



Cavanaugh Macdonald
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The experience and dedication you deserve

**Report of the Actuary on the Annual Valuation of the
Gwinnett County Defined Benefit Plan**

Prepared as of January 1, 2022





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May 26, 2022

Board of Trustees
Gwinnett County Defined Benefit Plan
75 Langley Drive
Lawrenceville, GA 30046

Dear Members of the Board:

We are pleased to submit herewith the results of the annual actuarial valuation of the Gwinnett County Defined Benefit Plan prepared as of January 1, 2022. The purpose of this report is to provide a summary of the funded status of the System as of January 1, 2022 and recommend employer contributions for fiscal year ending 2023. Financial reporting requirements prescribed by Governmental Accounting Standards Board Statements Nos. 67 and 68 will be provided in separate reports. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The actuarially determined contribution (ADC) for the fiscal year ending 2023 is \$48,109,946, which will liquidate the unfunded accrued liability over an 11-year period.

In determining the County's contribution requirement, we have included interest to reflect our understanding that the County makes bi-weekly contributions throughout the fiscal year. In the table below we present the County's contribution requirements if the County pays the full amount on January 1, 2023 or in bi-weekly installments throughout the 2023 fiscal year.

County contribution payable January 1, 2023	\$46,417,663
Interest for bi-weekly payments during 2023 fiscal year	<u>\$1,692,283</u>
County contribution payable in bi-weekly installments	\$48,109,946



The plan's unfunded liability was projected to be \$341,239,537 as of January 1, 2022, taking into account plan sponsor contributions from all sources of \$60,627,000 for the year ended December 31, 2021. The actual unfunded liability is \$289,897,426. The decrease of \$51,342,111 in the unfunded liability is primarily due to gains on the actuarial value of assets and mortality experience. These gains were partially offset by losses due to new retirements and the change in termination rates. Further discussion of the change in the County's unfunded liability is shown in Section II.

Please note, the compensation earned by members during the 2021 calendar year who were active on the valuation date included hazard pay. The total amount of hazard pay for these members was \$2,642,658. The hazard pay was excluded for the purpose of projecting future salary increases for calendar year 2022 and beyond.

The promised benefits of the Plan are included in the actuarially calculated employer contributions which are developed using the entry age normal cost method beginning with the January 1, 2020 valuation. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level dollar within an 11-year period. Since the previous valuation, the termination rates have been reduced by 20% of the rates in effect prior to January 1, 2021. The assumptions recommended by the actuary are in the aggregate reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan. See the actuarial assumptions in Section VII for more detail on the tables used.

Assuming that the actuarially determined contributions to the Plan are made by the County from year to year in the future at the contributions recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the Plan may be safely anticipated.

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.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions. We will continue to monitor the situation and advise the Board in the future of any adjustments that we believe would be appropriate.



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.

In addition, I certify that I am a member of the American Academy of Actuaries, that I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein, that I have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with the standards 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 Plan and on actuarial assumptions that are internally consistent and reasonably based on the actuarial experience of the Plan.

We trust that the report will meet the approval of the Board and will furnish the desired information concerning the financial condition of the Plan.

Respectfully submitted,

A handwritten signature in blue ink that reads 'Todd B. Green' followed by a horizontal line.

Todd Green ASA, EA, FCA, MAAA
President



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Section I - Summary of Principal Results

For convenience of reference, the principal results of the current valuation are summarized below.

Valuation Date	January 1, 2022	January 1, 2021
Active Members:		
a. Number	827	970
b. Covered compensation	\$ 75,170,801	\$ 85,204,250
Retired Members, Disableds and Beneficiaries:		
a. Number	2,708	2,580
b. Total Annual Benefits	\$ 89,380,648	\$ 83,617,548
Number of Terminated Vested Members	733	767
Assets:		
a. Market Value	\$ 1,424,405,000	\$ 1,275,247,000
b. Actuarial Value	\$ 1,277,713,000	\$ 1,164,522,000
Actuarial Accrued Liability	\$ 1,567,610,426	\$ 1,529,469,600
Unfunded actuarial accrued liability (UAAL)	\$ 289,897,426	\$ 364,947,600
Amortization Period	11 years	12 years
Fiscal Year Ending	December 31, 2023	December 31, 2022
Total Actuarially Determined Contribution (ADC)		
a. Normal Cost	\$ 11,056,763	\$ 11,822,729
b. UAAL Amortization Payment	36,130,676	42,941,709
c. Administrative Expenses	934,000	789,000
d. Interest Adjustment	5,060,784	5,842,385
e. Total ADC	\$ 53,182,223	\$ 61,395,823
Total ADC		
a. Required County Contribution	\$ 48,109,946	\$ 55,618,888
b. Expected Employee Contribution	5,072,277	5,776,935
c. Total ADC	\$ 53,182,223	\$ 61,395,823

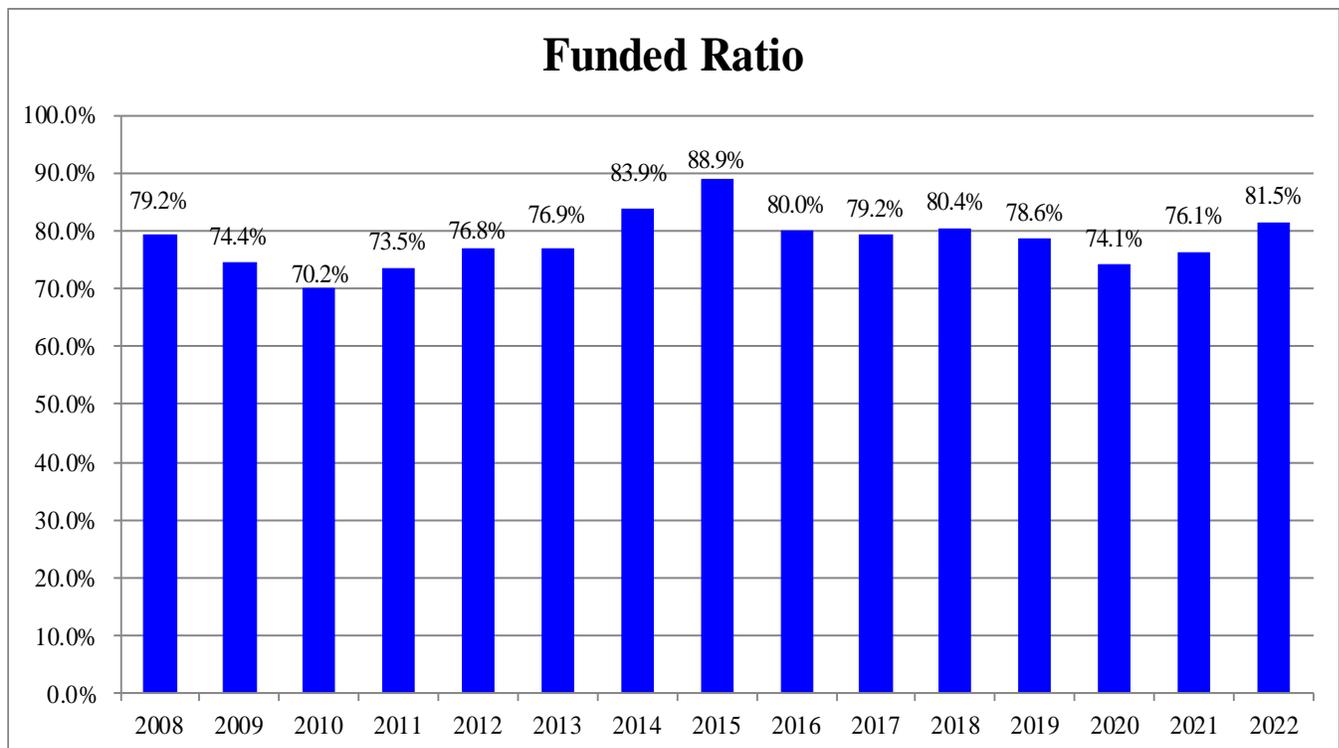


Section I - Summary of Principal Results

- A. The promised benefits of the Gwinnett County Defined Benefit Plan are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level dollar amount within an 11-year period. The plan is now closed to new participants effective January 1, 2007. The assumptions recommended by the actuary are in the aggregate reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan.

The actuarially determined contribution for the fiscal year ending 2023 is \$48,109,946, which will liquidate the unfunded accrued liability over an 11-year period.

The following table represents the County's historical funded ratio. The funded ratio represents the percentage of the plan liability that is covered by the actuarial value of plan assets as of the valuation date.





Section I - Summary of Principal Results

- B.** The major benefit and contribution provisions of the County as reflected in the valuation are summarized in Section VIII. There have been no changes since the previous valuation.
- C.** Section VII of this report outlines the full set of actuarial assumptions and methods used in the valuation. Since the previous valuation, the termination rates have been reduced by 20% of the rates in effect prior to January 1, 2021.
- D.** The entry age normal cost method was used to prepare the valuation. Section VII contains a brief description of the actuarial cost method.
- E.** Comments on the valuation results as of January 1, 2022 are given in Section I and further discussion of the contributions is set out in Section II.

Contributions Payable

- A.** The Gwinnett County Defined Benefit Plan states that each member shall contribute an amount equal to the Member's Compensation multiplied by a specified percentage based on the contribution rates associated with Schedules B and C of the plan. As of January 1, 2022, the estimated employee contributions are \$5,072,277.
- B.** The County contribution for the 2023 fiscal year consists of three components. The first component is the normal cost which includes administrative expenses. Under the entry age normal cost method, the normal cost represents benefits that accrue over a one-year period. Thus, for this year's valuation, this number represents the value of benefits to accrue during the 2022 plan year. The normal cost is \$11,990,763 which includes administrative expenses of \$934,000. Of the \$11,990,763 the employees pay \$5,072,277 which leaves \$6,918,486 as the employer normal cost.
- C.** The second component of the County contribution is an interest adjustment to reflect that the payment is determined on the valuation date and payable one year from the valuation date assuming contributions are deposited on a bi-weekly basis. This amount is \$5,060,784. If the County chooses to pay the entire contribution on January 1, 2023 the interest adjustment will be reduced by \$1,692,283.
- D.** The third component is the amortization of the unfunded liability. The unfunded liability is amortized on a level dollar basis over a closed 11-year period. On this basis, the amortization cost is \$36,130,676.



Section I - Summary of Principal Results

- E. The total actuarially determined contribution to the Plan for the 2023 fiscal year is \$53,182,223. The employee portion of this contribution is \$5,072,277, while the County's portion of this contribution is \$48,109,946. Under the Official Code of Georgia 47-20-10 the minimum funding standards are deemed to have been met if the employer contribution is equal to or greater than the annual required contribution as determined in accordance with the provisions of GASB No. 25 and No. 27. The County's actuarially determined contribution satisfies Official Code of Georgia 47-20-10.

Assets

As of January 1, 2022 the total market value of assets amounted to \$1,424,405,000. The actuarial value of assets used for the current valuation was \$1,277,713,000. Section IV shows the development of the actuarial value of assets as of January 1, 2022. The method for determining the Actuarial Value of Assets recognizes investment gains and losses over a five-year period. As of the valuation date, the market value of assets is \$146,692,000 greater than the actuarial value of assets, which indicates investment gains will be recognized over the next four years.

Comments on the Valuation

The valuation was prepared in accordance with the actuarial assumptions and the actuarial cost method set forth in Section VII. The valuation shows that the System has a total actuarial accrued liability of \$1,567,610,426. The liability on account of present retired members, beneficiaries of deceased members, and disabled members is \$1,102,338,322. Terminated members account for \$33,718,651 of the liability, and \$431,553,453 of the actuarial accrued liability is associated with the active members. As of January 1, 2022, the System has actuarial value of assets of \$1,277,713,000 against these liabilities.

There remains \$289,897,426 as the amount of unfunded accrued liability. The amount necessary to fully amortize the unfunded liability over an 11-year period is \$36,130,676. The development of the unfunded accrued liability is shown in Section II.

The normal cost contribution is equal to the actuarial present value of benefits accruing during the current year. For the 2022 plan year the normal cost contribution including expenses is determined to be \$11,990,763 and is determined under the entry age normal method. An interest adjustment of \$3,368,501 reflects that the actuarially determined contribution is determined on January 1, 2022 and payable one year from the valuation date. The additional interest adjustment of \$1,692,283 reflects the County will contribute the contribution bi-weekly throughout the year. If the County elects to pay the actuarially determined contribution in full on January 1, 2023, the bi-weekly interest adjustment is not necessary.

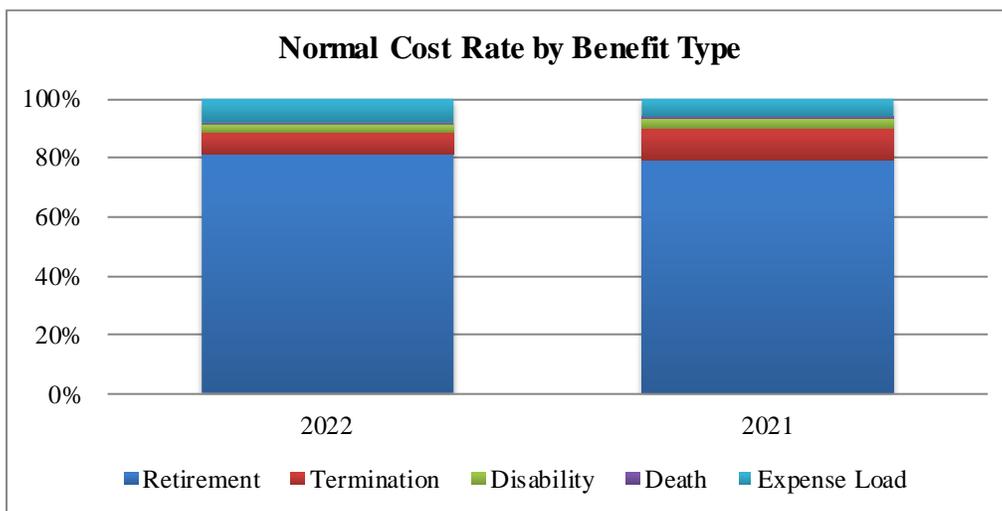


Section II - Plan Contribution Development

Normal Cost

The Normal Cost represents active participant benefits that are to accrue during the 2022 plan year and is a component of the contribution. The following table shows the Normal Cost as it is attributable to plan benefits under the current plan.

	January 1, 2022	January 1, 2021
1. Normal Cost		
a. Retirement Benefits	\$ 9,699,009	\$ 10,014,171
b. Termination Benefits	894,128	1,320,466
c. Disability Benefits	376,445	391,756
d. Death Benefits	87,181	96,336
e. Total	\$ 11,056,763	\$ 11,822,729
2. Expense Load	\$ 934,000	\$ 789,000
3. Normal Cost as a Percent of Payroll (With the Expense Load)	15.95%	14.81%



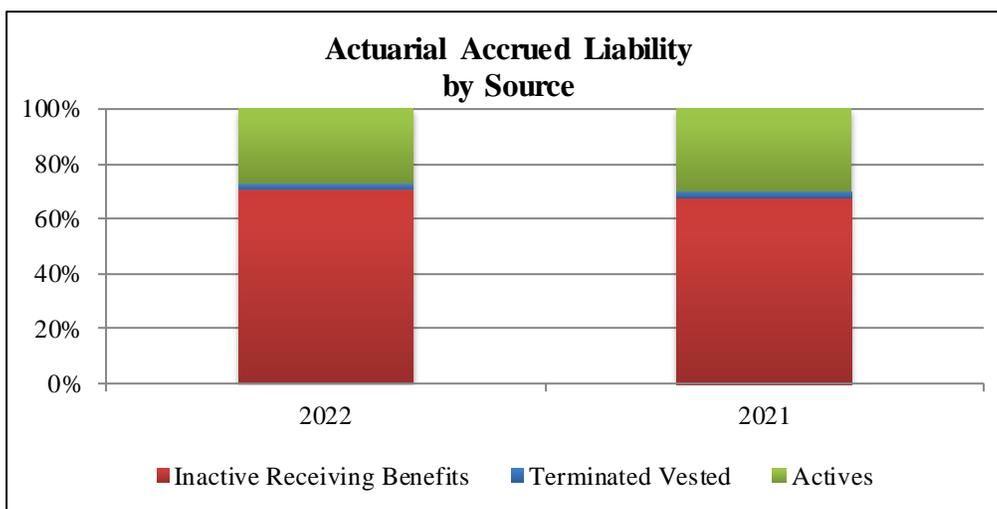


Section II - Plan Contribution Development

Actuarial Accrued Liability

The Actuarial Accrued Liability represents the obligations of the plan as of the valuation date for active and inactive participant benefits. The following table shows the components of the liability.

	January 1, 2022	January 1, 2021
1. Actuarial Accrued Liability		
a. Inactive Participants		
i. Inactive Participants Receiving Benefits	\$ 1,102,338,322	\$ 1,035,360,509
ii. Terminated Participant Benefits Deferred	<u>33,718,651</u>	<u>33,344,868</u>
iii. Total Inactive Present Value	1,136,056,973	1,068,705,377
b. Active Participants Liability	\$ 431,553,453	\$ 460,764,223
2. Total Actuarial Accrued Liability	\$ 1,567,610,426	\$ 1,529,469,600



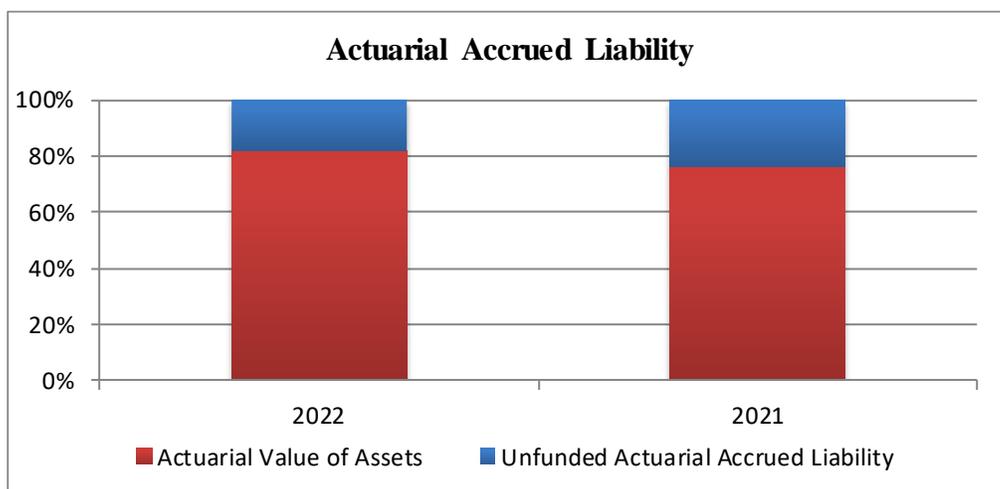


Section II - Plan Contribution Development

Development of the Unfunded Actuarial Accrued Liability

The Unfunded Actuarial Accrued Liability represents the Actuarial Accrued Liability over the Actuarial Value of Assets. The Unfunded Accrued Liability as of January 1, 2022 is \$289,897,426, in other words, the plan liabilities exceed the plan assets by this amount as of the valuation date. The following table shows the components of the Unfunded Actuarial Accrued Liability of the plan.

	January 1, 2022	January 1, 2021
1. Actuarial Accrued Liability		
a. Present Active Members	\$ 431,553,453	\$ 460,764,223
b. Present retired members, beneficiaries and former members entitled to deferred vested benefits	<u>1,136,056,973</u>	<u>1,068,705,377</u>
c. Total	\$ 1,567,610,426	\$ 1,529,469,600
2. Actuarial Value of Assets	\$ 1,277,713,000	\$ 1,164,522,000
3. Unfunded Actuarial Accrued Liability (1c) - (2)	\$ 289,897,426	\$ 364,947,600





Section II - Plan Contribution Development

Development of the Actuarial Gain / (Loss)

The actuarial valuation process relies heavily on demographic and economic assumptions. Actuarial gains and losses occur from year to year when actual Plan experience is different from assumed experience. Experience gains and losses are reflected in the Unfunded Actuarial Accrued Liability and are amortized over a closed period. Actuarial gains represent beneficial experience that reduces contribution rates while actuarial losses increase contribution rates. The table below develops the actuarial gains / (losses).

(1)	Unfunded Accrued Liability (UAL) as of January 1, 2021	\$	364,947,600
(2)	Normal Cost		12,611,729
(3)	Contributions		60,627,000
(4)	Interest		24,307,208
(5)	Expected UAL at January 1, 2022 (1) + (2) - (3) + (4)		341,239,537
(6)	Actual UAL at January 1, 2022		289,897,426
(7)	Total Gain / (Loss) (5) - (6)		51,342,111
(8)	Asset Gain / (Loss)		58,941,535
(9)	Assumption and Method Change		(4,592,920)
(10)	Liability Gain / (Loss) (7) - (8) - (9)	\$	(3,006,504)



Section II - Plan Contribution Development

Development of the Actuarial Gain / (Loss)

1. Net Actuarial Gains/(Losses) During the 2021 Plan Year:	
a. Due to Salary	\$2,459,310
b. Due to Investment Performance	\$58,941,535
c. Due to Turnover	(\$1,938,169)
d. Due to New Retirements	(\$7,792,157)
e. Due to Mortality	\$3,812,047
f. Due to Disabled Retirements	(\$151,946)
g. Total	<u>\$55,330,620</u>
2. Changes During the 2021 Plan Year due to:	
a. Assumption changes	(\$4,592,920)
b. Method changes	\$0
c. Plan changes	\$0
d. Total change	<u>(\$4,592,920)</u>
3. Other Effects (including Data Adjustments)	<u>\$604,411</u>
4. Total Gain / (Loss) as of January 1, 2022	<u><u>\$51,342,111</u></u>

5. Comments on Gains/(Losses):

Salary/Service: Average salary increases of 3.4% compared to expected increases of 4.5%.

Investment Performance: 12.1% actual vs. 7.0% expected return on the actuarial value of assets.

Turnover: Net effect on the valuation liabilities of terminations of employment different from what was anticipated in the aggregate by the assumptions related to those events.

New retirements: Net effect of differences in expected vs. actual numbers of, and benefits for, new retirements and refund of employee contributions.

Assumption Changes: Termination Rates were reduced by 20% of the rates in effect prior to January 1, 2021

Method Changes: None

Plan Changes: None

Other Effects: Data adjustments, contribution timing, and differences between expected benefit payments



Section III – Additional Disclosures

A. Plan Description:

The Gwinnett County Defined Benefit Plan is a single employer defined benefit plan and the contributing entity is Gwinnett County. The employees covered are general employees and public safety employees. The Plan provides retirement benefits to participants according to provisions of the plan document normally in the form of a life annuity. The Plan may be amended at any time, at the sole discretion of the County.

The distribution of the number of employees by type of membership is as follows:

Number of Participants as of January 1, 2022	
1. Retired participants, disabled and beneficiaries currently receiving benefits	2,708
2. Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	733
3. Active Participants	<u>827</u>
4. Total	4,268

Effective January 1, 2007 the plan is closed to new entrants.



Section III – Additional Disclosures

B. Summary of Actuarial Methods and Assumptions:

Valuation date	1/1/2022
Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar
Amortization period	Closed
Remaining amortization period	11 years
Asset valuation method	Five-year smoothed market value
Actuarial assumptions:	
Investment rate of return (includes inflation)	7.00%
Projected salary increases (includes inflation)	4.50% - 5.50%
Price Inflation	2.50%
Wage Inflation	3.50%
Cost-of-living adjustments	1.00%
Payroll increase	0.00%

C. Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
January 1, 2022	\$ 1,277,713,000	\$1,567,610,426	\$ 289,897,426	81.5%	\$ 75,170,801	385.7%
January 1, 2021	\$ 1,164,522,000	\$1,529,469,600	\$ 364,947,600	76.1%	\$ 85,204,250	428.3%
January 1, 2020	\$ 1,079,432,000	\$1,456,369,484	\$ 376,937,484	74.1%	\$ 89,237,461	422.4%
January 1, 2019	\$ 1,038,111,000	\$1,319,949,399	\$ 281,838,399	78.6%	\$ 93,213,483	302.4%
January 1, 2018	\$ 1,017,663,000	\$1,265,966,714	\$ 248,303,714	80.4%	\$ 93,709,196	265.0%
January 1, 2017	\$ 966,170,000	\$1,220,296,657	\$ 254,126,657	79.2%	\$ 95,658,479	265.7%
January 1, 2016	\$ 933,994,000	\$1,168,107,340	\$ 234,113,340	80.0%	\$ 92,832,221	252.2%
January 1, 2015	\$ 887,207,000	\$ 997,597,936	\$ 110,390,936	88.9%	\$ 98,504,606	112.1%



Section IV – Assets

Reconciliation of Market Value of Assets (in thousands)

1. Market Value of Assets as of January 1, 2021	\$1,275,247
2. Adjustment	\$ -
3. Expenditures	
a. Benefit Payments	\$ (86,038)
b. Administrative Expenses	(934)
c. Total	<u>\$ (86,972)</u>
4. Income	
a. Employer Contributions	\$ 54,637
b. Employee Contributions	5,990
c. Total	<u>\$ 60,627</u>
5. Investment Income	
a. Investment gains/losses	\$ 180,941
b. Investment expense	(5,438)
c. Total	<u>\$ 175,503</u>
6. Market Value of Assets as of January 1, 2022	\$1,424,405
7. Rate of Return on Market Value of Assets	13.91%



Section IV - Assets

Development of Actuarial Value of Assets (in thousands)

Valuation Date January 1:	2021	2022	2023	2024	2025	2026
1. Actuarial Value Beginning of Year	\$ 1,079,432	\$ 1,164,522				
2. Market Value End of Year	1,275,247	1,424,405				
3. Market Value Beginning of Year	\$ 1,149,166	\$ 1,275,247				
4. Cash Flow						
a. Contributions	\$ 53,056	\$ 60,627				
b. Benefit Payments	(79,248)	(86,038)				
c. Administrative Expenses	(789)	(934)				
d. Investment Expenses	(4,423)	(5,438)				
e. Net	\$ (31,404)	\$ (31,783)				
5. Investment Income						
a. Market Total	\$ 157,485	\$ 180,941				
b. Assumed Rate	7.00%	7.00%				
c. Amount for Immediate Recognition	83,920	93,783				
d. Amount for Phased-In Recognition	\$ 73,565	\$ 87,158				
6. Phased-In Recognition of Investment Income						
a. Current Year: 0.20 *5d	\$ 14,713	\$ 17,432	\$ -	\$ -	\$ -	\$ -
b. First Prior Year	29,089	14,713	17,432	-	-	-
c. Second Prior Year	(25,348)	29,089	14,713	17,432	-	-
d. Third Prior Year	15,305	(25,348)	29,089	14,713	17,432	-
e. Fourth Prior Year	(1,185)	15,305	(25,348)	29,089	14,713	17,432
f. Total Recognized Investment Gain	\$ 32,574	\$ 51,191	\$ 35,886	\$ 61,234	\$ 32,145	\$ 17,432
7. Actuarial Value End of Year	\$ 1,164,522	\$ 1,277,713				
8. Difference Between Market & Actuarial Values	\$ 110,725	\$ 146,692	\$ 110,811	\$ 49,577	\$ 17,432	\$ -
9. Rate of Return on Actuarial Value	10.51%	12.12%				

The actuarial value of assets recognizes assumed investment income (line 5c) fully each year. Differences between actual and assumed investment income (line 5d) are phased in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, the actuarial value will tend to be less than market value. During periods when investment performance is less than assumed, the actuarial value will tend to be greater than the market value.



Section V – Risk Assessment

Actuarial Standards of Practice are issued by the Actuarial Standards Board and are binding on credentialed actuaries practicing in the United States. These standards generally identify what the actuary should consider, document and disclose when performing an actuarial assignment. In September 2017, Actuarial Standard of Practice Number 51, Assessment and Disclosure of Risk in Measuring Pension Obligations, (ASOP 51) was issued as final with application to measurement dates on or after November 1, 2018. This ASOP, which applies to funding valuations, actuarial projections, and actuarial cost studies of proposed plan changes, was first applicable for the January 1, 2019 actuarial valuation for the Plan.

A typical retirement plan faces many different risks, but the greatest risk is the inability to make benefit payments when due. If plan assets are depleted, benefits may not be paid which could create legal and litigation risk or the plan could become “pay as you go.” The term “risk” is most commonly associated with an outcome with undesirable results. However, in the actuarial world, risk can be translated as uncertainty. The actuarial valuation process uses many actuarial assumptions to project how future contributions and investment returns will meet the cash flow needs for future benefit payments. Of course, we know that actual experience will not unfold exactly as anticipated by the assumptions and that uncertainty, whether favorable or unfavorable, creates risk. ASOP 51 defines risk as the potential of actual future measurements to deviate from expected results due to actual experience that is different than the actuarial assumptions.

The various risk factors for a given plan can have a significant impact – positive or negative – on the actuarial projection of liability and contribution rates.

There are a number of risks inherent in the funding of a defined benefit plan. These include:

- economic risks, such as investment return and price inflation;
- demographic risks such as mortality, payroll growth, aging population including impact of baby boomers, and retirement ages;
- contribution risk, i.e., the potential for contribution rates to be too high for the plan sponsor/employer to pay and
- external risks such as the regulatory and political environment.

There is a direct correlation between healthy, well-funded retirement plans and consistent contributions equal to the full actuarial contribution rate each year. The Plan is primarily funded by member and employer contributions to the trust fund, together with the earnings on these accumulated contributions. These contributions fund benefit accruals for current active members and administrative expenses. The remainder of the contributions amortizes the unfunded actuarial accrued liability. The actuarially determined contribution rate is the sum of the rates for the normal cost for the plan and the amortization of the unfunded actuarial accrued liability. The actuarially determined contribution rate is sensitive to increases in the UAAL and periods of lower-than-expected returns would lead to much higher contribution rates as a percentage of payroll.



Section V – Risk Assessment

The other significant risk factor for the Plan is investment return because of the volatility of returns and the size of plan assets compared to payroll. A perusal of historical returns over 10-20 years reveals that the actual return each year is rarely close to the average return for the same period. This is to be expected, given the underlying capital market assumptions and the Plan's asset allocation. To the extent market rates of interest affect the expected return on assets, there is a risk of change to the discount rate which determines the present value of liabilities and actuarial valuation results.

A key demographic risk for the Plan is improvements in mortality (longevity) greater than anticipated. While the actuarial assumptions reflect a margin for improvement in mortality experience and these assumptions are refined every experience study, the risk arises because there is a possibility of some sudden shift, perhaps from a significant medical breakthrough that could quickly increase liabilities. Likewise, as we have recently seen with COVID-19, a public health crisis can result in a significant number of additional deaths in a short period of time, which can influence plan liabilities and future funding needs. While either of these events could happen, it represents a small probability and thus represents much less risk than the volatility associated with investment returns.



Section VI - Data

- A. Data regarding the membership of the System for use as a basis of the valuation were furnished by the County and plan administrator. The valuation included active members with annualized compensation totaling \$75,170,801.
- B. The following table shows the number of retired members and beneficiaries as of January 1, 2022 together with the amount of their annual retirement benefits payable under the System as of that date.

**The Number and Average Annual Benefits of
Retired Members, Disabled Members and Beneficiaries
as of January 1, 2022**

Group	Number	Average Annual Benefits
Service Retirements	2,479	\$34,358
Disability Retirements	23	16,578
Beneficiaries of Deceased Members	<u>206</u>	18,576
Total	2,708	\$33,006

- C. Table 1 on the next page shows the distribution by age and years of membership service of the number of active members included in the valuation, while Table 2 shows the number and annual benefits of retired members, disabled members and beneficiaries included in the valuation, distributed by age. Table 3 shows the reconciliation of valuation data from last year's valuation carried forward to this year's valuation.



Section VI - Data

Table 1: Distribution of Active Members by Age and Service Groups as of January 1, 2022

Attained Age	Completed 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	
Under 25 Average Pay										
25 to 29 Average Pay										
30 to 34 Average Pay										
35 to 39 Average Pay					32 84,423	5 92,114				37 85,462
40 to 44 Average Pay					86 87,540	74 92,227	1 116,825			161 89,876
45 to 49 Average Pay					59 85,768	130 95,484	48 100,007	2 102,486		239 94,052
50 to 54 Average Pay					67 83,842	83 88,554	45 100,885	9 107,442		204 90,560
55 to 59 Average Pay					35 79,364	36 92,971	19 106,500	20 94,396	4 91,632	114 91,251
60 to 64 Average Pay					20 68,802	16 79,036	10 83,813	3 91,357	3 116,758	52 78,906
65 to 69 Average Pay					1 82,165	6 106,387	2 78,617	6 122,626	2 123,529	17 109,443
70 & up Average Pay					1 89,202	1 68,801			1 61,536	3 73,179
Total Count Average Pay					301 83,830	351 92,214	125 99,807	40 101,743	10 102,540	827 90,896



Section VI - Data

Table 2: Number of Retired Members, Disabled, and Beneficiaries and Their Benefits

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefit
50 & Under	39	\$ 1,464,812	\$ 37,559
51 – 55	187	8,585,687	45,913
56 – 60	418	20,034,348	47,929
61 – 65	546	21,558,680	39,485
66 – 70	566	17,675,826	31,229
71 – 75	528	12,644,854	23,949
76 – 80	248	4,804,250	19,372
Over 80	176	2,612,191	14,842
Total	2,708	\$ 89,380,648	\$ 33,006



Section VI - Data

Table 3: Reconciliation of Plan Participants as of January 1, 2022

	Active Participants	Disabled Participants	Inactive Participants with Deferred Benefits	Inactive Participants Receiving Benefits	Total
January 1, 2021	970	22	767	2,558	4,317
Retirements	(125)		(40)	165	
Deaths	(4)	(1)	(5)	(61)	(71)
Disabled					
Nonvested Terminations					
Vested Terminations	(14)		14		
Rehires					
Survivors				24	24
Benefits Expired				(2)	(2)
Transfer Out					
Transfer In					
Correction	1			3	4
Status Change		2		(2)	
Lump Sum/Refund of Contributions	(1)		(3)		(4)
Net Change	(143)	1	(34)	127	(49)
January 1, 2022	827	23	733	2,685	4,268



Section VII - Actuarial Assumptions and Methods

A. Investment Return:

7.00% per year, compounded annually.

B. Salary Increases:

Representative values of the assumed annual rates of salary increases are shown in the following table.

Years of Service	Salary Increase
Under 5	5.50%
5	5.25
6	5.25
7	5.25
8	5.00
9	5.00
10	5.00
11	5.00
12	5.00
13	4.75
14 and Over	4.50

C. Mortality:

Pre-Retirement Mortality

PubG.H-2010 Headcount Weighted General Median Employee, fully generational
Projection Scale: MP-2019

Post Retirement Healthy Mortality

PubG.H-2010 Headcount Weighted General Median Healthy Retiree, fully generational
Projection Scale: MP-2019

Post Retirement Disabled Mortality

PubNS.H-2010 Headcount Weighted Non-Safety Median Disabled Retiree, fully generational
Projection Scale: MP-2019



Section VII - Actuarial Assumptions and Methods

D. Separations from Active Service:

Representative values of the assumed annual rates of withdrawal and disability are shown in the following table.

Age	Withdrawal	Disability
Under 20	10.8 %	0.00 %
20	9.3	0.01
25	5.6	0.06
30	4.6	0.10
35	3.7	0.14
40	2.9	0.20
45	2.5	0.32
50	2.2	0.52
55	1.9	0.00
60	1.4	0.00
65 and Over	1.2	0.00

Disability: Male rates (used for both sexes) derived from a 1977 Social Security Administration study multiplied by 50%. Incidence of disability resulting in eligibility for both disability benefits under the county retirement plan and the Social Security.

Retirement: An experience based, age related set of rates; sample rates are as follows:

Age	Retirement*	Age	Retirement*
50 – 55	30%	65	50%
56 – 61	25%	66 – 69	30%
62 – 64	30%	70	100%

* If service is at least 30 years or when member first becomes eligible for Rule of 75, the rate is 37.5%

E. Administrative Expenses:

An expense load is determined to account for administrative expenses to be paid from the trust. Expenses are estimated to be \$934,000 for the plan year.



Section VII - Actuarial Assumptions and Methods

F. Actuarial Value of Assets:

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 7.00% effective January 1, 2022. The amount recognized each year is 20% of the difference between market value and expected market value.

G. Actuarial Cost Method:

Entry Age Normal effective January 1, 2020. A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

H. Amortization of Unfunded Accrued Liability:

Level dollar over a closed amortization period of 17 years beginning January 1, 2016.

I. Beneficiary:

The plan provides either a lump-sum benefit or an annuity to the beneficiary of a deceased inactive participant. Therefore all participants are assumed to have a beneficiary and such beneficiary is assumed to be the same age as the participant.

J. Percent Married:

For the purposes of valuing the spouse pre-retirement survivor annuity, 50% of the plan participants are assumed married with males three years older than the spouse.

K. Load for Unused Sick Leave and Retirement Reserve Leave:

Members can apply unused sick leave or retirement reserve leave toward Credited Service in order to meet retirement eligibility requirements. The three year experience study covering the period January 1, 2006 through January 1, 2009 found that members are able to retire one year earlier than the retirement eligibility condition allowable by the Plan through conversion of unused sick leave or retirement reserve leave. Thus, retirement benefits and liabilities for Plan B and Plan C members are increased by 3.50% to estimate the increase in benefit due to the application of unused sick leave or retirement reserve leave toward Credited Service.



Section VIII - Plan Provisions

A. **Effective Date**

January 1, 2007

B. **Participation**

Each Employee who was a participant in the ACCG Plan on the day before the Effective Date of this Plan shall be a participant in this plan. Each employee hired before January 1, 2007 is eligible to participate as of his employment commencement date. No employee hired on or after January, 1 2007 shall be eligible to participate in this Plan. An Employee who has a termination date prior to December 31, 2006 with a reemployment commencement date on or before December 31, 2007 shall be eligible to participate in the plan provided he has not incurred a one-year break in service. Effective January 1, 2008, only those employees participating in the plan on December 31, 2007 shall be eligible to participate in the plan.

C. **Credited Service**

Measurement of a participant's service as an employee after the original effective date of the plan that is used to determine the participant's accrued benefit. Credited service shall include only full-time service and shall be determined under the Elapsed Time Method. Credited service shall include service prior to the effective date of the plan, sick leave, and retirement reserve leave. The County as part of an employment contract with Appointed officials may agree to provide additional Credited Service. In no event shall the additional credited service exceed five years.

D. **Compensation**

Total amounts of all payments, direct or indirect, made by the County to an employee for services rendered to the County, for a calendar year which ends within a Plan Year, as defined in Code Section 3401(a) for purposes of tax withholding at the source excluding overtime, overtime premium, scheduled overtime and scheduled overtime premium. Compensation shall include before-tax or salary deferral contribution made to this plan or any other plan of the County.

E. **Average Final Compensation**

Arithmetic average of Compensation paid to a participant by the employer for the highest five consecutive years of Credited Service, ignoring the breaks in service, out of the employee's last 10 years of credited service earned immediately prior to termination date.



Section VIII - Plan Provisions

F. Schedule A

Benefit established in 2004 for the noncontributory defined benefit plan previously adopted by Gwinnett County and known as the “Pre-Amended Pension Plan”

G. Schedule B

Benefit established in 2004 for the contributory defined benefit plan previously adopted by Gwinnett County and known as the “1995 Amended Pension Plan” and subsequently amended and restated

H. Schedule C

Benefit established in 2004 for the contributory defined benefit plan adopted by Gwinnett County as of November 1, 2004

I. Normal Retirement Benefit

Eligibility

For those members with an employment date or a reemployment commencement date prior to November 1, 2004, the later of the date the Participant attains age 65 and completes three years of vesting service. For employees hired on or after November 1, 2004, the later of the date the participant attains age 65 and five years of vesting service.

Benefit Amount

Schedule A or B

2.25% of a participants Average Monthly Compensation multiplied by years of full-time Credited Service.

Schedule C

2.50% of a participants Average Monthly Compensation multiplied by years of full-time Credited Service.



Section VIII - Plan Provisions

J. Early Retirement Benefit

Eligibility

Schedule A: Earlier of

- 1) Age 60 and 10 years of service, or
- 2) 30 years of service, regardless of age

Schedule B or C: Earlier of

- 1) Age 60 and 10 years of service, or
- 2) 30 years of service, regardless of age, or
- 3) Age 50 and the Rule of 75

Benefit Amount

Schedule A, B or C

Computed as a Normal Retirement Benefit that is actuarially reduced for those members retiring with less than 30 years of service

Schedule C

Computed as a Normal Retirement Benefit that is actuarially reduced for those members who have not obtained age 50 and the Rule of 75

K. Late Retirement

Eligibility

Date participant actually retires from employment with the County after his normal retirement date

Benefit Amount

Computed as a Normal Retirement Benefit



Section VIII - Plan Provisions

L. Disability Benefit

Eligibility

10 years of service and is determined to be totally disabled by the Social Security Administration.

Benefit Amount

Calculated as Normal Retirement Benefit

M. Pre-Retirement Death Benefit

Eligibility

If the participant dies while an Employee of the County, the Plan provides a lifetime pre-retirement survivor annuity to the spouse. If the participant is not married at the time of death, the participant's dependent child will receive the same benefit in total until the child reaches age 18 at which time the benefit will cease.

Benefit Amount

50% of the Participant's non forfeitable accrued benefit determined as of the date of the participants death.



Section VIII - Plan Provisions

N. Post-Retirement Death Benefit

Eligibility

If a participant dies after he retires, his beneficiary may receive a post-retirement death benefit.

Benefit Amount

If the monthly benefit was less than \$100, the post-retirement death benefit is equal to \$5,000.

If the monthly benefit was \$100 or greater but less than \$300, the post-retirement death benefit is equal to \$10,000

If the monthly benefit was \$300 or more, the post-retirement death benefit is equal to \$15,000.

O. Vested Termination

Eligibility

Members employed prior to November 1, 2004 must have completed 3 years of service. Those members employed on or after November 1, 2004 must have completed 5 years of service upon termination.

Benefit Amount

Computed as a normal retirement benefit as of the date of termination payable upon reaching age 65.

P. Non-Vested Termination

A member terminating from the plan that is not 100% vested in the accrued benefit is entitled to a refund of employee contributions with interest.



Section VIII - Plan Provisions

Q. Cost-of-Living Adjustments

Schedule A

None

Schedule B or C

1.00% annually

R. Normal Form of Benefit

Single Life Annuity

S. Contributions

Member

Schedule A: None

Schedule B: Members are required to contribute 5.75% of Compensation

Schedule C: Members are required to contribute 9.00% of Compensation

County

The County contributes an actuarially determined amount which, together with member contributions, equals the sum of the normal cost and payments for the amortization of the unfunded actuarial accrued liability.