



Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

April 18, 2019

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, 2018".

Based on a monthly benefit accrual rate of \$15.25, which is effective July 1, 2018, the valuation indicates that employer contributions for the fiscal year ending June 30, 2021 of \$30,264,000 or \$865.85 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,

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

Cathy Turcot
Principal and Managing Director

Ben Mobley, ASA, FCA, MAAA
Senior Actuary

Enclosure



Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve



EMPLOYEES'
RETIREMENT SYSTEM
OF GEORGIA

GEORGIA PUBLIC SCHOOL EMPLOYEES
RETIREMENT SYSTEM

REPORT OF THE ACTUARY ON THE VALUATION
PREPARED AS OF JUNE 30, 2018





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

April 18, 2019

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

Attention: Mr. James 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, 2018. Based on a monthly benefit accrual rate of \$15.25, which is effective July 1, 2018, the valuation indicates that annual employer contributions of \$30,264,000 or \$865.85 per active member for the fiscal year ending June 30, 2021 are sufficient to support the benefits of the System.

Since the previous valuation, the monthly benefit rate has been increased from \$15.00 to \$15.25 per year of creditable service with an effective date of July 1, 2018. In addition, the results of the valuation reflect that the Board granted a 2% cost-of-living adjustment (COLA) on July 1, 2018 to certain retired members and beneficiaries rather than the 1.50% anticipated cost-of-living adjustments to retired members on July 1, 2018 and on January 1, 2019.

Effective with the June 30, 2017 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. Since the actual rate of return for the year ending June 30, 2018 was greater than 7.40%, the assumed rate of return used in the current valuation was decreased from 7.40% to 7.30%.

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 2018 session of the General Assembly.



Schedule G – Amortization of UAAL

AMORTIZATION OF 2016 INCREMENTAL UAAL

<u>Valuation Date</u>	<u>Amortization Period</u>	<u>Balance of New Incremental UAAL 6/30/2016</u>	<u>Annual Amortization Payment</u>
6/30/2016	25	(\$4,944,605)	(\$443,584)
6/30/2017	24	(4,871,867)	(439,795)
6/30/2018	23	(4,792,589)	(436,120)
6/30/2019	22	(4,706,329)	(436,120)
6/30/2020	21	(4,613,771)	(436,120)
6/30/2021	20	(4,514,457)	(436,120)
6/30/2022	19	(4,407,893)	(436,120)
6/30/2023	18	(4,293,550)	(436,120)
6/30/2024	17	(4,170,859)	(436,120)
6/30/2025	16	(4,039,213)	(436,120)
6/30/2026	15	(3,897,956)	(436,120)
6/30/2027	14	(3,746,387)	(436,120)
6/30/2028	13	(3,583,754)	(436,120)
6/30/2029	12	(3,409,248)	(436,120)
6/30/2030	11	(3,222,004)	(436,120)
6/30/2031	10	(3,021,090)	(436,120)
6/30/2032	9	(2,805,510)	(436,120)
6/30/2033	8	(2,574,193)	(436,120)
6/30/2034	7	(2,325,990)	(436,120)
6/30/2035	6	(2,059,668)	(436,120)
6/30/2036	5	(1,773,904)	(436,120)
6/30/2037	4	(1,467,279)	(436,120)
6/30/2038	3	(1,138,271)	(436,120)
6/30/2039	2	(785,245)	(436,120)
6/30/2040	1	(406,449)	(436,120)
6/30/2041	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2017 INCREMENTAL UAAL

<u>Valuation Date</u>	<u>Amortization Period</u>	<u>Balance of New Incremental UAAL 6/30/2017</u>	<u>Annual Amortization Payment</u>
6/30/2017	25	\$18,819,066	\$1,673,487
6/30/2018	24	18,538,189	1,659,121
6/30/2019	23	18,232,356	1,659,121
6/30/2020	22	17,904,197	1,659,121
6/30/2021	21	17,552,082	1,659,121
6/30/2022	20	17,174,263	1,659,121
6/30/2023	19	16,768,863	1,659,121
6/30/2024	18	16,333,869	1,659,121
6/30/2025	17	15,867,120	1,659,121
6/30/2026	16	15,366,299	1,659,121
6/30/2027	15	14,828,918	1,659,121
6/30/2028	14	14,252,308	1,659,121
6/30/2029	13	13,633,605	1,659,121
6/30/2030	12	12,969,737	1,659,121
6/30/2031	11	12,257,407	1,659,121
6/30/2032	10	11,493,076	1,659,121
6/30/2033	9	10,672,950	1,659,121
6/30/2034	8	9,792,954	1,659,121
6/30/2035	7	8,848,719	1,659,121
6/30/2036	6	7,835,554	1,659,121
6/30/2037	5	6,748,428	1,659,121
6/30/2038	4	5,581,942	1,659,121
6/30/2039	3	4,330,303	1,659,121
6/30/2040	2	2,987,294	1,659,121
6/30/2041	1	1,546,245	1,659,121
6/30/2042	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2018 INCREMENTAL UAAL

<u>Valuation Date</u>	<u>Amortization Period</u>	<u>Balance of New Incremental UAAL 6/30/2018</u>	<u>Annual Amortization Payment</u>
6/30/2018	25	\$9,532,508	\$840,217
6/30/2019	24	9,388,164	840,217
6/30/2020	23	9,233,283	840,217
6/30/2021	22	9,067,096	840,217
6/30/2022	21	8,888,777	840,217
6/30/2023	20	8,697,441	840,217
6/30/2024	19	8,492,137	840,217
6/30/2025	18	8,271,846	840,217
6/30/2026	17	8,035,474	840,217
6/30/2027	16	7,781,846	840,217
6/30/2028	15	7,509,704	840,217
6/30/2029	14	7,217,695	840,217
6/30/2030	13	6,904,370	840,217
6/30/2031	12	6,568,172	840,217
6/30/2032	11	6,207,432	840,217
6/30/2033	10	5,820,357	840,217
6/30/2034	9	5,405,026	840,217
6/30/2035	8	4,959,376	840,217
6/30/2036	7	4,481,194	840,217
6/30/2037	6	3,968,104	840,217
6/30/2038	5	3,417,559	840,217
6/30/2039	4	2,826,824	840,217
6/30/2040	3	2,192,965	840,217
6/30/2041	2	1,512,834	840,217
6/30/2042	1	783,054	840,217
6/30/2043	0	0	0





Schedule H – Summary of Main System Provisions

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 \$15.25 multiplied by years of creditable service. For members with retirement dates prior to July 1, 2013, a one-time 1.75% increase was 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.





Schedule H – Summary of Main System Provisions

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 I – Tables of Membership Data

NUMBER OF ACTIVE MEMBERS BY AGE AND SERVICE AS OF JUNE 30, 2018

Attained Age	Years of Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	146	303	5	0	0	0	0	0	0	454
25 to 29	215	761	118	6	0	0	0	0	0	1,100
30 to 34	285	1,064	228	97	6	0	0	0	0	1,680
35 to 39	292	1,334	441	218	66	2	0	0	0	2,353
40 to 44	278	1,376	619	473	159	33	2	0	0	2,940
45 to 49	265	1,635	881	821	426	150	45	5	0	4,228
50 to 54	286	1,632	1,056	1,109	747	400	157	53	7	5,447
55 to 59	283	1,764	1,243	1,229	957	563	288	156	57	6,540
60 to 64	207	1,349	1,052	1,013	627	457	295	201	123	5,324
65 to 69	93	771	686	542	285	166	150	97	74	2,864
70 & Up	52	412	449	544	243	124	69	53	77	2,023
Total	2,402	12,401	6,778	6,052	3,516	1,895	1,006	565	338	34,953

Average Age: 52.9
Average Service: 9.1





Schedule I – Tables of Membership Data

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	1,179	2,939,754	2,493
65 – 69	3,208	9,357,364	2,917
70 – 74	3,975	12,200,713	3,069
75 – 79	3,427	11,496,002	3,355
80 – 84	2,466	9,158,054	3,714
85 – 89	1,341	5,810,273	4,333
90 – 94	541	2,561,125	4,734
95 & Over	151	787,838	5,217
Total	16,288	\$ 54,311,123	\$ 3,334

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	145	\$ 185,699	\$ 1,281
50 – 54	85	140,511	1,653
55 – 59	90	162,771	1,809
60 – 64	109	234,131	2,148
65 – 69	133	269,944	2,030
70 – 74	137	300,471	2,193
75 – 79	152	366,842	2,413
80 – 84	117	318,688	2,724
85 – 89	76	245,830	3,235
90 – 94	30	83,401	2,780
95 & Over	22	69,480	3,158
Total	1,096	\$ 2,377,768	\$ 2,169





Schedule I – Tables of Membership Data

NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	7	\$ 25,986	\$ 3,712
50 – 54	29	113,805	3,924
55 – 59	122	473,877	3,884
60 – 64	196	824,521	4,207
65 – 69	213	952,427	4,471
70 – 74	174	873,393	5,020
75 – 79	173	952,815	5,508
80 – 84	94	555,008	5,904
85 – 89	22	126,622	5,756
90 – 94	6	42,986	7,164
95 & Over	2	13,339	6,670
Total	1,038	\$ 4,954,779	\$ 4,773

NUMBER OF DEFERRED VESTED MEMBERS AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 35	14	\$ 27,979	\$ 1,999
35 – 39	60	124,801	2,080
40 – 44	196	448,142	2,286
45 – 64	534	1,276,969	2,391
50 – 54	1,113	2,861,780	2,571
55 – 59	1,556	4,187,431	2,691
60 – 64	1,095	2,969,651	2,712
65 – 69	347	917,744	2,645
70 – 74	97	266,672	2,749
75 & Over	51	132,287	2,594
Total	5,063	\$ 13,213,456	\$ 2,610





Schedule J – CAFR Schedules

CAFR SCHEDULES

GA PSERS: Solvency Test							
Actuarial Valuation as of 6/30	Actuarial Accrued Liability for:			Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Funded Portion)		(1)	(2)	(3)
	(1)	(2)	(3)				
2018	\$18,570	\$674,222	\$388,392	\$905,046	100%	100.0%	54.6%
2017	18,077	640,197	377,661	865,786	100%	100.0%	54.9%
2016	17,413	609,807	361,663	834,554	100%	100.0%	57.3%
2015	17,196	585,471	364,742	805,277	100%	100.0%	55.5%
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%

All dollar amounts are in thousands.

GA PSERS: Schedule of Retirants Added to and Removed from Rolls								
Year Ended	Added to Rolls		Removed from Rolls		Roll End of Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances (in thousands)	Number	Annual Allowances (in thousands)	Number	Annual Allowances (in thousands)		
June 30, 2018	1,258	\$5,436	885	\$3,354	18,422	\$61,644	3.5%	\$3,346
June 30, 2017	1,253	4,322	756	2,927	18,049	59,562	2.4%	3,300
June 30, 2016	1,363	3,927	763	2,890	17,552	58,167	1.8%	3,314
June 30, 2015	1,247	3,482	690	2,679	16,952	57,130	1.4%	3,370
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





Schedule K – Allocation of Annual Required Contribution

ALLOCATION OF 2020-2021 ANNUAL REQUIRED CONTRIBUTION BY SCHOOL SYSTEM

System Number	System Name	Contribution
1	Appling	\$ 59,744
2	Atkinson	30,305
3	Bacon	29,439
4	Baker	12,122
5	Baldwin	104,768
6	Banks	80,524
7	Barrow	202,609
8	Bartow	226,852
9	Ben Hill	56,280
10	Berrien	54,548
11	Bibb	569,728
12	Bleckley	66,670
13	Brantley	90,914
14	Brooks	48,488
15	Bryan	158,450
16	Bulloch	255,425
17	Burke	129,877
18	Butts	80,524
19	Calhoun	20,780
20	Camden	180,962
21	Candler	38,963
22	Carroll	240,706
23	Catoosa	264,084
24	Charlton	32,902
25	Chatham	839,873
26	Chattahoochee	27,707
27	Chattooga	47,622
28	Cherokee	618,216
29	Clarke	387,034
30	Clay	8,658
31	Clayton	1,119,542
32	Clinch	23,378
33	Cobb	1,913,525
34	Coffee	116,024
35	Colquitt	200,011
36	Columbia	536,826
37	Cook	62,341
38	Coweta	518,643
39	Crawford	53,683





Schedule K – Allocation of Annual Required Contribution

ALLOCATION OF 2020-2021 ANNUAL REQUIRED CONTRIBUTION BY SCHOOL SYSTEM

System Number	System Name	Contribution
40	Crisp	\$ 98,707
41	Dade	41,561
42	Dawson	76,195
43	Decatur	146,328
44	Dekalb	1,906,598
45	Dodge	67,536
46	Dooly	45,024
47	Dougherty	331,620
48	Douglas	380,973
49	Early	43,292
50	Echols	14,719
51	Effingham	207,804
52	Elbert	63,207
53	Emanuel	94,377
54	Evans	44,158
55	Fannin	74,463
56	Fayette	340,278
57	Floyd	140,267
58	Forsyth	806,971
59	Franklin	82,256
61	Gilmer	75,329
62	Glascok	16,451
63	Glynn	303,047
64	Gordon	85,719
65	Grady	90,914
66	Greene	55,414
67	Gwinnett	2,968,994
68	Habersham	174,036
69	Hall	452,839
70	Hancock	38,963
71	Haralson	51,085
72	Harris	114,292
73	Hart	88,317
74	Heard	30,305
75	Henry	492,668
76	Houston	671,898
77	Irwin	19,915
78	Jackson	182,694





Schedule K – Allocation of Annual Required Contribution

ALLOCATION OF 2020-2021 ANNUAL REQUIRED CONTRIBUTION BY SCHOOL SYSTEM

System Number	System Name	Contribution
79	Jasper	\$ 59,744
80	Jeff Davis	64,073
81	Jefferson	67,536
82	Jenkins	30,305
83	Johnson	28,573
84	Jones	131,609
85	Lamar	50,219
86	Lanier	25,110
87	Laurens	152,389
88	Lee	140,267
89	Liberty	245,901
90	Lincoln	43,292
91	Long	75,329
92	Lowndes	248,498
93	Lumpkin	95,243
94	Macon	42,427
95	Madison	77,926
96	Marion	30,305
97	McDuffie	96,109
98	McIntosh	31,171
99	Meriwether	90,048
100	Miller	28,573
101	Mitchell	45,890
102	Monroe	138,536
103	Montgomery	20,780
104	Morgan	60,609
105	Murray	103,036
106	Muscogee	632,935
107	Newton	410,412
108	Oconee	139,402
109	Oglethorpe	62,341
110	Paulding	431,193
111	Peach	43,292
112	Pickens	79,658
113	Pierce	60,609
114	Pike	67,536
115	Polk	108,231
116	Pulaski	32,902
117	Putnam	80,524





Schedule K – Allocation of Annual Required Contribution

ALLOCATION OF 2020-2021 ANNUAL REQUIRED CONTRIBUTION BY SCHOOL SYSTEM

System Number	System Name	Contribution
118	Quitman	\$ 10,390
119	Rabun	63,207
120	Randolph	27,707
121	Richmond	709,996
122	Rockdale	328,157
123	Schley	19,049
124	Screven	57,146
125	Seminole	41,561
126	Spalding	240,706
127	Stephens	96,975
128	Stewart	12,988
129	Sumter	115,158
130	Talbot	16,451
131	Taliaferro	6,061
132	Tattnall	77,061
133	Taylor	33,768
134	Telfair	38,097
135	Terrell	39,829
136	Thomas	117,755
137	Tift	101,304
138	Toombs	51,951
139	Towns	32,902
140	Treutlen	16,451
141	Troup	383,571
142	Turner	27,707
143	Twiggs	20,780
144	Union	71,865
145	Upson	128,146
146	Walker	246,767
147	Walton	297,852
148	Ware	148,926
149	Warren	19,049
150	Washington	55,414
151	Wayne	129,877
152	Webster	2,598
153	Wheeler	28,573
154	White	69,268
155	Whitfield	184,426
156	Wilcox	28,573





Schedule K – Allocation of Annual Required Contribution

ALLOCATION OF 2020-2021 ANNUAL REQUIRED CONTRIBUTION BY SCHOOL SYSTEM

System Number	System Name	Contribution
157	Wilkes	\$ 54,548
158	Wilkinson	34,634
159	Worth	64,939
205	Bremen	15,585
206	Buford	66,670
207	Calhoun	30,305
209	Carrollton	71,865
210	Cartersville	45,890
212	Chickamauga	21,646
214	Commerce	20,780
216	Dalton	96,109
217	Decatur	88,317
219	Dublin	45,024
221	Gainesville	98,707
224	Jefferson	38,963
226	Marietta	94,377
230	Pelham	22,512
232	Rome	74,463
247	Social Circle	18,183
236	Thomasville	25,110
239	Trion	19,049
240	Valdosta	186,157
241	Vidalia	36,366
	Atlanta Metropolitan College	866
	Furlow Charter School	1,732
	Georgia Magnet Charter School	1,732
	Georgia Military College	59,744
	Kipp Metro Atlanta Collaborative Inc	27,707
	School for Arts Infused Learning	1,732
	Scintilla Charter Academy	1,732

