Section II – Membership

1. Data for retired members of the Fund were furnished by the Retirement System. Data for active and deferred vested members of the Fund were furnished by the Defense Department. On this basis, the valuation includes 13,711 active National Guard members.

2. The following table shows the number of retired members and deferred vested members included in the valuation as of June 30, 2019, together with the amount of their annual retirement allowances payable under the Fund as of that date.

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND DEFERRED VESTED MEMBERS AS OF JUNE 30, 2019

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
Retired Members, currently payable	1,148	$ 1,238,100
Former Members, deferred allowances	3,227	2,993,760

Section III – Assets

1. As of June 30, 2019 the total fair value of assets amounted to $26,417,000 as reported by the independent Auditor of the Fund. The actuarial value of assets as of June 30, 2019 was determined to be $26,119,000 based on a five year smoothing of investment gains and losses. Schedule B shows the development of the actuarial value of assets as of June 30, 2019.

2. Schedule C shows the receipts and disbursements of the Fund for the two years preceding the valuation date and a reconciliation of the fund balances.

Section IV – Comments on Valuation

1. Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the Fund as of June 30, 2019. The valuation was prepared in accordance with the actuarial assumptions and methods set forth in Schedule D and the actuarial cost method which is described in Schedule E.

2. The valuation balance sheet shows that the Fund has total prospective liabilities of $46,232,875, of which $33,435,048 is for the prospective benefits payable on account of present retired members, and members entitled to deferred vested benefits, and $12,797,827 is for the prospective benefits payable on account of present active members. Against these liabilities, the Fund has total present assets of $26,119,000 as of June 30, 2019. The difference of $20,113,875 between the total liabilities and the total present assets represents the present value of contributions to be made in the future.

3. The employer's contributions to the Fund consist of normal contributions and unfunded actuarial accrued liability (UAAL) contributions. The valuation indicates that annual employer normal contributions at the rate of $6.76 per active member are required to provide the currently accruing benefits of the Fund. An additional $27.27 per active member is required to fund the administrative expenses of the Fund.

4. Prospective normal contributions (net of expenses) at the rate of $6.76 have a present value of $442,969. When this amount is subtracted from $20,113,875, which is the present value of the total future contributions to be made by the employers, the result is a prospective unfunded actuarial accrued liability of $19,670,906.

5. The funding policy adopted by the Board, as shown in Schedule F, provides that the unfunded actuarial accrued liability as of June 30, 2013 (Transitional UAAL) will be amortized as a level dollar amount over a closed 20-year period. In each subsequent valuation all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation will determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level dollar amount over a closed 20-year period from the date it is established.

6. The total accrued liability contribution rate is $162.69 per active member, determined in accordance with the Board's funding policy.

7. Schedule G of this report shows the amortization schedules for the Transitional UAAL and New Incremental UAALs.

8. The following table shows the components of the total unfunded actuarial accrued liability (UAAL) and the derivation of the UAAL contribution rate in accordance with the funding policy.

TOTAL UAAL AND UAAL CONTRIBUTION RATE

	Remaining Balance UAAL	Remaining Amortization Period (years)	Amortization Payment
Transitional	$14,912,412	14	$1,735,964
New Incremental June 30, 2014	35,037	15	3,920
New Incremental June 30, 2015	1,488,646	16	160,731
New Incremental June 30, 2016	1,431,049	17	149,635
New Incremental June 30, 2017	877,178	18	89,100
New Incremental June 30, 2018	778,161	19	76,992
New Incremental June 30, 2019	148,423	20	14,338
Total UAAL	$19,670,906		$2,230,680
Blended Amortization Period (years)			14.6
UAAL Contribution Rate per active member			$162.69

Section V – Contributions Payable by the State

1. The employer's contributions to the Fund consist of a normal contribution and an unfunded actuarial accrued liability contribution (UAAL) as determined by actuarial valuation.

2. The normal contribution rate is calculated as the level dollar which, if applied for the average member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf. On the basis of the valuation, the normal contribution rate was determined to be $6.76 per active member, or $92,686 based on 13,711 active members as of June 30, 2019.

3. An additional $373,899, or $27.27 per active member, is required to fund the administrative expenses of the Fund.

4. The total normal contribution including administrative expenses is, therefore, $466,585, or $34.03 per active member.

5. The UAAL contribution is the level annual amount which will be sufficient to amortize the unfunded actuarial accrued liability in accordance with the Board's funding policy. The annual UAAL contribution determined on this basis by the June 30, 2019 valuation is $2,230,680, or $162.69 per active member.

6. The following table summarizes the employer contribution rates which were determined by the June 30, 2019 valuation and are recommended for use.

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)
FOR FISCAL YEAR ENDING JUNE 30, 2022

CONTRIBUTION	PER ACTIVE MEMBER	ANNUAL AMOUNT
Normal	$ 34.03	$ 466,585
Unfunded Actuarial Accrued Liability	162.69	2,230,680
Total	$ 196.72	$ 2,697,265

Section VI – Accounting Information

The information required under Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 will be issued in separate reports. The following information is provided for informational purposes only.

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

NUMBER OF ACTIVE AND RETIRED MEMBERS
AS OF JUNE 30, 2019

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	1,148
Terminated plan members entitled to benefits but not yet receiving benefits	3,227
Active plan members	13,711
Total	18,086

2. The schedule of funding progress is shown below

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b – a) / c)
6/30/2014	$ 14,264,000	$ 31,815,154	$ 17,551,154	44.83%	N/A	N/A
6/30/2015	16,446,000	35,212,807	18,766,807	46.70	N/A	N/A
6/30/2016	18,414,000	38,210,803	19,796,803	48.19	N/A	N/A
6/30/2017*	20,604,000	40,730,594	20,126,594	50.59	N/A	N/A
6/30/2018*	23,362,000	43,621,856	20,259,856	53.56	N/A	N/A
6/30/2019	26,119,000	45,789,906	19,670,906	57.04	N/A	N/A

* Reflects change in assumed rate of return

3. The following shows the schedule of employer contributions:

Year Ending	Actuarially Determined Employer Contribution (ADEC)	Percentage Contributed
6/30/2014	$1,892,000	100%
6/30/2015	1,893,000	100
6/30/2016	1,990,000	100
6/30/2017	2,018,000	100
6/30/2018	2,377,000	100
6/30/2019	2,537,000	100

4. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2019. Additional information as of the latest actuarial valuation follows.

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Valuation date	6/30/2019
Actuarial cost method	Entry age
Amortization method	Level dollar, closed
Remaining amortization period	14.6 years
Asset valuation method	5-year smoothed fair
Actuarial assumptions:	
Investment rate of return*	7.30%
Projected salary increases	N/A
Cost-of-living adjustments	None

* Includes inflation at 2.75%

Section VII – Experience

1. The last experience investigation was prepared for the five-year period ending June 30, 2014 and based on the results of the investigation various assumptions and methods were revised and adopted by the Board on December 17, 2015. The next experience investigation will be prepared for the period July 1, 2014 through June 30, 2019.

2. The following table shows the estimated gain or loss from various factors that resulted in a decrease of $588,950 in the unfunded actuarial accrued liability (UAAL) from $20,259,856 to $19,670,906 during the fiscal year ending June 30, 2019.

3. The most significant item contributing to the $589 thousand decrease in the UAAL was that the accrued liability contribution was greater than the interest on the prior year UAAL. There were also small gains due to mortality and turnover and retirement. These gains were somewhat offset by a loss of $68 thousand for valuation asset growth, because the rate of return on the actuarial value of assets was less than the assumed rate of 7.30% for the fiscal year ending June 30, 2019 and a loss of $179.1 thousand for new members added to the Fund this year with prior service credit.

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

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.30%) added to previous unfunded actuarial accrued liability	$ 1,479.0
Accrued liability contribution	(2,285.4)
Experience:	
Valuation asset growth	68.0
Pensioners' mortality	(20.1)
Turnover and retirements	(17.0)
New entrants	179.1
Assumption changes	0.0
Data changes	10.4
Miscellaneous changes	(3.0)
Total	$ (589.0)

Section VIII – Risk Assessment

Overview

Actuarial Standards of Practice (ASOP) No. 51, issued by the Actuarial Standards Board, provides guidance on assessing and disclosing risks related to pension plan funding. This guidance is binding on all credentialed actuaries practicing in the United States. This standard was issued as final in September 2017 with application to measurement dates on or after November 1, 2018.

The term "risk" frequently has a negative connotation, but from an actuarial perspective, it may be thought of as simply the fact that what actually happens in the real world will not always match what was expected, based on actuarial assumptions. Of course, when actual experience is better than expected, the favorable risk is easily absorbed. The risk of unfavorable experience will likely be unpleasant, and so there is an understandable focus on aspects of risk that are negative.

Risk usually can be reduced or eliminated at some cost. Consumers, for example, buy auto and home insurance to reduce the risk of accidents or catastrophes. Another way to express this concept, however, is that there is generally some reward for assuming risk. Thus, retirement plans invest not just in US Treasury bonds which have almost no risk, but also in equities which are considerably riskier – because they have an expected reward of a higher return that justifies the risk.

Under ASOP 51, the actuary is called on to identify the significant risks to the pension plan and provide information to help those sponsoring and administering the plan understand the implications of these risks. In this section, we identify some of the key risks for the Fund and provide information to help interested parties better understand these risks.

Section VIII – Risk Assessment

Investment Risk

The investment return on assets is the most obvious risk – and usually the largest risk – to funding a pension plan. To illustrate the magnitude of this risk, based on the current valuation, if the market value return is 10% below assumed, or negative 2.70% (7.30% minus 10.00%) for the System, there would have been an increase in the expected Required Contribution Amount of approximately $46,000.

Sensitivity Measures

Valuations are generally performed with a single set of assumptions that reflects the best estimate of future conditions, in the opinion of the actuary and typically the governing board. Note that under actuarial standards of practice, the set of economic assumptions used for funding must be consistent. To enhance the understanding of the importance of an assumption, a sensitivity test can be performed where the valuation results are recalculated using a different assumption or set of assumptions.

The following tables contains the key measures for the Fund using the valuation assumption for investment return of 7.30%, along with the results if the assumption were 6.30% or 8.30%. In this analysis, only the investment return assumption is changed. Consequently, there may be inconsistencies between the investment return and other economic assumptions such as inflation or payroll increases. In addition, simply because the valuation results under alternative assumptions are shown here, it should not be implied that Cavanaugh Macdonald Consulting (CMC) believes that either assumption (6.30% or 8.30%) would comply with actuarial standards of practice.

As of June 30, 2019	Current Discount Rate (7.30%)	-1% Discount Rate (6.30%)	+1% Discount Rate (8.30%)
Accrued Liability	$45,789,906	$52,382,345	$40,434,257
Unfunded Liability	$19,670,906	$26,263,345	$14,315,257
Funded Ratio (AVA)	57.0%	49.9%	64.6%
ADEC Rate*	$196.72	$236.67	$166.88

*Contribution rates are determined based on the Board's current Funding Policy

Section VIII – Risk Assessment

Mortality Risk

The mortality assumption is a significant assumption for valuation results, second only to the investment assumption in most situations. The Fund's mortality assumption utilizes a mortality table (with separate rates for males and females, as well as different rates by status) and a projection scale for how the mortality table is expected to improve through time.

The future, however, is not known, and actual mortality improvements may occur at a faster rate than expected, or at a slower rate than expected (or even decline). Although changes in mortality will affect the benefits paid, this assumption is carefully studied during the regular experience studies that the Fund conducts so that incremental changes can be made to smoothly reflect unfolding experience. The next experience study will be completed for the period July 1, 2014 – June 30, 2019.

Contribution Risk

The Fund is primarily funded by employer contributions to the trust fund, together with the earnings on those accumulated contributions. Each year in the valuation, the Required Contribution Rate is determined, based on the Fund's funding policy. This rate is the sum of the rates for the normal cost for the plan, the amortization of the UAAL, and the administrative expenses. Since the Required Contribution Rate has always been made and that procedure is expected to continue, there is no Contribution Risk at this time.

Schedule A – Valuation Balance Sheet

VALUATION BALANCE SHEET

PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES
AS OF JUNE 30, 2019

	ACTUARIAL LIABILITIES		
Present value of prospective benefits payable on account of:			
(1)	Present retired members		$ 11,204,653
(2)	Former members entitled to deferred benefits		22,230,395
(3)	Present active members		12,797,827
(4)	Total Actuarial Liabilities		$ 46,232,875
	PRESENT AND PROSPECTIVE ASSETS		
(5)	Actuarial Value of Assets:		$ 26,119,000
(6)	Present value of total future contributions = (4) – (5)	$ 20,113,875	
(7)	Prospective normal contributions		442,969
(8)	Prospective unfunded actuarial accrued liability contributions = (6) – (7)		19,670,906
(9)	Total Present and Prospective Assets		$ 46,232,875

Schedule B – Development of Actuarial Value of Assets

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS
($ in thousands)

(1)	Actuarial Value Beginning of Year		$	23,362
(2)	Fair Value End of Year		$	26,417
(3)	Fair Value Beginning of Year		$	23,653
(4)	Cash Flow			
	(a)	Contributions	$	2,537
	(b)	Benefit Payments		(1,221)
	(c)	Administrative Expenses		(235)
	(d)	Investment Expenses		(6)
	(e)	Net: (4)(a) + (4)(b) + 4(c) + 4(d)	$	1,075
(5)	Investment Income			
	(a)	Fair Total: (2) – (3) – (4)(e)	$	1,689
	(b)	Assumed Rate of Return for Current Year		7.30%
	(c)	Amount for Immediate Recognition: [(3) x (5)(b)] + {[(4)(a) +4(b) + 4(c)]x (5)(b) x 0.5} - 4(d)	$	1,772
	(d)	Amount for Phased-In Recognition: (5)(a) - (5)(c)		(83)
(6)	Phased-In Recognition of Investment Income			
	(a)	Current Year: (5)(d) / 5	$	(17)
	(b)	First Prior Year		72
	(c)	Second Prior Year		181
	(d)	Third Prior Year		(208)
	(e)	Fourth Prior Year		(118)
	(f)	Total Recognized Investment Gain	$	(90)
(7)	Actuarial Value End of Year: (1) + (4)(e) + (5)(c) + (6)(f)		$	26,119
(8)	Difference Between Fair & Actuarial Values: (2) – (7)		$	298
(9)	Rate of Return on Actuarial Value*			7.01%

* Calculated assuming cash flow occurs in the middle of the year

Schedule C – Summary of Receipts and Disbursements

SUMMARY OF RECEIPTS AND DISBURSEMENTS
(Fair Value)

	YEAR ENDING	
Receipts for the Year	June 30, 2019 ($1,000's)	June 30, 2018 ($1,000's)
Contributions:		
Members	$ 0	$ 0
Employer	2,537	2,377
Subtotal	$ 2,537	$ 2,377
Investment Earnings (Net of Investment Expenses)	1,683	1,928
TOTAL	$ 4,220	$ 4,305
Disbursements for the Year		
Benefit Payments	$ 1,221	$ 1,138
Refunds to Members	0	0
Administrative Expenses	235	225
TOTAL	$ 1,456	$ 1,363
Excess of Receipts over Disbursements	$ 2,764	$ 2,942
Reconciliation of Asset Balances		
Asset Balance as of the Beginning of Year	$ 23,653	$ 20,711
Excess of Receipts over Disbursements	2,764	2,942
Asset Balance as of the End of Year	$ 26,417	$ 23,653
Rate of Return*	6.96%	9.09%

* Calculated assuming cash flow occurs in the middle of the year

Schedule D – Outline of Actuarial Assumptions and Methods

Actuarial assumptions and methods adopted by the Board December 17, 2015. Valuation interest rate adopted by the Board March 15, 2018.

VALUATION INTEREST RATE: 7.30% per annum, compounded annually, net of investment expenses, composed of a 2.75% inflation assumption and a 4.55% real rate of investment return assumption.

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of separation from active service are as follows:

RATES OF WITHDRAWAL FROM ACTIVE SERVICE	
SERVICE	RATES
2 & Under	13.0%
3-7	17.5
8-9	14.0
10-14	13.5
15-19	8.5
20 & Over	14.5

AGE	RATES OF RETIREMENT
60	75.0%
61	60.0
62	70.0
63	60.0
64	60.0
65 and over	100.0

AGE	RATES OF DEATH	
	Male	Female
25	0.0349%	0.0192%
30	0.0412	0.0245
35	0.0717	0.0441
40	0.1001	0.0655
45	0.1399	0.1043
50	0.1983	0.1555
55	0.2810	0.2228
60	0.4092	0.3058

Schedule D – Outline of Actuarial Assumptions and Methods

DEATHS AFTER RETIREMENT: Since the Fund has minimal post-retirement mortality experience, the Fund uses the same mortality tables used for the Employees' Retirement System of Georgia, which is the RP-2000 Combined Mortality Table projected to 2025 with projection scale BB and set forward 2 years for both males and females. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on December 17, 2015, the numbers of expected future deaths are 9-12% less than the actual number of deaths that occurred during the study period.

Representative values of the assumed annual rates of mortality are as follows:

Age	Men	Women	Age	Men	Women
40	0.1127%	0.0790%	65	1.1300%	0.8994%
45	0.1609	0.1230	70	1.8697	1.5281
50	0.2474	0.1872	75	3.2147	2.5220
55	0.4246	0.2918	80	5.5160	4.1628
60	0.6985	0.4923	85	9.5631	7.1239

ADMINISTRATIVE EXPENSES: Budgeted administrative expenses for the fiscal year are added to the normal cost.

AMORTIZATION METHOD: Level dollar amortization.

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

VALUATION METHOD: Entry age actuarial cost method. See Schedule E for a brief description of this method.

Schedule E – Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 7.30%), of each member's expected benefits at retirement or death is determined, based on age, service and sex. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members, beneficiaries and members entitled to deferred vested benefits to obtain the present value of all expected benefits payable from the Fund on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the Fund are determined following a level funding approach, and consist of a normal contribution and an unfunded actuarial accrued liability contribution.
3. The normal contribution is determined using the entry age actuarial cost method. Under this method, a calculation is made to determine the level amount which, if applied for the average member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
4. The unfunded actuarial accrued liability contributions are determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets, from the present value of expected benefits to be paid from the Fund.

Schedule F – Board Funding Policy

FUNDING POLICY OF THE GMPF BOARD OF TRUSTEES

The purpose of this Funding Policy is to state the overall objectives for the Georgia Military Pension Fund (System), the benchmarks that will be used to measure progress in achieving those goals, and the methods and assumptions that will be employed to develop the benchmarks. It is the intent of the GMPF Board of Trustees that the Funding Policy outlined herein will remain unchanged until the objectives below are met.

I. Funding Objectives

The goal in requiring employer and member contributions to the System is to accumulate sufficient assets during a member's employment to fully finance the benefits the member is expected to receive throughout retirement. In meeting this objective, the System will strive to meet the following funding objectives:

- To develop a pattern of contributions expressed both as a total dollar amount and as a dollar amount per active member and measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board.
- To maintain an increasing funded ratio (ratio of actuarial value of assets to actuarial accrued liabilities) that reflects a trend of improved actuarial condition. The long-term objective is to obtain a 100% funded ratio over a reasonable period of future years.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demand for liquidity.
- To promote intergenerational equity for taxpayers with respect to contributions required for the benefits provided by the System.

II. Measures of Funding Progress

To track progress in achieving the System's funding objectives, the following measures will be determined annually as of the actuarial valuation date (with due recognition that a single year's results may not be indicative of long-term trends):

- **Funded ratio** – The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should increase over time, before adjustments for changes in benefits, actuarial methods, and/or actuarial adjustments. The target funded ratio will be 100 percent within 20 years of the valuation date for the first valuation conducted following the adoption of this Policy (i.e. the June 30, 2013 valuation date).
- **Unfunded Actuarial Accrued Liability (UAAL)**
  - **Transitional UAAL** – The UAAL established as of the initial valuation date for which this funding policy is adopted shall be known as the Transitional UAAL.
  - **New Incremental UAAL** – Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuations.
- **UAAL Amortization Period**
  - The transitional UAAL will be amortized over a closed 20 year period beginning on the initial valuation date for which this funding policy is adopted.
  - Each New Incremental UAAL shall be amortized over a closed 20 year period beginning with the year it is incurred.

- **Employer Contributions**
  - **Employer Normal Contributions** – the contribution determined as of the valuation date each year to fund the employer portion of the annual normal cost of the System based on the assumptions and methods adopted by the Board.
  - In each valuation subsequent to the adoption of this funding policy the required employer contributions will be determined as the summation of the employer Normal Contribution, a contribution for administrative expenses, the amortization cost for the Transitional UAAL and the individual amortization cost for each of the New Incremental UAAL bases.
  - Employer Contributions will be expressed as both a total dollar amount and as a dollar amount per active member. In no event shall the employer contributions be less than $0.
  - The valuation methodology, including the amortization of the Unfunded Actuarial Accrued Liability (UAAL), would be expected to maintain reasonably stable contributions as a dollar per active member.

III. Methods and Assumptions

The annual actuarial valuations providing the measures to assess funding progress will utilize the actuarial methods and assumptions last adopted by the Board based upon the advice and recommendations of the actuary. These include the following primary methods and assumptions:

- The actuarial cost method used to develop the benchmarks will be the Entry Age Normal (EAN) actuarial cost method.
- The long-term annual investment rate of return assumption will be:
  - Effective with the June 30, 2013 valuation date, 7.50% net of investment expenses.
  - Effective with the June 30, 2017 valuation date, reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the following conditions are met:
    - 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, and
    - The assumed rate of return does not decrease below 7.00% net of investment expenses.
- The actuarial value of assets will be determined by recognizing the annual differences between actual and expected market value of assets over a five-year period, beginning with the June 30, 2013 actuarial valuation.
  - Prior to the June 30, 2013 valuation, the differences between actual and expected market value of assets were recognized over a seven-year period. For the June 30, 2013 valuation, all then-current deferred gains and losses will be recognized immediately, and the initial new five-year period will begin immediately thereafter.

The employer contributions determined in an annual actuarial valuation will be at least sufficient to satisfy the annual normal cost of the System and amortize the UAAL as a level dollar amount over a period not to exceed 20 years (for the UAAL as of the June 30, 2013 valuation date, and for each successive year of gains and losses incurred in years following the June 30, 2013 valuation date). However in no event shall the employer contributions be less than $0.

Schedule F – Board Funding Policy

The actuary shall conduct an investigation into the System's experience at least every five years and utilize the results of the investigation to form the basis for recommended assumptions and methods. Any changes to the recommended assumptions and methods that are approved by the Board will be reflected in this Policy.

IV. Funding Policy Progress

The Board will periodically have actuarial projections of the valuation results performed to assess the current and expected future progress towards the overall funding goals of the System. These periodic projections will provide the expected valuation results over at least a 30-year period. The projected measures of funding progress and the recent historical trend provided in valuations will provide important information for the Board's assessment of the System's funding progress.

Adopted: March 15, 2018

Schedule G – Amortization of UAAL

AMORTIZATION OF TRANSITIONAL UAAL

Valuation Date	Amortization Period	Balance of Transitional UAAL	Annual Amortization Payment
6/30/2013	20	$17,924,570	$1,758,260
6/30/2014	19	17,510,653	1,758,260
6/30/2015	18	17,065,691	1,758,260
6/30/2016	17	16,587,358	1,758,260
6/30/2017	16	16,073,149	1,746,834
6/30/2018	15	15,515,728	1,735,964
6/30/2019	**14**	**14,912,412**	**1,735,964**
6/30/2020	13	14,265,054	1,735,964
6/30/2021	12	13,570,438	1,735,964
6/30/2022	11	12,825,116	1,735,964
6/30/2023	10	12,025,385	1,735,964
6/30/2024	9	11,167,274	1,735,964
6/30/2025	8	10,246,521	1,735,964
6/30/2026	7	9,258,552	1,735,964
6/30/2027	6	8,198,462	1,735,964
6/30/2028	5	7,060,986	1,735,964
6/30/2029	4	5,840,473	1,735,964
6/30/2030	3	4,530,864	1,735,964
6/30/2031	2	3,125,652	1,735,964
6/30/2032	1	1,617,861	1,735,964
6/30/2033	0	0	0

Schedule G – Amortization of UAAL

AMORTIZATION OF 2014 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2014	Annual Amortization Payment
6/30/2014	20	$40,501	$3,973
6/30/2015	19	39,566	3,973
6/30/2016	18	38,560	3,973
6/30/2017	17	37,480	3,946
6/30/2018	16	36,307	3,920
6/30/2019	**15**	**35,037**	**3,920**
6/30/2020	14	33,675	3,920
6/30/2021	13	32,213	3,920
6/30/2022	12	30,645	3,920
6/30/2023	11	28,962	3,920
6/30/2024	10	27,156	3,920
6/30/2025	9	25,218	3,920
6/30/2026	8	23,139	3,920
6/30/2027	7	20,908	3,920
6/30/2028	6	18,514	3,920
6/30/2029	5	15,945	3,920
6/30/2030	4	13,189	3,920
6/30/2031	3	10,232	3,920
6/30/2032	2	7,058	3,920
6/30/2033	1	3,653	3,920
6/30/2034	0	0	0

Schedule G – Amortization of UAAL

AMORTIZATION OF 2015 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2015	Annual Amortization Payment
6/30/2015	20	$1,661,550	$162,985
6/30/2016	19	1,623,181	162,985
6/30/2017	18	1,581,935	161,834
6/30/2018	17	1,537,164	160,731
6/30/2019	**16**	**1,488,646**	**160,731**
6/30/2020	15	1,436,586	160,731
6/30/2021	14	1,380,725	160,731
6/30/2022	13	1,320,787	160,731
6/30/2023	12	1,256,473	160,731
6/30/2024	11	1,187,465	160,731
6/30/2025	10	1,113,418	160,731
6/30/2026	9	1,033,967	160,731
6/30/2027	8	948,715	160,731
6/30/2028	7	857,240	160,731
6/30/2029	6	759,087	160,731
6/30/2030	5	653,770	160,731
6/30/2031	4	540,764	160,731
6/30/2032	3	419,508	160,731
6/30/2033	2	289,401	160,731
6/30/2034	1	149,796	160,731
6/30/2035	0	0	0

Schedule G – Amortization of UAAL

AMORTIZATION OF 2016 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2016	Annual Amortization Payment
6/30/2016	20	$1,547,704	$151,818
6/30/2017	19	1,511,964	150,704
6/30/2018	18	1,473,145	149,635
6/30/2019	**17**	**1,431,049**	**149,635**
6/30/2020	16	1,385,880	149,635
6/30/2021	15	1,337,414	149,635
6/30/2022	14	1,285,410	149,635
6/30/2023	13	1,229,609	149,635
6/30/2024	12	1,169,735	149,635
6/30/2025	11	1,105,491	149,635
6/30/2026	10	1,036,556	149,635
6/30/2027	9	962,589	149,635
6/30/2028	8	883,223	149,635
6/30/2029	7	798,062	149,635
6/30/2030	6	706,685	149,635
6/30/2031	5	608,638	149,635
6/30/2032	4	503,433	149,635
6/30/2033	3	390,548	149,635
6/30/2034	2	269,423	149,635
6/30/2035	1	139,455	149,635
6/30/2036	0	0	0

AMORTIZATION OF 2017 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2017	Annual Amortization Payment
6/30/2017	20	$922,066	$89,761
6/30/2018	19	900,538	89,100
6/30/2019	**18**	**877,178**	**89,100**
6/30/2020	17	852,112	89,100
6/30/2021	16	825,216	89,100
6/30/2022	15	796,357	89,100
6/30/2023	14	765,392	89,100
6/30/2024	13	732,165	89,100
6/30/2025	12	696,514	89,100
6/30/2026	11	658,259	89,100
6/30/2027	10	617,213	89,100
6/30/2028	9	573,169	89,100
6/30/2029	8	525,911	89,100
6/30/2030	7	475,203	89,100
6/30/2031	6	420,793	89,100
6/30/2032	5	362,411	89,100
6/30/2033	4	299,767	89,100
6/30/2034	3	232,550	89,100
6/30/2035	2	160,427	89,100
6/30/2036	1	83,038	89,100
6/30/2037	0	0	0

Schedule G – Amortization of UAAL

AMORTIZATION OF 2018 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2018	Annual Amortization Payment
6/30/2018	20	$796,974	$76,992
6/30/2019	**19**	**778,161**	**76,992**
6/30/2020	18	757,975	76,992
6/30/2021	17	736,316	76,992
6/30/2022	16	713,075	76,992
6/30/2023	15	688,138	76,992
6/30/2024	14	661,380	76,992
6/30/2025	13	632,669	76,992
6/30/2026	12	601,862	76,992
6/30/2027	11	568,807	76,992
6/30/2028	10	533,338	76,992
6/30/2029	9	495,280	76,992
6/30/2030	8	454,443	76,992
6/30/2031	7	410,626	76,992
6/30/2032	6	363,610	76,992
6/30/2033	5	313,162	76,992
6/30/2034	4	259,031	76,992
6/30/2035	3	200,948	76,992
6/30/2036	2	138,626	76,992
6/30/2037	1	71,754	76,992
6/30/2038	0	0	0

Schedule G – Amortization of UAAL

AMORTIZATION OF 2019 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2019	Annual Amortization Payment
6/30/2019	**20**	**$148,423**	**$14,338**
6/30/2020	19	144,919	14,338
6/30/2021	18	141,160	14,338
6/30/2022	17	137,126	14,338
6/30/2023	16	132,798	14,338
6/30/2024	15	128,154	14,338
6/30/2025	14	123,171	14,338
6/30/2026	13	117,824	14,338
6/30/2027	12	112,087	14,338
6/30/2028	11	105,931	14,338
6/30/2029	10	99,325	14,338
6/30/2030	9	92,238	14,338
6/30/2031	8	84,632	14,338
6/30/2032	7	76,472	14,338
6/30/2033	6	67,716	14,338
6/30/2034	5	58,321	14,338
6/30/2035	4	48,240	14,338
6/30/2036	3	37,423	14,338
6/30/2037	2	25,817	14,338
6/30/2038	1	13,363	14,338
6/30/2039	0	0	0

Schedule H – Summary of Main Fund Provisions

SUMMARY OF MAIN FUND PROVISIONS
AS INTERPRETED FOR VALUATION PURPOSES

MEMBERSHIP

All persons who are members of the Georgia National Guard on and after July 1, 2002 are Members of the Fund.

BENEFITS

Retirement Allowance

Condition for Allowance	A member who has attained age 60 and has completed 20 or more years of creditable service, including at least 15 years, 10 of which immediately precede discharge, of Georgia National Guard duty, and who has received an honorable discharge, is entitled to a monthly allowance.
Amount of Allowance	The amount of the allowance is equal to $50 per month for 20 years' creditable service with an additional $5 per month for each additional year of creditable service, provided that the total allowance shall not exceed $100 per month. The allowance is payable for the life of the member.

Deferred Retirement Allowance

Condition for Allowance	A member whose service is terminated after he has 20 years of creditable service, including at least 15 years, 10 of which immediately precede discharge, of Georgia National Guard duty, and who has received an honorable discharge, is eligible to receive a deferred retirement allowance commencing at age 60.
Amount of Allowance	The amount is the same as that for a service retirement.

CONTRIBUTIONS

The State makes annual contributions sufficient to meet the cost of the benefits under the Fund.

Schedule I – Tables of Membership Data

NUMBER OF ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JUNE 30, 2019

Age	Years of Service: Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 20	414	673	0	0	0	0	0	0	0	1,087
20 to 24	159	2,456	813	0	0	0	0	0	0	3,428
25 to 29	47	594	1,830	386	0	0	0	0	0	2,857
30 to 34	17	225	588	1,129	203	0	0	0	0	2,162
35 to 39	5	90	188	343	794	169	0	0	0	1,589
40 to 44	1	8	64	137	245	439	85	0	0	979
45 to 49	0	3	18	69	80	141	316	96	0	723
50 to 54	0	2	6	24	50	37	93	305	69	586
55 to 59	0	0	3	2	8	21	24	42	174	274
60 & Over	0	0	1	0	2	1	2	4	16	26
Total	643	4,051	3,511	2,090	1,382	808	520	447	259	13,711

Average Age: 30.8
Average Service: 10.0

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 60	0	$ 0	$ 0
60 – 64	331	352,260	1,064
65 – 69	376	406,740	1,082
70 – 74	359	392,160	1,092
75 & Over	82	86,940	1,060
Total	1,148	$ 1,238,100	$ 1,078

Schedule J – CAFR Schedules

GA Military: Solvency Test

Actuarial Valuation as of 6/30	Actuarial Accrued Liability for: Active Member Contributions (1)	Retirants & Beneficiaries (2)	Active Members (Employer Funded Portion) (3)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets (1)	(2)	(3)
2019	$0	$33,435	$12,355	$26,119	N/A	78.1%	0.0%
2018	0	30,964	12,658	23,362	N/A	75.4%	0.0%
2017	0	28,867	11,864	20,604	N/A	71.4%	0.0%
2016	0	26,337	11,874	18,414	N/A	69.9%	0.0%
2015	0	24,075	11,138	16,446	N/A	68.3%	0.0%
2014	0	21,389	10,426	14,264	N/A	66.7%	0.0%
2013	0	19,396	10,660	12,131	N/A	62.5%	0.0%
2012	0	17,518	10,713	10,087	N/A	57.6%	0.0%
2011	0	15,379	11,388	8,702	N/A	56.6%	0.0%
2010	0	14,015	9,758	7,558	N/A	53.9%	0.0%

All dollar amounts are in thousands.

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

Year Ended	Added to Rolls: Number	Added to Rolls: Annual Allowances (in thousands)	Removed from Rolls: Number	Removed from Rolls: Annual Allowances (in thousands)	Roll End of Year: Number	Roll End of Year: Annual Allowances (in thousands)	% Increase in Annual Allowances	Average Annual Allowances
June 30, 2019	91	$94	18	$20	1,148	$1,238	6.4%	$1,078
June 30, 2018	97	106	7	8	1,075	1,164	9.2%	1,083
June 30, 2017	83	90	11	11	985	1,066	8.0%	1,082
June 30, 2016	79	82	9	9	913	987	8.0%	1,081
June 30, 2015	54	55	6	5	843	914	5.8%	1,084
June 30, 2014	62	68	5	6	795	864	7.7%	1,087
June 30, 2013	83	87	5	5	738	802	11.4%	1,087
June 30, 2012	95	106	3	3	660	720	16.7%	1,091
June 30, 2011	94	101	3	4	568	617	18.7%	1,086
June 30, 2010	92	100	1	1	477	520	23.5%	1,090