



**Cavanaugh Macdonald**  
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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, 2016**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

March 16, 2017

Board of Trustees  
Georgia Public Schools Employees Retirement System  
Suite 100, Two Northside 75  
Atlanta, GA 30318

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, 2016 (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, 2015. 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.

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Board of Trustees  
March 16, 2017  
Page 2

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, appearing to read 'Edward Macdonald', written in a cursive style.

Edward A. Macdonald, ASA, FCA, MAAA  
President

A handwritten signature in blue ink, appearing to read 'Cathy Turcot', written in a cursive style.

Cathy Turcot  
Principal and Managing Director

A handwritten signature in blue ink, appearing to read 'Edward J. Koebel', written in a cursive style.

Edward J. Koebel, EA, FCA, MAAA  
Principal and Consulting Actuary



## **TABLE OF CONTENTS**

<b><u>Section</u></b>	<b><u>Item</u></b>	<b><u>Page No.</u></b>
I	Introduction	1
II	Summary of Collective Amounts	3
III	Notes to Financial Statements	4
IV	Collective Pension Expense	12
V	Required Supplementary Information	14
<b><u>Schedule</u></b>		
A	Schedule of Employer Allocations	15
B	Schedule of Pension Amounts by Employer	20
C	Summary of Main Plan Provisions	25
D	Statement of Actuarial Assumptions and Methods	27
E	Funding Policy of the PSERS Board of Trustees	29



**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, 2016**

**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, 2016 (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, 2017 (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, 2015. The results of that valuation were detailed in a report dated April 21, 2016.

The NPL shown in the GASB Statement No. 67 Report for the Georgia Public Schools Employees Retirement System prepared as of June 30, 2016 and submitted August 30, 2016 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, 2016. 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>2016</b>
<b>Valuation Date (VD):</b>	June 30, 2015
<b>Measurement Date (MD):</b>	June 30, 2016
<b>Reporting Date (RD):</b>	June 30, 2017
<b>Single Equivalent Interest Rate (SEIR):</b>	
Long-Term Expected Rate of Return	7.50%
Municipal Bond Index Rate at Measurement Date	3.01%
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	7.50%
<b>Net Pension Liability:</b>	
Total Pension Liability (TPL)	\$ 992,292
Fiduciary Net Position (FNP)	<u>803,775</u>
Net Pension Liability (NPL = TPL – FNP)	\$ 188,517
FNP as a percentage of TPL	81.00%
<b>Collective Pension Expense (PE):</b>	\$30,905
<b>Deferred Outflows of Resources:</b>	\$46,512
<b>Deferred Inflows of Resources:</b>	\$4,492



### **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 TPL was determined by an actuarial valuation as of June 30, 2015, using the following key actuarial assumptions:

Inflation	2.75 percent
Salary increases, including inflation	N/A
Investment Rate of Return	7.50 percent, net of pension plan investment expense, including inflation

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, 2015 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 7.50 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 7.50 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 (6.50 percent) or 1-percentage-point higher (8.50 percent) than the current rate (\$ thousands):

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
System's Net Pension Liability	\$299,133	\$188,517	\$95,548

**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, 2015 is the actuarial valuation date upon which the TPL is based. An expected TPL is determined as of June 30, 2016 using standard roll forward techniques. The procedure used to determine the TPL as of June 30, 2016 is shown on page 6 of the GASB 67 report for PSERS submitted on August 30, 2016.

**Paragraph 80(d) and (e):** 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).

**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	\$4,492
Changes of actuarial assumptions	15,733	0
Net difference between projected and actual earnings on plan investments	<u>30,779</u>	<u>0</u>
Total	<u>\$46,512</u>	<u>\$4,492</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**

	<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>
2016	\$0	\$9,483	1.9	\$0	\$0	\$0	\$9,483	\$0	\$4,991	\$0	\$4,492
2015	0	6,858	1.9	0	3,249	0	0	0	3,249	0	0
2014	0	0	2.0	0	0	0	0	0	0	0	0
<b>Total</b>				<u>\$0</u>	<u>\$3,249</u>	<u>\$0</u>	<u>\$9,483</u>			<u>\$0</u>	<u>\$4,492</u>



**Collective Deferred Outflows and Inflows for Differences from Assumption Changes**

	<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>
2016	\$33,215	\$0	1.9	\$0	\$0	\$33,215	\$0	\$17,482	\$0	\$15,733	\$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
<b>Total</b>				<u>\$0</u>	<u>\$0</u>	<u>\$33,215</u>	<u>\$0</u>			<u>\$15,733</u>	<u>\$0</u>



**Collective Deferred Outflows and Inflows for Differences in Investment Experience**

	<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>
2016	\$50,833	\$0	5.0	\$0	\$0	\$50,833	\$0	\$10,167	\$0	\$40,666	\$0
2015	30,424	0	5.0	24,339	0	0	0	6,085	0	18,254	0
2014	0	70,354	5.0	0	42,212	0	0	0	14,071	0	28,141
<b>Total</b>				<u>\$24,339</u>	<u>\$42,212</u>	<u>\$50,833</u>	<u>\$0</u>			<u>\$58,920</u>	<u>\$28,141</u>
<b>Net difference between projected and actual earnings on investments</b>										\$30,779	



**Summary of Collective Deferred Outflows and Inflows**

<b>Year</b>	<b>Amortization Period</b>	<b>Beginning Balance</b>	<b>Additions</b>	<b>Deductions</b>	<b>Ending Balance</b>
<b>Deferred Outflows of Resources:</b>					
Difference between expected and actual experience					
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					
2016	1.9	\$0	\$33,215	\$17,482	\$15,733
2015	1.9	0	0	0	0
2014	2.0	0	0	0	0
Difference between projected and actual earnings					
2016	5.0	\$0	\$50,833	\$10,167	\$40,666
2015	5.0	0	24,339	6,085	18,254
2014	5.0	0	(42,212)	(14,071)	(28,141)
Subtotal					\$30,779
<b>Total Deferred Outflows of Resources</b>		<u>\$0</u>	<u>\$66,175</u>	<u>\$19,663</u>	<u>\$46,512</u>
<b>Year</b>	<b>Amortization Period</b>	<b>Beginning Balance</b>	<b>Additions</b>	<b>Deductions</b>	<b>Ending Balance</b>
<b>Deferred Inflows of Resources:</b>					
Difference between expected and actual experience					
2016	1.9	\$0	\$9,483	\$4,991	\$4,492
2015	1.9	3,249	0	3,249	0
2014	2.0	0	0	0	0
Difference between expected and actual assumptions					
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					
2016	5.0	\$0	\$0	\$0	\$0
2015	5.0	(24,339)	24,339	0	0
2014	5.0	42,212	0	42,212	0
Subtotal					\$0
<b>Total Deferred Inflows of Resources</b>		<u>\$21,122</u>	<u>\$33,822</u>	<u>\$50,452</u>	<u>\$4,492</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.

<b>Deferred Amounts to be Recognized in Fiscal Years Following the Reporting Date:</b>	
Year 1	\$13,422
Year 2	2,182
Year 3	16,251
Year 4	10,165
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, 2016, 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, 2016 this number of years for the active members is 6.9. 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 1.9 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 1.9 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	\$11,952
Interest on the TPL and net cash flow	68,776
Current-period benefit changes	0
Expensed portion of current-period difference between expected and actual experience in the total pension liability	(4,991)
Expensed portion of current-period changes of assumptions	17,482
Member contributions	(1,925)
Projected earnings on plan investments	(60,642)
Expensed portion of current-period differences between projected and actual earnings on plan investments	10,167
Administrative expense	1,321
Other	0
Recognition of beginning deferred outflows of resources as pension expense	0
Recognition of beginning deferred inflows of resources as pension expense	<u>(11,235)</u>
<b>Collective Pension Expense</b>	<b><u>\$30,905</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).

**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, 2016 employer contributions are based on June 30, 2013 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	25 years
Asset valuation method	5-year smoothed market
Inflation	3.00 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, 2016**

<b>Employers</b>	<b>2016 State Pension Support Provided To The Districts</b>	<b>Employer Allocation Percentage</b>
Atlanta Metropolitan College	\$ 820	0.002868%
Appling County Schools	53,281	0.186428%
Atkinson County Schools	29,509	0.103252%
Bacon County Schools	31,969	0.111857%
Baker County Schools	12,296	0.043022%
Baldwin County Schools	100,005	0.349911%
Banks County Schools	72,134	0.252395%
Barrow County Schools	181,156	0.633855%
Bartow County Schools	236,896	0.828888%
Ben Hill County Schools	58,199	0.203637%
Berrien County Schools	50,002	0.174956%
Bibb County Schools	504,941	1.766764%
Bleckley County Schools	61,478	0.215109%
Brantley County Schools	88,529	0.309757%
Brooks County Schools	55,740	0.195032%
Bryan County Schools	156,565	0.547812%
Bulloch County Schools	246,733	0.863305%
Burke County Schools	127,055	0.444559%
Butts County Schools	77,872	0.272472%
Calhoun County Schools	18,853	0.065967%
Camden County Schools	179,516	0.628119%
Candler County Schools	40,985	0.143406%
Carroll County Schools	224,601	0.785866%
Catoosa County Board of Education	249,192	0.871910%
Charlton County Schools	34,428	0.120461%
Chatham County Schools	400,018	1.399644%
Chattahoochee County Schools	24,591	0.086044%
Chattooga County Schools	44,264	0.154879%
Cherokee County Schools	563,960	1.973269%
Clarke County Schools	368,869	1.290656%
Clay County Schools	9,017	0.031549%
Clayton County Schools	1,103,331	3.860495%
Clinch County Schools	22,132	0.077439%
Cobb County Schools	1,868,122	6.536456%
Coffee County Schools	113,940	0.398669%
Colquitt County Schools	196,730	0.688350%
Columbia County Schools	497,564	1.740951%
Cook County Schools	63,118	0.220846%



Employers	2016 State Pension Support Provided To The Districts	Employer Allocation Percentage
Coweta County Schools	\$ 506,581	1.772500%
Crawford County Schools	45,084	0.157747%
Crisp County Schools	104,923	0.367120%
Dade County Schools	41,805	0.146274%
Dawson County Schools	77,872	0.272472%
Decatur County Schools	137,711	0.481845%
Dekalb County Schools	1,818,939	6.364367%
Dodge County Schools	62,298	0.217977%
Dooly County Schools	52,461	0.183560%
Dougherty County Schools	336,081	1.175931%
Douglas County Schools	378,706	1.325073%
Early County Schools	42,625	0.149142%
Echols County Schools	13,115	0.045890%
Effingham County Schools	211,485	0.739976%
Elbert County Schools	57,380	0.200769%
Emanuel County Schools	94,267	0.329834%
Evans County Schools	38,526	0.134802%
Fannin County Schools	72,134	0.252395%
Fayette County Schools	326,244	1.141513%
Floyd County Schools	140,990	0.493317%
Forsyth County Schools	708,229	2.478059%
Franklin County Schools	73,774	0.258131%
Gilmer County Schools	73,774	0.258131%
Glascocock County Schools	15,574	0.054494%
Glynn County Schools	290,177	1.015316%
Gordon County Schools	84,430	0.295417%
Grady County Schools	86,070	0.301153%
Greene County Schools	52,461	0.183560%
Gwinnett County Schools	2,894,399	10.127347%
Habersham County Schools	161,483	0.565020%
Hall County Schools	447,562	1.565996%
Hancock County Schools	41,805	0.146274%
Haralson County Schools	49,182	0.172087%
Harris County Schools	112,300	0.392933%
Hart County Schools	79,512	0.278208%
Heard County Schools	28,690	0.100384%
Henry County Schools	472,972	1.654907%
Houston County Schools	621,340	2.174038%
Irwin County Schools	22,952	0.080307%
Jackson County Schools	168,040	0.587965%
Jasper County Schools	52,461	0.183560%
Jeff Davis County Schools	57,380	0.200769%



Employers	2016 State Pension Support Provided To The Districts	Employer Allocation Percentage
Jefferson County Schools	\$ 72,954	0.255263%
Jenkins County Schools	29,509	0.103252%
Johnson County Schools	26,231	0.091780%
Jones County Schools	127,055	0.444559%
Lamar County Schools	54,920	0.192164%
Lanier County Schools	27,050	0.094648%
Laurens County Schools	144,269	0.504790%
Lee County Schools	143,449	0.501922%
Liberty County Schools	240,175	0.840360%
Lincoln County Schools	36,067	0.126197%
Long County Schools	66,396	0.232318%
Lowndes County Schools	236,077	0.826020%
Lumpkin County Schools	87,709	0.306889%
Macon County Schools	47,543	0.166351%
Madison County Schools	63,937	0.223714%
Marion County Schools	24,591	0.086044%
Mcduffie County Schools	90,168	0.315494%
Mcintosh County Schools	45,084	0.157747%
Meriwether County Schools	88,529	0.309757%
Miller County Schools	27,870	0.097516%
Mitchell County Schools	41,805	0.146274%
Monroe County Schools	129,514	0.453164%
Montgomery County Schools	18,034	0.063099%
Morgan County Schools	61,478	0.215109%
Murray County Schools	105,743	0.369988%
Muscogee County Schools	617,241	2.159697%
Newton County Schools	386,083	1.350886%
Oconee County Schools	143,449	0.501922%
Oglethorpe County Schools	55,740	0.195032%
Paulding County Schools	391,002	1.368095%
Peach County Schools	45,084	0.157747%
Pickens County Schools	81,151	0.283944%
Pierce County Schools	62,298	0.217977%
Pike County Schools	63,118	0.220846%
Polk County Schools	115,579	0.404405%
Pulaski County Schools	31,969	0.111857%
Putnam County Schools	80,332	0.281076%
Quitman County Schools	9,017	0.031549%
Rabun County Schools	60,658	0.212241%
Randolph County Schools	29,509	0.103252%
Richmond County Schools	656,587	2.297367%
Rockdale County Schools	295,096	1.032525%



Employers	2016 State Pension Support Provided To The Districts	Employer Allocation Percentage
Schley County Schools	\$ 18,034	0.063099%
Screven County Schools	55,740	0.195032%
Seminole County Schools	36,067	0.126197%
Spalding County Schools	250,831	0.877646%
Stephens County Schools	95,086	0.332702%
Stewart County Schools	16,394	0.057362%
Sumter County Schools	122,957	0.430219%
Talbot County Schools	15,574	0.054494%
Taliaferro County Schools	8,197	0.028681%
Tattnall County Schools	72,954	0.255263%
Taylor County Schools	34,428	0.120461%
Telfair County Schools	33,608	0.117593%
Terrell County Schools	34,428	0.120461%
Thomas County Schools	104,923	0.367120%
Tift County Schools	101,644	0.355647%
Toombs County Schools	50,822	0.177824%
Towns County Schools	30,329	0.106121%
Treutlen County Schools	17,214	0.060231%
Troup County Schools	307,391	1.075546%
Turner County Schools	19,673	0.068835%
Twiggs County Schools	19,673	0.068835%
Union County Schools	62,298	0.217977%
Upson County Schools	117,219	0.410142%
Walker County Schools	237,716	0.831756%
Walton County Schools	268,045	0.937876%
Ware County Schools	125,416	0.438823%
Warren County Schools	15,574	0.054494%
Washington County Board of Education	56,560	0.197901%
Wayne County Schools	127,875	0.447427%
Webster County Schools	4,918	0.017209%
Wheeler County Schools	18,853	0.065967%
White County Board of Education	68,036	0.238054%
Whitfield County Schools	195,091	0.682613%
Wilcox County Schools	27,050	0.094648%
Wilkes County Schools	47,543	0.166351%
Wilkinson County Schools	40,985	0.143406%
Worth County Schools	59,019	0.206505%
City of Bremen Schools (Haralson)	13,115	0.045890%
City of Buford Schools (Gwinnett)	61,478	0.215109%
City of Calhoun Schools (Gordon)	32,788	0.114725%
City of Carrollton Schools (Carroll)	69,675	0.243791%
City of Cartersville Schools (Bartow)	42,625	0.149142%



Employers	2016 State Pension Support Provided To The Districts	Employer Allocation Percentage
City of Chickamauga Schools (West)	\$ 18,853	0.065967%
City of Commerce Schools (Jackson)	17,214	0.060231%
City of Dalton Schools (Whitfield)	101,644	0.355647%
City of Decatur Schools (DeKalb)	77,872	0.272472%
City of Dublin Schools (Laurens)	49,182	0.172087%
City of Gainesville Schools (Hall)	91,808	0.321230%
City of Jefferson Schools (Jackson)	42,625	0.149142%
City of Marietta Schools (Cobb)	96,726	0.338439%
City of Pelham Schools (Mitchell)	24,591	0.086044%
City of Rome Schools (Floyd)	73,774	0.258131%
City of Social Circle Schools (Walton)	21,312	0.074571%
City of Thomasville Schools (Thomas)	23,772	0.083176%
City of Trion Schools (Chattooga)	15,574	0.054494%
City of Valdosta Schools (Lowndes)	180,336	0.630987%
City of Vidalia Schools (Toomb)	33,608	0.117593%
Furlow Charter School	820	0.002868%
Georgia Magnet Charter School	3,279	0.011472%
Georgia Military College	56,560	0.197901%
Kipp Metro Atlanta Collaborative Inc	<u>30,329</u>	<u>0.106121%</u>
Total State of Georgia	\$ <u><b>28,580,000</b></u>	<u><b>100.000000%</b></u>



**SCHEDULE B**

**GEORGIA PUBLIC SCHOOLS EMPLOYEES RETIREMENT SYSTEM**  
**Schedule of Pension Amounts by Employer as of June 30, 2016**

<b>Employers</b>	<b>State's Proportionate Share Of the Net Pension Liability Associated with the District</b>		<b>Employer Pension Expense and Revenue for State Support</b>
Atlanta Metropolitan College	\$	5,407	\$ 886
Appling County Schools		351,448	57,616
Atkinson County Schools		194,648	31,910
Bacon County Schools		210,869	34,569
Baker County Schools		81,104	13,296
Baldwin County Schools		659,642	108,140
Banks County Schools		475,807	78,003
Barrow County Schools		1,194,924	195,893
Bartow County Schools		1,562,595	256,168
Ben Hill County Schools		383,890	62,934
Berrien County Schools		329,822	54,070
Bibb County Schools		3,330,650	546,018
Bleckley County Schools		405,517	66,479
Brantley County Schools		583,945	95,730
Brooks County Schools		367,668	60,275
Bryan County Schools		1,032,719	169,301
Bulloch County Schools		1,627,477	266,804
Burke County Schools		838,069	137,391
Butts County Schools		513,656	84,207
Calhoun County Schools		124,359	20,387
Camden County Schools		1,184,111	194,120
Candler County Schools		270,345	44,320
Carroll County Schools		1,481,491	242,872
Catoosa County Board of Education		1,643,699	269,464
Charlton County Schools		227,089	37,228
Chatham County Schools		2,638,567	432,560
Chattahoochee County Schools		162,208	26,592
Chattooga County Schools		291,973	47,865
Cherokee County Schools		3,719,948	609,839
Clarke County Schools		2,433,106	398,877
Clay County Schools		59,475	9,750
Clayton County Schools		7,277,689	1,193,088
Clinch County Schools		145,986	23,933
Cobb County Schools		12,322,331	2,020,095
Coffee County Schools		751,559	123,209
Colquitt County Schools		1,297,657	212,735
Columbia County Schools		3,281,989	538,041
Cook County Schools		416,332	68,252





<b>Employers</b>	<b>State's Proportionate Share Of the Net Pension Liability Associated with the District</b>		<b>Employer Pension Expense and Revenue for State Support</b>
Coweta County Schools	\$	3,341,464	\$ 547,791
Crawford County Schools		297,380	48,752
Crisp County Schools		692,084	113,458
Dade County Schools		275,751	45,206
Dawson County Schools		513,656	84,207
Decatur County Schools		908,360	148,914
Dekalb County Schools		11,997,914	1,966,910
Dodge County Schools		410,924	67,366
Dooly County Schools		346,042	56,729
Dougherty County Schools		2,216,830	363,421
Douglas County Schools		2,497,988	409,514
Early County Schools		281,158	46,092
Echols County Schools		86,510	14,182
Effingham County Schools		1,394,981	228,690
Elbert County Schools		378,484	62,048
Emanuel County Schools		621,793	101,935
Evans County Schools		254,125	41,661
Fannin County Schools		475,807	78,003
Fayette County Schools		2,151,946	352,785
Floyd County Schools		929,986	152,460
Forsyth County Schools		4,671,562	765,844
Franklin County Schools		486,621	79,775
Gilmer County Schools		486,621	79,775
Glascock County Schools		102,730	16,841
Glynn County Schools		1,914,043	313,783
Gordon County Schools		556,911	91,299
Grady County Schools		567,725	93,071
Greene County Schools		346,042	56,729
Gwinnett County Schools		19,091,771	3,129,860
Habersham County Schools		1,065,159	174,619
Hall County Schools		2,952,169	483,971
Hancock County Schools		275,751	45,206
Haralson County Schools		324,413	53,183
Harris County Schools		740,746	121,436
Hart County Schools		524,469	85,980
Heard County Schools		189,241	31,024
Henry County Schools		3,119,781	511,449
Houston County Schools		4,098,431	671,886
Irwin County Schools		151,392	24,819
Jackson County Schools		1,108,414	181,711
Jasper County Schools		346,042	56,729
Jeff Davis County Schools		378,484	62,048



<b>Employers</b>	<b>State's Proportionate Share Of the Net Pension Liability Associated with the District</b>		<b>Employer Pension Expense and Revenue for State Support</b>
Jefferson County Schools	\$	481,214	\$ 78,889
Jenkins County Schools		194,648	31,910
Johnson County Schools		173,021	28,365
Jones County Schools		838,069	137,391
Lamar County Schools		362,262	59,388
Lanier County Schools		178,428	29,251
Laurens County Schools		951,615	156,005
Lee County Schools		946,208	155,119
Liberty County Schools		1,584,221	259,713
Lincoln County Schools		237,903	39,001
Long County Schools		437,959	71,798
Lowndes County Schools		1,557,188	255,281
Lumpkin County Schools		578,538	94,844
Macon County Schools		313,600	51,411
Madison County Schools		421,739	69,139
Marion County Schools		162,208	26,592
Mcduffie County Schools		594,760	97,503
Mcintosh County Schools		297,380	48,752
Meriwether County Schools		583,945	95,730
Miller County Schools		183,834	30,137
Mitchell County Schools		275,751	45,206
Monroe County Schools		854,291	140,050
Montgomery County Schools		118,952	19,501
Morgan County Schools		405,517	66,479
Murray County Schools		697,490	114,345
Muscogee County Schools		4,071,396	667,454
Newton County Schools		2,546,650	417,491
Oconee County Schools		946,208	155,119
Oglethorpe County Schools		367,668	60,275
Paulding County Schools		2,579,092	422,810
Peach County Schools		297,380	48,752
Pickens County Schools		535,283	87,753
Pierce County Schools		410,924	67,366
Pike County Schools		416,332	68,252
Polk County Schools		762,372	124,981
Pulaski County Schools		210,869	34,569
Putnam County Schools		529,876	86,867
Quitman County Schools		59,475	9,750
Rabun County Schools		400,110	65,593
Randolph County Schools		194,648	31,910
Richmond County Schools		4,330,927	710,001
Rockdale County Schools		1,946,485	319,102



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	\$	118,952	\$	19,501
Screven County Schools		367,668		60,275
Seminole County Schools		237,903		39,001
Spalding County Schools		1,654,512		271,236
Stephens County Schools		627,200		102,822
Stewart County Schools		108,137		17,728
Sumter County Schools		811,036		132,959
Talbot County Schools		102,730		16,841
Taliaferro County Schools		54,069		8,864
Tattnall County Schools		481,214		78,889
Taylor County Schools		227,089		37,228
Telfair County Schools		221,683		36,342
Terrell County Schools		227,089		37,228
Thomas County Schools		692,084		113,458
Tift County Schools		670,455		109,913
Toombs County Schools		335,228		54,957
Towns County Schools		200,056		32,797
Treutlen County Schools		113,546		18,614
Troup County Schools		2,027,587		332,397
Turner County Schools		129,766		21,273
Twiggs County Schools		129,766		21,273
Union County Schools		410,924		67,366
Upson County Schools		773,187		126,754
Walker County Schools		1,568,001		257,054
Walton County Schools		1,768,056		289,851
Ware County Schools		827,256		135,618
Warren County Schools		102,730		16,841
Washington County Board of Education		373,077		61,161
Wayne County Schools		843,476		138,277
Webster County Schools		32,442		5,318
Wheeler County Schools		124,359		20,387
White County Board of Education		448,772		73,571
Whitfield County Schools		1,286,842		210,962
Wilcox County Schools		178,428		29,251
Wilkes County Schools		313,600		51,411
Wilkinson County Schools		270,345		44,320
Worth County Schools		389,297		63,820
City of Bremen Schools (Haralson)		86,510		14,182
City of Buford Schools (Gwinnett)		405,517		66,479
City of Calhoun Schools (Gordon)		216,276		35,456
City of Carrollton Schools (Carroll)		459,587		75,344
City of Cartersville Schools (Bartow)		281,158		46,092



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)	\$	124,359	\$	20,387
City of Commerce Schools (Jackson)		113,546		18,614
City of Dalton Schools (Whitfield)		670,455		109,913
City of Decatur Schools (DeKalb)		513,656		84,207
City of Dublin Schools (Laurens)		324,413		53,183
City of Gainesville Schools (Hall)		605,573		99,276
City of Jefferson Schools (Jackson)		281,158		46,092
City of Marietta Schools (Cobb)		638,015		104,595
City of Pelham Schools (Mitchell)		162,208		26,592
City of Rome Schools (Floyd)		486,621		79,775
City of Social Circle Schools (Walton)		140,579		23,046
City of Thomasville Schools (Thomas)		156,801		25,706
City of Trion Schools (Chattooga)		102,730		16,841
City of Valdosta Schools (Lowndes)		1,189,518		195,007
City of Vidalia Schools (Toomb)		221,683		36,342
Furlow Charter School		5,407		886
Georgia Magnet Charter School		21,627		3,545
Georgia Military College		373,077		61,161
Kipp Metro Atlanta Collaborative Inc		200,056		32,797
Total State of Georgia	\$	<u><b>188,517,000</b></u>	\$	<u><b>30,905,000</b></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 \$14.75 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**

Adopted by the Board December 17, 2015.

**VALUATION INTEREST RATE:** 7.50% per annum, compounded annually, net of investment expenses, composed of a 2.75% inflation assumption and a 4.75% 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 &amp; 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. See Schedule E for a brief description of this 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 Georgia 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 7.50% 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.