



**Cavanaugh Macdonald**  
CONSULTING, LLC

*The experience and dedication you deserve*



**EMPLOYEES'**  
**RETIREMENT SYSTEM**  
OF GEORGIA

**GASB STATEMENT NO. 68 REPORT**

**FOR THE**

**GEORGIA PUBLIC SCHOOL EMPLOYEES RETIREMENT SYSTEM**

**PREPARED AS OF JUNE 30, 2021**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

March 17, 2022

Board of Trustees  
Georgia Public School Employees Retirement System  
Two Northside 75, Suite 300  
Atlanta, GA 30318-7701

Members of the Board:

Presented in this report is information to assist the Georgia Public School Employees Retirement System (PSERS) in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 68 and to identify the information to be provided by the actuary, Cavanaugh Macdonald Consulting (CMC). The information is presented for the period ending June 30, 2021 (the Measurement Date).

GASB Statement Number 68 established accounting and financial reporting requirements for governmental employers that provide pension benefits to their employees through a trust.

The annual actuarial valuation used as a basis for much of the information presented in this report, including the Net Pension Liability (Asset), was performed as of June 30, 2020. The valuation was based upon data, furnished by the Retirement System staff, for active, inactive and retired members along with pertinent financial information.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions prior to the next experience study.

In order to prepare the results in this report we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.



Board of Trustees  
March 17, 2022  
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The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the System, and on actuarial assumptions that are internally consistent and individually reasonable based on the actual experience of the System. In addition, the calculations were completed in compliance with the laws governing the System and, in our opinion, meet the requirements of GASB 68. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 67 and GASB 68 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

Sincerely yours,

A handwritten signature in blue ink that reads "Edward J. Koebel".

Edward J. Koebel, EA, FCA, MAAA  
Chief Executive Officer

A handwritten signature in blue ink that reads "Cathy Turcot".

Cathy Turcot  
Principal and Managing Director

A handwritten signature in blue ink that reads "Ben Mobley".

Ben Mobley, ASA, FCA, MAAA  
Consulting Actuary



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**REPORT OF THE ANNUAL GASB STATEMENT NO. 68  
REQUIRED INFORMATION FOR THE  
EMPLOYERS PARTICIPATING IN THE  
GEORGIA PUBLIC SCHOOL EMPLOYEES RETIREMENT SYSTEM**

**PREPARED AS OF JUNE 30, 2021**

**SECTION I – INTRODUCTION**

The Governmental Accounting Standards Board issued Statement No. 68 (GASB 68), “*Accounting and Financial Reporting For Pensions*” in June 2012. The Georgia Public School Employees Retirement System (PSERS) is a cost-sharing multiple employer defined benefit pension plan.

This report, prepared as of June 30, 2021 (the Measurement Date), presents information to assist the employers participating in PSERS in meeting the requirements of GASB 68 for the fiscal year ending June 30, 2022 (Reporting Date). Much of the material provided in this report is based on the data, assumptions and results of the annual actuarial valuation of PSERS as of June 30, 2020. The results of that valuation were detailed in a report dated April 15, 2021.

The NPL shown in the GASB Statement No. 67 Report for the Georgia Public School Employees Retirement System prepared as of June 30, 2021 and submitted September 20, 2021 is the collective NPL used for purposes of GASB 68. Please refer to that report for the derivation of the collective NPL.

Pension Expense (PE) includes amounts for service cost (the normal cost under the Entry Age Normal actuarial cost method for the year), interest on the Total Pension Liability (TPL), changes in benefit structure, amortization of increases/decreases in liability due to actuarial experience and actuarial assumption changes, and amortization of investment gains/losses. The actuarial experience and assumption change impacts are amortized over the average expected remaining service life of the Plan membership as of the Measurement Date, and investment gains/losses are amortized over five years. The development of the collective PE is shown in Section IV.

The unamortized portions of each year’s experience, assumption changes and investment gains/losses are used to develop deferred inflows and outflows, which also must be included in the employer’s and nonemployer contributing entities’ financial statements. The development of the collective deferred inflows and outflows is shown in Section III.

These collective amounts have been allocated based on employer contributions made to PSERS during the measurement period to determine the proportionate share associated with each participating employer. The State makes all contributions to PSERS on behalf of employees of the participating districts. Therefore, these employers are considered to be in a special funding situation as defined by GASB 68 and the State is treated as a nonemployer contributing entity in PSERS. Since the districts do not contribute directly to the PSERS, there is no NPL or deferred inflows or outflows to report in the financial statements of the districts, However, the notes to the financial statements must disclose the portion of the nonemployer contributing entities’ total proportionate share of the collective NPL that is associated with the employer, In addition, each district must recognize the total PE associated with the district as well as revenue in an amount equal to the nonemployer contributing entities’ total proportionate share of the collective PE associated with the district.



Schedule A of this report shows the total amount of nonemployer contributions from the State as support provided to the districts for the year ending June 30, 2021. Schedule A also shows the proportionate share percentages that have been determined based on these contributions.

Based on these percentages we have determined the proportionate share amounts of the NPL associated with each participating employer and the employer PE and revenue for State support for each participating employer. These amounts are shown in Schedule B.

Section II of this report is a summary of the principal results of the collective amounts under GASB 68. Section III provides the results of all the necessary calculations, presented in the order laid out in GASB 68 for note disclosure and Section V shows the Required Supplementary Information (RSI).



**SECTION II - SUMMARY OF COLLECTIVE AMOUNTS**  
**(\$ IN THOUSANDS)**

	<b>2021</b>
<b>Valuation Date (VD):</b>	June 30, 2020
<b>Measurement Date (MD):</b>	June 30, 2021
<b>Reporting Date (RD):</b>	June 30, 2022
<b>Single Equivalent Interest Rate (SEIR):</b>	
Long-Term Expected Rate of Return	7.00%
Municipal Bond Index Rate at Measurement Date	2.13%
Fiscal Year in which Plan's Fiduciary Net Position is projected to be depleted from future benefit payments for current members	N/A
Single Equivalent Interest Rate	7.00%
<b>Net Pension Liability (Asset):</b>	
Total Pension Liability (TPL)	\$1,224,416
Fiduciary Net Position (FNP)	<u>1,199,970</u>
Net Pension Liability (Asset) (NPL = TPL – FNP)	\$ 24,446
FNP as a percentage of TPL	98.00%
<b>Collective Pension Expense (PE):</b>	\$257
<b>Deferred Outflows of Resources:</b>	\$39,159
<b>Deferred Inflows of Resources:</b>	\$165,386



### **SECTION III –NOTES TO FINANCIAL STATEMENTS**

The material presented herein will follow the order presented in GASB 68. Paragraph numbers are provided for ease of reference. Amounts are shown in aggregate. Please refer to Schedule B of this report for the proportionate share of certain pension amounts as required by GASB 68.

**Paragraphs 77 and 78(a)-(f):** These paragraphs require information to be disclosed regarding the actuarial assumptions used to measure the TPL. The complete set of actuarial assumptions utilized in developing the TPL are outlined in Schedule D. The key actuarial assumptions are summarized below:

Inflation	2.50 percent
Salary increases, including inflation	N/A
Investment Rate of Return	7.00 percent, net of pension plan investment expense, including inflation
Post-Retirement Benefit Increases	1.50 percent, semi-annually

Mortality rates are as follows:

- The Pub-2010 Below-Median General Employee Table, with no adjustments, projected generationally with the MP-2019 scale is used for both males and females while in active service.
- The Pub-2010 Family of Tables projected generationally with the MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as follows:

<b>Participant Type</b>	<b>Membership Table</b>	<b>Set Forward (+)/ Setback (-)</b>	<b>Adjustment to Rates</b>
Service Retirees	General Healthy Below-Median Annuitant	Male: +2; Female: +2	Male: 101%; Female: 103%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Below-Median Contingent Survivors	Male: +2; Female: +2	Male: 104%; Female: 99%

The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period July 1, 2014 – June 30, 2019. In the experience study, the long-term assumed investment rate of return that was recommended by the actuary and adopted by the Board was 7.00%. Based on the funding policy adopted by the Board, the assumed investment rate of return used in the funding valuation will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation until the rate reaches the long-term assumed investment rate of return. However, for GASB purposes, the Total Pension Liability (TPL) will be based on the long-term assumed investment rate of return of 7.00%. Therefore, a change in assumptions due to the reduction in the assumed investment rate of return from 7.30% to 7.00% will be reflected, along with the assumption changes due to the experience study, in the calculation of the Total Pension Liability.





The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected nominal returns, net of pension plan investment expense and the assumed rate of inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target asset allocation and best estimates of arithmetic real rates of return as provided by the System for each major asset class are summarized in the table below:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Fixed Income	30.0%	-1.5%
US Large Stocks	46.4%	9.2%
US Small Stocks	1.1%	13.4%
Int'l Developed Mkt Stocks	11.7%	9.2%
Int'l Emerging Mkt Stocks	5.8%	10.4%
Alternatives	5.0%	10.6%
Total	100.0%	

\*Net of inflation.

*Discount rate.* The discount rate used to measure the total pension liability was 7.00 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that nonemployer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**Paragraph 78 (g):** This paragraph requires disclosure of the sensitivity of the NPL to changes in the discount rate. The following presents the NPL of the System, calculated using the discount rate of 7.00 percent, as well as what the System's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00 percent) or 1-percentage-point higher (8.00 percent) than the current rate (\$ thousands):

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
System's Net Pension Liability (Asset)	\$168,095	\$24,446	\$(95,280)



**Paragraph 80(a):** This paragraph requires disclosure of the employer's proportionate share of the collective NPL and if an employer has a special funding situation the portion of the nonemployer contributing entities' proportional share of the collective NPL that is associated with the employer. These amounts are shown in Schedule B.

**Paragraph 80(b):** This paragraph requires disclosure of the employer's proportion (percentage) of the collective NPL and the changes in proportion since the prior measurement date. 100% of the collective NPL is allocated to the State.

**Paragraph 80(c):** June 30, 2020 is the actuarial valuation date upon which the TPL is based. An expected TPL is determined as of June 30, 2021 using standard roll forward techniques. The procedure used to determine the TPL as of June 30, 2021 is shown on page 7 of the GASB 67 report for PSERS submitted on September 20, 2021.

**Paragraph 80(d):** On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System. Primary among the changes were the updates to rates of mortality, retirement, disability and withdrawal. This also included a change to long-term assumed investment rate of return to 7.00%. The expectation of retired life mortality was changed to the Pub-2010 Family of Tables projected generationally with the MP-2019 Scale.

**Paragraph 80(e):** There have been no changes in plan provisions since the previous measurement date.

**Paragraph 80(f):** Not applicable.

**Paragraph 80(g):** Please see Section IV of this report for the development of the collective pension expense. The PE for each employer is shown in Schedule B.

**Paragraph 80(h):** Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce collective pension expense they are labeled deferred inflows. If they will increase collective pension expense they are labeled deferred outflows. The amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are amortized over the average expected remaining service life of the active and inactive Plan members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five year period.



The table below provides a summary of the collective deferred inflows and outflows as of the Measurement Date. 100% of these amounts are allocated to the State.

	<b>Collective Deferred Outflows of Resources (\$ thousands)</b>	<b>Collective Deferred Inflows of Resources (\$ thousands)</b>
Differences between expected and actual experience	\$0	\$7,783
Changes of actuarial assumptions	39,159	0
Net difference between projected and actual earnings on plan investments	<u>0</u>	<u>157,603</u>
Total	<u>\$39,159</u>	<u>\$165,386</u>

The following tables show the components of the collective deferred outflows of resources and the collective deferred inflows of resources by year.



**Collective Deferred Outflows and Inflows for Differences between Expected and Actual Experience (\$ thousands)**

<b>Year</b>	<b>Initial Balance of Losses / Deferred Outflow</b>	<b>Initial Balance of Gains / Deferred Inflow</b>	<b>Amortization Period</b>	<b>Beginning Balance Deferred Outflows (a)</b>	<b>Beginning Balance Deferred Inflows (b)</b>	<b>Losses / Deferred Outflows (c)</b>	<b>Gains / Deferred Inflows (d)</b>	<b>Amounts Recognized in Pension Expense / Deferred Outflow (e)</b>	<b>Amounts Recognized in Pension Expense / Deferred Inflow (f)</b>	<b>Ending Balance Deferred Outflows (a) + (c) - (e)</b>	<b>Ending Balance Deferred Inflows (b) + (d) - (f)</b>
2021	\$0	\$12,739	2.1	\$0	\$0	\$0	\$12,739	\$0	\$6,066	\$0	\$6,673
2020	0	12,220	2.2	0	6,665	0	0	0	5,555	0	1,110
2019	0	8,159	2.3	0	1,065	0	0	0	1,065	0	0
2018	0	3,943	2.4	0	0	0	0	0	0	0	0
2017	0	3,665	2.3	0	0	0	0	0	0	0	0
<b>Total</b>				<u>\$0</u>	<u>\$7,730</u>	<u>\$0</u>	<u>\$12,739</u>			<u>\$0</u>	<u>\$7,783</u>



Collective Deferred Outflows and Inflows for Differences from Assumption Changes (\$ thousands)

Year	Initial Balance of Losses / Deferred Outflow	Initial Balance of Gains / Deferred Inflow	Amortization Period	Beginning Balance Deferred Outflows (a)	Beginning Balance Deferred Inflows (b)	Losses / Deferred Outflows (c)	Gains / Deferred Inflows (d)	Amounts Recognized in Pension Expense / Deferred Outflow (e)	Amounts Recognized in Pension Expense / Deferred Inflow (f)	Ending Balance Deferred Outflows (a) + (c) - (e)	Ending Balance Deferred Inflows (b) + (d) - (f)
2021	\$74,759	\$0	2.1	\$0	\$0	\$74,759	\$0	\$35,600	\$0	\$39,159	\$0
2020	0	0	2.2	0	0	0	0	0	0	0	0
2019	0	0	2.3	0	0	0	0	0	0	0	0
2018	21,354	0	2.4	0	0	0	0	0	0	0	0
2017	0	0	2.3	0	0	0	0	0	0	0	0
<b>Total</b>				<u>\$0</u>	<u>\$0</u>	<u>\$74,759</u>	<u>\$0</u>			<u>\$39,159</u>	<u>\$0</u>



**Collective Deferred Outflows and Inflows for Differences in Investment Experience (\$ thousands)**

<b>Year</b>	<b>Initial Balance of Losses / Deferred Outflow</b>	<b>Initial Balance of Gains / Deferred Inflow</b>	<b>Amortization Period</b>	<b>Beginning Balance Deferred Outflows (a)</b>	<b>Beginning Balance Deferred Inflows (b)</b>	<b>Losses / Deferred Outflows (c)</b>	<b>Gains / Deferred Inflows (d)</b>	<b>Amounts Recognized in Pension Expense / Deferred Outflow (e)</b>	<b>Amounts Recognized in Pension Expense / Deferred Inflow (f)</b>	<b>Ending Balance Deferred Outflows (a) + (c) - (e)</b>	<b>Ending Balance Deferred Inflows (b) + (d) - (f)</b>
2021	\$0	\$209,066	5.0	\$0	\$0	\$0	\$209,066	\$0	\$41,813	\$0	\$167,253
2020	17,609	0	5.0	14,087	0	0	0	3,522	0	10,565	0
2019	4,971	0	5.0	2,983	0	0	0	994	0	1,989	0
2018	0	14,524	5.0	0	5,809	0	0	0	2,905	0	2,904
2017	0	38,683	5.0	0	7,735	0	0	0	7,735	0	0
<b>Total</b>				<u>\$17,070</u>	<u>\$13,544</u>	<u>\$0</u>	<u>\$209,066</u>			<u>\$12,554</u>	<u>\$170,157</u>
<b>Net difference between projected and actual earnings on investments</b>											\$157,603



**Summary of Collective Deferred Outflows and Inflows (\$ thousands)**

Year	Amortization Period	Beginning Balance	Additions	Deductions	Ending Balance
<b>Deferred Outflows of Resources:</b>					
Difference between expected and actual experience					
2021	2.1	\$0	\$0	\$0	\$0
2020	2.2	0	0	0	0
2019	2.3	0	0	0	0
2018	2.4	0	0	0	0
2017	2.3	0	0	0	0
Difference between expected and actual assumptions					
2021	2.1	\$0	\$74,759	\$35,600	\$39,159
2020	2.2	0	0	0	0
2019	2.3	0	0	0	0
2018	2.4	0	0	0	0
2017	2.3	0	0	0	0
Difference between projected and actual earnings					
2021	5.0	\$0	\$0	\$0	\$0
2020	5.0	14,087	0	14,087	0
2019	5.0	2,983	0	2,983	0
2018	5.0	(5,809)	0	(5,809)	0
2017	5.0	(7,735)	0	(7,735)	0
Subtotal					\$0
<b>Total Deferred Outflows of Resources</b>		<b>\$3,526</b>	<b>\$74,759</b>	<b>\$39,126</b>	<b>\$39,159</b>
<b>Deferred Inflows of Resources:</b>					
Difference between expected and actual experience					
2021	2.1	\$0	\$12,739	\$6,066	\$6,673
2020	2.2	6,665	0	5,555	1,110
2019	2.3	1,065	0	1,065	0
2018	2.4	0	0	0	0
2017	2.3	0	0	0	0
Difference between expected and actual assumptions					
2021	2.1	\$0	\$0	\$0	\$0
2020	2.2	0	0	0	0
2019	2.3	0	0	0	0
2018	2.4	0	0	0	0
2017	2.3	0	0	0	0
Difference between projected and actual earnings					
2021	5.0	\$0	\$209,066	\$41,813	\$167,253
2020	5.0	0	(14,087)	(3,522)	(10,565)
2019	5.0	0	(2,983)	(994)	(1,989)
2018	5.0	0	5,809	2,905	2,904
2017	5.0	0	7,735	7,735	0
Difference between projected and actual earnings					\$157,603
<b>Total Deferred Inflows of Resources</b>		<b>\$7,730</b>	<b>\$218,279</b>	<b>\$60,623</b>	<b>\$165,386</b>



**Paragraph 80(i):** Collective amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the collective pension expense as follows. 100% of these amounts are allocated to the State.

<b>Deferred Amounts to be Recognized in Fiscal Years Following the Reporting Date (\$ thousands):</b>	
Year 1	\$(11,777)
Year 2	(34,344)
Year 3	(38,292)
Year 4	(41,814)
Year 5	0
Thereafter	0

**Paragraph 80(j):** The amount of revenue recognized for the support provided by nonemployer contributing entities for the participating employers is provided in Schedule B.





## **SECTION IV – COLLECTIVE PENSION EXPENSE**

As noted earlier, the collective Pension Expense (PE) consists of a number of different items. GASB 68 refers to the first as Service Cost which is the Normal Cost using the Entry Age Normal actuarial funding method. The second item is interest on the beginning Total Pension Liability (TPL) and the cash flow during the year at the 7.30% rate of return in effect as of the previous measurement date.

The next three items refer to any changes that occurred in the TPL due to:

- benefit changes, or
- actual versus expected experience, or
- changes in actuarial assumptions.

Benefit changes, which are reflected immediately in PE, can be positive, if there is a benefit improvement for existing Plan members, or negative if there is a benefit reduction. For the year ended June 30, 2020, there were no benefit changes to be recognized.

The next item to be recognized is the portion of current year changes in TPL due to actual versus expected Plan experience for the year. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire Plan membership determined at the beginning of the year. The average expected remaining service life of active members is the average number of years the active members are expected to remain active. For the year ended June 30, 2021 this number of years for the active members is 6.4. The average expected remaining service life of the inactive members is zero. The number of years to use for the amortization is the weighted average for all active and inactive members, or 2.1 years.

The last item under changes in TPL are changes in actuarial assumptions. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire Plan membership, or 2.1 years.

Member contributions for the year and projected earnings on the Fiduciary Net Position (FNP), again at the discount rate used to calculate the liabilities, are subtracted from the amount determined thus far. One-fifth of current period differences between projected and actual investment earnings on the FNP are recognized in the pension expense.

The current year portions of previously determined experience, assumption and earnings amounts, recognized as deferred outflows and inflows (see Section III) are included also. Deferred outflows are added to the PE while deferred inflows are subtracted from the PE. Finally, administrative expenses and other miscellaneous items are included.

The calculation of the Collective Pension Expense determined as of the measurement date is shown in the following table:



<b>Collective Pension Expense Determined as of the Measurement Date (\$ thousands)</b>	
Service Cost at end of year	\$14,332
Interest on the TPL and net cash flow	80,388
Current-period benefit changes	0
Expensed portion of current-period difference between expected and actual experience in the total pension liability	(6,066)
Expensed portion of current-period changes of assumptions	35,600
Member contributions	(2,222)
Projected earnings on plan investments	(68,639)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(41,813)
Administrative expense	1,421
Other	0
Recognition of beginning deferred outflows and inflows of resources as pension expense	(12,744)
<b>Collective Pension Expense</b>	<b><u>\$257</u></b>



## **SECTION V – REQUIRED SUPPLEMENTARY INFORMATION**

### **Paragraph 82:**

**Changes of assumptions.** In 2010 and later, the expectation of retired life mortality was changed to the RP-2000 Mortality Tables rather than the 1994 Group Annuity Mortality Table, which was used prior to 2010. In 2010, rates of withdrawal, retirement, disability and mortality were adjusted to more closely reflect actual experience.

On December 17, 2015, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System. Primary among the changes were the updates to rates of mortality, retirement and withdrawal. The expectation of retired life mortality was changed to the RP-2000 Blue Collar Mortality Table projected to 2025 with projection scale BB (set forward 3 years for males and 2 years for females).

A new funding policy was initially adopted by the Board on March 15, 2018, and most recently amended on December 17, 2020. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation and further reduced from 7.40% to 7.30% for the June 30, 2018 actuarial valuation.

On December 17, 2020, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System based on the experience study prepared for the five-year period ending June 30, 2019. Primary among the changes were the updates to rates of mortality, retirement, disability, and withdrawal. This also included a change to the long-term assumed investment rate of return to 7.00%. These assumption changes are reflected in the calculation of the June 30, 2021 Total Pension Liability.

### **Changes of benefit terms.**

- The member contribution rate was increased from \$4 to \$10 per month for members joining the System on or after July 1, 2012.
- The monthly benefit accrual rate was increased from \$14.75 to \$15.00 per year of creditable service effective July 1, 2017.
- The monthly benefit accrual rate was increased from \$15.00 to \$15.25 per year of creditable service effective July 1, 2018 for members retiring on or after August 1, 2012.
- The monthly benefit accrual rate was increased from \$15.25 to \$15.50 per year of creditable service effective July 1, 2019 for members retiring on or after August 1, 2012.



**Method and assumptions used in calculations of actuarially determined contributions.** The actuarially determined contributions in the schedule of employer contributions are calculated as of June 30, three years prior to the end of the fiscal year in which contributions are reported (June 30, 2021 employer contributions are based on June 30, 2018 valuation). The following actuarial methods and assumptions were used to determine the most recent contribution rate reported in that schedule:

Actuarial cost method	Entry age
Amortization method	Level dollar, closed
Remaining amortization period	20.4 years
Asset valuation method	5-year smoothed fair value
Inflation	2.75 percent
Salary increase	N/A
Investment rate of return	7.30 percent, net of pension plan investment expense, including inflation
Post-Retirement Benefit Increases	1.50 percent, semi-annually



**SCHEDULE A**

**GEORGIA PUBLIC SCHOOL EMPLOYEES RETIREMENT SYSTEM**  
**Schedule of Employer Allocations as of June 30, 2021**

<b>Employers</b>	<b>2021 State Pension Support Provided To The Districts</b>	<b>Employer Allocation Percentage</b>
Appling County Schools	\$ 56,468	0.186585%
Atkinson County Schools	35,763	0.118170%
Bacon County Schools	37,645	0.124390%
Baker County Schools	6,588	0.021768%
Baldwin County Schools	93,172	0.307865%
Banks County Schools	62,115	0.205243%
Barrow County Schools	254,106	0.839631%
Bartow County Schools	279,516	0.923594%
Ben Hill County Schools	63,997	0.211463%
Berrien County Schools	53,644	0.177255%
Bibb County Schools	531,740	1.757005%
Bleckley County Schools	76,232	0.251889%
Brantley County Schools	92,231	0.304755%
Brooks County Schools	47,057	0.155487%
Bryan County Schools	184,462	0.609510%
Bulloch County Schools	242,812	0.802314%
Burke County Schools	122,347	0.404267%
Butts County Schools	79,996	0.264328%
Calhoun County Schools	19,764	0.065305%
Camden County Schools	179,756	0.593961%
Candler County Schools	33,881	0.111951%
Carroll County Schools	223,048	0.737009%
Catoosa County Board of Education	282,340	0.932923%
Charlton County Schools	31,058	0.102622%
Chatham County Schools	803,727	2.655720%
Chattahoochee County Schools	14,117	0.046646%
Chattooga County Schools	47,057	0.155487%
Cherokee County Schools	607,972	2.008894%
Clarke County Schools	380,218	1.256336%
Clay County Schools	9,411	0.031097%
Clayton County Schools	1,043,716	3.448704%
Clinch County Schools	25,411	0.083963%
Cobb County Schools	1,931,204	6.381191%
Coffee County Schools	125,171	0.413596%
Colquitt County Schools	173,168	0.572193%
Columbia County Schools	572,209	1.890724%
Cook County Schools	63,056	0.208353%
Coweta County Schools	541,151	1.788102%



Employers	2021 State Pension Support Provided To The Districts	Employer Allocation Percentage
Crawford County Schools	\$ 42,351	0.139938%
Crisp County Schools	94,113	0.310974%
Dade County Schools	44,233	0.146158%
Dawson County Schools	79,996	0.264328%
Decatur County Schools	138,346	0.457132%
Dekalb County Schools	1,868,148	6.172839%
Dodge County Schools	60,233	0.199024%
Dooly County Schools	39,528	0.130609%
Dougherty County Schools	348,219	1.150605%
Douglas County Schools	388,688	1.284324%
Early County Schools	44,233	0.146158%
Echols County Schools	12,235	0.040427%
Effingham County Schools	208,931	0.690363%
Elbert County Schools	63,056	0.208353%
Emanuel County Schools	95,996	0.317194%
Evans County Schools	38,586	0.127499%
Fannin County Schools	77,173	0.254999%
Fayette County Schools	334,102	1.103959%
Floyd County Schools	138,346	0.457132%
Forsyth County Schools	857,372	2.832976%
Franklin County Schools	79,055	0.261218%
Gilmer County Schools	91,290	0.301645%
Glascocock County Schools	17,881	0.059085%
Glynn County Schools	316,221	1.044874%
Gordon County Schools	90,349	0.298535%
Grady County Schools	80,937	0.267438%
Greene County Schools	45,174	0.149268%
Gwinnett County Schools	3,088,798	10.206174%
Habersham County Schools	171,286	0.565973%
Hall County Schools	422,569	1.396275%
Hancock County Schools	39,528	0.130609%
Haralson County Schools	48,939	0.161707%
Harris County Schools	115,759	0.382498%
Hart County Schools	95,054	0.314084%
Heard County Schools	42,351	0.139938%
Henry County Schools	435,744	1.439811%
Houston County Schools	716,202	2.366514%
Irwin County Schools	21,646	0.071524%
Jackson County Schools	187,285	0.618839%
Jasper County Schools	63,997	0.211463%
Jeff Davis County Schools	64,938	0.214572%
Jefferson County Schools	65,879	0.217682%



Employers	2021 State Pension Support Provided To The Districts	Employer Allocation Percentage
Jenkins County Schools	\$ 26,352	0.087073%
Johnson County Schools	29,175	0.096402%
Jones County Schools	112,936	0.373169%
Lamar County Schools	54,586	0.180365%
Lanier County Schools	28,234	0.093292%
Laurens County Schools	153,405	0.506888%
Lee County Schools	138,346	0.457132%
Liberty County Schools	239,989	0.792984%
Lincoln County Schools	42,351	0.139938%
Long County Schools	80,937	0.267438%
Lowndes County Schools	232,460	0.768106%
Lumpkin County Schools	92,231	0.304755%
Macon County Schools	37,645	0.124390%
Madison County Schools	99,760	0.329633%
Marion County Schools	32,940	0.108841%
Mcduffie County Schools	96,937	0.320304%
Mcintosh County Schools	30,116	0.099512%
Meriwether County Schools	81,879	0.270548%
Miller County Schools	26,352	0.087073%
Mitchell County Schools	41,410	0.136829%
Monroe County Schools	139,288	0.460242%
Montgomery County Schools	22,587	0.074634%
Morgan County Schools	63,056	0.208353%
Murray County Schools	95,054	0.314084%
Muscogee County Schools	613,618	2.027552%
Newton County Schools	372,688	1.231458%
Oconee County Schools	156,228	0.516217%
Oglethorpe County Schools	63,056	0.208353%
Paulding County Schools	490,330	1.620176%
Peach County Schools	45,174	0.149268%
Pickens County Schools	88,467	0.292316%
Pierce County Schools	65,879	0.217682%
Pike County Schools	40,469	0.133719%
Polk County Schools	100,701	0.332742%
Pulaski County Schools	35,763	0.118170%
Putnam County Schools	84,702	0.279877%
Quitman County Schools	9,411	0.031097%
Rabun County Schools	68,703	0.227011%
Randolph County Schools	22,587	0.074634%
Richmond County Schools	649,382	2.145723%
Rockdale County Schools	345,396	1.141276%
Schley County Schools	16,940	0.055975%



Employers	2021 State Pension Support Provided To The Districts	Employer Allocation Percentage
Screven County Schools	\$ 48,939	0.161707%
Seminole County Schools	38,586	0.127499%
Spalding County Schools	249,400	0.824082%
Stephens County Schools	92,231	0.304755%
Stewart County Schools	12,235	0.040427%
Sumter County Schools	115,759	0.382498%
Talbot County Schools	16,940	0.055975%
Taliaferro County Schools	6,588	0.021768%
Tattnall County Schools	80,937	0.267438%
Taylor County Schools	37,645	0.124390%
Telfair County Schools	39,528	0.130609%
Terrell County Schools	44,233	0.146158%
Thomas County Schools	124,229	0.410486%
Tift County Schools	87,525	0.289206%
Toombs County Schools	47,057	0.155487%
Towns County Schools	34,822	0.115060%
Treutlen County Schools	16,940	0.055975%
Troup County Schools	358,572	1.184812%
Turner County Schools	25,411	0.083963%
Twiggs County Schools	16,940	0.055975%
Union County Schools	69,644	0.230121%
Upson County Schools	132,700	0.438474%
Walker County Schools	232,460	0.768106%
Walton County Schools	299,280	0.988898%
Ware County Schools	143,993	0.475791%
Warren County Schools	15,058	0.049756%
Washington County Board of Education	51,762	0.171036%
Wayne County Schools	122,347	0.404267%
Webster County Schools	941	0.003110%
Wheeler County Schools	23,528	0.077744%
White County Board of Education	67,761	0.223901%
Whitfield County Schools	169,404	0.559754%
Wilcox County Schools	31,058	0.102622%
Wilkes County Schools	47,057	0.155487%
Wilkinson County Schools	36,704	0.121280%
Worth County Schools	59,291	0.195914%
City of Bremen Schools (Haralson)	15,058	0.049756%
City of Buford Schools (Gwinnett)	90,349	0.298535%
City of Calhoun Schools (Gordon)	31,058	0.102622%
City of Carrollton Schools (Carroll)	82,820	0.273657%
City of Cartersville Schools (Bartow)	49,880	0.164816%
City of Chickamauga Schools (West)	21,646	0.071524%





Employers	2021 State Pension Support Provided To The Districts	Employer Allocation Percentage
City of Commerce Schools (Jackson)	\$ 22,587	0.074634%
City of Dalton Schools (Whitfield)	67,761	0.223901%
City of Decatur Schools (DeKalb)	110,113	0.363840%
City of Dublin Schools (Laurens)	39,528	0.130609%
City of Gainesville Schools (Hall)	111,995	0.370059%
City of Jefferson Schools (Jackson)	35,763	0.118170%
City of Marietta Schools (Cobb)	95,996	0.317194%
City of Pelham Schools (Mitchell)	21,646	0.071524%
City of Rome Schools (Floyd)	111,054	0.366950%
City of Social Circle Schools (Walton)	23,528	0.077744%
City of Thomasville Schools (Thomas)	25,411	0.083963%
City of Trion Schools (Chattooga)	18,823	0.062195%
City of Valdosta Schools (Lowndes)	173,168	0.572193%
City of Vidalia Schools (Toomb)	37,645	0.124390%
Scintilla Charter Academy	1,882	0.006219%
School for Arts Infused Learning	2,823	0.009329%
Furlow Charter School	3,765	0.012439%
Georgia Magnet Charter School	1,882	0.006219%
Georgia Military College	62,115	0.205243%
Kipp Metro Atlanta Collaborative Inc	37,645	0.124390%
The Globe Academy	<u>941</u>	<u>0.003110%</u>
Total State of Georgia	\$ <u>30,264,000</u>	<u>100.000000%</u>



**SCHEDULE B**

**GEORGIA PUBLIC SCHOOL EMPLOYEES RETIREMENT SYSTEM**  
**Schedule of Pension Amounts by Employer as of June 30, 2021**

<b>Employers</b>	<b>State's Proportionate Share Of the Net Pension Liability (Asset) Associated with the District</b>		<b>Employer Pension Expense and Revenue for State Support</b>
Appling County Schools	\$	45,613	\$ 480
Atkinson County Schools		28,888	304
Bacon County Schools		30,408	320
Baker County Schools		5,321	56
Baldwin County Schools		75,261	791
Banks County Schools		50,174	527
Barrow County Schools		205,256	2,158
Bartow County Schools		225,782	2,374
Ben Hill County Schools		51,694	543
Berrien County Schools		43,332	456
Bibb County Schools		429,517	4,516
Bleckley County Schools		61,577	647
Brantley County Schools		74,500	783
Brooks County Schools		38,010	400
Bryan County Schools		149,001	1,566
Bulloch County Schools		196,134	2,062
Burke County Schools		98,827	1,039
Butts County Schools		64,618	679
Calhoun County Schools		15,964	168
Camden County Schools		145,200	1,526
Candler County Schools		27,368	288
Carroll County Schools		180,169	1,894
Catoosa County Board of Education		228,062	2,398
Charlton County Schools		25,087	264
Chatham County Schools		649,217	6,825
Chattahoochee County Schools		11,403	120
Chattooga County Schools		38,010	400
Cherokee County Schools		491,094	5,163
Clarke County Schools		307,124	3,229
Clay County Schools		7,602	80
Clayton County Schools		843,071	8,862
Clinch County Schools		20,526	216
Cobb County Schools		1,559,948	16,398
Coffee County Schools		101,108	1,063
Colquitt County Schools		139,878	1,471
Columbia County Schools		462,206	4,859
Cook County Schools		50,934	535
Coweta County Schools		437,119	4,595



Employers	State's Proportionate Share Of the Net Pension Liability (Asset) Associated with the District		Employer Pension Expense and Revenue for State Support
Crawford County Schools	\$	34,209	\$ 360
Crisp County Schools		76,021	799
Dade County Schools		35,730	376
Dawson County Schools		64,618	679
Decatur County Schools		111,750	1,175
Dekalb County Schools		1,509,014	15,862
Dodge County Schools		48,653	511
Dooly County Schools		31,929	336
Dougherty County Schools		281,277	2,957
Douglas County Schools		313,966	3,301
Early County Schools		35,730	376
Echols County Schools		9,883	104
Effingham County Schools		168,766	1,774
Elbert County Schools		50,934	535
Emanuel County Schools		77,541	815
Evans County Schools		31,168	328
Fannin County Schools		62,337	655
Fayette County Schools		269,874	2,837
Floyd County Schools		111,750	1,175
Forsyth County Schools		692,549	7,281
Franklin County Schools		63,857	671
Gilmer County Schools		73,740	775
Glascocock County Schools		14,444	152
Glynn County Schools		255,430	2,685
Gordon County Schools		72,980	767
Grady County Schools		65,378	687
Greene County Schools		36,490	384
Gwinnett County Schools		2,495,005	26,227
Habersham County Schools		138,358	1,455
Hall County Schools		341,333	3,588
Hancock County Schools		31,929	336
Haralson County Schools		39,531	416
Harris County Schools		93,505	983
Hart County Schools		76,781	807
Heard County Schools		34,209	360
Henry County Schools		351,976	3,700
Houston County Schools		578,518	6,082
Irwin County Schools		17,485	184
Jackson County Schools		151,281	1,590
Jasper County Schools		51,694	543
Jeff Davis County Schools		52,454	551
Jefferson County Schools		53,215	559



<b>Employers</b>	<b>State's Proportionate Share Of the Net Pension Liability (Asset) Associated with the District</b>		<b>Employer Pension Expense and Revenue for State Support</b>
Jenkins County Schools	\$	21,286	\$ 224
Johnson County Schools		23,566	248
Jones County Schools		91,225	959
Lamar County Schools		44,092	464
Lanier County Schools		22,806	240
Laurens County Schools		123,914	1,303
Lee County Schools		111,750	1,175
Liberty County Schools		193,853	2,038
Lincoln County Schools		34,209	360
Long County Schools		65,378	687
Lowndes County Schools		187,771	1,974
Lumpkin County Schools		74,500	783
Macon County Schools		30,408	320
Madison County Schools		80,582	847
Marion County Schools		26,607	280
Mcduffie County Schools		78,302	823
Mcintosh County Schools		24,327	256
Meriwether County Schools		66,138	695
Miller County Schools		21,286	224
Mitchell County Schools		33,449	352
Monroe County Schools		112,511	1,183
Montgomery County Schools		18,245	192
Morgan County Schools		50,934	535
Murray County Schools		76,781	807
Muscogee County Schools		495,655	5,211
Newton County Schools		301,042	3,165
Oconee County Schools		126,194	1,327
Oglethorpe County Schools		50,934	535
Paulding County Schools		396,068	4,164
Peach County Schools		36,490	384
Pickens County Schools		71,460	751
Pierce County Schools		53,215	559
Pike County Schools		32,689	344
Polk County Schools		81,342	855
Pulaski County Schools		28,888	304
Putnam County Schools		68,419	719
Quitman County Schools		7,602	80
Rabun County Schools		55,495	583
Randolph County Schools		18,245	192
Richmond County Schools		524,543	5,515
Rockdale County Schools		278,996	2,933
Schley County Schools		13,684	144



Employers	State's Proportionate Share Of the Net Pension Liability (Asset) Associated with the District		Employer Pension Expense and Revenue for State Support
Screven County Schools	\$	39,531	\$ 416
Seminole County Schools		31,168	328
Spalding County Schools		201,455	2,118
Stephens County Schools		74,500	783
Stewart County Schools		9,883	104
Sumter County Schools		93,505	983
Talbot County Schools		13,684	144
Taliaferro County Schools		5,321	56
Tattall County Schools		65,378	687
Taylor County Schools		30,408	320
Telfair County Schools		31,929	336
Terrell County Schools		35,730	376
Thomas County Schools		100,347	1,055
Tift County Schools		70,699	743
Toombs County Schools		38,010	400
Towns County Schools		28,128	296
Treutlen County Schools		13,684	144
Troup County Schools		289,639	3,045
Turner County Schools		20,526	216
Twiggs County Schools		13,684	144
Union County Schools		56,255	591
Upton County Schools		107,189	1,127
Walker County Schools		187,771	1,974
Walton County Schools		241,746	2,541
Ware County Schools		116,312	1,223
Warren County Schools		12,163	128
Washington County Board of Education		41,811	440
Wayne County Schools		98,827	1,039
Webster County Schools		760	8
Wheeler County Schools		19,005	200
White County Board of Education		54,735	575
Whitfield County Schools		136,837	1,439
Wilcox County Schools		25,087	264
Wilkes County Schools		38,010	400
Wilkinson County Schools		29,648	312
Worth County Schools		47,893	503
City of Bremen Schools (Haralson)		12,163	128
City of Buford Schools (Gwinnett)		72,980	767
City of Calhoun Schools (Gordon)		25,087	264
City of Carrollton Schools (Carroll)		66,898	703
City of Cartersville Schools (Bartow)		40,291	424
City of Chickamauga Schools (West)		17,485	184



<b>Employers</b>	<b>State's Proportionate Share Of the Net Pension Liability (Asset) Associated with the District</b>		<b>Employer Pension Expense and Revenue for State Support</b>
City of Commerce Schools (Jackson)	\$	18,245	\$ 192
City of Dalton Schools (Whitfield)		54,735	575
City of Decatur Schools (DeKalb)		88,944	935
City of Dublin Schools (Laurens)		31,929	336
City of Gainesville Schools (Hall)		90,465	951
City of Jefferson Schools (Jackson)		28,888	304
City of Marietta Schools (Cobb)		77,541	815
City of Pelham Schools (Mitchell)		17,485	184
City of Rome Schools (Floyd)		89,705	943
City of Social Circle Schools (Walton)		19,005	200
City of Thomasville Schools (Thomas)		20,526	216
City of Trion Schools (Chattooga)		15,204	160
City of Valdosta Schools (Lowndes)		139,878	1,471
City of Vidalia Schools (Toomb)		30,408	320
Scintilla Charter Academy		1,520	16
School for Arts Infused Learning		2,281	24
Furlow Charter School		3,041	32
Georgia Magnet Charter School		1,520	16
Georgia Military College		50,174	527
Kipp Metro Atlanta Collaborative Inc		30,408	320
The Globe Academy		<u>760</u>	<u>8</u>
Total State of Georgia	\$	<u>24,446,000</u>	\$ <u>257,000</u>



## SCHEDULE C

### SUMMARY OF MAIN PLAN PROVISIONS

The Georgia Public School Employees Retirement System (PSERS) is a cost-sharing multiple employer defined benefit pension plan established by the Georgia General Assembly in 1969 for the purpose of providing retirement allowances and other benefits for public school employees who are not eligible for membership in the Teachers Retirement System of Georgia.

#### Normal Retirement Benefit

Eligibility	Age 65 and 10 years of creditable service.
Benefit	Monthly benefit is \$15.00 multiplied by years of creditable service for members retiring before August 1, 2012 and \$15.50 multiplied by years of creditable service for members retiring on or after August 1, 2012. For members with retirement dates prior to July 1, 2013, a one-time 1.75% increase is made at time of retirement.

#### Early Retirement Benefit

Eligibility	Age 60 and 10 years of creditable service.
Benefit	Accrued benefit reduced by 6% for each year member is under age 65.

#### Disability Retirement Benefit

Eligibility	15 years of creditable service.
Benefit	Accrued benefit payable immediately.

#### Deferred Vested Retirement Benefit

Eligibility	10 years of creditable service. Member contributions not withdrawn.
Benefit	Accrued benefit deferred to age 65 or reduced benefit payable at age 60.

#### Death Benefit

Eligibility	Death in service and the member is at least age 60 and has at least 10 years of creditable service.
Benefit	Benefit payable to beneficiary under the joint and survivor annuity payment option.

If the member dies in service under age 60 or with less than 10 years of creditable service his beneficiary receives a refund of the member's accumulated contributions.



Termination Benefit

Eligibility Less than 10 years of creditable service.

Benefit Return of the member's accumulated contributions.

Payment Options

- (1) Life annuity. Guaranteed payment of accumulated member contributions.
- (2) Joint and survivorship annuity.
- (3) Certain and life annuity.

Post-Retirement Adjustments The Board may from time to time grant a Cost of Living Adjustment.

Contributions

By Members Members who joined the System prior to July 1, 2012 contribute \$4 per month. Members joining the System on or after July 1, 2012 contribute \$10 per month.

By Employers Employer contributions are actuarially determined and approved and certified by the Board.





**SCHEDULE D**

**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Actuarial assumptions and methods adopted by the Board on December 17, 2020. Valuation interest rate based on the long-term assumed investment rate of return as adopted by the Board.**

**VALUATION INTEREST RATE:** 7.00% per annum, compounded annually, net of investment expenses, composed of a 2.50% inflation assumption and a 4.50% real rate of investment return assumption.

**SEPARATIONS BEFORE SERVICE RETIREMENT:** Representative values of the assumed annual rates of separation before service retirement are as follows:

Annual Rates of Withdrawal				
Age	Years of Service			Disability
	<u>0-4</u>	<u>5-9</u>	<u>10 &amp; Over</u>	
	<u>Males</u>			<u>Males</u>
20	34.00%			0.0000%
25	31.00	19.00%		0.0000
30	27.50	17.00	12.50%	0.0000
35	24.50	15.50	9.00	0.0018
40	22.00	13.50	8.25	0.0110
45	21.00	12.50	7.00	0.0330
50	18.50	11.00	7.00	0.0770
55	15.25	9.00	6.00	0.2250
60	13.50	9.00		0.2500
<u>Females</u>				
20	35.00%			0.0000%
25	31.00	20.00%		0.0000
30	25.00	16.50	10.00%	0.0000
35	22.00	15.00	10.00	0.0018
40	20.00	14.00	9.00	0.0110
45	18.00	12.00	8.00	0.0330
50	16.25	10.00	7.00	0.0770
55	13.50	9.00	6.00	0.2250
60	13.00	9.00		0.2500



**RETIREMENT:**

Age	Annual Rate	Age	Annual Rate
60	12.0%	71	25.0%
61	12.0	72	25.0
62	21.0	73	25.0
63	17.0	74	25.0
64	15.0	75	25.0
65	26.0	76	25.0
66	26.0	77	25.0
67	22.0	78	25.0
68	22.0	79	25.0
69	23.5	80 & Over	100.0
70	25.0		

**RATES OF DEATH BEFORE RETIREMENT:** The Pub-2010 Below-Median 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:

Age	Annual Rates of Death*				Age	Males	Females
	Males	Females	Males	Females			
20	0.0410 %	0.0130 %	45	0.1430 %	0.0720 %		
25	0.0410	0.0120	50	0.2180	0.1070		
30	0.0520	0.0190	55	0.3200	0.1570		
35	0.0680	0.0300	60	0.4660	0.2380		
40	0.0960	0.0470	65	0.6820	0.3800		

\* 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 the MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as follows:

Participant Type	Membership Table	Set Forward (+)/ Setback (-)	Adjustment to Rates
Service Retirees	General Healthy Below-Median Annuitant	Male: +2; Female: +2	Male: 101%; Female: 103%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Below-Median Contingent Survivors	Male: +2; Female: +2	Male: 104%; Female: 99%

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

Annual Rates of Death*						
Age	Service Retirement		Disability Retirement		Beneficiaries	
	Males	Females	Males	Females	Males	Females
50	0.7989%	0.4532%	1.2576%	1.5720%	0.9984%	0.5930%
55	0.9837	0.5037	1.8725	1.8465	1.1523	0.7742
60	1.1726	0.6015	2.3484	2.0734	1.4258	1.0237
65	1.5736	0.8827	2.7573	2.3914	1.9978	1.4147
70	2.5785	1.5296	3.4536	3.0337	3.0680	2.0731
75	4.3329	2.6770	4.4743	4.2432	4.7414	3.1878
80	7.4043	4.7679	6.0986	6.3674	7.3944	5.1450
85	12.4301	8.7849	8.8220	9.8909	11.8154	8.7684
90	19.3173	15.3594	12.9831	14.4849	19.0320	14.3778

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

**ADMINISTRATIVE EXPENSES:** Administrative expenses equal to \$1,400,000 are added to the normal cost contribution.

**AMORTIZATION METHOD:** Level dollar amortization.



**ASSET METHOD:** Fair Value.

**VALUATION METHOD:** Entry age normal cost method.

**COST-OF-LIVING ADJUSTMENT (COLA):** 1.50% semi-annually.

**TERMINATING VESTED MEMBERS:** 25% of active vested members who terminate are assumed to elect a refund in lieu of a benefit. Benefits are assumed to begin at age 65.



## SCHEDULE E

### **Funding Policy of the PSERS Board of Trustees**

The purpose of this Funding Policy is to state the overall objectives for the Public School Employees Retirement System (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 PSERS Board of Trustees that the Funding Policy outlined herein will remain unchanged until the objectives below are met.

#### **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 contributions expressed as both a total dollar amount and as a dollar amount per active member 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 25 years of the valuation date for the first valuation conducted following the adoption of this Policy (i.e. the June 30, 2013 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 shall be known as the Transitional UAAL.
  - **New Incremental UAAL** – Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuations.



- **UAAL Amortization Period**
  - The transitional UAAL will be amortized over a closed 25-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 25-year period beginning with the year it is incurred.
  - Effective with the June 30, 2020 valuation date, any New Incremental UAAL which is attributable to the granting of any post-retirement benefit adjustment (PRBA), including COLAs and one-time (non-compounded) payments, shall be amortized over a closed 15-year period. The amortization period shall begin with the year such PRBA is granted by the Board.
- **Employer Contributions**
  - **Employer Normal Contributions** – the contribution determined as of the valuation date each year to fund the employer portion of the annual normal cost of the System based on the assumptions and methods adopted by the Board.
  - In each valuation subsequent to the adoption of this funding policy the required employer contributions will be determined as the summation of the employer Normal Contribution, a contribution for administrative expenses, the amortization cost for the Transitional UAAL and the individual amortization cost for each of the New Incremental UAAL bases.
  - Employer Contributions will be expressed as both a total dollar amount and as a dollar amount per active member. In no event shall the employer contributions be less than \$0.
  - The valuation methodology, including the amortization of the Unfunded Actuarial Accrued Liability (UAAL), would be expected to maintain reasonably stable contributions as a dollar per active member.

### 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, 2013 valuation date, 7.50% net of investment expenses.
  - Effective with the June 30, 2017 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 value of assets will be determined by recognizing the annual differences between actual and expected market value of assets over a five-year period, beginning with the June 30, 2013 actuarial valuation.
  - Prior to the June 30, 2013 valuation, the differences between actual and expected market value of assets were recognized over a seven-year period. For the June 30, 2013 valuation, all then-current deferred gains and losses will be recognized immediately, and the initial new five-year period will begin immediately thereafter.



The employer contributions determined in an annual actuarial valuation will be at least sufficient to satisfy the annual normal cost of the System and amortize the UAAL as a level dollar amount over a period not to exceed 25 years (for the UAAL as of the June 30, 2013 valuation date, and for each successive year of gains and losses incurred in years following the June 30, 2013 valuation date). However, in no event shall the employer contributions 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: December 17, 2020