

April 16, 2015

Mr. James A. Potvin Executive Director Georgia Public School Employees Retirement System Two Northside 75, Suite 300 Atlanta, GA 30318-7701

Dear Mr Potvin:

Enclosed is a copy of the "Georgia Public School Employees Retirement System Report of the Actuary on the Valuation Prepared as of June 30, 2014".

Based on a monthly benefit accrual rate of \$14.75, the valuation indicates that employer contributions for the fiscal year ending June 30, 2017 of \$26,277,000 or \$727.97 per active member are sufficient to support the benefits of the System.

Please let us know if there are any questions concerning the report.

Sincerely yours,

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Edward A. Macdonald, ASA, FCA, MAAA President

Edward J. Hockel

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

EAM:mjn

Enclosure

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Cathy Turcot Principal and Managing Director

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The experience and dedication you deserve



GEORGIA PUBLIC SCHOOL EMPLOYEES RETIREMENT SYSTEM

REPORT OF THE ACTUARY ON THE VALUATION PREPARED AS OF JUNE 30, 2014



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April 16, 2015

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

Attention: James A. Potvin, Executive Director

Members of the Board:

Section 47-4-60 of the law governing the operation of the Georgia Public School Employees Retirement System provides that the employer contribution shall be actuarially determined and approved by the Board of Trustees. We have submitted the report giving the results of the actuarial valuation of the System prepared as of June 30, 2014. Based on a monthly benefit accrual rate of \$14.75, the valuation indicates that annual employer contributions of \$26,277,000 or \$727.97 per active member for the fiscal year ending June 30, 2017 are sufficient to support the benefits of the System.

The results of the valuation reflect that the Board did not grant the anticipated cost-of-living increases (COLAs) to retired members on July 1, 2014 and on January 1, 2015.

In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the System enacted through the 2014 session of the General Assembly.

The System is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System. The assumptions and methods used for funding purposes meet the parameters set for the disclosures presented in the financial section by Governmental Accounting Standards Board (GASB) Statement No. 27. The funding objective of the plan is that contribution rates over time will remain level as a dollar per active member. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a dollar per active member. Gains and losses are reflected in the total unfunded accrued liability which is being amortized as a level dollar per active member in accordance with the funding policy adopted by the Board.

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April 16, 2015 Board of Trustees Page 2

Effective this fiscal year, the Plan will be required to comply with the financial reporting requirements of GASB Statement No. 67. The necessary disclosure information has been provided in a separate supplemental report.

The System is currently being funded in conformity with the minimum funding standard set forth in Code Section 47-20-10 of the Public Retirement Systems Standards Law and the funding policy adopted by the Board. In our opinion the System is currently operating on an actuarially sound basis. Assuming that contributions to the System are made by the employer from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the System and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

Sincerely yours,

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Edward A. Macdonald, ASA, FCA, MAAA President

Edward J. Hockel

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

EAM:mjn

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Cathy Turcot Principal and Managing Director



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GEORGIA PUBLIC SCHOOL EMPLOYEES RETIREMENT SYSTEM REPORT OF THE ACTUARY ON THE VALUATION PREPARED AS OF JUNE 30, 2014

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below:

Valuation Date	June 30, 2014	June 30, 2013	
Number of active members	36,096	37,361	
Retired members and beneficiaries: Number Annual allowances	16,395 \$56,326,884	15,697 \$55,181,763	
Deferred Vested Members: Number Annual allowances	4,049 \$ 10,460,250	3,797 \$ 9,780,161	
Assets: Market Value Actuarial Value	\$ 821,733,000 765,450,000	\$ 727,268,000 727,268,000	
Unfunded actuarial accrued liability	\$ 158,915,410	\$ 182,988,036	
Blended Amortization period (years)	23.9	25.0	
Funded Ratio	82.8%	79.9%	
For Fiscal Year Ending	June 30, 2017	June 30, 2016	
Actuarially Determined Employer Contribution (ADEC)			
Per active member: Normal* Unfunded Actuarial Accrued Liability	\$ 326.32 401.65	\$ 325.57 	
Total	\$ 727.97	\$ 764.97	
Annual Amount: Normal* Unfunded Actuarial Accrued Liability	\$ 11,779,000 14,498,000	\$ 12,164,000 <u>16,416,000</u>	
Total	\$ 26,277,000	\$ 28,580,000	

* The normal contribution includes administrative expenses.



- 2. The major benefit and contribution provisions of the System as reflected in the valuation are summarized in Schedule H. The valuation takes into account the effect of amendments of the System enacted through the 2014 session of the General Assembly. There have been no changes since the previous valuation.
- 3. The valuation reflects that the Board did not grant the anticipated cost-of-living increases to retired members on July 1, 2014 and on January 1, 2015.
- Schedule D of this report outlines the full set of actuarial assumptions and methods used to prepare the current valuation. There have been no changes since the previous valuation. The Board Funding Policy is shown in Schedule F.
- 5. The entry age actuarial cost method was used to prepare the valuation. Schedule E contains a brief description of this method.
- Comments on the valuation results as of June 30, 2014 are given in Section IV, and further discussion of the contributions is set out in Section V.
- 7. We have prepared the Solvency Test and Schedule of Retirants Added to and Removed from Rolls for the System's Comprehensive Annual Financial Report. These tables are shown in Schedule J.



SECTION II - MEMBERSHIP

- Data regarding the membership of the System for use as a basis of the valuation were furnished by the Retirement System office. The valuation included 36,096 active members.
- 2. Data was provided by the Retirement System for inactive members who are eligible for deferred vested benefits. The valuation included 4,049 deferred vested members with annual allowances totaling \$10,460,250. In addition, there are 73,270 inactive non-vested members included in the valuation entitled to a refund of member contributions.
- The following table shows the number of retired members and beneficiaries on the roll as of June 30, 2014, together with the amount of their annual allowances payable under the System as of that date.

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
Service Retirements	14,378	\$ 49,137,805
Disability Retirements	1,103	5,229,609
Beneficiaries of Deceased Members	<u>914</u>	1,959,470
Total	16,395	\$ 56,326,884

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES ON THE ROLL AS OF JUNE 30, 2014



SECTION III - ASSETS

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

The Annuity Savings Fund is the fund to which are credited all contributions made by members together with regular interest thereon. When a member retires, or if a death benefit allowance becomes payable to his beneficiary, his accumulated contributions are transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The portion of the allowance which these contributions provide is then paid from the Pension Accumulation Fund. On June 30, 2014 the value of assets credited to the Annuity Savings Fund amounted to \$26,034,000.

(b) Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which all income from investments and all contributions made by employers of members of the System and by the State for members of local retirement funds are credited. All retirement allowance and death benefit allowance payments are disbursed from this fund. Upon the retirement of a member, or upon his death if a death benefit allowance is payable, his accumulated contributions are transferred from the Annuity Savings Fund to this fund to provide the member-contributed portion of the allowance. On June 30, 2014 the market value of assets credited to the Pension Accumulation Fund amounted to \$795,699,000.

- 2. As of June 30, 2014 the total market value of assets amounted to \$821,733,000 as reported by the Auditor of the System. The actuarial of assets as of June 30, 2014 was determined to be \$765,450,000 based on a 5-year smoothing of investment gains and losses. Schedule B shows the development of the actuarial value of assets as of June 30, 2014.
- 3. Schedule C shows receipts and disbursements of the System for the two years preceding the valuation date and a reconciliation of the fund balances at market value.



SECTION IV - COMMENTS ON VALUATION

- Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of June 30, 2014. The valuation was prepared in accordance with the actuarial assumptions and methods set forth in Schedule D and the actuarial cost method which is described in Schedule E.
- 2. The valuation balance sheet shows that the System has total prospective liabilities of \$979,488,586, of which \$566,343,834 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and \$413,144,752 is for the prospective benefits payable on account of present active members. Against these liabilities, the System has total present assets for valuation purposes of \$765,450,000 as of June 30, 2014. The difference of \$214,038,586 between the total liabilities and the total present assets represents the present value of contributions to be made in the future. Of this amount, \$8,370,342 is the present value of future contributions expected to be made by or on behalf of members, and the balance of \$205,668,244 represents the present value of future contributions payable by the employers to the Pension Accumulation Fund.
- 3. The employer's contributions to the System consist of normal contributions and unfunded actuarial accrued liability (UAAL) contributions. The valuation indicates that annual employer normal contributions at the rate of \$266.30 per active member are required to provide the currently accruing benefits of the System. An additional \$60.02 per active member is required to fund the administrative expenses of the System.
- 4. Prospective normal contributions (net of expenses) have a present value of \$46,752,834. When this amount is subtracted from \$205,668,244, which is the present value of the total future contributions to be made by the employers, the result is a prospective unfunded actuarial accrued liability of \$158,915,410.



- 5. The funding policy adopted by the Board, as shown in Schedule F, provides that the unfunded actuarial accrued liability as of June 30, 2013 (Transitional UAAL) will be amortized as a level dollar amount over a closed 25-year period. In each subsequent valuation all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation will determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level dollar as a level dollar amount over a closed 25-year period from the date it is established.
- 6. The total accrued liability contribution rate is \$401.65 per active member, determined in accordance with the Board's funding policy.
- 7. The Transitional UAAL as of June 30, 2013 was \$182,988,036. The remaining balance of the Transitional UAAL as of June 30, 2014 of \$180,296,159 was determined by adding interest at 7.50% and subtracting the expected annual amortization payment of \$16,415,980. The new Incremental UAAL of \$(21,380,749) as of June 30, 2014 is determined by subtracting the remaining balance of the Transitional UAAL from the total UAAL of \$158,915,410 as of June 30, 2014. Schedule G of this report shows the amortization schedules for the Transitional UAAL and the New Incremental UAAL as of June 30, 2014.
- 8. The following table shows the components of the total unfunded actuarial accrued liability (UAAL) and the derivation of the UAAL contribution rate in accordance with the funding policy.

	UAAL	Amortization Period (years)	Amortization <u>Payment</u>
Transitional New Incremental 6/30/2014 Total UAAL	\$180,296,159 <u>(21,380,749)</u> \$158,915,410	24 25	\$16,415,980 <u>(1,918,081)</u> \$14,497,899
Blended Amortization Period (year UAAL Contribution Rate per active			23.9 \$401.65

TOTAL UAAL AND UAAL CONTRIBUTION RATE



SECTION V - CONTRIBUTIONS PAYABLE BY EMPLOYERS

- 1. The contributions of employers consist of a normal contribution and an unfunded actuarial accrued liability contribution (UAAL) as determined by actuarial valuation.
- 2. The normal contribution rate is calculated as the level dollar which, if applied for the average member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf. On the basis of the valuation, the normal contribution rate was determined to be \$266.30 per active member, or \$9,612,000 based on 36,096 active members as of June 30, 2014.
- 3. An additional \$2,166,000, or \$60.02 per active member, is required to fund the administrative expenses of the System.
- 4. The total normal contribution including administrative expenses is, therefore, \$11,779,000, or \$326.32 per active member.
- 5. The UAAL contribution is the level annual amount which will be sufficient to amortize the UAAL in accordance with the Board's funding policy. The annual UAAL contribution determined on this basis by the June 30, 2014 valuation is \$14,498,000, or \$401.65 per active member.
- 6. The following table summarizes the employer contribution rates which were determined by the June 30, 2014 valuation and are recommended for use.

CONTRIBUTION	PER ACTIVE MEMBER	ANNUAL AMOUNT
Normal	\$ 326.32	\$ 11,779,000
Unfunded Actuarial Accrued Liability	<u>401.65</u>	<u>14,498,000</u>
Total	\$ 727.97	\$ 26,277,000

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC) FOR FISCAL YEAR ENDING JUNE 30, 2017

 Schedule K shows the allocation of the annual required contribution for fiscal year ending June 30, 2017 by school system.



SECTION VI - ACCOUNTING INFORMATION

Governmental Accounting Standards Board (GASB) has issued Statement No. 67 which replaces Statement 25 for plan years beginning after June 15, 2013. The information required under GASB 67 was issued in a separate report. The following information is provided for informational purposes and for disclosure in the financial statements of the employer under GASB 27.

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

16,395
77,319
<u>36,096</u>
29,810

NUMBER OF ACTIVE AND RETIRED MEMBERS AS OF JUNE 30, 2014

2. The schedule of funding progress is shown below.

SCHEDULE OF FUNDING PROGRESS

(Dollar amounts in thousands)

Actuarial Valuation <u>Date</u>	Actuarial Value of Assets <u>(a)</u>	Actuarial Accrued Liability (AAL) - Entry Age <u>(b)</u>	Unfunded AAL (UAAL) <u>(b – a)</u>	Funded Ratio <u>(a / b)</u>	Covered Payroll <u>(c)</u>	UAAL as a Percentage of Covered Payroll <u>((b-a)/c)</u>
6/30/2009	\$ 769,618	\$ 823,232	\$ 53,614	93.5%	N/A	N/A
6/30/2010	737,406	875,396	137,990	84.2	N/A	N/A
6/30/2011	719,601	885,927	166,326	81.2	N/A	N/A
6/30/2012	710,915	895,324	184,409	79.4	N/A	N/A
6/30/2013	727,268	910,256	182,988	79.9	N/A	N/A
6/30/2014	765,450	924,365	158.915	82.8	N/A	N/A



Year	Actuarially Determined	Percentage
<u>Ending</u>	Employer Contribution (ADEC)	Contributed
6/30/2009	\$ 5,529	100%
6/30/2010	5,529	100
6/30/2011	7,509	100
6/30/2012	15,884	100
6/30/2013	24,829	100
6/30/2014	27,160	100

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

4. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2014. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2014
Actuarial cost method	Entry age
Amortization method	Level dollar, closed
Remaining amortization period	23.9 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return*	7.50%
Projected salary increases*	N/A
Cost-of-living adjustments	1.50% semi-annually

*Includes inflation at 3.00%



SECTION VII – EXPERIENCE

- 1. The last experience investigation was prepared for the five-year period ending June 30, 2009, and based on the results of the investigation various assumptions and methods were revised and adopted by the Board on December 16, 2010. The next experience investigation will be prepared for the period July 1, 2009 through June 30, 2014.
- The following table shows the estimated gain or loss from various factors that resulted in a decrease of \$24,072,626 in the unfunded actuarial accrued liability from \$182,988,036 to \$158,915,410 during the fiscal year ending June 30, 2014.

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.50%) added to previous unfunded actuarial accrued liability Accrued liability contribution	\$ 13,724.1 (15,915.4)
Experience: Valuation asset growth Pensioners' mortality Turnover and retirements New entrants Method changes Assumption changes Amendments No 7/1/2014, 1/1/2015 COLAs Miscellaneous	$(14,071.0) \\ 1,286.7 \\ 2,580.8 \\ 2,786.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ (14,398.9) \\ (64.9)$
Total	\$ (24,072.6)

ANALYSIS OF THE INCREASE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY (in thousands of dollars)



SCHEDULE A

VALUATION BALANCE SHEET SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE GEORGIA PUBLIC SCHOOL EMPLOYEES RETIREMENT SYSTEM AS OF JUNE 30, 2014

	ACTUARIAL LIABILITIES			
(1)	 Present value of prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits Service and disability benefits Death and survivor benefits Deferred vested benefits Total 	\$	474,984,891 19,011,977 72,346,966	\$ 566,343,834
(2)	Present value of prospective benefits payable on account of present active members			413,144,752
(3)	TOTAL ACTUARIAL LIABILITIES			<u>\$ 979,488,586</u>
	PRESENT AND PROSPECTIVE A	SSE	<u>TS</u>	
(4)	Actuarial value of assets			\$765,450,000
(5)	Present value of total future contributions = (3)-(4)	\$	214,038,586	
(6)	Present value of future member contributions			8,370,342
(7)	Present value of future employer contributions = (5)-(6)	\$	205,668,244	
(8)	Prospective normal contributions			46,752,834
(9)	Prospective unfunded actuarial accrued liability contributions = (7)-(8)			<u>158,915,410</u>
(10)	TOTAL PRESENT AND PROSPECTIVE ASSETS			<u>\$ 979,488,586</u>



SCHEDULE B

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

(1)	Actuarial Value Beginning of Year			727,268,000
(2)	Market Value End of Year			821,733,000
(3)	Mark	et Value Beginning of Year	\$	727,268,000
(4)	Cash	Flow		
	(a)	Contributions	\$	28,819,000
	(b)	Benefit Payments		(56,703,000)
	(c)	Administrative Expenses		(1,450,000)
	(d)	Investment Expenses		(309,000)
	(e)	Net: $(4)(a) + (4)(b) + 4(c) + 4(d)$	\$	(29,643,000)
(5)	Inves	tment Income		
	(a)	Market Total: (2) – (3) – (4)(e)	\$	124,108,000
	(b)	Assumed Rate		7.50%
	(c)	Amount for Immediate Recognition: [(3) x (5)(b)] + {[(4)(a) +4(b) + 4(c)]x (5)(b) x 0.5} - 4(d)	\$	53,754,000
	(d)	Amount for Phased-In Recognition: (5)(a) - (5)(c)		70,354,000
(6)	Phase	ed-In Recognition of Investment Income		
	(a)	Current Year: (5)(d) / 5	\$	14,071,000
	(b)	First Prior Year		0
	(c)	Second Prior Year		0
	(d)	Third Prior Year		0
	(e)	Fourth Prior Year		0
	(f)	Total Recognized Investment Gain	\$	14,071,000
(7)	Actua	rial Value End of Year: (1) + (4)(e) + (5)(c) + (6)(f)	\$	765,450,000
(8)	Difference Between Market & Actuarial Values: (2) – (7)		\$	56,283,000
(9)	Rate	of Return on Actuarial Value		9.47%



SCHEDULE C

SUMMARY OF RECEIPTS AND DISBURSEMENTS (Market Value)

	YEAR ENDING		
Receipts for the Year	<u>June 30, 2014</u>	<u>June 30, 2013</u>	
	(\$1,000's)	(\$1,000's)	
Contributions: Members Employer	\$ 1,659 <u>27,160</u>	\$	
Subtotal	\$ 28,819	\$ 26,367	
Investment Earnings (Net of Investment Expenses)	123,799	88,067	
TOTAL	\$ 152,618	\$ 114,434	
Disbursements for the Year			
Benefit Payments	\$ 56,189	\$ 55,041	
Refunds to Members	514	492	
Administrative Expenses	1,450	2,021	
TOTAL	\$ 58,153	\$ 57,554	
Excess of Receipts over Disbursements	\$ 94,465	\$ 56,880	
Reconciliation of Asset Balances			
Asset Balance as of the Beginning of Year	\$ 727,268	\$ 670,388	
Excess of Receipts over Disbursements	94,465	<u> </u>	
Asset Balance as of the End of Year	<u>\$ 821,733</u>	<u>\$ 727,268</u>	
Rate of Return	17.37%	13.45%	



SCHEDULE D

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

Adopted by the Board December 16, 2010.

VALUATION INTEREST RATE: 7.50% per annum, compounded annually, net of investment expenses, composed of a 3.00% inflation assumption and a 4.50% real rate of investment return assumption.

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

	Annual Rates of Withdrawal Years of Service					
Age	<u>0-4</u>	<u>5-9</u> <u>Males</u>	<u>10 & Over</u>			
20 25 30 35 40 45 50 55 60	35.0% 30.0 27.0 24.0 21.0 20.0 18.0 15.0 13.0	17.0% 16.0 14.0 12.0 11.0 11.0 9.0 9.0	14.0% 9.0 7.0 6.5 6.5 6.0			
		<u>Females</u>				
20 25 30 35 40 45 50 55 60	34.0% 29.0 24.0 20.0 17.0 16.0 14.0 12.0 11.0	19.0% 15.0 13.0 12.0 10.0 9.0 8.0 7.0	11.0% 10.0 8.0 7.0 6.5 6.0			



	Annual Rates of					
Age	Dea	ith	Disability			
	Males	<u>Females</u>				
20	0.036%	0.019%	0.00%			
25	0.038	0.021	0.00			
30	0.050	0.026	0.00			
35	0.084	0.048	0.00			
40	0.114	0.071	0.01			
45	0.162	0.112	0.04			
50	0.245	0.168	0.09			
55	0.420	0.272	0.23			
60	0.778	0.506	0.35			
65	1.441	0.971	0.00			

RETIREMENT:

Age	Annual Rate	Age	Annual Rate
60	15%	68	25%
61	15	69	25
62	22	70	25
63	18	71	25
64	18	72	25
65	28	73	25
66	25	74	25
67	25	75 & Over	100

DEATHS AFTER RETIREMENT: The RP-2000 Combined Table set forward one year for males is used for the period after service retirement and for beneficiaries of deceased members. The RP-2000 Disabled Mortality Table set back 2 years for males and set forward one year for 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 16, 2010, the numbers of expected future deaths are 8-10% less than the actual number of deaths that occurred during the study period for healthy retirees and 18-33% 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	0.114%	0.071%	65	1.441%	0.971%
45	0.162	0.112	70	2.457	1.674
50	0.245	0.168	75	4.217	2.811
55	0.420	0.272	80	7.204	4.588
60	0.768	0.506	85	12.280	7.745



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

AMORTIZATION METHOD: Level dollar amortization.

ASSET METHOD: Actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. The actuarial value was set equal to the market value as of June 30, 2013. The amount recognized each year beginning June 30, 2014 will be 20% of the difference between market value and expected actuarial 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: 75% 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

ACTUARIAL COST METHOD

- 1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 7.50%), of each member's expected benefits at retirement or death is determined, based on age, service and sex. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members, beneficiaries and members entitled to deferred vested benefits to obtain the present value of all expected benefits payable from the System on account of the present group of members and beneficiaries.
- The employer contributions required to support the benefits of the System are determined following a level funding approach, and consist of a normal contribution and an unfunded actuarial accrued liability contribution.
- 3. The normal contribution is determined using the entry age actuarial cost method. Under this method, a calculation is made to determine the level amount which, if applied for the average member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
- 4. The unfunded actuarial accrued liability contributions are determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets, from the present value of expected benefits to be paid from the System.



SCHEDULE F

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 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.



SCHEDULE G

AMORTIZATION OF UAAL

			Annual
	Amortization	Balance of	Amortization
Valuation Date	Period	Transitional UAAL	<u>Payment</u>
6/30/2013	25	\$182,988,036	\$16,415,980
6/30/2014	24	180,296,159	16,415,980
6/30/2015	23	177,402,391	16,415,980
6/30/2016	22	174,291,591	16,415,980
6/30/2017	21	170,947,481	16,415,980
6/30/2018	20	167,352,562	16,415,980
6/30/2019	19	163,488,025	16,415,980
6/30/2020	18	159,333,647	16,415,980
6/30/2021	17	154,867,691	16,415,980
6/30/2022	16	150,066,788	16,415,980
6/30/2023	15	144,905,818	16,415,980
6/30/2024	14	139,357,774	16,415,980
6/30/2025	13	133,393,628	16,415,980
6/30/2026	12	126,982,170	16,415,980
6/30/2027	11	120,089,854	16,415,980
6/30/2028	10	112,680,613	16,415,980
6/30/2029	9	104,715,679	16,415,980
6/30/2030	8	96,153,376	16,415,980
6/30/2031	7	86,948,899	16,415,980
6/30/2032	6	77,054,087	16,415,980
6/30/2033	5	66,417,164	16,415,980
6/30/2034	4	54,982,472	16,415,980
6/30/2035	3	42,690,178	16,415,980
6/30/2036	2	29,475,961	16,415,980
6/30/2037	1	15,270,679	16,415,980
6/30/2038	0	0	0



AMORTIZATION OF UAAL (continued)

		Balance of	Annual
	Amortization	New Incremental	Amortization
Valuation Date	Period	<u>UAAL 6/30/2014</u>	<u>Payment</u>
6/30/2014	25	(\$21,380,749)	(\$1,918,081)
6/30/2015	24	(21,066,224)	(1,918,081)
6/30/2016	23	(20,728,109)	(1,918,081)
6/30/2017	22	(20,364,636)	(1,918,081)
6/30/2018	21	(19,973,902)	(1,918,081)
6/30/2019	20	(19,553,864)	(1,918,081)
6/30/2020	19	(19,102,322)	(1,918,081)
6/30/2021	18	(18,616,915)	(1,918,081)
6/30/2022	17	(18,095,102)	(1,918,081)
6/30/2023	16	(17,534,154)	(1,918,081)
6/30/2024	15	(16,931,134)	(1,918,081)
6/30/2025	14	(16,282,887)	(1,918,081)
6/30/2026	13	(15,586,023)	(1,918,081)
6/30/2027	12	(14,836,893)	(1,918,081)
6/30/2028	11	(14,031,579)	(1,918,081)
6/30/2029	10	(13,165,866)	(1,918,081)
6/30/2030	9	(12,235,224)	(1,918,081)
6/30/2031	8	(11,234,785)	(1,918,081)
6/30/2032	7	(10,159,312)	(1,918,081)
6/30/2033	6	(9,003,179)	(1,918,081)
6/30/2034	5	(7,760,336)	(1,918,081)
6/30/2035	4	(6,424,280)	(1,918,081)
6/30/2036	3	(4,988,020)	(1,918,081)
6/30/2037	2	(3,444,040)	(1,918,081)
6/30/2038	1	(1,784,262)	(1,918,081)
6/30/2039	0	0	0



SCHEDULE H

SUMMARY OF MAIN SYSTEM PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

The 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	retrement.
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	 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 I

NUMBER OF ACTIVE MEMBERS BY AGE AND SERVICE AS OF JUNE 30, 2014

	Years of Service									
Attained Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	155	300	10	0	0	0	0	0	0	465
25 to 29	225	555	179	5	0	0	0	0	0	964
30 to 34	215	801	403	97	2	0	0	0	0	1,518
35 to 39	244	939	735	218	55	4	0	0	0	2,195
40 to 44	290	1,330	1,179	621	204	59	3	0	0	3,686
45 to 49	285	1,424	1,579	974	551	165	68	7	0	5,053
50 to 54	304	1,600	1,773	1,333	841	400	215	64	3	6,533
55 to 59	235	1,464	1,673	1,144	780	471	342	161	65	6,335
60 to 64	142	1,080	1,334	826	528	359	285	144	103	4,801
65 to 69	85	549	977	519	249	157	123	64	65	2,788
70 & Up	25	223	692	416	176	85	59	29	53	1,758
Total	2,205	10,265	10,534	6,153	3,386	1,700	1,095	469	289	36,096

Average Age: 52.4 Average Service: 9.2



NUMBER OF RETIRED MEMBERS AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	0	\$ 0	\$ 0
50 – 54	0	0	0
55 – 59	0	0	0
60 - 64	1,083	2,714,654	2,507
65 – 69	3,119	8,968,008	2,875
70 – 74	3,448	10,979,310	3,184
75 – 79	2,909	10,197,052	3,505
80 - 84	2,092	8,399,703	4,015
85 – 89	1,133	5,104,591	4,505
90 – 94	458	2,117,215	4,623
95 & Over	136	657,272	4,833
Total	14,378	\$ 49,137,805	\$ 3,418

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	139	\$ 184,957	\$ 1,331
50 – 54	65	93,825	1,443
55 – 59	66	136,427	2,067
60 - 64	94	176,881	1,882
65 – 69	92	181,802	1,976
70 – 74	140	302,627	2,162
75 – 79	107	275,612	2,576
80 - 84	106	301,924	2,848
85 – 89	60	172,171	2,870
90 - 94	27	86,611	3,208
95 & Over	18	46,633	2,591
Total	914	\$ 1,959,470	\$ 2,144



NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	16	\$ 54,987	\$ 3,437
50 – 54	46	179,298	3,898
55 – 59	140	553,522	3,954
60 - 64	232	974,720	4,201
65 – 69	205	944,022	4,605
70 – 74	229	1,196,800	5,226
75 – 79	146	804,410	5,510
80 - 84	59	335,892	5,693
85 – 89	21	134,718	6,415
90 - 94	7	38,579	5,511
95 & Over	2	12,661	6,331
Total	1,103	\$ 5,229,609	\$ 4,741

NUMBER OF DEFERRED VESTED MEMBERS AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 35	21	\$ 42,064	\$ 2,003
35 – 39	72	155,223	2,156
40 – 44	233	525,202	2,254
45 – 64	511	1,232,065	2,411
50 – 54	965	2,438,792	2,527
55 – 59	1,169	3,108,550	2,659
60 - 64	792	2,135,507	2,696
65 – 69	207	585,188	2,827
70 – 74	50	156,431	3,129
75 & Over	29	81,228	2,801
Total	4,049	\$ 10,460,250	\$ 2,583



SCHEDULE J

CAFR SCHEDULES

	GA PSERS: Solvency Test						
	Actua	rial Accrued Liabi	lity for:				
Actuarial			Active Members				
Valuation	Active Member	Retirants &	(Employer	Valuation	Portion of	of Aggregate	Accrued
as of 6/30	Contributions	Beneficiaries	Funded Portion)	Assets	Liabilitie	s Covered b	y Assets
	(1)	(2)	(3)		(1)	(2)	(3)
2014	\$16,995	\$566,344	\$341,026	\$765,450	100%	100.0%	53.4%
2013	17,016	549,796	343,444	727,268	100%	100.0%	46.7%
2012	16,917	537,284	341,123	710,915	100%	100.0%	45.9%
2011	16,627	532,509	336,790	719,601	100%	100.0%	50.6%
2010	16,361	528,808	330,227	737,406	100%	100.0%	58.2%
2009	15,862	506,659	300,711	769,618	100%	100.0%	82.2%
2008	15,285	469,601	286,064	791,855	100%	100.0%	100.0%
2007	14,796	456,868	274,414	785,460	100%	100.0%	100.0%
2006	14,321	428,543	248,787	766,277	100%	100.0%	100.0%

All dollar amounts are in thousands.

GA PSERS: Schedule of Retirants Added to and Removed from Rolls

	Ad	lded to Rolls	Rem	oved from Rolls	Rol	I End of Year		
							% Increase	Average
		Annual Allowances	5	Annual Allowances		Annual Allowances	in Annual	Annual
Year Ended	Number	(in thousands)	Number	(in thousands)	Number	(in thousands)	Allowances	Allowances
June 30, 2014	1,345	\$3,749	647	\$2,604	16,395	\$56,327	2.1%	\$3,436
June 30, 2013	1,298	3,803	650	2,738	15,697	55,182	2.0%	3,515
June 30, 2012	1,133	3,192	684	2,834	15,049	54,117	0.7%	3,596
June 30, 2011	1,174	3,168	731	3,072	14,600	53,759	0.2%	3,682
June 30, 2010	1,001	4,494	642	2,666	14,157	53,663	3.5%	3,791
June 30, 2009	886	5,290	575	2,260	13,798	51,835	6.2%	3,757
June 30, 2008	899	4,514	605	2,371	13,487	48,805	4.6%	3,619
June 30, 2007	816	4,749	637	2,353	13,193	46,662	5.4%	3,537
June 30, 2006	870	4,835	531	1,885	13,014	44,266	7.1%	3,401



SCHEDULE K

System		
Number	System Name	Contribution
1	Appling	\$ 50,958
2	Atkinson	24,751
3	Bacon	26,935
4	Baker	8,008
5	Baldwin	98,277
6	Banks	61,150
7	Barrow	168,890
8	Bartow	235,864
9	Ben Hill	54,598
10	Berrien	45,862
11	Bibb	460,080
12	Bleckley	56,782
13	Brantley	80,805
14	Brooks	54,598
15	Bryan	125,212
16	Bulloch	223,488
17	Burke	116,476
18	Butts	71,342
19	Calhoun	16,743
20	Camden	163,794
21	Candler	37,127
22	Carroll	204,561
23	Catoosa	237,320
24	Charlton	32,031
25	Chatham	363,988
26	Chattahoochee	21,839
27	Chattooga	40,767
28	Cherokee	487,744
29	Clarke	320,309
30	Clay	8,008
31	Clayton	855,371
32	Clinch	18,927
33	Cobb	1,771,894
34	Coffee	89,541
35	Colquitt	177,626
36	Columbia	420,042
37	Cook	60,422
38	Coweta	437,513
39	Crawford	37,855



Questions		
System Number	System Name	Contribution
40	Crisp	\$ 93,181
41	Dade	38,583
42	Dawson	69,886
43	Decatur	123,756
44	Dekalb	1,557,141
45	Dodge	61,150
46	Dooly	40,039
47	Dougherty	347,972
48	Douglas	446,249
49	Early	41,495
50	Echols	10,920
51	Effingham	191,458
52	Elbert	54,598
53	Emanuel	83,717
54	Evans	29,847
55	Fannin	66,246
56	Fayette	313,757
57	Floyd	149,235
58	Forsyth	596,940
59	Franklin	65,518
61	Gilmer	69,886
62	Glascock	13,832
63	Glynn	261,343
64	Gordon	87,357
65	Grady	78,621
66	Greene	48,774
67	Gwinnett	2,679,680
68	Habersham	153,603
69	Hall	460,080
70	Hancock	39,311
71	Haralson	51,686
72	Harris	99,005
73	Hart	69,886
74	Heard	33,487
75	Henry	436,057
76	Houston	551,805
77	Irwin	25,479
78	Jackson	142,683



Queter		
System Number	System Name	Contribution
79	Jasper	\$ 44,406
80	Jeff Davis	61,150
81	Jefferson	66,246
82	Jenkins	26,207
83	Johnson	21,839
84	Jones	118,660
85	Lamar	52,414
86	Lanier	24,023
87	Laurens	129,580
88	Lee	141,955
89	Liberty	233,680
90	Lincoln	30,575
91	Long	59,694
92	Lowndes	211,113
93	Lumpkin	85,901
94	Macon	49,502
95	Madison	69,158
96	Marion	24,023
97	McDuffie	85,901
98	McIntosh	40,039
99	Meriwether	77,165
100	Miller	26,207
101	Mitchell	34,943
102	Monroe	109,196
103	Montgomery	16,015
104	Morgan	57,510
105	Murray	113,564
106	Muscogee	601,308
107	Newton	351,612
108	Oconee	129,580
109	Oglethorpe	50,958
110	Paulding	488,471
111	Peach	53,142
112	Pickens	87,357
113	Pierce	56,782
114	Pike	56,054
115	Polk	103,373
116	Pulaski	29,847
117	Putnam	72,798



System		
Number	System Name	Contribution
118	Quitman	\$ 8,008
119	Rabun	56,054
120	Randolph	26,207
121	Richmond	580,924
122	Rockdale	260,615
123	Schley	17,471
124	Screven	50,958
125	Seminole	31,303
126	Spalding	227,856
127	Stephens	117,932
128	Stewart	17,471
129	Sumter	106,284
130	Talbot	13,832
131	Taliaferro	6,552
132	Tattnall	69,886
133	Taylor	32,759
134	Telfair	30,575
135	Terrell	32,759
136	Thomas	88,085
137	Tift	99,733
138	Toombs	55,326
139	Towns	26,207
140	Treutlen	21,111
141	Troup	270,079
142	Turner	19,655
143	Twiggs	20,383
144	Union	55,326
145	Upson	109,196
146	Walker	209,657
147	Walton	228,584
148	Ware	115,020
149	Warren	18,927
150	Washington	52,414
151	Wayne	123,028
152	Webster	7,280
153	Wheeler	15,287
154	White	93,181
155	Whitfield	193,641
156	Wilcox	24,023



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