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EMPLOYEES'
RETIREMENT SYSTEM
OF GEORGIA

GASB STATEMENT NO. 68 REPORT

FOR THE

GEORGIA PUBLIC SCHOOLS EMPLOYEES RETIREMENT SYSTEM

PREPARED AS OF JUNE 30, 2018





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

March 27, 2019

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

Ladies and Gentlemen:

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, 2018 (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, was performed as of June 30, 2017. The valuation was based upon data, furnished by the Retirement System staff, for active, inactive and retired members along with pertinent financial information.

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.



Board of Trustees
March 27, 2019
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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
Principal and Consulting Actuary

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
Senior Actuary



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

PREPARED AS OF JUNE 30, 2018

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 Schools Employees Retirement System (PSERS) is a cost-sharing multiple employer defined benefit pension plan.

This report, prepared as of June 30, 2018 (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, 2019 (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, 2017. The results of that valuation were detailed in a report dated April 19, 2018.

On March 15, 2018, the Board adopted a new funding policy. 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. In addition, based on the Board’s new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 Measurement Date. Therefore, an assumption change from 7.50% to 7.30% was reflected in the calculation of the Total Pension Liability.

The NPL shown in the GASB Statement No. 67 Report for the Georgia Public Schools Employees Retirement System prepared as of June 30, 2018 and submitted September 5, 2018 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 non-employer 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 non-employer 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 non-employer 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 non-employer contributing entities' total proportionate share of the collective PE associated with the district.

Schedule A of this report shows the total amount of employer contributions from the State as support provided to the districts for the year ending June 30, 2018. 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)

	2018
Valuation Date (VD):	June 30, 2017
Measurement Date (MD):	June 30, 2018
Reporting Date (RD):	June 30, 2019
Single Equivalent Interest Rate (SEIR):	
Long-Term Expected Rate of Return	7.30%
Municipal Bond Index Rate at Measurement Date	3.89%
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	7.30%
Net Pension Liability:	
Total Pension Liability (TPL)	\$1,072,165
Fiduciary Net Position (FNP)	<u>914,138</u>
Net Pension Liability (NPL = TPL – FNP)	\$ 158,027
FNP as a percentage of TPL	85.26%
Collective Pension Expense (PE):	\$36,589
Deferred Outflows of Resources:	\$12,456
Deferred Inflows of Resources:	\$11,191



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. Since the TPL as of June 30, 2017 was rolled-forward to the June 30, 2018 measurement date, and since we know that, based on the funding policy adopted by the Board on March 15, 2018, the investment rate of return assumption will be 7.30% in the June 30, 2018 valuation, the investment rate of return used in the roll-forward of the TPL is 7.30%. The complete set of actuarial assumptions utilized in developing the TPL are outlined in Schedule D. The key actuarial assumptions are summarized below:

Inflation	2.75 percent
Salary increases, including inflation	N/A
Investment Rate of Return	7.30 percent, net of pension plan investment expense, including inflation
Post-Retirement Benefit Increases	1.50% semi-annually

Post-retirement mortality rates were based on 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) for the period after service retirements and for dependent beneficiaries. The RP-2000 Disabled Mortality projected to 2025 with projection scale BB (set forward 5 years for both males and females) was used for death after disability retirement. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on December 17, 2015, the numbers of expected future deaths are 9-11% less than the actual number of deaths that occurred during the study period for healthy retirees and 9-11% less than expected under the selected table for disabled retirees. Rates of mortality in active service were based on the RP-2000 Employee Mortality Table projected to 2025 with projection scale BB.

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period July 1, 2009 – June 30, 2014.



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 for each major asset class based on the most recent experience study are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Fixed Income	30.00%	-0.50%
Domestic Stocks - Large Cap	37.20%	9.00%
Domestic Stocks - Mid Cap	3.40%	12.00%
Domestic Stocks - Small Cap	1.40%	13.50%
Int'l Stocks - Developed Mkt	17.80%	8.00%
Int'l Stocks - Emerging Mkt	5.20%	12.00%
Alternatives	5.00%	10.50%
Total	100.00%	

*Net of inflation.

Discount rate. The discount rate used to measure the total pension liability was 7.30 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 employer 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 7.30 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 (6.30 percent) or 1-percentage-point higher (8.30 percent) than the current rate (\$ thousands):

	1% Decrease (6.30%)	Current Discount Rate (7.30%)	1% Increase (8.30%)
System's Net Pension Liability	\$276,775	\$158,027	\$58,149

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 non-employer 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, 2017 is the actuarial valuation date upon which the TPL is based. An expected TPL is determined as of June 30, 2018 using standard roll forward techniques. The procedure used to determine the TPL as of June 30, 2018 is shown on page 7 of the GASB 67 report for PSERS submitted on September 5, 2018.

Paragraph 80(d) and (e): Since the previous measurement date, the investment rate of return assumption has been changed from 7.50% to 7.30% and the monthly benefit rate has been increased from \$14.75 to \$15.00 per year of creditable service.

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.

	Collective Deferred Outflows of Resources (\$ thousands)	Collective Deferred Inflows of Resources (\$ thousands)
Differences between expected and actual experience	\$0	\$2,779
Changes of actuarial assumptions	12,456	0
Net difference between projected and actual earnings on plan investments	<u>0</u>	<u>8,412</u>
Total	<u>\$12,456</u>	<u>\$11,191</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)											
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)
2018	\$0	\$3,943	2.4	\$0	\$0	\$0	\$3,943	\$0	\$1,643	\$0	\$2,300
2017	0	3,665	2.3	0	2,072	0	0	0	1,593	0	479
2016	0	9,483	1.9	0	0	0	0	0	0	0	0
2015	0	6,858	1.9	0	0	0	0	0	0	0	0
2014	0	0	2.0	0	0	0	0	0	0	0	0
Total				<u>\$0</u>	<u>\$2,072</u>	<u>\$0</u>	<u>\$3,943</u>			<u>\$0</u>	<u>\$2,779</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)
2018	\$21,354	\$0	2.4	\$0	\$0	\$21,354	\$0	\$8,898	\$0	\$12,456	\$0
2017	0	0	2.3	0	0	0	0	0	0	0	0
2016	33,215	0	1.9	0	0	0	0	0	0	0	0
2015	0	0	1.9	0	0	0	0	0	0	0	0
2014	0	0	2.0	0	0	0	0	0	0	0	0
Total				<u>\$0</u>	<u>\$0</u>	<u>\$21,354</u>	<u>\$0</u>			<u>\$12,456</u>	<u>\$0</u>



Collective Deferred Outflows and Inflows for Differences in Investment Experience (\$ 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)
2018	\$0	\$14,524	5.0	\$0	\$0	\$0	\$14,524	\$0	\$2,905	\$0	\$11,619
2017	0	38,683	5.0	0	30,946	0	0	0	7,737	0	23,209
2016	50,833	0	5.0	30,499	0	0	0	10,167	0	20,332	0
2015	30,424	0	5.0	12,169	0	0	0	6,085	0	6,084	0
2014	0	70,354	5.0	0	14,070	0	0	0	14,070	0	0
Total				<u>\$42,668</u>	<u>\$45,016</u>	<u>\$0</u>	<u>\$14,524</u>			<u>\$26,416</u>	<u>\$34,828</u>
Net difference between projected and actual earnings on investments											\$8,412



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

Year	Amortization Period	Beginning Balance	Additions	Deductions	Ending Balance
Deferred Outflows of Resources:					
Difference between expected and actual experience					
2018	2.4	\$0	\$0	\$0	\$0
2017	2.3	0	0	0	0
2016	1.9	0	0	0	0
2015	1.9	0	0	0	0
2014	2.0	0	0	0	0
Difference between expected and actual assumptions					
2018	2.4	\$0	\$21,354	\$8,898	\$12,456
2017	2.3	0	0	0	0
2016	1.9	0	0	0	0
2015	1.9	0	0	0	0
2014	2.0	0	0	0	0
Difference between projected and actual earnings					
2018	5.0	\$0	\$0	\$0	\$0
2017	5.0	0	0	0	0
2016	5.0	0	0	0	0
2015	5.0	0	0	0	0
2014	5.0	0	0	0	0
Subtotal					\$0
Total Deferred Outflows of Resources		<u>\$0</u>	<u>\$21,354</u>	<u>\$8,898</u>	<u>\$12,456</u>

Year	Amortization Period	Beginning Balance	Additions	Deductions	Ending Balance
Deferred Inflows of Resources:					
Difference between expected and actual experience					
2018	2.4	\$0	\$3,943	\$1,643	\$2,300
2017	2.3	2,072	0	1,593	479
2016	1.9	0	0	0	0
2015	1.9	0	0	0	0
2014	2.0	0	0	0	0
Difference between expected and actual assumptions					
2018	2.4	\$0	\$0	\$0	\$0
2017	2.3	0	0	0	0
2016	1.9	0	0	0	0
2015	1.9	0	0	0	0
2014	2.0	0	0	0	0
Difference between projected and actual earnings					
2018	5.0	\$0	\$14,524	\$2,905	\$11,619
2017	5.0	30,946	0	7,737	23,209
2016	5.0	(30,499)	0	(10,167)	(20,332)
2015	5.0	(12,169)	0	(6,085)	(6,084)
2014	5.0	14,070	0	14,070	0
Difference between projected and actual earnings					\$8,412
Total Deferred Inflows of Resources		<u>\$4,420</u>	<u>\$18,467</u>	<u>\$11,696</u>	<u>\$11,191</u>



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.

Deferred Amounts to be Recognized in Fiscal Years Following the Reporting Date (\$ thousands):	
Year 1	\$12,385
Year 2	2,424
Year 3	(10,640)
Year 4	(2,904)
Year 5	0
Thereafter	0

Paragraph 80(j): The amount of revenue recognized for the support provided by non-employer 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 7.50% 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, 2018, the monthly benefit rate was increased from \$14.75 to \$15.00 per year of creditable service.

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, 2018 this number of years for the active members is 6.8. The average expected remaining service life of the inactive members is zero. Therefore, the number of years to use for the amortization is the weighted average for all active and inactive members, or 2.4 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 2.4 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:



Collective Pension Expense Determined as of the Measurement Date (\$ thousands)	
Service Cost at end of year	\$13,180
Interest on the TPL and net cash flow	73,643
Current-period benefit changes	17,289
Expensed portion of current-period difference between expected and actual experience in the total pension liability	(1,643)
Expensed portion of current-period changes of assumptions	8,898
Member contributions	(2,162)
Projected earnings on plan investments	(63,894)
Expensed portion of current-period differences between projected and actual earnings on plan investments	(2,905)
Administrative expense	1,331
Other	0
Recognition of beginning deferred outflows of resources as pension expense	0
Recognition of beginning deferred inflows of resources as pension expense	<u>(7,148)</u>
Collective Pension Expense	<u>\$36,589</u>



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).

On March 15, 2018, the Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for June 30, 2017 actuarial valuation. In addition, based on the Board’s new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 Measurement Date.

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.

Method and assumptions used in calculations of actuarially determined contributions. The actuarially determined contribution rates 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, 2018 employer contributions are based on June 30, 2015 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	22.9 years
Asset valuation method	5-year smoothed market
Inflation	2.75 percent
Salary increase	N/A
Investment rate of return	7.50 percent, net of pension plan investment expense, including inflation
Post-Retirement Benefit Increases	1.50% semi-annually



SCHEDULE A

GEORGIA PUBLIC SCHOOLS EMPLOYEES RETIREMENT SYSTEM
Schedule of Employer Allocations as of June 30, 2018

Employers	2018 State Pension Support Provided To The Districts	Employer Allocation Percentage
Atlanta Metropolitan College	\$ 838	0.002861%
Appling County Schools	57,793	0.197408%
Atkinson County Schools	29,315	0.100134%
Bacon County Schools	28,478	0.097273%
Baker County Schools	11,726	0.040054%
Baldwin County Schools	101,347	0.346179%
Banks County Schools	77,895	0.266072%
Barrow County Schools	195,994	0.669470%
Bartow County Schools	219,446	0.749578%
Ben Hill County Schools	54,443	0.185964%
Berrien County Schools	52,768	0.180242%
Bibb County Schools	551,129	1.882528%
Bleckley County Schools	64,494	0.220296%
Brantley County Schools	87,946	0.300403%
Brooks County Schools	46,905	0.160215%
Bryan County Schools	153,277	0.523560%
Bulloch County Schools	247,087	0.843991%
Burke County Schools	125,637	0.429148%
Butts County Schools	77,895	0.266072%
Calhoun County Schools	20,102	0.068664%
Camden County Schools	175,055	0.597946%
Candler County Schools	37,691	0.128744%
Carroll County Schools	232,848	0.795354%
Catoosa County Board of Education	255,462	0.872600%
Charlton County Schools	31,828	0.108717%
Chatham County Schools	812,454	2.775155%
Chattahoochee County Schools	26,803	0.091552%
Chattooga County Schools	46,067	0.157354%
Cherokee County Schools	598,033	2.042743%
Clarke County Schools	374,399	1.278860%
Clay County Schools	8,376	0.028610%
Clayton County Schools	1,082,994	3.699253%
Clinch County Schools	22,615	0.077247%
Cobb County Schools	1,851,057	6.322778%
Coffee County Schools	112,236	0.383372%
Colquitt County Schools	193,481	0.660887%
Columbia County Schools	519,301	1.773811%
Cook County Schools	60,306	0.205991%



Employers	2018 State Pension Support Provided To The Districts	Employer Allocation Percentage
Coweta County Schools	\$ 501,712	1.713730%
Crawford County Schools	51,930	0.177381%
Crisp County Schools	95,484	0.326152%
Dade County Schools	40,204	0.137327%
Dawson County Schools	73,707	0.251767%
Decatur County Schools	141,551	0.483506%
Dekalb County Schools	1,844,357	6.299887%
Dodge County Schools	65,331	0.223157%
Dooly County Schools	43,554	0.148771%
Dougherty County Schools	320,794	1.095757%
Douglas County Schools	368,536	1.258833%
Early County Schools	41,879	0.143049%
Echols County Schools	14,239	0.048637%
Effingham County Schools	201,020	0.686636%
Elbert County Schools	61,144	0.208852%
Emanuel County Schools	91,296	0.311847%
Evans County Schools	42,717	0.145910%
Fannin County Schools	72,032	0.246045%
Fayette County Schools	329,170	1.124367%
Floyd County Schools	135,688	0.463480%
Forsyth County Schools	780,626	2.666438%
Franklin County Schools	79,570	0.271794%
Gilmer County Schools	72,870	0.248906%
Glascocock County Schools	15,914	0.054359%
Glynn County Schools	293,154	1.001345%
Gordon County Schools	82,920	0.283237%
Grady County Schools	87,946	0.300403%
Greene County Schools	53,605	0.183103%
Gwinnett County Schools	2,872,070	9.810316%
Habersham County Schools	168,354	0.575058%
Hall County Schools	438,055	1.496295%
Hancock County Schools	37,691	0.128744%
Haralson County Schools	49,417	0.168798%
Harris County Schools	110,561	0.377650%
Hart County Schools	85,433	0.291820%
Heard County Schools	29,315	0.100134%
Henry County Schools	476,584	1.627900%
Houston County Schools	649,964	2.220124%
Irwin County Schools	19,264	0.065803%
Jackson County Schools	176,730	0.603668%
Jasper County Schools	57,793	0.197408%
Jeff Davis County Schools	61,981	0.211713%



Employers	2018 State Pension Support Provided To The Districts	Employer Allocation Percentage
Jefferson County Schools	\$ 65,331	0.223157%
Jenkins County Schools	29,315	0.100134%
Johnson County Schools	27,640	0.094412%
Jones County Schools	127,313	0.434870%
Lamar County Schools	48,580	0.165937%
Lanier County Schools	24,290	0.082969%
Laurens County Schools	147,414	0.503533%
Lee County Schools	135,688	0.463480%
Liberty County Schools	237,873	0.812520%
Lincoln County Schools	41,879	0.143049%
Long County Schools	72,870	0.248906%
Lowndes County Schools	240,386	0.821103%
Lumpkin County Schools	92,134	0.314708%
Macon County Schools	41,041	0.140188%
Madison County Schools	75,382	0.257489%
Marion County Schools	29,315	0.100134%
Mcduffie County Schools	92,972	0.317569%
Mcintosh County Schools	30,153	0.102995%
Meriwether County Schools	87,108	0.297542%
Miller County Schools	27,640	0.094412%
Mitchell County Schools	44,392	0.151632%
Monroe County Schools	134,013	0.457758%
Montgomery County Schools	20,102	0.068664%
Morgan County Schools	58,631	0.200269%
Murray County Schools	99,672	0.340457%
Muscogee County Schools	612,272	2.091380%
Newton County Schools	397,014	1.356107%
Oconee County Schools	134,851	0.460619%
Oglethorpe County Schools	60,306	0.205991%
Paulding County Schools	417,116	1.424770%
Peach County Schools	41,879	0.143049%
Pickens County Schools	77,058	0.263211%
Pierce County Schools	58,631	0.200269%
Pike County Schools	65,331	0.223157%
Polk County Schools	104,698	0.357623%
Pulaski County Schools	31,828	0.108717%
Putnam County Schools	77,895	0.266072%
Quitman County Schools	10,051	0.034332%
Rabun County Schools	61,144	0.208852%
Randolph County Schools	26,803	0.091552%
Richmond County Schools	686,817	2.346007%
Rockdale County Schools	317,443	1.084313%



Employers	2018 State Pension Support Provided To The Districts	Employer Allocation Percentage
Schley County Schools	\$ 18,427	0.062942%
Screven County Schools	55,280	0.188825%
Seminole County Schools	40,204	0.137327%
Spalding County Schools	232,848	0.795354%
Stephens County Schools	93,809	0.320430%
Stewart County Schools	12,564	0.042915%
Sumter County Schools	111,398	0.380511%
Talbot County Schools	15,914	0.054359%
Taliaferro County Schools	5,863	0.020027%
Tattnall County Schools	74,545	0.254628%
Taylor County Schools	32,666	0.111578%
Telfair County Schools	36,854	0.125883%
Terrell County Schools	38,529	0.131605%
Thomas County Schools	113,911	0.389094%
Tift County Schools	97,997	0.334735%
Toombs County Schools	50,255	0.171659%
Towns County Schools	31,828	0.108717%
Treutlen County Schools	15,914	0.054359%
Troup County Schools	371,049	1.267416%
Turner County Schools	26,803	0.091552%
Twiggs County Schools	20,102	0.068664%
Union County Schools	69,519	0.237462%
Upson County Schools	123,962	0.423426%
Walker County Schools	238,711	0.815381%
Walton County Schools	288,128	0.984179%
Ware County Schools	144,064	0.492089%
Warren County Schools	18,427	0.062942%
Washington County Board of Education	53,605	0.183103%
Wayne County Schools	125,637	0.429148%
Webster County Schools	2,513	0.008583%
Wheeler County Schools	27,640	0.094412%
White County Board of Education	67,007	0.228879%
Whitfield County Schools	178,405	0.609390%
Wilcox County Schools	27,640	0.094412%
Wilkes County Schools	52,768	0.180242%
Wilkinson County Schools	33,503	0.114439%
Worth County Schools	62,819	0.214574%
City of Bremen Schools (Haralson)	15,077	0.051498%
City of Buford Schools (Gwinnett)	64,494	0.220296%
City of Calhoun Schools (Gordon)	29,315	0.100134%
City of Carrollton Schools (Carroll)	69,519	0.237462%
City of Cartersville Schools (Bartow)	44,392	0.151632%



Employers	2018 State Pension Support Provided To The Districts	Employer Allocation Percentage
City of Chickamauga Schools (West)	\$ 20,940	0.071525%
City of Commerce Schools (Jackson)	20,102	0.068664%
City of Dalton Schools (Whitfield)	92,972	0.317569%
City of Decatur Schools (DeKalb)	85,433	0.291820%
City of Dublin Schools (Laurens)	43,554	0.148771%
City of Gainesville Schools (Hall)	95,484	0.326152%
City of Jefferson Schools (Jackson)	37,691	0.128744%
City of Marietta Schools (Cobb)	91,296	0.311847%
City of Pelham Schools (Mitchell)	21,777	0.074386%
City of Rome Schools (Floyd)	72,032	0.246045%
City of Social Circle Schools (Walton)	17,589	0.060081%
City of Thomasville Schools (Thomas)	24,290	0.082969%
City of Trion Schools (Chattooga)	18,427	0.062942%
City of Valdosta Schools (Lowndes)	180,080	0.615112%
City of Vidalia Schools (Toomb)	35,178	0.120161%
Scintilla Charter Academy	1,675	0.005722%
School for Arts Infused Learning	1,675	0.005722%
Furlow Charter School	1,675	0.005722%
Georgia Magnet Charter School	1,675	0.005722%
Georgia Military College	57,793	0.197408%
Kipp Metro Atlanta Collaborative Inc	<u>26,803</u>	<u>0.091552%</u>
Total State of Georgia	\$ <u>29,276,000</u>	<u>100.000000%</u>



SCHEDULE B

GEORGIA PUBLIC SCHOOLS EMPLOYEES RETIREMENT SYSTEM
Schedule of Pension Amounts by Employer as of June 30, 2018

Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue for State Support
Atlanta Metropolitan College	\$ 4,521	\$ 1,047
Appling County Schools	311,958	72,230
Atkinson County Schools	158,239	36,638
Bacon County Schools	153,718	35,591
Baker County Schools	63,296	14,655
Baldwin County Schools	547,056	126,663
Banks County Schools	420,466	97,353
Barrow County Schools	1,057,943	244,952
Bartow County Schools	1,184,536	274,263
Ben Hill County Schools	293,873	68,042
Berrien County Schools	284,831	65,949
Bibb County Schools	2,974,903	688,798
Bleckley County Schools	348,127	80,604
Brantley County Schools	474,718	109,914
Brooks County Schools	253,183	58,621
Bryan County Schools	827,366	191,565
Bulloch County Schools	1,333,734	308,808
Burke County Schools	678,170	157,021
Butts County Schools	420,466	97,353
Calhoun County Schools	108,508	25,123
Camden County Schools	944,916	218,782
Candler County Schools	203,450	47,106
Carroll County Schools	1,256,874	291,012
Catoosa County Board of Education	1,378,944	319,276
Charlton County Schools	171,802	39,778
Chatham County Schools	4,385,494	1,015,401
Chattahoochee County Schools	144,677	33,498
Chattooga County Schools	248,662	57,574
Cherokee County Schools	3,228,085	747,419
Clarke County Schools	2,020,944	467,922
Clay County Schools	45,212	10,468
Clayton County Schools	5,845,819	1,353,520
Clinch County Schools	122,071	28,264
Cobb County Schools	9,991,697	2,313,441
Coffee County Schools	605,831	140,272
Colquitt County Schools	1,044,380	241,812
Columbia County Schools	2,803,100	649,020
Cook County Schools	325,521	75,370



Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District		Employer Pension Expense and Revenue for State Support
Coweta County Schools	\$	2,708,156	\$ 627,037
Crawford County Schools		280,310	64,902
Crisp County Schools		515,408	119,336
Dade County Schools		217,014	50,247
Dawson County Schools		397,860	92,119
Decatur County Schools		764,070	176,910
Dekalb County Schools		9,955,524	2,305,067
Dodge County Schools		352,648	81,651
Dooly County Schools		235,098	54,434
Dougherty County Schools		1,731,592	400,927
Douglas County Schools		1,989,296	460,594
Early County Schools		226,056	52,340
Echols County Schools		76,860	17,796
Effingham County Schools		1,085,070	251,233
Elbert County Schools		330,043	76,417
Emanuel County Schools		492,802	114,102
Evans County Schools		230,577	53,387
Fannin County Schools		388,818	90,025
Fayette County Schools		1,776,803	411,395
Floyd County Schools		732,424	169,583
Forsyth County Schools		4,213,692	975,623
Franklin County Schools		429,508	99,447
Gilmer County Schools		393,339	91,072
Glascock County Schools		85,902	19,889
Glynn County Schools		1,582,395	366,382
Gordon County Schools		447,591	103,634
Grady County Schools		474,718	109,914
Greene County Schools		289,352	66,996
Gwinnett County Schools		15,502,950	3,589,498
Habersham County Schools		908,747	210,408
Hall County Schools		2,364,550	547,479
Hancock County Schools		203,450	47,106
Haralson County Schools		266,746	61,762
Harris County Schools		596,789	138,178
Hart County Schools		461,154	106,774
Heard County Schools		158,239	36,638
Henry County Schools		2,572,522	595,632
Houston County Schools		3,508,395	812,321
Irwin County Schools		103,987	24,077
Jackson County Schools		953,958	220,876
Jasper County Schools		311,958	72,230
Jeff Davis County Schools		334,564	77,464



Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District		Employer Pension Expense and Revenue for State Support
Jefferson County Schools	\$	352,648	\$ 81,651
Jenkins County Schools		158,239	36,638
Johnson County Schools		149,196	34,544
Jones County Schools		687,212	159,115
Lamar County Schools		262,225	60,715
Lanier County Schools		131,113	30,358
Laurens County Schools		795,718	184,238
Lee County Schools		732,424	169,583
Liberty County Schools		1,284,001	297,293
Lincoln County Schools		226,056	52,340
Long County Schools		393,339	91,072
Lowndes County Schools		1,297,564	300,433
Lumpkin County Schools		497,324	115,149
Macon County Schools		221,535	51,293
Madison County Schools		406,902	94,213
Marion County Schools		158,239	36,638
Mcduffie County Schools		501,845	116,195
Mcintosh County Schools		162,760	37,685
Meriwether County Schools		470,197	108,868
Miller County Schools		149,196	34,544
Mitchell County Schools		239,620	55,481
Monroe County Schools		723,381	167,489
Montgomery County Schools		108,508	25,123
Morgan County Schools		316,479	73,276
Murray County Schools		538,014	124,570
Muscogee County Schools		3,304,945	765,215
Newton County Schools		2,143,015	496,186
Oconee County Schools		727,902	168,536
Oglethorpe County Schools		325,521	75,370
Paulding County Schools		2,251,521	521,309
Peach County Schools		226,056	52,340
Pickens County Schools		415,944	96,306
Pierce County Schools		316,479	73,276
Pike County Schools		352,648	81,651
Polk County Schools		565,141	130,851
Pulaski County Schools		171,802	39,778
Putnam County Schools		420,466	97,353
Quitman County Schools		54,254	12,562
Rabun County Schools		330,043	76,417
Randolph County Schools		144,677	33,498
Richmond County Schools		3,707,324	858,381
Rockdale County Schools		1,713,507	396,739



Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District		Employer Pension Expense and Revenue for State Support
Schley County Schools	\$	99,465	\$ 23,030
Screven County Schools		298,394	69,089
Seminole County Schools		217,014	50,247
Spalding County Schools		1,256,874	291,012
Stephens County Schools		506,366	117,242
Stewart County Schools		67,817	15,702
Sumter County Schools		601,310	139,225
Talbot County Schools		85,902	19,889
Taliaferro County Schools		31,648	7,328
Tattnall County Schools		402,381	93,166
Taylor County Schools		176,323	40,825
Telfair County Schools		198,929	46,059
Terrell County Schools		207,971	48,153
Thomas County Schools		614,874	142,366
Tift County Schools		528,972	122,476
Toombs County Schools		271,268	62,808
Towns County Schools		171,802	39,778
Treutlen County Schools		85,902	19,889
Troup County Schools		2,002,859	463,735
Turner County Schools		144,677	33,498
Twiggs County Schools		108,508	25,123
Union County Schools		375,254	86,885
Upson County Schools		669,127	154,927
Walker County Schools		1,288,522	298,340
Walton County Schools		1,555,269	360,101
Ware County Schools		777,633	180,050
Warren County Schools		99,465	23,030
Washington County Board of Education		289,352	66,996
Wayne County Schools		678,170	157,021
Webster County Schools		13,563	3,140
Wheeler County Schools		149,196	34,544
White County Board of Education		361,691	83,745
Whitfield County Schools		963,001	222,970
Wilcox County Schools		149,196	34,544
Wilkes County Schools		284,831	65,949
Wilkinson County Schools		180,845	41,872
Worth County Schools		339,085	78,510
City of Bremen Schools (Haralson)		81,381	18,843
City of Buford Schools (Gwinnett)		348,127	80,604
City of Calhoun Schools (Gordon)		158,239	36,638
City of Carrollton Schools (Carroll)		375,254	86,885
City of Cartersville Schools (Bartow)		239,620	55,481



Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District		Employer Pension Expense and Revenue for State Support	
City of Chickamauga Schools (West)	\$	113,029	\$	26,170
City of Commerce Schools (Jackson)		108,508		25,123
City of Dalton Schools (Whitfield)		501,845		116,195
City of Decatur Schools (DeKalb)		461,154		106,774
City of Dublin Schools (Laurens)		235,098		54,434
City of Gainesville Schools (Hall)		515,408		119,336
City of Jefferson Schools (Jackson)		203,450		47,106
City of Marietta Schools (Cobb)		492,802		114,102
City of Pelham Schools (Mitchell)		117,550		27,217
City of Rome Schools (Floyd)		388,818		90,025
City of Social Circle Schools (Walton)		94,944		21,983
City of Thomasville Schools (Thomas)		131,113		30,358
City of Trion Schools (Chattooga)		99,465		23,030
City of Valdosta Schools (Lowndes)		972,043		225,063
City of Vidalia Schools (Toomb)		189,887		43,966
Scintilla Charter Academy		9,042		2,094
School for Arts Infused Learning		9,042		2,094
Furlow Charter School		9,042		2,094
Georgia Magnet Charter School		9,042		2,094
Georgia Military College		311,958		72,230
Kipp Metro Atlanta Collaborative Inc		<u>144,677</u>		<u>33,498</u>
Total State of Georgia	\$	<u><u>158,027,000</u></u>	\$	<u><u>36,589,000</u></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 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 December 17, 2015. Valuation interest rate adopted by the Board March 15, 2018.

VALUATION INTEREST RATE: 7.30% per annum, compounded annually, net of investment expenses, composed of a 2.75% inflation assumption and a 4.55% 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:

Age	Annual Rates of Withdrawal		
	Years of Service		
	<u>0-4</u>	<u>5-9</u>	<u>10 & Over</u>
	<u>Males</u>		
20	37.0%		
25	28.0	17.0%	
30	25.0	15.0	12.0%
35	23.0	13.0	9.0
40	21.0	12.0	7.5
45	19.0	11.0	6.5
50	17.0	9.0	6.5
55	15.0	9.0	6.0
60	12.0	7.5	
	<u>Females</u>		
20	32.0%		
25	28.0	18.0%	
30	23.0	15.0	10.0%
35	19.0	13.0	10.0
40	17.0	12.0	8.0
45	15.5	10.0	7.0
50	14.0	8.5	6.0
55	12.0	8.0	5.5
60	11.0	7.5	

Age	Annual Rates of		Disability
	Death		
	<u>Males</u>	<u>Females</u>	
20	0.0320%	0.0177%	0.0000%
25	0.0349	0.0192	0.0000
30	0.0412	0.0245	0.0000
35	0.0717	0.0441	0.0025
40	0.1001	0.0655	0.0110
45	0.1399	0.1043	0.0370
50	0.1983	0.1555	0.0865
55	0.2810	0.2228	0.2250
60	0.4092	0.3058	0.3500
65	0.5600	0.4304	0.0000



RETIREMENT:

Age	Annual Rate	Age	Annual Rate
60	13.0%	68	23.0%
61	13.0	69	26.0
62	22.0	70	27.0
63	17.5	71	27.0
64	17.0	72	27.0
65	28.0	73	27.0
66	27.0	74	27.0
67	23.0	75 & Over	100.0

DEATHS AFTER RETIREMENT: 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) is used for the period after service retirement and for beneficiaries of deceased members. The RP-2000 Disabled Mortality Table projected to 2025 with projection scale BB (set forward 5 years for both males and females) is used for the period after disability retirement. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on December 17, 2015, the numbers of expected future deaths are 9-11% less than the actual number of deaths that occurred during the study period for healthy retirees and 9-11% less than expected under the selected table for disabled retirees. Representative values of the assumed annual rates of mortality for service retirements and beneficiaries are as follows:

Age	Men	Women	Age	Men	Women
40	0.1476%	0.0995%	65	1.4859%	0.9774%
45	0.1974	0.1484	70	2.4262	1.7054
50	0.3057	0.2084	75	3.9830	2.7288
55	0.5644	0.2844	80	6.5238	4.4542
60	0.9575	0.5014	85	10.9551	7.5727

ADMINISTRATIVE EXPENSES: Budgeted administrative expenses are added to the normal cost contribution.

AMORTIZATION METHOD: Level dollar amortization.

ASSET METHOD: Market value.

VALUATION METHOD: Entry age actuarial cost method.

COST-OF-LIVING ADJUSTMENT (COLA): 1.5% semi-annually.

TERMINATING VESTED MEMBERS: 50% 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.



- **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: March 15, 2018