (employed 7/1/1982 through 12/31/2008)            |                      |                      |
| Normal Rate**  | 7.16%                | 7.14%                |
| Accrued Liability Rate                                     | <u>21.99%</u>        | <u>22.06%</u>        |
| Total  | 29.15%               | 29.20%               |
| GSEPS (employed on and after 1/1/2009)                     |                      |                      |
| Normal Rate**  | 3.52%                | 3.45%                |
| Accrued Liability Rate                                     | <u>21.99%</u>        | <u>22.06%</u>        |
| Total  | 25.51%               | 25.51%               |

\* Does not reflect the COLAs granted by the Board effective July 1, 2023 and July 1, 2022.

\*\* The normal contribution rate includes administrative expenses.





## Section I – Summary of Principal Results

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2. The major benefit and contribution provisions of the System are summarized in Schedule H. The valuation takes into account the effect of amendments of the System enacted through the 2023 session of the General Assembly. The valuation reflects that the Board granted a 0.50% cost-of-living adjustment (COLA) for certain retirees and beneficiaries effective July 1, 2023, rather than the anticipated 1.05% COLA.
3. The Board Funding Policy as adopted by the Board on April 21, 2022 is shown in Schedule F.
4. Schedule D of this report outlines the full set of actuarial assumptions used to prepare the current valuation. Effective with the June 30, 2022 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. **Since the actual rate of return for the year ending June 30, 2023 was greater than 7.20%, the assumed rate of return used in the current valuation was decreased from 7.20% to 7.10%.**
5. In addition, the funding policy provides that the Actuarial Accrued Liability and Normal Cost of the System will include a prefunded variable Cost-of-Living Adjustment (COLA) for eligible retirees and beneficiaries of the System. Under the policy, future COLAs are provided through a profit-sharing mechanism using the System's asset performance. More information, including definitions and the methodology in determining the annual COLA rate, is provided in the Appendix of the Funding Policy in Schedule F of this report.
6. The entry age actuarial cost method was used to prepare the valuation. Schedule E contains a brief description of this method.







## Section I – Summary of Principal Results

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7. Comments on the valuation results as of June 30, 2023 are given in Section IV and further discussion of the employer contribution levels is set out in Section V.
8. We have prepared the Solvency Test and the Schedule of Retirants Added to and Removed from Rolls for the System's Annual Comprehensive Financial Report. These tables are shown in Schedule K.
9. The funded ratio shown in the Summary of Principal Results is the ratio of the actuarial value of assets to the accrued liability and would be different if based on fair value of assets. The funded ratio is an indication of progress in funding the promised benefits. Since the ratio is less than 100%, there is a need for additional contributions toward payment of the unfunded actuarial accrued liability. In addition, this funded ratio does not have any relationship to measuring sufficiency if the plan had to settle its liabilities.





## Section II – Membership

1. Data regarding the membership of the System for use as a basis for the valuation were furnished by the Retirement System office. The following table shows the number of active members, their annual compensation and average annual compensation as of June 30, 2023 on whose account benefits may be payable under the Retirement System.

**THE NUMBER, ANNUAL COMPENSATION AND AVERAGE ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF JUNE 30, 2023**

| GROUP    | NUMBER        | ANNUAL COMPENSATION (\$1,000's) | AVERAGE ANNUAL COMPENSATION |
|----------|---------------|---------------------------------|-----------------------------|
| Old Plan | 13            | \$ 1,536                        | \$ 118,154                  |
| New Plan | 15,423        | 973,331                         | 63,109                      |
| GSEPS    | <u>39,345</u> | <u>1,938,463</u>                | <u>49,268</u>               |
| Total    | 54,781        | \$ 2,913,330                    | \$ 53,181                   |

2. Data was provided by the Retirement System for inactive members who are eligible for deferred vested benefits. The valuation included 6,839 deferred vested members with annual allowances totaling \$83,475,239. In addition, there are 66,790 inactive non-vested members included in the valuation entitled to a refund of member contributions.





## Section II – Membership

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3. The following table shows the number of retired members and beneficiaries on the roll as of June 30, 2023, together with the amount of their annual retirement allowances payable under the System as of that date.

**THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES  
OF RETIRED MEMBERS AND BENEFICIARIES RECEIVING BENEFITS  
AS OF JUNE 30, 2023**

| GROUP                             | NUMBER       | ANNUAL<br>RETIREMENT<br>ALLOWANCES*<br>(\$1,000's) |
|-----------------------------------|--------------|--|
| Service Retirements               | 42,840       | \$ 1,184,937                                       |
| Disability Retirements            | 5,268        | 152,606  |
| Beneficiaries of Deceased Members | <u>6,580</u> | <u>105,712</u>                                     |
| Total                             | 54,688       | \$ 1,443,255                                       |

\* Does not reflect the COLA granted by the Board effective July 1, 2023.





## Section III – Assets

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1. The retirement law provides for the maintenance of two funds for the purpose of recording the financial transactions of the System; namely, the Annuity Savings Fund and the Pension Accumulation Fund (all amounts are in thousands).
  - (a) Annuity Savings Fund

The Annuity Savings Fund is the fund to which are credited all contributions made by members together with regular interest thereon. When a member retires, or if a death benefit allowance becomes payable to his beneficiary, his accumulated contributions are transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The annuity which these contributions provide is then paid from the Pension Accumulation Fund. On June 30, 2023, the value of assets credited to the Annuity Savings Fund amounted to \$508,870.
  - (b) Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which all income from investments and all contributions made by employers of members of the System and by the State for members of local retirement funds are credited. All retirement allowance and death benefit allowance payments are disbursed from this fund. Upon the retirement of a member, or upon his death if a death benefit allowance is payable, his accumulated contributions are transferred from the Annuity Savings Fund to this fund to provide the annuity portion of the allowance. On June 30, 2023, the fair value of assets credited to the Pension Accumulation Fund amounted to \$14,240,568.
2. As of June 30, 2023, the total fair value of assets amounted to \$14,749,438 as reported by the Auditor of the System.
3. The actuarial value of assets used for the current valuation was determined to be \$15,033,459 based on a five-year smoothing of investment gains and losses. Schedule B shows the development of the actuarial value of assets as of June 30, 2023.
4. Schedule C shows receipts and disbursements of the System for the two years preceding the valuation date and a reconciliation of the fund balances at fair value.





## Section IV – Comments on Valuation

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1. Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of June 30, 2023 (all amounts are in thousands). Schedule A also shows a breakdown of the total and accrued liabilities of the System by Plan.
2. The valuation balance sheet shows that the System has total prospective liabilities of \$21,835,661, of which \$15,047,239 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and \$6,788,422 is for the prospective benefits payable on account of present active members. Against these liabilities, the System has total present assets for valuation purposes of \$15,033,459 as of June 30, 2023. The difference of \$6,802,202 between the total liabilities and the total present assets represents the present value of contributions to be made in the future.
3. The employer's contributions to the System consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 2.41% (7.16% less 4.75% Employer paid on behalf of Employee) of compensation for Old Plan members, 7.16% of compensation for New Plan members, and 3.52% of compensation for GSEPS members are required.
4. Administrative expenses each year are assumed to be 0.35% of payroll and have been added to the normal contribution rates shown in 3. above.
5. Prospective employer and employee normal contributions (excluding administrative expenses) have a present value of \$941,725. When this amount is subtracted from \$6,802,202, which is the present value of the total future contributions to be made in the future, there remains \$5,860,477 as the unfunded actuarial accrued liability.





## Section IV – Comments on Valuation

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6. The funding policy adopted by the Board, as shown in Schedule F, provides that the unfunded actuarial accrued liability as of June 30, 2021 (Transitional UAAL) will be amortized as a level dollar amount over a closed 20-year period. In each subsequent valuation, all benefit changes, assumption and method changes, and experience gains and/or losses that have occurred since the previous valuation will combine to determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level dollar amount over a closed 20-year period from the date it is established.
7. The funding policy also provides that the Actuarial Accrued Liability and Normal Cost of the System will include a prefunded variable Cost-of-Living Adjustment (COLA) for eligible retirees and beneficiaries of the System. Under this structure, future COLAs are provided through a profit-sharing mechanism using the System's asset performance. More information, including definitions and the methodology in determining the annual COLA rate, is provided in the Appendix of the Funding Policy in Schedule F of this report.
8. We have determined that an accrued liability contribution rate of 21.99% of active member's compensation will comply with the Board's funding policy for this year's valuation.
9. Schedule G of this report shows the amortization schedule for the Transitional UAAL.





## Section IV – Comments on Valuation

10. The following table shows the components of the total UAAL and the derivation of the UAAL contribution rate in accordance with the funding policy (all dollar amounts are in thousands):

**TOTAL UAAL AND UAAL CONTRIBUTION RATE**  
**(\$1,000's)**

|                                     | <b>Remaining<br/>Balance<br/>UAAL</b> | <b>Remaining<br/>Amortization<br/>Period</b> | <b>Amortization<br/>Payment</b> |
|-------------------------------------|---------------------------------------|--|---------------------------------|
| Transitional                        | \$ 5,405,213                          | 15.0   | \$ 597,095                      |
| New Incremental 6/30/2022           | 60,986                                | 19.0   | 5,945                           |
| New Incremental 6/30/2023           | 394,278                               | 20.0   | 37,507                          |
| Total                               | \$ 5,860,477                          |  | \$ 640,547                      |
| Blended Amortization Period (years) |                                       |  | 15.3                            |
| Estimated Payroll                   |                                       |  | \$ 2,913,330                    |
| UAAL Contribution Rate              |                                       |  | 21.99%                          |





## Section V – Contributions Payable by Employers

- The following table summarizes the employer contribution rates, which were determined by the June 30, 2023 valuation and are recommended for use.

**ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION RATES (ADEC)  
FOR FISCAL YEAR ENDING JUNE 30, 2026**

|                                     | Old Plan      | New Plan      | GSEPS         |
|-------------------------------------|---------------|---------------|---------------|
| Normal Rate                         |               |               |               |
| Initial Normal Rate*                | 7.16%         | 7.16%         | 3.52%         |
| Employer Paid on behalf of Employee | <u>(4.75)</u> | <u>(0.00)</u> | <u>(0.00)</u> |
| Employer Normal Rate                | 2.41%         | 7.16%         | 3.52%         |
| Accrued Liability Rate              | 21.99%        | 21.99%        | 21.99%        |
| Total                               | 24.40%        | 29.15%        | 25.51%        |

\* Includes administrative expense assumption rate of 0.35%.

- Schedule J summarizes the contribution rates required for groups of members with special benefits.







## Section VI – Accounting Information

The information required under the Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 will be issued in separate reports. The following information is provided for informational purposes only.

1. The following is a distribution of the number of employees by type of membership.

### NUMBER OF ACTIVE AND RETIRED MEMBERS AS OF JUNE 30, 2023

| GROUP  | NUMBER        |
|--|---------------|
| Retirees and beneficiaries currently receiving benefits                  | 54,688        |
| Terminated employees entitled to benefits but not yet receiving benefits | 73,629        |
| Active plan members  | <u>54,781</u> |
| Total  | 183,098       |

2. The schedule of funding progress is shown below.

### SCHEDULE OF FUNDING PROGRESS (Dollar amounts in thousands)

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) - Entry Age (b) | Unfunded AAL (UAAL) (b - a) | Funded Ratio (a / b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b - a) / c) |
|--------------------------|-------------------------------|---|-----------------------------|----------------------|---------------------|---|
| 6/30/2018*               | \$ 13,412,046                 | \$ 17,812,441                                     | \$ 4,400,395                | 75.3%                | \$ 2,634,129        | 167.1%  |
| 6/30/2019                | 13,481,219                    | 17,829,220  | 4,348,001                   | 75.6                 | 2,611,965           | 166.5   |
| 6/30/2020#               | 13,556,622                    | 18,375,797  | 4,819,175                   | 73.8                 | 2,612,773           | 184.4   |
| 6/30/2021*               | 14,383,600                    | 20,085,695  | 5,702,095                   | 71.6                 | 2,477,691           | 230.1   |
| 6/30/2022                | 14,632,266                    | 20,260,756  | 5,628,490                   | 72.2                 | 2,572,445           | 218.8   |
| 6/30/2023*               | 15,033,459                    | 20,893,936  | 5,860,477                   | 72.0                 | 2,913,330           | 201.2   |

\* Reflects change in assumed rate of return

# Reflects changes in actuarial assumptions





## Section VI – Accounting Information

3. The following shows the schedule of employer and non-employer contributions (all dollar amounts are in thousands).

| <u>Year Ending</u> | <u>Actuarially Determined Employer Contribution</u> | <u>Percentage Contributed</u> |
|--------------------|---|-------------------------------|
| 6/30/2018*         | \$ 650,072  | 100.3%                        |
| 6/30/2019          | 649,209   | 100.0                         |
| 6/30/2020          | 643,857   | 100.0                         |
| 6/30/2021          | 615,967   | 100.0                         |
| 6/30/2022          | 619,723   | 100.0                         |
| 6/30/2023          | 878,158   | 100.0                         |

\* An employer group within ERS did not contribute the full ADEC every year. However, this employer has made the additional contributions required and repaid this shortfall as of June 30, 2018.

4. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2023. Additional information as of the latest actuarial valuation follows.

|                               |                      |
|-------------------------------|----------------------|
| Valuation date                | 6/30/2023            |
| Actuarial cost method         | Entry age            |
| Amortization method           | Level dollar, closed |
| Remaining amortization period | 15.3 years           |
| Asset valuation method        | 5-year smoothed fair |
| Actuarial assumptions:        |                      |
| Investment rate of return*    | 7.10%                |
| Projected salary increases*   | 3.00% - 6.75%        |
| Cost-of-living adjustments    | 1.05% annually       |

\* Includes inflation at 2.50%





## Section VII – Experience

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1. Section 47-2-26 of the act governing the operation of the System provides that as an aid to the Board in adopting service and mortality tables, the actuary will prepare an experience investigation at least once in each five-year period. The last experience investigation was prepared for the five-year period ending June 30, 2019, and based on the results of the investigation, various new actuarial assumptions and methods were adopted by the Board on December 17, 2020. The next experience investigation will be prepared for the period July 1, 2019 through June 30, 2024.
2. The following table shows the estimated gain or loss from various factors that resulted in an increase of \$231,987,000 in the unfunded actuarial accrued liability (UAAL) from \$5,628,490,000 to \$5,860,477,000 during the fiscal year ending June 30, 2023.
3. The breakdown of the major reasons for the \$232.0 million increase in the UAAL are as follows:
  - Salary increases were greater than expected resulting in an increase in the UAAL of \$342.1 million. Even though this means there was a negative impact on liabilities measured in this valuation, since contributions are made to ERS as a percentage of salary, the resulting higher future payroll can also mean more contribution dollars coming into the System in future years which can potentially help pay off the UAAL in a shorter period of time.
  - There was an increase in the UAAL of \$205.1 million due to the decrease in the assumed valuation interest rate from 7.20% to 7.10%.
  - In addition, there were other losses due to investment experience and turnover and retirement, which increased the UAAL by another \$106.5 million.
  - Partially offsetting these increases was a decrease in the UAAL of \$393.1 million because the accrued liability contribution was greater than the interest on the prior year UAAL. Some of this was due to the additional contributions made to ERS during the fiscal year ending June 30, 2023 and the rest due to the level dollar funding method used to amortize the UAAL (more payment applied to principal balance).
  - Finally, there was also a decrease in the UAAL of \$74.3 million due to the actual 0.50% COLA provided to certain retirees and beneficiaries as of July 1, 2023, rather than the anticipated 1.05% COLA.





## Section VII – Experience

### ANALYSIS OF THE CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY (in millions of dollars)

| ITEM                                     | AMOUNT OF<br>INCREASE/<br>(DECREASE) |
|--|--------------------------------------|
| Interest (7.20%*) added to previous UAAL | \$ 405.3                             |
| Accrued liability contribution           | (798.4)                              |
| Experience:                              |                                      |
| Valuation asset growth                   | 46.9                                 |
| Pensioners' mortality                    | (6.3)                                |
| Turnover and retirements                 | 59.6                                 |
| New entrants                             | 15.4                                 |
| Salary increases                         | 342.1                                |
| Method changes                           | 0.0                                  |
| Amendments (0.5% COLA)                   | (74.3)                               |
| Assumption change                        | 205.1                                |
| Data changes                             | 36.6                                 |
| Miscellaneous changes                    | <u>0.0</u>                           |
| Total                                    | \$ 232.0                             |

\* Assumed rate of return from previous period





## Section VIII – Risk Assessment

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### *Overview*

Actuarial Standards of Practice (ASOP) No. 51, issued by the Actuarial Standards Board, provides guidance on assessing and disclosing risks related to pension plan funding. This guidance is binding on all credentialed actuaries practicing in the United States. This standard was issued as final in September 2017 with application to measurement dates on or after November 1, 2018.

The term “risk” frequently has a negative connotation, but from an actuarial perspective, it may be thought of as simply the fact that what actually happens in the real world will not always match what was expected, based on actuarial assumptions. Of course, when actual experience is better than expected, the favorable risk is easily absorbed. The risk of unfavorable experience will likely be unpleasant, and so there is an understandable focus on aspects of risk that are negative.

Risk usually can be reduced or eliminated at some cost. Consumers, for example, buy auto and home insurance to reduce the risk of accidents or catastrophes. Another way to express this concept, however, is that there is generally some reward for assuming risk. Thus, retirement plans invest not just in US Treasury bonds which have almost no risk, but also in equities which are considerably riskier – because they have an expected reward of a higher return that justifies the risk.

Under ASOP 51, the actuary is called on to identify the significant risks to the pension plan and provide information to help those sponsoring and administering the plan understand the implications of these risks. In this section, we identify some of the key risks for the System and provide information to help interested parties better understand these risks.





## Section VIII – Risk Assessment

### Investment Risk

The investment return on assets is the most obvious risk – and usually the largest risk – to funding a pension plan. To illustrate the magnitude of this risk, the following chart shows the Asset Volatility Ratio (AVR), defined as the fair value of assets divided by covered payroll.

(\$ in thousands)

| Valuation | Fair Value of Assets | Covered Payroll | Asset Volatility Ratio |
|-----------|----------------------|-----------------|------------------------|
| 2018      | \$13,517,186         | \$2,634,129     | 5.13                   |
| 2019      | \$13,617,472         | \$2,611,965     | 5.21                   |
| 2020      | \$13,502,286         | \$2,612,773     | 5.17                   |
| 2021      | \$16,547,905         | \$2,477,691     | 6.68                   |
| 2022      | \$13,830,510         | \$2,572,445     | 5.38                   |
| 2023      | \$14,749,438         | \$2,913,330     | 5.06                   |

The asset volatility ratio is especially useful to compare across plans or through time. It is also frequently useful to consider how the AVR translates into changes in the Required Contribution Rate (actuarially determined employer contribution rate). For example, in the table below with an AVR of 5.00, if the market value return is 10% below assumed, or negative 2.90% (7.10% minus 10.00%) for the System, there will be an increase in the Required Contribution Rate of 0.95% of payroll in the first year. Without asset smoothing or without returns above the expected return in the next four years, the impact on the Required Contribution Rate would be 4.76%. A higher AVR would produce more volatility in the Required Contribution Rate.

| AVR | Unsmoothed Amortization | Smoothed Amortization |
|-----|-------------------------|-----------------------|
| 4.0 | 3.81%                   | 0.76%                 |
| 5.0 | 4.76%                   | 0.95%                 |
| 6.0 | 5.71%                   | 1.14%                 |





## Section VIII – Risk Assessment

### Sensitivity Measures

Valuations are generally performed with a single set of assumptions that reflects the best estimate of future conditions, in the opinion of the actuary and typically the governing board. Note that under actuarial standards of practice, the set of economic assumptions used for funding must be consistent. To enhance the understanding of the importance of an assumption, a sensitivity test can be performed where the valuation results are recalculated using a different assumption or set of assumptions.

The following tables contains the key measures for the System using the valuation assumption for investment return of 7.10%, along with the results if the assumption were 6.10% or 8.10%. In this analysis, only the investment return assumption is changed. Consequently, there may be inconsistencies between the investment return and other economic assumptions such as inflation or payroll increases. In addition, simply because the valuation results under alternative assumptions are shown here, it should not be implied that CMC believes that either assumption (6.10% or 8.10%) would comply with actuarial standards of practice.

(\$ in thousands)

| As of June 30, 2023 | Current Discount Rate (7.1%) | -1% Discount Rate (6.1%) | +1% Discount Rate (8.1%) |
|---------------------|------------------------------|--------------------------|--------------------------|
| Accrued Liability   | \$20,893,936                 | \$23,156,247             | \$18,991,826             |
| Unfunded Liability  | \$5,860,477                  | \$8,122,788              | \$3,958,367              |
| Funded Ratio (AVA)  | 72.0%                        | 64.9%                    | 79.2%                    |
| ADEC Rate*          |                              |                          |                          |
| Old Plan            | 24.40%                       | 30.29%                   | 15.47%                   |
| New Plan            | 29.15%                       | 35.04%                   | 20.22%                   |
| GSEPs               | 25.51%                       | 30.02%                   | 17.57%                   |

\* Contribution rates are determined based on the Board's current Funding Policy.





## Section VIII – Risk Assessment

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### ***Mortality Risk***

The mortality assumption is a significant assumption for valuation results, second only to the investment assumption in most situations. The System's mortality assumption utilizes a mortality table (with separate rates for males and females, as well as different rates by status) and a projection scale for how the mortality table is expected to improve through time.

The future, however, is not known, and actual mortality improvements may occur at a faster rate than expected, or at a slower rate than expected (or even decline). Although changes in mortality will affect the benefits paid, this assumption is carefully studied during the regular experience studies that the System conducts so that incremental changes can be made to smoothly reflect unfolding experience. The next experience investigation will be prepared for the period July 1, 2019 through June 30, 2024.

### ***Contribution Risk***

The System is primarily funded by member and employer contributions to the trust fund, together with the earnings on those accumulated contributions. Each year in the valuation, the Required Contribution Rate is determined, based on the System's funding policy. This rate is the sum of the rates for the normal cost for the plan, the amortization of the UAAL, and the administrative expenses. Since the Required Contribution Rate has always been made and that procedure is expected to continue, there is no Contribution Risk at this time.







## Section VIII – Risk Assessment

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### *Liquidation Risk*

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we must now include a low-default-risk obligation measure of the System's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of this plan.

This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of June 30, 2023 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a liability of approximately \$23.9 billion.

This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan.





## Schedule A – Valuation Balance Sheet and Breakdown of Liabilities

**THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF  
THE EMPLOYEES' RETIREMENT SYSTEM OF GEORGIA  
AS OF JUNE 30, 2023  
(Dollar amounts in thousands)**

| ACTUARIAL LIABILITIES          |  |                      |
|--------------------------------|--|----------------------|
| (1)                            | Present value of prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits |                      |
|                                | - Service and disability benefits  | \$ 13,411,047        |
|                                | - Death and survivor benefits  | 909,821              |
|                                | - Deferred vested benefits   | <u>726,371</u>       |
|                                | Total  | \$ 15,047,239        |
| (2)                            | Present value of prospective benefits payable on account of present active members   | <u>6,788,422</u>     |
| (3)                            | TOTAL ACTUARIAL LIABILITIES  | <u>\$ 21,835,661</u> |
| PRESENT AND PROSPECTIVE ASSETS |  |                      |
| (4)                            | Actuarial value of assets  | \$ 15,033,459        |
| (5)                            | Present value of total future contributions = (3)-(4)  | \$ 6,802,202         |
| (6)                            | Present value of future member contributions and employer normal contributions   | 941,725              |
| (7)                            | Prospective unfunded accrued liability contributions = (5)-(6)   | <u>5,860,477</u>     |
| (8)                            | TOTAL PRESENT AND PROSPECTIVE ASSETS   | <u>\$ 21,835,661</u> |





## Schedule A – Valuation Balance Sheet and Breakdown of Liabilities

**BREAKDOWN OF TOTAL AND ACCRUED LIABILITIES OF  
THE EMPLOYEES' RETIREMENT SYSTEM OF GEORGIA  
AS OF JUNE 30, 2023  
(Dollar amounts in thousands)**

|   | Total<br>Liability   | Accrued<br>Liability |
|---|----------------------|----------------------|
| <b>Active Members</b>                                       |                      |                      |
| Old Plan / New Plan   | \$ 5,377,147         | \$ 4,997,943         |
| GSEPS   | <u>1,411,275</u>     | <u>848,754</u>       |
| Sub-Total   | \$ 6,788,422         | \$ 5,846,697         |
| <b>Retirees, Beneficiaries, and Deferred Vested Members</b> |                      |                      |
| Old Plan / New Plan   | \$ 14,909,450        | \$ 14,909,450        |
| GSEPS   | <u>70,620</u>        | <u>70,620</u>        |
| Sub-Total   | \$ 14,980,070        | \$ 14,980,070        |
| Supplemental Guaranteed Lifetime Income (SGLI)              | 536                  | 536                  |
| Inactive members due a refund                               | <u>66,633</u>        | <u>66,633</u>        |
| <b>Total Actuarial Liability</b>                            | <b>\$ 21,835,661</b> | <b>\$ 20,893,936</b> |
| Actuarial Value of Assets                                   |                      | <u>15,033,459</u>    |
| <b>Unfunded Actuarial Accrued Liability</b>                 |                      | <b>\$ 5,860,477</b>  |

The total liability is the present value of future benefits for all current members as of the valuation date. The accrued liability is the present value of benefits that have been accrued as of the valuation date. Since all inactive members and retirees have accrued their full benefits, the total liability and accrued liability are the same. The difference between the total liability and the accrued liability is the present value of future normal costs for active members.





## Schedule B – Development of Actuarial Value of Assets

(Dollar amounts in thousands)

|     |   |    |                 |
|-----|---|----|-----------------|
| (1) | Actuarial Value Beginning of Year   | \$ | 14,632,266      |
| (2) | Fair Value End of Year  | \$ | 14,749,438      |
| (3) | Fair Value Beginning of Year  | \$ | 13,830,510      |
| (4) | Cash Flow   |    |                 |
|     | (a) Contributions   | \$ | 919,745         |
|     | (b) Benefit Payments  |    | (1,494,743)     |
|     | (c) Administrative Expenses   |    | (9,389)         |
|     | (d) Investment Expenses   |    | <u>(9,395)</u>  |
|     | (e) Net: (4)(a) + (4)(b) + (4)(c) + (4)(d)  | \$ | (593,782)       |
| (5) | Investment Income   |    |                 |
|     | (a) Fair Total: (2) – (3) – (4)(e)  | \$ | 1,512,710       |
|     | (b) Assumed Rate of Return for Current Year   |    | 7.20%           |
|     | (c) Amount for Immediate Recognition:<br>[(3) x (5)(b)] + [(4)(a) + (4)(b) + (4)(c)] x (5)(b) x 0.5] – (4)(d) | \$ | 984,154         |
|     | (d) Amount for Phased-In Recognition: (5)(a) – (5)(c)   |    | 528,556         |
| (6) | Phased-In Recognition of Investment Income  |    |                 |
|     | (a) Current Year: (5)(d) / 5  | \$ | 105,711         |
|     | (b) First Prior Year  |    | (603,204)       |
|     | (c) Second Prior Year   |    | 577,408         |
|     | (d) Third Prior Year  |    | (52,068)        |
|     | (e) Fourth Prior Year   |    | <u>(17,026)</u> |
|     | (f) Total Recognition of Investment Income  | \$ | 10,821          |
| (7) | Actuarial Value End of Year: (1) + (4)(e) + (5)(c) + (6)(f)   | \$ | 15,033,459      |
| (8) | Difference Between Fair & Actuarial Values: (2) – (7)   | \$ | (284,021)       |
| (9) | Rate of Return on Actuarial Value*  |    | 6.87%           |

\* Calculated assuming cash flow occurs in the middle of the year





## Schedule C – Summary of Receipts and Disbursements

### FAIR VALUE OF ASSETS

|  | YEAR ENDING                  |                              |
|--|------------------------------|------------------------------|
|  | June 30, 2023<br>(\$1,000's) | June 30, 2022<br>(\$1,000's) |
| <u>Receipts for the Year</u>                 |                              |                              |
| Contributions:                               |                              |                              |
| Members                                      | \$ 41,577                    | \$ 36,130                    |
| Non-employer                                 | 10,499                       | 8,313                        |
| Employer                                     | <u>867,659</u>               | <u>611,410</u>               |
| Subtotal                                     | \$ 919,735                   | \$ 655,853                   |
| Administrative Expense Allotment             | 10                           | 10                           |
| Net Investment Earnings                      | <u>1,503,315</u>             | <u>(1,855,595)</u>           |
| TOTAL  | \$ 2,423,060                 | \$ (1,199,732)               |
| <u>Disbursements for the Year</u>            |                              |                              |
| Benefit Payments                             | \$ 1,489,058                 | \$ 1,502,904                 |
| Refunds to Members                           | 5,685                        | 7,182                        |
| Administration Expense                       | <u>9,389</u>                 | <u>7,577</u>                 |
| TOTAL  | \$ 1,504,132                 | \$ 1,517,663                 |
| <u>Excess of Receipts over Disbursements</u> | \$ 918,928                   | \$ (2,717,395)               |
| <u>Reconciliation of Asset Balances</u>      |                              |                              |
| Asset Balance as of the Beginning of Year    | \$ 13,830,510                | \$ 16,547,905                |
| Excess of Receipts over Disbursements        | <u>918,928</u>               | <u>(2,717,395)</u>           |
| Asset Balance as of the End of Year          | <u>\$ 14,749,438</u>         | <u>\$ 13,830,510</u>         |
| Estimated Rate of Return*                    | 11.10%                       | (11.51)%                     |

\* Calculated assuming cash flow occurs in the middle of the year





## Schedule D – Outline of Actuarial Assumptions and Methods

Actuarial assumptions and methods adopted by the Board on December 17, 2020. Valuation interest rate adopted by the Board April 21, 2022.

**VALUATION INTEREST RATE:** 7.10% per annum, compounded annually, net of investment expenses, composed of a 2.50% inflation assumption and a 4.60% real rate of investment return assumption.

### SALARY INCREASES:

| Service   | Assumed Annual Rate of Salary Increase |
|-----------|--|
| 1         | 6.75%                                  |
| 2         | 5.75                                   |
| 3         | 5.25                                   |
| 4         | 5.00                                   |
| 5         | 4.75                                   |
| 10        | 4.30                                   |
| 15        | 4.05                                   |
| 20        | 3.80                                   |
| 25        | 3.55                                   |
| 30        | 3.30                                   |
| 35 & Over | 3.00                                   |

**RATES OF DISABILITY:** Representative values of the assumed annual rates of disability are as follows.

| Age | Non-Law Enforcement |        | Law Enforcement |
|-----|---------------------|--------|-----------------|
|     | Male                | Female |                 |
| 20  | 0.000%              | 0.000% | 0.000%          |
| 25  | 0.000               | 0.000  | 0.000           |
| 30  | 0.010               | 0.005  | 0.050           |
| 35  | 0.040               | 0.010  | 0.125           |
| 40  | 0.200               | 0.085  | 1.125           |
| 45  | 0.375               | 0.215  | 2.625           |
| 50  | 0.625               | 0.365  | 3.625           |
| 55  | 0.875               | 0.565  | 4.125           |
| 60  | --                  | --     | --              |





## Schedule D – Outline of Actuarial Assumptions and Methods

**RATES OF WITHDRAWAL:** Representative values of the assumed annual rates of withdrawal are as follows.

| <u>Age</u>    | <u>Non-Law Enforcement</u> |            |                      |
|---------------|----------------------------|------------|----------------------|
|               | <u>Years of Service</u>    |            |                      |
|               | <u>0-4</u>                 | <u>5-9</u> | <u>10 &amp; Over</u> |
| <u>Male</u>   |                            |            |                      |
| 20            | 40.00%                     |            |                      |
| 25            | 30.00                      | 16.25%     |                      |
| 30            | 25.00                      | 12.50      | 8.00%                |
| 35            | 23.00                      | 10.50      | 6.25                 |
| 40            | 20.00                      | 9.50       | 4.75                 |
| 45            | 20.00                      | 8.50       | 4.00                 |
| 50            | 17.00                      | 7.25       | 4.50                 |
| 55            | 15.00                      | 6.75       | 4.75                 |
| 60            | 14.50                      | 5.50       | --                   |
| 65            | 14.50                      | 12.50      | --                   |
| <u>Female</u> |                            |            |                      |
| 20            | 35.00%                     |            |                      |
| 25            | 27.00                      | 18.00%     |                      |
| 30            | 23.00                      | 12.50      | 9.00%                |
| 35            | 20.00                      | 10.25      | 6.50                 |
| 40            | 18.00                      | 9.00       | 5.25                 |
| 45            | 17.00                      | 8.00       | 4.25                 |
| 50            | 16.00                      | 7.50       | 4.25                 |
| 55            | 15.00                      | 7.25       | 4.25                 |
| 60            | 15.50                      | 7.00       | --                   |
| 65            | 16.50                      | 12.00      | --                   |

| <u>Age</u> | <u>Law Enforcement</u>  |                      |
|------------|-------------------------|----------------------|
|            | <u>Years of Service</u> |                      |
|            | <u>0-9</u>              | <u>10 &amp; Over</u> |
| 20         | 11.00%                  |                      |
| 25         | 6.50                    | 3.00%                |
| 30         | 5.25                    | 3.00                 |
| 35         | 5.25                    | 3.00                 |
| 40         | 5.25                    | 2.50                 |
| 45         | 5.25                    | 2.50                 |
| 50         | 5.25                    | 2.50                 |
| 55         | --                      | --                   |





## Schedule D – Outline of Actuarial Assumptions and Methods

**RATES OF RETIREMENT:** Representative values of the assumed annual rates of service retirement are as follows.

| Age | Non-Law Enforcement<br>Old Plan |        |                    |        |          |        |                    |        |
|-----|---------------------------------|--------|--------------------|--------|----------|--------|--------------------|--------|
|     | Early Retirement                |        | Age 60 or 30 years |        | 34 years |        | More than 34 years |        |
|     | Male                            | Female | Male               | Female | Male     | Female | Male               | Female |
| 50  | 2.0%                            | 2.0%   | 7.5%               | 6.0%   | 100.0%   | 100.0% | 90.0%              | 100.0% |
| 52  | 2.0                             | 2.0    | 7.5                | 6.0    | 100.0    | 100.0  | 90.0               | 100.0  |
| 55  | 3.0                             | 3.5    | 7.5                | 10.0   | 100.0    | 100.0  | 75.0               | 90.0   |
| 57  | 3.0                             | 5.0    | 10.5               | 10.0   | 100.0    | 100.0  | 70.0               | 70.0   |
| 60  |                                 |        | 15.0               | 20.0   | 97.5     | 95.0   | 40.0               | 55.0   |
| 62  |                                 |        | 32.0               | 40.0   | 97.5     | 95.0   | 40.0               | 65.0   |
| 65  |                                 |        | 35.0               | 40.0   | 35.0     | 40.0   | 35.0               | 40.0   |
| 67  |                                 |        | 35.0               | 35.0   | 35.0     | 35.0   | 35.0               | 35.0   |
| 70  |                                 |        | 35.0               | 35.0   | 35.0     | 35.0   | 35.0               | 35.0   |
| 75  |                                 |        | 100.0              | 100.0  | 100.0    | 100.0  | 100.0              | 100.0  |

| Age | Non-Law Enforcement<br>New Plan and GSEPS |        |                   |          | Law Enforcement |
|-----|---|--------|-------------------|----------|-----------------|
|     | Early Retirement                          |        | Normal Retirement |          |                 |
|     | Male                                      | Female | Male*             | Female** |                 |
| 50  | 5.0%                                      | 3.80%  | 60.0%             | 42.0%    | 75.0%           |
| 52  | 5.0                                       | 3.80   | 50.0              | 42.0     | 60.0            |
| 55  | 6.0                                       | 5.80   | 50.0              | 40.0     | 15.0            |
| 57  | 6.0                                       | 7.30   | 45.0              | 37.0     | 15.0            |
| 60  |   |        | 25.0              | 28.0     | 30.0            |
| 62  |   |        | 37.5              | 37.5     | 35.0            |
| 65  |   |        | 32.0              | 33.0     | 25.0            |
| 67  |   |        | 32.0              | 32.0     | 25.0            |
| 70  |   |        | 30.0              | 30.0     | 100.0           |
| 75  |   |        | 100.0             | 100.0    |                 |

\* An additional 20% are assumed to retire in the first year eligible for unreduced retirement with 30 years of service before age 60.

\*\* An additional 25% for ages below 53 and 20% for ages 53 to 59 are assumed to retire in the first year eligible for unreduced retirement with 30 years of service before age 60.







## Schedule D – Outline of Actuarial Assumptions and Methods

**RATES OF DEATH BEFORE RETIREMENT:** The Pub-2010 General Employee Table, with no adjustments, projected generationally with the MP-2019 scale is used for both males and females while in active service. Representative values of the assumed annual rates of mortality while in active service are as follows:

| Annual Rates of Death* |         |         |     |         |         |
|------------------------|---------|---------|-----|---------|---------|
| Age                    | Males   | Females | Age | Males   | Females |
| 20                     | 0.0370% | 0.0130% | 45  | 0.0980% | 0.0560% |
| 25                     | 0.0280  | 0.0090  | 50  | 0.1490  | 0.0830  |
| 30                     | 0.0360  | 0.0150  | 55  | 0.2190  | 0.1230  |
| 35                     | 0.0470  | 0.0230  | 60  | 0.3190  | 0.1860  |
| 40                     | 0.0660  | 0.0360  | 65  | 0.4680  | 0.2960  |

\* Base mortality rates as of 2010 before application of the improvement scale

**RATES OF DEATHS AFTER RETIREMENT:** The Pub-2010 Family of Tables projected generationally with MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as follows:

| Participant Type    | Membership Table             | Set Forward (+)/<br>Setback (-) | Adjustment to Rates      |
|---------------------|------------------------------|---------------------------------|--------------------------|
| Service Retirees    | General Healthy Annuitant    | Male: +1; Female: +1            | Male: 105%; Female: 108% |
| Disability Retirees | General Disabled             | Male: -3; Female: 0             | Male: 103%; Female: 106% |
| Beneficiaries       | General Contingent Survivors | Male: +2; Female: +2            | Male: 106%; Female: 105% |

Representative values of the assumed annual rates of mortality are as follows:

| Annual Rates of Death* |                    |         |                       |         |               |         |
|------------------------|--------------------|---------|-----------------------|---------|---------------|---------|
| Age                    | Service Retirement |         | Disability Retirement |         | Beneficiaries |         |
|                        | Males              | Females | Males                 | Females | Males         | Females |
| 50                     | 0.3371%            | 0.2516% | 1.2576%               | 1.5720% | 0.7918%       | 0.3843% |
| 55                     | 0.4861             | 0.3251  | 1.8725                | 1.8465  | 0.9402        | 0.5334  |
| 60                     | 0.6941             | 0.4493  | 2.3484                | 2.0734  | 1.1978        | 0.7529  |
| 65                     | 1.0532             | 0.7366  | 2.7573                | 2.3914  | 1.7257        | 1.1057  |
| 70                     | 1.7882             | 1.2863  | 3.4536                | 3.0337  | 2.7157        | 1.7000  |
| 75                     | 3.1448             | 2.2799  | 4.4743                | 4.2432  | 4.3036        | 2.7500  |
| 80                     | 5.6427             | 4.0900  | 6.0986                | 6.3674  | 6.8879        | 4.6778  |
| 85                     | 10.0958            | 7.6043  | 8.8220                | 9.8909  | 11.3049       | 8.4315  |
| 90                     | 16.9785            | 13.8596 | 12.9831               | 14.4849 | 18.6083       | 14.6496 |

\* Base mortality rates as of 2010 before application of the improvement scale





## **Schedule D – Outline of Actuarial Assumptions and Methods**

**ADMINISTRATIVE EXPENSES:** A rate of 0.35% of payroll is added to the normal contribution rate.

**AMORTIZATION METHOD:** Level dollar amortization.

**ASSET METHOD:** Actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the fair value of assets and the expected fair value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between fair value and expected fair value.

**COST-OF-LIVING ALLOWANCE (COLA):** Beginning July 1, 2022 and each July 1 thereafter, a COLA increase will be determined as described in the Appendix of the Board Funding Policy shown in Schedule F of this report.

The assumed COLA is 1.05% annually and was determined based on the 30-year average annual COLA calculated under the median projection output of a stochastic projection of assets and liabilities prepared using the following parameters:

- For the actual fair value of asset returns, 1,000 annual returns are randomly sampled for each year of the projection period from a normal distribution of returns with a geometric mean return of 7.0% and an annual standard deviation of 12.0%.
- For the Variable COLA model, 1,000 rates of change in the CPI are randomly generated for each year of the projection period from a normal distribution with a geometric mean rate of CPI change of 2.5% and an annual standard deviation of 2.5%.
- The generated rates of return and CPI change are organized into 1,000 scenarios of projected years of rates. We verify the medians of the geometric means and annual standard deviation of the 1,000 generated scenarios is representative of the distributions from which they are generated.
- Valuation results are determined for each of the 1,000 annual scenarios for each year of the projection, including expected annual COLAs following the procedure outlined in the Appendix of the Board Funding Policy shown in Schedule F.

**DEATH BENEFITS:** It is assumed that 100% of the membership will select a beneficiary with the male three years older than the female.

**VESTED TERMINATION BENEFITS:** It is assumed that 75% of active members who terminate with 10 or more years of service before retirement will receive a benefit beginning at age 60 and 25% will receive a refund of member contributions.





## **Schedule D – Outline of Actuarial Assumptions and Methods**

**SICK LEAVE:** Assumed load on service at retirement for the practice of allowing members to convert forfeited sick leave is as follows:

- Old Plan members who retire with 34 years of service – 4.00%
- Old Plan members who retire on normal retirement – 2.00%
- Old Plan members who retire on early retirement – 1.50%
- All New Plan and GSEPS retirements – 3.25%
- All Law Enforcement retirements – 7.00%

**VALUATION METHOD:** Entry age Normal actuarial cost method. See Schedule E for a brief description of this method.





## Schedule E – Actuarial Cost Method

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1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 7.10%), of each active member's expected benefit at retirement or death is determined, based on his age, service, sex and compensation. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries and inactive members to obtain the present value of all expected benefits payable from the System on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the System are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
4. The unfunded accrued liability is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the System.





## Schedule F – Board Funding Policy

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### Funding Policy of the ERS Board of Trustees

The purpose of this Funding Policy is to state the overall objectives for the Employees' Retirement System of Georgia (System), the benchmarks that will be used to measure progress in achieving those goals, and the methods and assumptions that will be employed to develop the benchmarks. It is the intent of the ERS Board of Trustees that the Funding Policy outlined herein will remain unchanged until the objectives below are met.

This Funding Policy supersedes and replaces the Funding policy that was originally adopted by the Board of Trustees on December 19, 2013 and most recently amended on June 18, 2020.

#### I. Funding Objectives

The goal in requiring employer and member contributions to the System is to accumulate sufficient assets during a member's employment to fully finance the benefits the member is expected to receive throughout retirement. In meeting this objective, the System will strive to meet the following funding objectives:

- To develop a pattern of contribution rates expressed as a percentage of employer payroll and measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board.
- To maintain an increasing funded ratio (ratio of actuarial value of assets to actuarial accrued liabilities) that reflects a trend of improved actuarial condition. The long-term objective is to obtain a 100% funded ratio over a reasonable period of future years.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demand for liquidity.
- To promote intergenerational equity for taxpayers with respect to contributions required for the benefits provided by the System.

#### II. Measures of Funding Progress

To track progress in achieving the System's funding objectives, the following measures will be determined annually as of the actuarial valuation date (with due recognition that a single year's results may not be indicative of long-term trends):

- **Funded Ratio** – The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should increase over time, before adjustments for changes in benefits, actuarial methods, and/or actuarial adjustments. The target funded ratio will be 100 percent within 20 years of the valuation date for the first valuation conducted following the adoption of this Policy (i.e. the June 30, 2021 valuation date).
- **Unfunded Actuarial Accrued Liability (UAAL)**
  - **Transitional UAAL** – The UAAL established as of the initial valuation date for which this funding policy is adopted (June 30, 2021) shall be known as the Transitional UAAL.
  - **New Incremental UAAL** – Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit, assumption and method changes and experience gains and/or losses that have occurred since the previous valuations.





## Schedule F – Board Funding Policy

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- **UAAL Amortization Period**
  - The Transitional UAAL will be amortized over a closed 20-year period beginning on the initial valuation date for which this funding policy is adopted.
  - Each New Incremental UAAL shall be amortized over a closed 20-year period beginning with the year it is incurred.
- **Employer Contribution Rates**
  - **Employer Normal Contribution Rate** – the contribution rate determined as of the valuation date each year based on the provisions of Georgia Code Section 47-2-55 (1).
  - In each valuation subsequent to the adoption of this funding policy, the required employer contribution rate will be determined as the summation of the employer Normal Contribution Rate, a contribution rate for administrative expenses, the amortization rate for the Transitional UAAL and the individual amortization rate for each of the New Incremental UAAL bases.
  - The required employer contribution rate shall not be less than the Employer Normal Contribution Rate unless the funded ratio is greater than or equal to 105%, as determined by the actuarial valuation in which the employer contribution rate is set.
  - In no event shall the employer contribution rate decrease by more than 2% from one fiscal year to the next fiscal year, unless the Board specifically elects to suspend the 2% maximum for a given valuation year.
  - In no event shall the employer contribution rate be less than 0%.
  - The valuation methodology, including the amortization of the Unfunded Actuarial Accrued Liability (UAAL), is expected to maintain reasonably stable contribution rates over time.

### III. Methods and Assumptions

The annual actuarial valuations providing the measures to assess funding progress will utilize the actuarial methods and assumptions last adopted by the Board based upon the advice and recommendations of the actuary. These include the following primary methods and assumptions:

- The actuarial cost method used to develop the benchmarks will be the Entry Age Normal (EAN) actuarial cost method.
- The long-term annual investment rate of return assumption will be:
  - Effective with the June 30, 2021 valuation date, 7.20% net of investment expenses.
  - Effective with the June 30, 2022 valuation date, reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the following conditions are met:
    - The actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation, and
    - The assumed rate of return does not decrease below 7.00% net of investment expenses.
- The Actuarial Accrued Liability and Normal Cost of the System will include an amount sufficient to amortize and prefund a variable Cost-of-Living Adjustment (COLA) for eligible retirees and beneficiaries of the System, as described in the Appendix.
- The actuarial value of assets will be determined by recognizing the annual differences between actual and expected market value of assets over a five-year period.





## Schedule F – Board Funding Policy

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The employer contribution rates determined in an annual actuarial valuation will be at least sufficient to:

1. Satisfy the annual normal cost of the System, and
2. Amortize the UAAL as a level dollar amount over a period not to exceed 20 years (for the UAAL as of the June 30, 2021 valuation date, and for each successive year of gains and losses incurred in years following the June 30, 2021 valuation date).

However, in no event shall the employer contribution rate be less than 0%.

The actuary shall conduct an investigation into the System's experience at least every five years and utilize the results of the investigation to form the basis for recommended assumptions and methods. Any changes to the recommended assumptions and methods that are approved by the Board will be reflected in this Policy.

### IV. Funding Policy Progress

The Board will periodically have actuarial projections of the valuation results performed to assess the current and expected future progress towards the overall funding goals of the System. These periodic projections will provide the expected valuation results over at least a 30-year period. The projected measures of funding progress and the recent historical trend provided in valuations will provide important information for the Board's assessment of the System's funding progress.

Adopted: April 21, 2022





## Schedule F – Board Funding Policy

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### APPENDIX

Beginning with the June 30, 2021 actuarial valuation, the Actuarial Accrued Liability and the Normal Cost of the System will include an amount sufficient to amortize and prefund a variable Cost-of-Living Adjustment (COLA) for eligible retirees and beneficiaries of the System. The manner in which such prefunded COLA will be calculated is described in this Appendix.

Effective July 1, 2022, unless otherwise noted.

#### **Definitions**

1. Actuarial Rate of Return: based on the approximate five-year average annual investment rate of return and assumptions regarding the System's cash flows; calculated by the System's actuaries in the annual valuation (see valuation Schedule B – Development of Actuarial Value of Assets).
2. COLA Rate: the percentage increase to be applied to the payee's monthly retirement benefit under the System.
3. Excess Return: the difference between the Actuarial Rate of Return and the Hurdle Rate.
4. Hurdle Rate: the minimum investment performance, as measured against the Actuarial Rate of Return, required in order for a COLA to be considered in a given year.
5. Normal Retirement Date: Generally, age 60 (55 for certain law enforcement members) with 10 years of service or any age with 30 years of service.
6. Retirement Date: the effective date of a member's retirement.
7. Shareable Portion: determined by multiplying the Excess Return by a factor which is dependent on the System's funding ratio.
8. Supplemental Guaranteed Lifetime Income (SGLI): monthly payments from the System which are funded entirely by one or more rollovers from either or both of a retiree's Peach State Reserves 401(k) or 457 plans, and not based on the retiree's years of service as a member of the System.

#### **Determination of COLA**

1. The COLA for a given fiscal year will be effective no earlier than July 1 following the approval of the most recent actuarial valuation.
2. The Hurdle Rate is set at 6.00%.







## Schedule F – Board Funding Policy

3. Determine the Excess Return as the difference between the Actuarial Rate of Return in the most recent actuarial valuation and the Hurdle Rate.
  - a. If the Actuarial Rate of Return is below the Hurdle Rate, the Excess Return is 0%, and no COLA will be paid for that year.
  - b. If the Actuarial Rate of Return is above the Hurdle Rate, the Excess Return is greater than 0%. Continue to Step 4.
4. Determine the Shareable Portion by multiplying the Excess Return by the factor returned from the following table, based on the most recent approved actuarial valuation:

| System Funding Ratio | Factor |
|----------------------|--------|
| < 70.00%             | 0.00   |
| 70.00% - 79.99%      | 0.25   |
| 80.00% - 89.99%      | 0.50   |
| 90.00% - 99.99%      | 0.75   |
| >= 100.00%           | 1.00   |

5. Determine the SSA OASDI COLA rate for the current calendar year, as published on [www.ssa.gov](http://www.ssa.gov) (generally in October or November of the preceding calendar year).
6. The COLA Rate is the lesser of the Shareable Portion and the SSA COLA rate as determined in Step 5, rounded to the nearest 0.25%.
  - a. However, in no event shall the COLA Rate be less than 0% or greater than 3%.
7. The COLA will be paid to all statutorily eligible retirees who have surpassed the later of their Retirement Date or Normal Retirement Date by at least 12 months.
  - a. The COLA will also be paid to beneficiaries of deceased members or retirees who have otherwise met the requirements of this Step 7.
  - b. A statutorily eligible individual is one who first became a member of this System before July 1, 2009.
8. The COLA will also be paid to Disabled retirees (who are statutorily eligible per Step 7b above) who have surpassed the later of their Disability Retirement Date or their 44<sup>th</sup> birthday by at least 12 months.
  - a. The COLA will also be paid to beneficiaries of deceased Disabled retirees who have otherwise met the requirements of this Step 8.
9. In no event will the COLA Rate be added or applied to that portion of a retiree's or beneficiary's monthly benefit payment which is in excess of one-twelfth (1/12) of the Social Security Wage Base for that calendar year, as published on [www.ssa.gov](http://www.ssa.gov).
10. In no event will the COLA Rate be added or applied in any fashion to any retiree's SGLI payments.





## Schedule G – Amortization of UAAL

### AMORTIZATION OF TRANSITIONAL UAAL (Dollar amounts in thousands)

| <u>Valuation Date</u> | <u>Amortization<br/>Period</u> | <u>Balance of<br/>Transitional<br/>UAAL</u> | <u>Annual<br/>Amortization<br/>Payment</u> |
|-----------------------|--------------------------------|---|--|
| 6/30/2021             | 20                             | \$5,702,095                                 | \$546,633                                  |
| 6/30/2022             | 18                             | 5,566,013                                   | 561,553                                    |
| <b>6/30/2023</b>      | <b>15</b>                      | <b>5,405,213</b>                            | <b>597,095</b>                             |
| 6/30/2024             | 14                             | 5,191,888                                   | 597,095                                    |
| 6/30/2025             | 13                             | 4,963,417                                   | 597,095                                    |
| 6/30/2026             | 12                             | 4,718,724                                   | 597,095                                    |
| 6/30/2027             | 11                             | 4,456,658                                   | 597,095                                    |
| 6/30/2028             | 10                             | 4,175,986                                   | 597,095                                    |
| 6/30/2029             | 9                              | 3,875,385                                   | 597,095                                    |
| 6/30/2030             | 8                              | 3,553,442                                   | 597,095                                    |
| 6/30/2031             | 7                              | 3,208,641                                   | 597,095                                    |
| 6/30/2032             | 6                              | 2,839,359                                   | 597,095                                    |
| 6/30/2033             | 5                              | 2,443,859                                   | 597,095                                    |
| 6/30/2034             | 4                              | 2,020,277                                   | 597,095                                    |
| 6/30/2035             | 3                              | 1,566,622                                   | 597,095                                    |
| 6/30/2036             | 2                              | 1,080,756                                   | 597,095                                    |
| 6/30/2037             | 1                              | 560,395                                     | 597,095                                    |
| 6/30/2038             | 1                              | 3,087                                       | 3,306                                      |
| 6/30/2039             | 0                              | 0   | 0  |
| 6/30/2040             | 0                              | 0   | 0  |
| 6/30/2041             | 0                              | 0   | 0  |





## Schedule G – Amortization of UAAL

### AMORTIZATION OF 2022 INCREMENTAL UAAL (Dollar amounts in thousands)

| <u>Valuation Date</u> | <u>Amortization<br/>Period</u> | <u>Balance of<br/>New Incremental<br/>UAAL 6/30/2022</u> | <u>Annual<br/>Amortization<br/>Payment</u> |
|-----------------------|--------------------------------|--|--|
| 6/30/2022             | 20                             | \$62,477   | \$5,989                                    |
| <b>6/30/2023</b>      | <b>19</b>                      | <b>60,986</b>  | <b>5,945</b>                               |
| 6/30/2024             | 18                             | 59,371   | 5,945                                      |
| 6/30/2025             | 17                             | 57,642   | 5,945                                      |
| 6/30/2026             | 16                             | 55,789   | 5,945                                      |
| 6/30/2027             | 15                             | 53,805   | 5,945                                      |
| 6/30/2028             | 14                             | 51,681   | 5,945                                      |
| 6/30/2029             | 13                             | 49,405   | 5,945                                      |
| 6/30/2030             | 12                             | 46,968   | 5,945                                      |
| 6/30/2031             | 11                             | 44,358   | 5,945                                      |
| 6/30/2032             | 10                             | 41,562   | 5,945                                      |
| 6/30/2033             | 9                              | 38,568   | 5,945                                      |
| 6/30/2034             | 8                              | 35,362   | 5,945                                      |
| 6/30/2035             | 7                              | 31,927   | 5,945                                      |
| 6/30/2036             | 6                              | 28,249   | 5,945                                      |
| 6/30/2037             | 5                              | 24,310   | 5,945                                      |
| 6/30/2038             | 4                              | 20,091   | 5,945                                      |
| 6/30/2039             | 3                              | 15,573   | 5,945                                      |
| 6/30/2040             | 2                              | 10,734   | 5,945                                      |
| 6/30/2041             | 1                              | 5,551  | 5,945                                      |
| 6/30/2042             | 0                              | 0  | 0  |





## Schedule G – Amortization of UAAL

### AMORTIZATION OF 2023 INCREMENTAL UAAL (Dollar amounts in thousands)

| <u>Valuation Date</u> | <u>Amortization<br/>Period</u> | <u>Balance of<br/>New Incremental<br/>UAAL 6/30/2023</u> | <u>Annual<br/>Amortization<br/>Payment</u> |
|-----------------------|--------------------------------|--|--|
| <b>6/30/2023</b>      | <b>20</b>                      | <b>\$394,278</b>   | <b>\$37,507</b>                            |
| 6/30/2024             | 19                             | 384,765  | 37,507                                     |
| 6/30/2025             | 18                             | 374,576  | 37,507                                     |
| 6/30/2026             | 17                             | 363,665  | 37,507                                     |
| 6/30/2027             | 16                             | 351,978  | 37,507                                     |
| 6/30/2028             | 15                             | 339,462  | 37,507                                     |
| 6/30/2029             | 14                             | 326,057  | 37,507                                     |
| 6/30/2030             | 13                             | 311,700  | 37,507                                     |
| 6/30/2031             | 12                             | 296,324  | 37,507                                     |
| 6/30/2032             | 11                             | 279,856  | 37,507                                     |
| 6/30/2033             | 10                             | 262,219  | 37,507                                     |
| 6/30/2034             | 9                              | 243,329  | 37,507                                     |
| 6/30/2035             | 8                              | 223,099  | 37,507                                     |
| 6/30/2036             | 7                              | 201,432  | 37,507                                     |
| 6/30/2037             | 6                              | 178,227  | 37,507                                     |
| 6/30/2038             | 5                              | 153,374  | 37,507                                     |
| 6/30/2039             | 4                              | 126,757  | 37,507                                     |
| 6/30/2040             | 3                              | 98,250   | 37,507                                     |
| 6/30/2041             | 2                              | 67,719   | 37,507                                     |
| 6/30/2042             | 1                              | 35,020   | 37,507                                     |
| 6/30/2043             | 0                              | 0  | 0  |





## Schedule H – Summary of Main System Provisions

### AS INTERPRETED FOR VALUATION PURPOSES

The Employees' Retirement System of Georgia (ERS) was established February 3, 1949 to provide retirement benefits and other benefits to employees of the State of Georgia. The commencement date was January 1, 1950. "Old Plan" means the plan applicable to members beginning employment prior to July 1, 1982, "New Plan" means the plan applicable to members employed on or after July 1, 1982 and before January 1, 2009, and "GSEPS" means the plan applicable to members employed on or after January 1, 2009. The following summary describes the main provisions of the System.

#### Normal Retirement Benefit

**Eligibility** A member is eligible for normal retirement upon the attainment of age 60 and 10 years of creditable service (prior service plus membership service plus purchased service plus forfeited leave – minimum 960 hours) or 30 years of creditable service regardless of age. Certain Law Enforcement positions are eligible with attainment of age 55 and 10 years of creditable service.

**Benefit** Old Plan  
(A) x (B) x (C), where  
(A) = Average final compensation (the average annual compensation of a member during the 24 consecutive calendar months of his creditable service that will yield the highest average)  
(B) = Creditable service, and  
(C) = .0115 + .0003 x (creditable service up to 35 years).

The minimum benefit is 2.00% of average final compensation times years of creditable service.

New Plan  
2.00% of average final compensation multiplied by years of creditable service.

GSEPS  
1.00% of average final compensation multiplied by years of creditable service.

Uniform division and judicial members may be eligible for additional minimum benefits.

With all plans, for members with retirement dates prior to July 1, 2013, a one-time 3.0% increase on the first \$37,500 is made at time of retirement.





## Schedule H – Summary of Main System Provisions

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### Early Retirement Benefit

|             |  |
|-------------|--|
| Eligibility | A member is eligible for early retirement upon the attainment of 25 years of creditable service regardless of age.   |
| Benefit     | <p>The annual early retirement benefit is determined in the same manner as the normal retirement benefit based on creditable service and average final compensation as of the early retirement date. If the member is less than age 60, the retirement benefit is reduced by the lesser of:</p> <ul style="list-style-type: none"> <li>(i) 7% for each year by which his age is less than 60, and</li> <li>(ii) 7% for each year by which his creditable service at retirement is less than 30.</li> </ul> <p>Uniform division and judicial members may be eligible for additional minimum benefits.</p> |

### Disability Retirement Benefit

#### Old Plan and New Plan

|             |  |
|-------------|--|
| Eligibility | A member is eligible for disability retirement after having at least 13 years and 4 months of service and being certified by the medical board as permanently disabled for the further performance of the duties of the position held at the time of disability. |
| Benefit     | <p>The annual disability retirement benefit is an immediate benefit with the amount depending upon service at the time of disability.</p> <p>Uniform division members may be eligible for an additional benefit if disabled in line of duty.</p>                 |

#### Service at Disability

#### Benefit

|  |  |
|--|--|
| (1) 13 years 4 months to 18 years      | 75% of what the normal retirement benefit would have been had the member continued to work until age 60 with no further change in compensation |
| (2) Over 18 years to 22 years 9 months | 100% of age 60 benefit   |





## Schedule H – Summary of Main System Provisions

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- |   |                        |
|---|------------------------|
| (3) Over 22 years 9 months to 27 years 6 months | 75% of age 65 benefit  |
| (4) Over 27 years 6 months                      | 100% of age 65 benefit |

### GSEPS

- |             |   |
|-------------|---|
| Eligibility | A member is eligible for disability retirement after having at least 15 years of service and being certified by the medical board as permanently disabled for the further performance of the duties of the position held at the time of disability. |
| Benefit     | The annual disability retirement benefit is an immediate benefit equal to 1.00% of average final compensation multiplied by years of credited service at disability.  |

### Involuntary Retirement Benefit

- |             |   |
|-------------|---|
| Eligibility | Member prior to April 1, 1972, termination is involuntary and without prejudice, and member has more than 18 years of membership service.<br><br>For members prior to February 13, 1962, the service requirement is more than 18 years of creditable service. |
| Benefit     | Computed as for disability retirement.  |

### Deferred Vested Retirement Benefit

- |             |   |
|-------------|---|
| Eligibility | 10 years of creditable service. Member contributions not withdrawn. |
| Benefit     | Accrued benefit deferred to age 60.                                 |

### Death Benefit

#### Old Plan and New Plan

- | <u>Eligibility</u>  | <u>Benefit</u>  |
|---|---|
| (1) Before retirement, before age 60, before completing 13 years 4 months service | Refund of all employee contributions plus allowable interest.                     |
| (2) Before retirement, before age 60, after completing 13 years 4 months service  | Benefit equal to disability retirement immediately prior to death under Option 2. |





## Schedule H – Summary of Main System Provisions

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(3) Before retirement, after age 60, more than 10 years creditable service (5 years of service if member prior to July 1, 1968)      Benefit equal to retirement immediately prior to death under Option 2.

(4) After retirement      Payments continued to spouse as determined by options (if any) elected before retirement.

### GSEPS

Eligibility      15 years of creditable service.

Benefit      Benefit equal to disability retirement immediately prior to death under Option 2.

### Termination Benefit

Eligibility      Termination with less than 10 years creditable service.

Benefit      Return of all member contributions and employer contributions made on behalf of member with allowable interest. Life insurance premiums paid by the employee are not refundable.

### Payment Options

At application for retirement, a member must choose one of the following methods of payment. All forms are of equivalent actuarial value.

Maximum Benefit      Life annuity, payable to members for the member's life with the final payment (for month of member's death) going to member's designated beneficiary.

Option 1      Full cash refund, paying a reduced retirement benefit to members so that, upon member's death, the beneficiary receives a lump sum cash settlement equal to the difference between the member's accumulated contributions at retirement and the benefit payments due to member contributions received prior to member's death.

Option 2      Joint and 100% to survivor. Member receives a reduced benefit for life with the same benefit continuing for life of beneficiary upon member's death.

Option 3      Joint and 50% to survivor. Member receives a reduced benefit for life with one-half members' benefit continuing to beneficiary for life upon member's death.

Other Options      Other options are available with certain restrictions.







## Schedule H – Summary of Main System Provisions

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### Post-Retirement Adjustments

As outlined in the Appendix of the Funding Policy adopted by the Board, shown in Schedule F.

### Contributions

#### By Members

#### Old Plan

4% of annual compensation up to \$4,200 plus 6% of annual compensation over \$4,200. A member with 34 or more years of service may cease contributing until age 65, when he must resume contributing if he continues employment and wishes to receive additional service credit. The State pays member contributions except for 1.25% of annual compensation. These State contributions paid on behalf of members are included in the member's account for refund purposes. Covered tax officials and their employees and covered employees of State Courts continue to pay their full member contributions.

#### New Plan and GSEPS

Member contributions are 1.25% of annual compensation.

#### By Employers

The employers contribute at a specified percentage of active member payroll determined annually by actuarial valuation. The State contribution is not subject to refund upon member termination.





## Schedule I – Tables of Membership Data

### The Number and Average Annual Compensation of Active Members by Age and Service as of June 30, 2023

| Age                | Years of Service |          |          |          |          |          |          |          |          | Total  |          |
|--------------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|--------|----------|
|                    | Under 1          | 1 to 4   | 5 to 9   | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 & Up  | No.    | Avg. Pay |
| <b>Under 25</b>    | 652              | 1,196    | 20       |          |          |          |          |          |          | 1,868  | \$36,222 |
| <b>25 to 29</b>    | 795              | 3,247    | 662      | 7        |          |          |          |          |          | 4,711  | \$43,305 |
| <b>30 to 34</b>    | 672              | 2,888    | 2,151    | 353      | 6        |          |          |          |          | 6,070  | \$47,801 |
| <b>35 to 39</b>    | 530              | 2,225    | 1,946    | 999      | 447      | 11       |          |          |          | 6,158  | \$51,255 |
| <b>40 to 44</b>    | 440              | 1,969    | 1,622    | 951      | 1,349    | 435      | 6        |          |          | 6,772  | \$53,999 |
| <b>45 to 49</b>    | 403              | 1,635    | 1,408    | 878      | 1,252    | 1,290    | 371      | 4        |          | 7,241  | \$55,848 |
| <b>50 to 54</b>    | 310              | 1,521    | 1,473    | 864      | 1,157    | 1,153    | 1,070    | 167      | 3        | 7,718  | \$57,889 |
| <b>55 to 59</b>    | 225              | 1,318    | 1,145    | 730      | 1,091    | 924      | 803      | 411      | 73       | 6,720  | \$56,837 |
| <b>60 to 64</b>    | 142              | 911      | 943      | 594      | 798      | 649      | 466      | 247      | 158      | 4,908  | \$56,732 |
| <b>65 to 69</b>    | 38               | 323      | 427      | 305      | 294      | 204      | 126      | 88       | 67       | 1,872  | \$60,986 |
| <b>70 &amp; up</b> | 19               | 130      | 115      | 147      | 141      | 87       | 33       | 41       | 30       | 743    | \$59,954 |
| <b>Total</b>       | 4,226            | 17,363   | 11,912   | 5,828    | 6,535    | 4,753    | 2,875    | 958      | 331      | 54,781 | \$53,181 |
| <b>Avg. Pay</b>    | \$36,010         | \$45,867 | \$53,793 | \$59,690 | \$60,513 | \$62,876 | \$65,979 | \$70,985 | \$73,063 |        |          |

Average Age: 45.3  
Average Service: 9.5





## Schedule I – Tables of Membership Data

### NUMBER OF RETIRED MEMBERS AND THEIR BENEFITS BY AGE

| Attained Age | Number of Members | Total Annual Benefits* | Average Annual Benefits |
|--------------|-------------------|------------------------|-------------------------|
| Under 50     | 78                | \$ 2,323,892           | \$ 29,793               |
| 50 - 54      | 520               | 16,361,626             | 31,465                  |
| 55 - 59      | 1,895             | 57,866,764             | 30,537                  |
| 60 - 64      | 5,999             | 148,972,311            | 24,833                  |
| 65 - 69      | 9,288             | 232,007,218            | 24,979                  |
| 70 - 74      | 10,038            | 279,207,676            | 27,815                  |
| 75 - 79      | 7,883             | 241,724,680            | 30,664                  |
| 80 - 84      | 4,166             | 124,700,721            | 29,933                  |
| 85 - 89      | 2,047             | 59,729,806             | 29,179                  |
| 90 - 94      | 719               | 17,640,680             | 24,535                  |
| 95 & Over    | 207               | 4,401,925              | 21,265                  |
| Total        | 42,840            | \$ 1,184,937,299       | \$ 27,660               |

\*Does not reflect the COLA granted by the Board effective July 1, 2023.

Average Age: 71.6

### NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

| Attained Age | Number of Members | Total Annual Benefits* | Average Annual Benefits |
|--------------|-------------------|------------------------|-------------------------|
| Under 50     | 847               | \$ 7,036,362           | \$ 8,307                |
| 50 - 54      | 350               | 3,282,341              | 9,378                   |
| 55 - 59      | 408               | 4,704,547              | 11,531                  |
| 60 - 64      | 523               | 7,123,397              | 13,620                  |
| 65 - 69      | 652               | 10,343,045             | 15,864                  |
| 70 - 74      | 929               | 17,790,911             | 19,151                  |
| 75 - 79      | 1,016             | 20,012,638             | 19,697                  |
| 80 - 84      | 834               | 16,787,857             | 20,129                  |
| 85 - 89      | 622               | 11,167,107             | 17,954                  |
| 90 - 94      | 290               | 5,308,482              | 18,305                  |
| 95 & Over    | 109               | 2,154,905              | 19,770                  |
| Total        | 6,580             | \$ 105,711,592         | \$ 16,066               |

\*Does not reflect the COLA granted by the Board effective July 1, 2023.

Average Age: 69.3





## Schedule I – Tables of Membership Data

### NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

| Attained Age | Number of Members | Total Annual Benefits* | Average Annual Benefits |
|--------------|-------------------|------------------------|-------------------------|
| Under 50     | 253               | \$ 9,155,786           | \$ 36,189               |
| 50 - 54      | 442               | 15,499,764             | 35,067                  |
| 55 - 59      | 730               | 20,725,106             | 28,391                  |
| 60 - 64      | 886               | 21,488,067             | 24,253                  |
| 65 - 69      | 960               | 25,020,579             | 26,063                  |
| 70 - 74      | 934               | 29,599,809             | 31,691                  |
| 75 - 79      | 703               | 22,106,935             | 31,447                  |
| 80 - 84      | 265               | 7,002,054              | 26,423                  |
| 85 - 89      | 70                | 1,413,375              | 20,191                  |
| 90 - 94      | 18                | 410,745                | 22,819                  |
| 95 & Over    | 7                 | 183,292                | 26,185                  |
| Total        | 5,268             | \$ 152,605,512         | \$ 28,968               |

\*Does not reflect the COLA granted by the Board effective July 1, 2023.

Average Age: 65.9

### NUMBER OF DEFERRED VESTED AND THEIR BENEFITS BY AGE

| Attained Age | Number of Members | Total Annual Benefits | Average Annual Benefits |
|--------------|-------------------|-----------------------|-------------------------|
| Under 35     | 28                | \$ 149,171            | \$ 5,328                |
| 35 - 39      | 313               | 2,716,660             | 8,679                   |
| 40 - 44      | 855               | 9,409,198             | 11,005                  |
| 45 - 49      | 1,183             | 14,989,677            | 12,671                  |
| 50 - 54      | 1,621             | 21,063,196            | 12,994                  |
| 55 - 59      | 1,888             | 25,117,806            | 13,304                  |
| 60 - 64      | 712               | 7,728,865             | 10,855                  |
| 65 & Over    | 239               | 2,300,666             | 9,626                   |
| Total        | 6,839             | \$ 83,475,239         | \$ 12,206               |

Average Age: 52.2





## Schedule J – Special Contribution Rates

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Groups that have Age 55 Retirement and Line-of-Duty Disability Benefits:

Public Safety #466

Revenue Agents #474

DNR Game Wardens #462

GBI Officers/Agents #471

| PLAN     | Additional Rate | Total Rate |
|----------|-----------------|------------|
| Old Plan | 0.00%           | 24.40%     |
| New Plan | 8.32%           | 37.47%     |
| GSEPS    | 2.65%           | 28.16%     |

Groups that have Line-of-Duty Disability Benefits:

Deputy DNR Game Wardens #462

Probation Officers #467

Parole Officers – Pardons and Paroles #465

Dept of Community Supervision #477

| PLAN     | Additional Rate | Total Rate |
|----------|-----------------|------------|
| Old Plan | 0.00%           | 24.40%     |
| New Plan | 0.02%           | 29.17%     |
| GSEPS    | 0.03%           | 25.54%     |

Group that has Age 55 Retirement:

Special Investigators Department of Revenue #474

| PLAN     | Additional Rate | Total Rate |
|----------|-----------------|------------|
| New Plan | 8.09%           | 37.24%     |
| GSEPS    | 2.42%           | 27.93%     |

Appellate Court Judges: Total rate equal to 57.24% of payroll





## Schedule K – Annual Comprehensive Financial Report Schedules

| GA ERS: Solvency Test            |                                 |                               |  |                  |  |        |      |
|----------------------------------|---------------------------------|-------------------------------|--|------------------|--|--------|------|
| Actuarial Accrued Liability for: |                                 |                               |  |                  |  |        |      |
| Actuarial Valuation as of 6/30   | Active Member Contributions (1) | Retirants & Beneficiaries (2) | Active Members (Employer Funded Portion) (3) | Valuation Assets | Portion of Aggregate Accrued Liabilities Covered by Assets |        |      |
|                                  |                                 |                               |  |                  | (1)  | (2)    | (3)  |
| 2023                             | \$384,689                       | \$15,047,239                  | \$5,462,008                                  | \$15,033,459     | 100%   | 97.4%  | 0.0% |
| 2022                             | 371,979                         | 14,904,964                    | 4,983,813                                    | 14,632,266       | 100%   | 95.7%  | 0.0% |
| 2021                             | 371,048                         | 14,782,338                    | 4,932,309                                    | 14,383,600       | 100%   | 94.8%  | 0.0% |
| 2020                             | 372,510                         | 13,406,538                    | 4,596,749                                    | 13,556,622       | 100%   | 98.3%  | 0.0% |
| 2019                             | 371,147                         | 13,077,253                    | 4,380,820                                    | 13,481,219       | 100%   | 100.0% | 0.7% |
| 2018                             | 372,375                         | 12,927,796                    | 4,512,270                                    | 13,412,046       | 100%   | 100.0% | 2.5% |
| 2017                             | 368,935                         | 12,729,977                    | 4,415,986                                    | 13,088,185       | 100%   | 99.9%  | 0.0% |
| 2016                             | 368,281                         | 12,592,980                    | 4,238,427                                    | 12,854,518       | 100%   | 99.2%  | 0.0% |
| 2015                             | 367,462                         | 12,520,321                    | 4,211,744                                    | 12,675,649       | 100%   | 98.3%  | 0.0% |
| 2014                             | 385,058                         | 12,108,737                    | 4,498,168                                    | 12,376,120       | 100%   | 99.0%  | 0.0% |

*All dollar amounts are in thousands.*

| GA ERS: Schedule of Retirants Added to and Removed from Rolls |                |                                   |                    |                                   |                  |                                   |                                 |                           |
|---|----------------|-----------------------------------|--------------------|-----------------------------------|------------------|-----------------------------------|---------------------------------|---------------------------|
| Year Ended  | Added to Rolls |                                   | Removed from Rolls |                                   | Roll End of Year |                                   | % Increase in Annual Allowances | Average Annual Allowances |
|   | Number         | Annual Allowances* (in thousands) | Number             | Annual Allowances* (in thousands) | Number           | Annual Allowances* (in thousands) |                                 |                           |
| June 30, 2023   | 2,032          | \$62,776                          | 1,722              | \$41,180                          | 54,688           | \$1,443,255                       | 1.5%                            | \$26,391                  |
| June 30, 2022   | 2,331          | 48,423                            | 1,816              | 43,382                            | 54,378           | 1,421,659                         | 0.4%                            | 26,144                    |
| June 30, 2021   | 2,724          | 58,426                            | 1,893              | 45,432                            | 53,863           | 1,416,618                         | 0.9%                            | 26,300                    |
| June 30, 2020   | 2,553          | 53,509                            | 1,606              | 38,185                            | 53,032           | 1,403,624                         | 1.1%                            | 26,467                    |
| June 30, 2019   | 2,777          | 58,673                            | 1,357              | 32,574                            | 52,085           | 1,388,300                         | 1.9%                            | 26,655                    |
| June 30, 2018   | 2,612          | 50,005                            | 1,422              | 33,530                            | 50,665           | 1,362,201                         | 1.2%                            | 26,886                    |
| June 30, 2017   | 2,630          | 45,833                            | 1,420              | 32,372                            | 49,475           | 1,345,726                         | 1.0%                            | 27,200                    |
| June 30, 2016   | 2,572          | 51,031                            | 1,342              | 30,724                            | 48,265           | 1,332,265                         | 1.5%                            | 27,603                    |
| June 30, 2015   | 2,656          | 54,003                            | 1,350              | 30,927                            | 47,035           | 1,311,958                         | 1.8%                            | 27,893                    |
| June 30, 2014   | 2,440          | 51,178                            | 1,059              | 22,997                            | 45,729           | 1,288,882                         | 2.2%                            | 28,185                    |

\* Does not reflect any increases after the valuation date.

