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GRS
Gwinnett Retirement System

GASB Statement No. 68 Report

For the

Gwinnett County

Board of Education's Retirement System

Prepared as of

December 31, 2022

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September 27, 2023

Administrative Committe
Gwinnett County Board of Education's Retirement System
437 Old Peachtree Road, NW
Suwanee, GA 30024-2978

Administrative Committee Members:

Presented in this report is information to assist the Gwinnett County Board of Education's Retirement System (System) in providing necessary Governmental Accounting Standards Board (GASB) Statement No. 68 discolsure information to participating employers. GASB Statement No. 68 establishes accounting and financial reporting requirements for governmental employers who provide pension benefits to their employees through a trust. This report has been prepared as of December 31, 2022 for the fiscal year ending June 30, 2023.

The annual actuarial valuation used as a basis for much of the information presented in this report was performed as of January 1, 2022 (The Valuation Date). The valuation was based upon data, furnished by Plan's staff, concerning active, inactive and retired members along with pertinent financial information.

To the best of our knowledge, this report is complete and accurate. The necessary calculations were performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

The calculations were prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, and, in our opinion, meet the requirements of GASB 68.

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

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The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the System, and on actuarial assumptions that are, individually and in the aggregate, internally consistent and reasonably based on the actual experience of the Plan. In addition, the calculations were completed in compliance with the laws governing the Plan. 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 opinions contained herein.

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.

Respectfully submitted,

Todd B. G

Beverly V Bailey

Todd B. Green, ASA, EA, FCA, MAAA
President

Beverly V. Bailey, ASA, EA, FCA, MAAA
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TBG:bvb

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Section I – Summary

REPORT OF THE ANNUAL GASB STATEMENT NO. 68
REQUIRED INFORMATION FOR THE
GWINNETT COUNTY BOARD OF EDUCATION RETIREMENT SYSTEM
PREPARED AS OF DECEMBER 31, 2022

Valuation Date (VD):		January 1, 2022
Measurement Date (MD):		December 31, 2022
Single Equivalent Interest Rate (SEIR):		
Long-Term Expected Rate of Return		7.15%
Municipal Bond Index Rate		3.65%
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		7.15%
Net Pension Liability (Fiscal Year Ended 2021)		
Total Pension Liability (TPL)	$	2,680,741,301
Fiduciary Net Position (FNP)		2,815,522,176
Net Pension Liability (NPL = TPL – FNP)	$	(134,780,875)
FNP as a percentage of TPL		105.03%
Net Pension Liability (Fiscal Year Ended 2022)		
Total Pension Liability (TPL)	$	2,826,556,572
Fiduciary Net Position (FNP)		2,390,802,564
Net Pension Liability (NPL = TPL – FNP)	$	435,754,008
FNP as a percentage of TPL		84.58%
Pension Expense (PE):	$	150,177,164
Deferred Outflows of Resources:	$	337,068,331
Deferred Inflows of Resources:	$	14,352,692

Section II – Introduction

This report, prepared as of December 31, 2022 (the Measurement Date), presents information to assist the Plan in providing the required information under The Governmental Accounting Standards Board Statement No. 68 (GASB 68), "Accounting and Financial Reporting for Pensions" to the participating employers of the Gwinnett County Board of Education for fiscal year ending June 30, 2023 (the Reporting Date). Much of the material provided in this report is based on the results of the GASB 67 report for the Plan. See that report for more information on the member data, actuarial assumptions and methods used in developing the GASB 67 results.

GASB 68 creates disclosure and reporting requirements that may or may not be consistent with the basis used for funding the Plan. GASB 68 requires the sponsoring employer to disclose a Net Pension Liability (NPL) and to recognize a Pension Expense (PE) in the financial statements.

The NPL shown in the GASB Statement No. 67 Report for the System as of December 31, 2022 is the NPL used for purposes of GASB 68. Please refer to that report for the derivation of the NPL.

Pension Expense 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 V.

The unrecognized 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 financial statements. The development of the deferred inflows and outflows is shown in Section III.

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

Section III – Financial Statement Notes

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.

Paragraph 40(a) and (b): The information required to be prepared by the System and/or the individual employer.

Paragraph 40(c): The data required regarding the membership of the System were furnished by the Plan's Staff. The following table summarizes the membership of the system as of January 1, 2022, the Valuation Date.

Membership

	Number
Inactive Members Or Their Beneficiaries Currently Receiving Benefits	10,945
Inactive Members Entitled To But Not Yet Receiving Benefits	4,953
Active Members	21,668
Total	37,566

Paragraph 40(d) – (e): The information required is to be supplied by the System and/or the employer.

Section III – Financial Statement Notes

Paragraph 41: This paragraph requires information regarding the actuarial assumptions used to measure the TPL. The actuarial assumptions utilized in developing the TPL are outlined in Schedule B. The total pension liability was determined by an actuarial valuation as of January 1, 2022. The result was rolled forward using standard actuarial techniques to the Measurement Date. The following actuarial assumptions, applied to all periods included in the measurement:

Price Inflation	2.40 percent
Salary increases	3.25% - 6.86% percent for TRS members, average, 3.25% for non-TRS members including inflation
Investment rate of return	7.15 percent, net of pension System investment expense, including inflation
Cost-of-living adjustments	2.40 percent annually
Mortality	Pre-Retirement Mortality: **TRS Members**: The Pub-2010 Teachers Headcount Weighted Below Median Healthy Retiree mortality table (ages set forward one year and adjusted 106%) with the MP-2019 Projection scale applied generationally is used for pre-retirement deaths. The rates of improvement have been reduced by 20% for all years prior to the ultimate rate. **PSERS Members**: RP-2000 Blue Collar Mortality Table projected to 2025 using the BB projection scale. Post-Retirement Health Mortality: **TRS Members**: The Pub-2010 Teachers Headcount Weighted Below Median Healthy Retiree mortality table (ages set forward one year and adjusted 106%) with the MP-2019 Projection scale applied generationally is used for death after service retirement and beneficiaries.. **PSERS Members**: RP-2000 Blue Collar Mortality Table projected to 2025 using the BB projection scale.

Post-Retirement Disabled Mortality:

TRS Members: The Pub-2010 Teachers Mortality Table for Disabled Retirees (ages set forward one year and adjusted 106%) with the MP-2019 Projection scale applied generationally is used for death after disability retirement. The rates of improvement have been reduced by 20% for all years prior to the ultimate rate.

PSERS Members: The RP-2000 Disability Mortality Table projected to 2025 using the BB projection.

The actuarial assumptions used in the January 1, 2022 valuation were based on the results of the last actuarial experience study, dated May 5, 2017.

Paragraph 42:

(a) **Discount rate:** The discount rate used to measure the total pension liability was 7.15%.

(b) **Projected cash flows:** The projection of cash flows used to determine the discount rate assumed that local employers would contribute the actuarially determined contribution in the future.

(c) **Long term rate of return:** 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 returns, net of pension plan investment expense and 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.

(d) **Municipal bond rate:** the discount rate determination does not use a municipal bond rate.

(e) **Periods of projected benefit payments:** projected future benefit payments for all current plan members were projected through 2128.

Section III – Financial Statement Notes

(f) Assumed Asset Allocation: The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap U.S. Equities	30.50%	5.37%
Small Cap U.S. Equities	6.50%	6.53%
Non-U.S. Equity - Developed	14.00%	6.22%
Non-U.S. Equity - Emerging	8.00%	8.22%
Real Estate	5.00%	4.87%
U.S. Treasuries (Cash Equivalents)	5.00%	-0.45%
TIPS (Inflation-Protected)	5.00%	0.39%
U.S. Corporate Bonds - Core	21.00%	1.57%
Private Equity	4.00%	10.05%
Private Debt	1.00%	5.38%
otal	100.00%	

(g) Sensitivity Analysis: This paragraph requires disclosure of the sensitivity of the collective net pension liability to changes in the discount rate. The following presents the net pension liability of the Plan, calculated using the discount rate of percent, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1%iscount Decreaseate 6.15%.15%	Current 1% Increase 8.15%	
System's net pension liability	$828,575,223	$435,54,008	$112,757,938

Section III – Financial Statement Notes

Paragraph 44: This paragraph requires a schedule of changes in Net Pension Liability. The needed information is provided in the table below.

CHANGES IN THE NET PENSION LIABILITY

	Total Pension Liability (a)	Plan Net Position (b)	Net Pension Liability (a) - (b)
Balance as of January 1, 2022	2,680,741,301	2,815,522,176	(134,780,875)
Changes for the year:			
Service Cost	73,874,881		73,874,881
Interest	187,475,722		187,475,722
Benefit changes	0		0
Different between expected and actual experience	1,871,121		1,871,121
Changes of assumptions	0		0
Contributions - employer		88,097,797	(88,097,797)
Contributions - member		13,358,154	(13,358,154)
Net investment income		(407,009,180)	407,009,180
Refunds of contributions	0	0	0
Benefits paid	(117,406,453)	(117,406,453)	0
Plan administrative expenses		(1,759,930)	1,759,930
Other changes	0	0	0
Net changes	145,815,271	(424,719,612)	570,534,883
Balance as of December 31, 2022	2,826,556,572	2,390,802,564	435,754,008

Section III – Financial Statement Notes

Paragraph 45(a): January 1, 2022 is the actuarial valuation date upon which the TPL is based. An expected TPL is determined as of December 31, 2022 using standard roll-forward techniques. The roll-forward calculation adds the annual normal cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year and then applies the expected interest for the year. The roll-forward procedure is detailed below.

Changes in the Total Pension Liability		
Total Pension Liability as of December 31, 2021	$	2,680,741,301
Changes for the year:		
Service Cost		73,874,881
Interest		187,475,722
Change in benefit terms	$	-
Difference between expected and actual experience		1,871,121
Changes of assumptions or other inputs	$	-
Benefit payments		(117,406,453)
Other		
Net changes	$	145,815,271
otal Pension Liability as of December 31, 2022	$	2,826,556,572

Paragraph 45(c): Since the prior measurement period no assumptions have been changed.

Paragraph 45(d): There were no changes in benefit terms that affected measurement of the total pension liability since the prior measurement period.

Paragraphs 45(f): There were no changes between the measurement date of the net pension liability and the employer's reporting date that are expected to have a significant effect on the net pension liability, and the amount of the expected resultant change in the net pension liability, if known.

Paragraph 45(g): The information required is to be supplied by the Employer.

Paragraph 45(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 pension expense they are labeled deferred inflows. If they will increase pension expense they are labeled

Section III – Financial Statement Notes

deferred outflows. As noted in the previous section, 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 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 provide a summary of the deferred inflows and outflows as of December 31, 2022.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 13,333,382	$ 3,243,415
Changes of assumptions	$ 19,825,037	$ 11,109,277
Net difference between projected and actual earnings on plan investments	$ 303,909,912	$ 0
Employer contributions subsequent to the Measurement Date *	0	0
Total	$ 337,068,331	$ 14,352,692

* Enter FY2022 employer contributions Total Deferred Outflow of Resources

Section III – Financial Statement Notes

Paragraph 45(i): Employer contributions subsequent to the valuation date are reported as deferred outflows of resources related to pensions resulting from Employer contributions subsequent to the Measurement Date will be recognized as a reduction of the net pension liability in the year ended June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Deferred Amounts to be recognized in Fiscal Years Ending		
		Deferred (Inflows)/Outflows of Resources
2023	$	29,885,813
2024		$73,868,878
		$91,453,563
		$127,133,380
hereafter		$374,005

Section IV – Required Supplementary Information

There are several tables of Required Supplementary Information (RSI) that need to be included in the Plan's financial statements:

Paragraphs 46(a) and (b): The required tables are provided in Schedule A and the information is as of the Measurement dates.

Paragraph 46(c): The required table is provided in Schedule A and the information is as of the Employer's Fiscal Year Ends.

Paragraph 47: The following changes were adopted by the Board and reflected in the valuation performed as of January 1 listed below:

Changes of benefit terms:

2012

- The vesting requirement for new hires and non-vested former employees who are rehired will be 10 years instead of 5 years.
- The normal form of payment for retirees will be a single life annuity but retirees will have the option of selecting an actuarially equivalent optional form of payment.

Changes of assumption:

2012

- The assumed investment rate of return was increased from 7.5% to 8.0%.
- Retirement, withdrawal, disability, and mortality rates were changed to more closely reflect recent experience.
- The rate of salary inflation was temporarily lowered for a ten year period beginning with the January 1, 2012 valuation.
- The salary scale was changed to more closely reflect recent experience.

2017

- The assumed investment rate of return was decreased from 8.0% to 7.5%.
- The inflation rate was reduced from 3.50% to 2.75%.
- The wage inflation rate was reduced from 4.50% to 3.50%.
- Retirement, withdrawal, disability, and mortality rates were changed to more closely reflect recent experience.

2019

- The assumed investment rate of return was decreased from 7.50% to 7.25%.
- The inflation rate was reduced from 2.75% to 2.40%.
- The wage inflation rate was reduced from 3.50% to 3.25%.

Section IV – Required Supplementary Information

- The mortality assumption for TRS employees was changed to Pub-2010 Teachers Headcount Weighted Below Median Healthy Retiree mortality table (ages set forward one year and adjusted 106%) with the MP-2019 Projection scale applied generationally.
- The mortality assumption for disabled retirees was changed to Pub-2010 Teachers Mortality Table for Disabled Retirees (ages set forward one year and adjusted 106%) with the MP-2019 Projection scale applied generationally.

2020

- The assumed investment rate of return was decreased from 7.25% to 7.15%.

Method and assumptions used in calculations of actuarially determined contributions. The actuarially determined contribution rates are determined January 1st on an annual basis payable in the fiscal year beginning 18 months following the valuation date. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

Actuarial cost method	Entry age normal
Amortization method	Level dollar open
Remaining amortization period	5 – 30 years
Asset valuation method	5-year smoothed market
Cost of Living Adjustments	2.40% Annually
Projected salary increase	
TRS members	3.25% - 6.86%
Non-TRS members	3.25%

Section V – Pension Expense

As noted earlier, the 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. To this is added interest on the TPL at the rate of return in effect as of the prior measurement date.

The next three items refer to any changes that occurred in the TPL (i.e., actuarial accrued liability (AAL) under EAN) due to:

1. Benefit changes,
2. Actual versus expected experience or
3. Changes in actuarial assumptions.

Benefit changes, which are reflected immediately in PE, can be positive, if there is a benefit improvement for existing System members, or negative if there is a benefit reduction. As of December 31, 2022 there were no benefit changes to be recognized.

Items recognized in PE are the portion of current year changes in TPL due to actual versus expected experience for the year, changes in actuarial assumptions and differences between actual and expected earnings on investments. The portion to recognize in the current year for actual versus expected experience for the year and changes in actuarial assumptions is determined by spreading the total change over the average expected remaining service life of the entire System membership. The remaining service life of active members is the average number of years the active members are expected to remain active. The average remaining service life as of Januay 1, 2022 is 6.44 years. The calculation is detailed below.

Category	Number (1)	Average Years of Working Lifetime (2)
a. Active Members	21,668	11.16
b. Inactive Members	15,898	0.00
c. Total	37,566	
Weighted Average Years of Working Lifetime [(a1 * a2) + (b1 * b2)]/c1		6.44

As of December 31, 2022 the portion of the current year changes in TPL attributed to actual versus expected experience for the year is $1,871,121. Therefore, $290,547 will be recognized in pension expense while $1,580,574 is a deferred inflow of resources.

Section V – Pension Expense

The last items 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 System membership, similar to the way experience gains and losses are recognized. For the fiscal year ended December 31, 2022, there are no changes in TPL attributed to changes in actuarial assumptions. Therefore, there is no recognition for this in pension expense.

Member contributions for the year and projected earnings on the FNP at the discount rate serve to reduce the expense.

One-fifth of current-period difference between actual and projected earning based on the assumed investment rate of return on the FNP are recognized in the pension expense. As of December 31, 2022 the actual investement return for the year was ($407,009,180). The projected earnings for the year were $200,676,688. The total investment loss for the year was $607,685,868. One-fifth of this amount or $121,537,174 is recognized in pension expense. The remaining $486,148,694 is a deferred outflow of resources that will be recognized over the following four years. The calculation is detailed below.

Investment Earnings (Gain)/Loss as of December 31, 2022		
a Expected asset return rate		7.15%
Beginning of year market value assets (BOY)	$	2,815,522,176
End of year market value assets (EOY)	$	2,390,802,564
Expected return on BOY for plan year (a x b)	$	201,309,836
ternal Cash Flow		
Contributions - employer	$	88,097,797
ontributions - member	$	13,358,154
efunds of contributions	$	-
enefits paid	$	(117,406,453)
dmin expenses	$	(1,759,930)
Total net external cash flow	$	(17,710,432)
Expected return on net cash flow (a x 0.5 x e)	$	(633,148)
Projected earnings for plan year (d + f)	$	200,676,688
Net investment income (c - b - e)	$	(407,009,180)
nvestment earnings (gain)/loss (g - h)	**$**	**607,685,868**

Section V – Pension Expense

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

The calculation of the Pension Expense as of December 31, 2022 for the Plan is shown in the following table.

Pension Expense Determined as of the Measurement Date	
Service Cost	$ 73,874,881
Interest on the TPL and Cash Flow	$ 187,475,722
Current-period benefit changes	$ 0
Expensed portion of current-period difference between expected and actual experience in the total pension liability	$ 290,547
Expensed portion of current-period changes of assumptions	$ 0
Member contributions	$ (13,358,154)
Projected earnings on plan investments	$ (200,676,688)
Expensed portion of current-period differences between actual and projected earnings on plan investments	$ 121,537,174
Administrative expense	$ 1,759,930
Other	$ 0
Recognition of beginning deferred outflows of resources as pension expense	$ 80,646,321
Recognition of beginning deferred inflows of resources as pension expense	$ (101,372,569)
Pension Expense	$ 150,177,164

Schedule A – Required Supplementary Information

Schedule of Changes in the Net Pension Liability

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service Cost	$ 73,874,881	$ 68,721,437	$ 67,649,500	$ 63,390,509	$ 61,557,129	$ 60,171,491	$ 52,049,400	$ 50,520,177	$ 48,847,625
Interest	187,475,722	177,960,720	167,236,290	164,774,003	155,305,044	147,192,765	138,877,901	129,344,957	120,802,106
Benefit changes	0	0	0	0	0	0	0	0	0
Difference between expected and actual experience	1,871,121	(623,291)	17,441,431	5,063,077	(1,454,949)	(17,065,904)	4,773,132	8,122,156	0
Changes of assumptions	0	0	34,264,851	(27,036,557)	0	0	106,212,281	0	0
Benefit payments	(117,406,453)	(108,557,371)	(100,119,431)	(92,821,158)	(85,487,700)	(78,781,560)	(71,851,007)	(65,799,965)	(59,928,226)
Refunds of contributions	0	0	0	0	0	0	0	0	0
Net change in total pension liability	$ 145,815,271	$ 137,501,495	$ 186,472,641	$ 113,369,874	$ 129,919,524	$ 111,516,792	$ 230,061,707	$ 122,187,325	$ 109,721,505
Total pension liability - beginning	$2,680,741,301	$2,543,239,806	$2,356,767,165	$2,243,397,291	$2,113,477,767	$2,001,960,975	$1,771,899,268	$ 1,649,711,943	$1,539,990,438
Total pension liability - ending (a)	$2,826,556,572	$2,680,741,301	$2,543,239,806	$2,356,767,165	$2,243,397,291	$2,113,477,767	$2,001,960,975	$ 1,771,899,268	$1,649,711,943
Plan net position									
Contributions - employer	$ 88,097,797	$ 80,353,739	$ 74,094,655	$ 63,225,396	$ 49,586,529	$ 35,524,525	$ 31,198,113	$ 35,212,803	$ 36,197,168
Contributions - member	13,358,154	12,208,170	11,269,565	11,181,548	10,493,763	10,069,213	9,778,682	9,275,103	8,871,597
Net investment income	(407,009,180)	353,832,868	246,101,645	355,227,655	(126,574,064)	266,331,938	131,574,198	(9,075,544)	88,905,608
Benefit payments	(117,406,453)	(108,557,371)	(100,119,431)	(92,821,158)	(85,487,700)	(78,781,560)	(71,851,007)	(65,799,965)	(59,928,226)
Administrative expense	(1,759,930)	(1,619,745)	(1,526,911)	(1,582,368)	(1,520,979)	(1,543,927)	(1,476,662)	(1,584,879)	(1,504,701)
Refunds of contributions	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
Net change in plan net position	$ (424,719,612)	$ 336,217,661	$ 229,819,523	$ 335,231,073	$ (153,502,451)	$ 231,600,189	$ 99,223,324	$ (31,972,482)	$ 72,541,446
Plan net position - beginning (a)	$2,815,522,176	$2,479,304,515	$2,249,484,992	$1,914,253,919	$2,067,756,370	$1,836,156,181	$1,736,932,857	$ 1,768,905,339	$1,696,363,893
lan net position - ending (b)	$2,390,802,564	815,522,176	$2,479,304,515	$2,249,484,992	$1,914,253,919	$2,067,756,370	$1,836,156,181	$ 1,736,932,8 57	$1,768,905,339
et pension liability - ending (a) - (b)	$ 435,754,008	134,780,875)	$ 63,935,291	$ 107,282,173	$ 329,143,372	$ 45,721,397	$ 165,804,794	$ 3 4,966,411	$ (119,193,396)

Schedule A – Required Supplementary Information

Schedule of Employer Contributions

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined employer contribution	$ 88,097,797	$ 80,353,799	$ 74,094,655	$ 63,225,396	$ 49,586,529	$ 35,524,525	$ 31,198,113	$ 35,212,803	$ 36,197,168	$ 26,544,249
Actual employer contributions	88,097,797	80,353,799	74,094,655	63,225,396	49,586,529	35,524,525	31,198,113	35,212,803	36,197,168	26,544,249
Annual contribution deficiency/(excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Covered-employee payroll	$ 1,310,795,912	$ 1,191,983,789	$ 1,117,073,924	$ 1,123,025,427	$ 1,081,566,000	$ 1,031,160,000	$ 948,765,393	$ 945,144,580	$ 895,915,264	$ 853,986,466
Actual contributions as a percentage of covered-employee payroll	6.72%	6.74%	6.63%	5.63%	4.58%	3.45%	3.29%	3.73%	4.04%	3.11%

Schedule B - Actuarial Assumptions and Methods

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

INTEREST RATE: 7.15% per annum, compounded annually, net of investment expenses and including inflation at 2.40%.

SALARY INCREASES: Sample rates below, plus an annual wage inflation rate of 2.40% and wage growth rate of 0.85%

	Annual Merit Rates	
Service	TRS Members	Non-TRS Members
0	3.50%	0.00%
1	2.25	0.00
2	2.00	0.00
3	1.75	0.00
4	1.50	0.00
5	1.25	0.00
6	1.00	0.00
7	0.75	0.00
8	0.50	0.00
9 - 14	0.25	0.00
15+	0.000	0.00

SERVICE RETIREMENT:

Age	Annual Rates: TRS Members < 30 years of Service	TRS Members 30+ years of Service	Non-TRS Members
40	10.0%	20.0%	
45	10.0	20.0	
50	10.0	35.0	
55	10.0	35.0	
60	26.0	40.0	13.0%
65	36.0	40.0	18.0
70	100.0	100.0	18.0
75	100.0	100.0	100.0

DISABILITY RETIREMENT:

Age	Annual Rates of Disability: TRS	PSERS
20	0.01%	0.10%
25	0.02	0.10
30	0.04	0.10
35	0.05	0.20
40	0.07	0.30
45	0.10	0.40
50	0.13	0.50
55	0.16	0.60
60	0.20	0.70
64	0.20	0.70
65	0.20	0.70

WITHDRAWAL:

Annual Rates of Withdrawal		
Service	TRS Members	Non-TRS Members
0	15.63%	20.00%
1	13.00	16.00
2	11.00	12.10
3	9.44	9.90
4	8.09	8.50
5	7.04	6.82
6	6.28	6.09
7	5.52	5.64
8	4.76	5.18
9	4.25	4.82
10	3.75	4.45
11	3.75	4.70
12	3.75	4.40
13	3.75	4.20
14	3.75	4.00
15+	3.75	3.80

MORTALITY RATES:

TRS Members: The Pub-2010 Teachers Headcount Weighted Below Median Healthy Retiree mortality table (ages set forward one year and adjusted 106%) with the MP-2019 Projection scale applied generationally is used for death after service retirement and beneficiaries. The rates of improvement have been reduced by 20% for all years prior to the ultimate rate. The Pub-2010 Teachers Mortality Table for Disabled Retirees (ages set forward one year and adjusted 106%) with the MP-2019 Projection scale applied generationally is used for death after disability retirement. The rates of improvement have been reduced by 20% for all years prior to the ultimate rate. The representative rates shown below are based on a projection to 2015. Actual mortality rates are projected generationally to the year of the measurement.

Age	Service Retirement *		Disability Retirement *	
	Men	Women	Men	Women
40	0.07%	0.05%	0.84%	0.74%
45	0.11	0.07	1.21	1.10
50	0.18	0.11	1.84	1.62
55	0.52	0.39	2.48	1.97
60	0.64	0.41	3.06	2.25
65	0.84	0.53	3.72	2.62
70	1.46	0.93	4.63	3.37
75	2.70	1.79	6.18	4.78
80	4.96	3.43	8.86	7.23
85	9.05	6.59	13.02	11.20
90	16.07	12.31	18.80	16.08
95	26.12	21.73	27.04	22.76

* Rates as of 2015

Schedule B - Actuarial Assumptions and Methods

Non-TRS Members:

The RP-2000 Blue Collar Mortality Table projected to 2025 using the BB projection is used for deaths. The RP-2000 Disability Mortality Table projected to 2025 using the BB projection is used for death after disability retirement. Representative values of the assumed annual rates of death after service retirement and after disability retirement are shown below:

Age	Service Retirement		Disability Retirement	
	Men	Women	Men	Women
40	.13%	.08%	.69%	
45	.17	.13	2.09	.69
50	.22	.18	2.69	1.07
55	.39	.25	3.29	1.46
60	.69	.38	3.53	1.70
65	1.15	.77	3.71	2.07
70	1.83	1.38	4.29	2.78
75	2.96	2.28	5.62	3.86
80	4.83	3.62	7.50	5.35
85	7.89	6.15	9.70	7.41
90	13.78	10.37	13.91	10.62
95	22.32	16.57	23.01	16.73

Schedule B - Actuarial Assumptions and Methods

POST RETIREMENT INCREASES: Increases of 2.40% annually after the current year were anticipated.

ASSETS: For purposes of GASB 67, the value of assets is equal to the market value of assets. For funding purposes, the value of assets is equal to the actuarial value. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between actual market value return and expected market value return.

SPOUSES: 100% of active members were assumed to be married with the husband 3 years older than his wife.

ADMINISTRATIVE EXPENSES LOAD: The administrative expenses from the previous year are added to the normal cost.

Schedule C – Summary of Main Plan Provisions

Effective January 1, 1983, the Board of Education of Gwinnett County Public Schools withdrew from coverage under the Social Security System and the Gwinnett County Board of Education's Retirement System was adopted to provide certain replacement benefits for those which would have been provided by Social Security.

The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

Years of Service	Aggregate period of employment consisting of years of service and parts thereof.
Earnings	Total compensation paid to an employee by employer during a calendar year, as reported on the Employee's Federal Withholding Tax Form W-2.
Accrued Retirement Benefit	2.2% of Earnings up to the Earnings Breakpoint for the year plus 1.6% of earnings in excess of such Earnings Break Point.
Earnings Break Point	$9,000
Service Retirement Benefit	
Condition for Allowance	Any member may retire on a service retirement allowance upon the attainment of age 65.
Amount of Allowance	Accrued Retirement Benefit.

Schedule C – Summary of Main Plan Provisions

Early Retirement

Condition for Allowance	A participant may retire early on the first day of any month on or after attaining eligibility for early retirement under the Teachers' Retirement System of Georgia or Public School Employees' Retirement System of Georgia, or any successors thereto.
Amount of Allowance	Accrued retirement benefit multiplied by the applicable early retirement commencement factor.

Death Benefit

Condition for Allowance	5 years of service if hired before July 1, 2012. 9 years and 9 months of service if hired after July 1, 2012 or if a non-vested former employee who is rehired after July 1, 2012.
Amount of Allowance	The spouse's monthly benefit shall be the actuarial equivalent of 50% of the participants accrued retirement benefits as of the time of death.

Vesting Benefit

Condition for Allowance	5 years of service if hired before July 1, 2012. 9 years and 9 months of service if hired after July 1, 2012 or if a non-vested former employee who is rehired after July 1, 2012.
Amount of Allowance	Accrued retirement benefit commencing as of the member's normal retirement date.

Disability Benefit

Condition for Allowance	None.
Amount of Allowance	60% of the participants earnings in the calendar year preceding disability. Benefits of this plan shall be the amounts necessary, when added to benefits available under other plans, to provide the 60% benefit level. Other plans shall include Teacher's

Schedule C – Summary of Main Plan Provisions

	Retirement System, Public Schools Employees Retirement Systems, Workers' Compensation, Social Security and any successor thereto.
	A person entitled to Disability Benefits shall continue to receive retirement benefit accruals. His earnings shall be considered equal to his earnings in the last complete calendar year preceding disability.
Normal Form of Retirement Income	The normal form of retirement income payable under this Plan is a single life annuity. Participants may elect to receive an actuarially equivalent joint and survivor optional form of payment.
Cost-of-Living Adjustment	The retirement allowances of members or of any beneficiary of a member shall be subject to an adjustment every July 1st. The committee shall determine a current average cost of living index calculated by averaging the 12 preceding monthly consumer price indices for all urban consumers for the previous calendar year. The maximum increase in retirement allowances shall not exceed 3%.
Contributions by Employer	The actuary shall calculate the amount of contributions which are sufficient to fund the benefits provided by the Retirement Fund. The employer may rely upon the amounts determined by the actuary of the amount of contributions needed to carry out the Plan.
Contributions by Employee	1.00% of compensation for the purpose of funding the long term disability benefit in which they are immediately vested.

Schedule D – Schedule of Deferred Inflows and Outflows of Resources

SCHEDULE OF DIFFERENCES BETWEEN EXPECTED AND ACTUAL EXPERIENCE

Deferred Outflows and Inflows for Differences between Expected and Actual Experience											
	Initial Balance of Losses / Deferred Outflow	Initial Balance of Gains / Deferred Inflow	Amortization Period	Beginning Balance Deferred Outflows (a)	Beginning Balance Deferred Inflows (b)	Losses / Deferred Outflows (c)	Gains / Deferred Inflows (d)	Amounts Recognized in Pension Expense / Deferred Outflow (e)	Amounts Recognized in Pension Expense / Deferred Inflow (f)	Ending Balance Deferred Outflows (a) + (c) - (e)	Ending Balance Deferred Inflows (b) + (d) - (f)
2022	$1,871,121	$0	6.44	$0	$0	$1,871,121	$0	$290,547	$0	$1,580,574	$0
2021	$0	$623,291	6.46	$0	$526,806	$0	$0	$0	$96,485	$0	$430,321
2020	$17,441,431	$0	6.70	$12,235,033	$0	$0	$0	$2,603,199	$0	$9,631,834	$0
2019	$5,063,077	$0	6.79	$2,826,076	$0	$0	$0	$745,667	$0	$2,080,409	$0
2018	$0	$1,454,949	6.87	$0	$607,817	$0	$0	$0	$211,783	$0	$396,034
2017	$0	$17,065,904	6.99	$0	$4,858,534	$0	$0	$0	$2,441,474	$0	$2,417,060
2016	$4,773,132	$0	7.06	$716,646	$0	$0	$0	$676,081	$0	$40,565	$0
2015	$8,122,156	$0	7.30	$333,788	$0	$0	$0	$333,788	$0	$0	$0
Total				$16,111,543	$5,993,157	$1,871,121	$0			$13,333,382	$3,243,415

Schedule D – Schedule of Deferred Inflows and Outflows of Resources

SCHEDULE OF DIFFERENCES BETWEEN PROJECTED AND ACTUAL EARNINGS ON PENSION PLAN INVESTMENTS

Deferred Outflows and Inflows for Differences in Investment Earnings

Meas Date - Dec 31	Initial Balance of Losses / Deferred Outflow	Initial Balance of Gains / Deferred Inflow	Amortization Period	Beginning Balance Deferred Outflows (a)	Beginning Balance Deferred Inflows (b)	Losses / Deferred Outflows (c)	Gains / Deferred Inflows (d)	Amounts Recognized in Pension Expense / Deferred Outflow (e)	Amounts Recognized in Pension Expense / Deferred Inflow (f)	Ending Balance Deferred Outflows (a) + (c) - (e)	Ending Balance Deferred Inflows (b) + (d) - (f)
2022	$607,685,868	$0	5.00	$0	$0	$607,685,868	$0	$121,537,174	$0	$486,148,694	$0
2021	$0	$177,192,339	5.00	$0	$141,753,871	$0	$0	$0	$35,438,468	$0	$106,315,403
2020	$0	$83,604,210	5.00	$0	$50,162,526	$0	$0	$0	$16,720,842	$0	$33,441,684
2019	$0	$212,408,483	5.00	$0	$84,963,392	$0	$0	$0	$42,481,697	$0	$42,481,695
2018	$280,645,977	$0	5.00	$56,129,197	$0	$0	$0	$56,129,197	$0	$0	$0
Total				$56,129,197	$276,879,789	$607,685,868	$0			$486,148,694	$182,238,782
Net difference between projected and actual earnings on investments										$303,909,912	

Schedule D – Schedule of Deferred Inflows and Outflows of Resources

SCHEDULE OF CHANGES OF ASSUMPTION

Deferred Outflows and Inflows for Differences from Assumption Changes											
Meas Date - Dec 31	Initial Balance of Losses / Deferred Outflow	Initial Balance of Gains / Deferred Inflow	Amortization Period	Beginning Balance Deferred Outflows (a)	Beginning Balance Deferred Inflows (b)	Losses / Deferred Outflows (c)	Gains / Deferred Inflows (d)	Amounts Recognized in Pension Expense / Deferred Outflow (e)	Amounts Recognized in Pension Expense / Deferred Inflow (f)	Ending Balance Deferred Outflows (a) + (c) - (e)	Ending Balance Deferred Inflows (b) + (d) - (f)
2022	$0	$0	6.44	$0	$0	$0	$0	$0	$0	$0	$0
2021	$0	$0	6.46	$0	$0	$0	$0	$0	$0	$0	$0
2020	$34,264,851	$0	6.70	$24,036,537	$0	$0	$0	$5,114,157	$0	$18,922,380	$0
2019	$0	$27,036,557	6.79	$0	$15,091,097	$0	$0	$0	$3,981,820	$0	$11,109,277
2018	$0	$0	6.87	$0	$0	$0	$0	$0	$0	$0	$0
2017	$0	$0	6.99	$0	$0	$0	$0	$0	$0	$0	$0
2016	$106,212,281	$0	7.06	$15,946,889	$0	$0	$0	$15,044,232	$0	$902,657	$0
2015	$0	$0	7.30	$0	$0	$0	$0	$0	$0	$0	$0
Total				$39,983,426	$15,091,097	$0	$0			$19,825,037	$11,109,277