



EMPLOYEES'  
RETIREMENT SYSTEM  
OF GEORGIA

**GASB STATEMENT NO. 68 REPORT  
FOR THE  
GEORGIA MILITARY PENSION FUND  
PREPARED AS OF JUNE 30, 2018**



# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

May 9, 2019

Board of Trustees  
Georgia Military Pension Fund  
Two Northside 75, Suite 300  
Atlanta, GA 30318-7701

Ladies and Gentlemen:

Presented in this report is information to assist the Georgia Military Pension Fund (GMPF) in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 68 and to identify the information to be provided by the actuary, Cavanaugh Macdonald Consulting (CMC). The information is presented for the period ending June 30, 2018 (the Measurement Date).

GASB Statement No. 68 established accounting and financial reporting requirements for governmental employers who provide pension benefits to their employees through a trust.

The annual actuarial valuation used as a basis for much of the information presented in this report, including the Net Pension Liability, was performed as of June 30, 2017. The valuation was based on data, provided by the Retirement System staff, for active, inactive and retired members along with pertinent financial information.

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 Fund, and on actuarial assumptions that are, individually and in the aggregate, internally consistent and reasonably based on the actual experience of the Fund. In addition, the calculations were completed in compliance with the laws governing the Fund and, in our opinion, meet the requirements of GASB 68. 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.



Board of Trustees  
May 9, 2019  
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These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 67 and GASB 68 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in the report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

Sincerely yours,

A handwritten signature in blue ink that reads 'Edward J. Koebel'.

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

A handwritten signature in blue ink that reads 'Cathy Turcot'.

Cathy Turcot  
Principal and Managing Director

A handwritten signature in blue ink that reads 'Ben Mobley'.

Ben Mobley, ASA, FCA, MAAA  
Senior Actuary



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**REPORT OF THE ANNUAL GASB STATEMENT NO. 68  
REQUIRED INFORMATION FOR THE  
GEORGIA MILITARY PENSION FUND**

**PREPARED AS OF JUNE 30, 2018**

**SECTION I – INTRODUCTION**

The Governmental Accounting Standards Board issued Statement No. 68 (GASB 68), “*Accounting and Financial Reporting For Pensions*” in June 2012. Georgia Military Pension Fund is a single-employer defined benefit pension plan.

This report, prepared as of June 30, 2018 (the Measurement Date), presents information to assist the Georgia Military Pension Fund (GMPF) in meeting the requirements of GASB 68 for the fiscal year ending June 30, 2019 (Reporting Date). Much of the material provided in this report is based on the results of the annual actuarial valuation of GMPF as of June 30, 2017. The results of that valuation were detailed in a report dated April 19, 2018.

On March 15, 2018, the Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation. In addition, based on the Board’s new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 Measurement Date. Therefore, an assumption change from 7.50% to 7.30% was reflected in the calculation of the Total Pension Liability.

The NPL shown in the GASB Statement No. 67 Report for the Georgia Military Pension Fund Prepared as of June 30, 2018 and submitted August 29, 2018 is the NPL used for purposes of GASB 68. Please refer to that report for the derivation of the NPL.

Pension Expense (PE) 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 PE is shown in Section IV.

The unamortized 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 on the employer’s balance sheet. The development of the deferred inflows and outflows is shown in Section III.

Section II of this report is a summary of the principal results of the amounts under GASB 68. Section III 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 II – SUMMARY OF PRINCIPAL RESULTS**  
**(\$ IN THOUSANDS)**

| <b>2018</b>   |               |
|---|---------------|
| <b>Valuation Date (VD):</b>   | June 30, 2017 |
| <b>Measurement Date (MD):</b>   | June 30, 2018 |
| <b>Reporting Date (RD):</b>   | June 30, 2019 |
| <b>Single Equivalent Interest Rate (SEIR):</b>  |               |
| Long-Term Expected Rate of Return   | 7.30%         |
| Municipal Bond Index Rate at Measurement Date   | 3.89%         |
| 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   | 7.30%         |
| <b>Net Pension Liability:</b>   |               |
| Total Pension Liability (TPL)   | \$43,204      |
| Fiduciary Net Position (FNP)  | <u>23,653</u> |
| Net Pension Liability (NPL = TPL – FNP)   | \$19,551      |
| FNP as a percentage of TPL  | 54.75%        |
| <b>Pension Expense:</b>   | \$2,047       |
| <b>Deferred Outflows of Resources:</b>  | \$3,710       |
| <b>Deferred Inflows of Resources:</b>   | \$276         |



**SECTION III – NOTES TO FINANCIAL STATEMENTS**

The material presented herein will follow the order presented in GASB 68. Paragraph numbers are provided for ease of reference.

**Paragraph 40 (c):** The data required regarding the membership of the Georgia Military Pension Fund were furnished by the Retirement System. The following table summarizes the membership of the system as of June 30, 2018, the Measurement Date.

**Membership**

| GROUP   | TOTAL         |
|---|---------------|
| Retired participants and beneficiaries currently receiving benefits                           | 1,075         |
| Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits | 3,002         |
| Terminated participants entitled to a refund of contributions                                 | 0             |
| Active Participants   | <u>13,804</u> |
| Total   | 17,881        |

**Paragraph 41:** This paragraph requires information regarding the actuarial assumptions used to measure the TPL. The TPL as of June 30, 2018 was determined based on the annual actuarial funding valuation report prepared as of June 30, 2017. Since the TPL as of June 30, 2017 was rolled-forward to the June 30, 2018 measurement date, and since we know that, based on the funding policy adopted by the Board on March 15, 2018, the investment rate of return assumption will be 7.30% in the June 30, 2018 valuation, the investment rate of return used in the roll-forward of the TPL is 7.30%. The complete set of actuarial assumptions utilized in developing the TPL are outlined in Schedule C. The key actuarial assumptions are summarized below:

|                           |   |
|---------------------------|---|
| Inflation                 | 2.75 percent  |
| Salary increases          | N/A   |
| Investment rate of return | 7.30 percent, net of pension plan investment expense, including inflation |

Post-retirement mortality rates were based on the RP-2000 Combined Mortality Table projected to 2025 with projection scale BB (set forward 2 years for both males and females) for the period after service retirement. The RP-2000 Employee Mortality Table projected to 2025 using projection scale BB was used for deaths in active service.

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period July 1, 2009 – June 30, 2014.



**Paragraph 42 (a)-(f):** The discount rate used to measure the TPL at June 30, 2018 was the long term rate of return, 7.30 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and that Employer contributions will be made equal to the actuarially determined employer contributions. Projected future benefit payments for all current plan members were projected through the year 2115.

Based on those assumptions, the Fund's FNP was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL and a municipal bond rate was not used in determining the discount rate.

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.

The target asset allocation and best estimates of arithmetic real rates of return as provided by the Fund for each major asset class are summarized in the following table:

| Asset Class                  | Target Allocation | Long-Term Expected Real Rate of Return* |
|------------------------------|-------------------|---|
| Fixed Income                 | 30.00%            | -0.50%                                  |
| Domestic Stocks - Large Cap  | 37.20%            | 9.00%                                   |
| Domestic Stocks - Mid Cap    | 3.40%             | 12.00%                                  |
| Domestic Stocks - Small Cap  | 1.40%             | 13.50%                                  |
| Int'l Stocks - Developed Mkt | 17.80%            | 8.00%                                   |
| Int'l Stocks - Emerging Mkt  | 5.20%             | 12.00%                                  |
| Alternatives                 | 5.00%             | 10.50%                                  |
| Total                        | 100.00%           |   |

\*Net of inflation.

**Paragraph 42 (g):** This paragraph requires disclosure of the sensitivity of the NPL to changes in the discount rate. The following presents NPL of the System, calculated using the discount rate of 7.30 percent, as well as what the System's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.30 percent) or 1-percentage-point higher (8.30 percent) than the current rate (\$ thousands):

|                       | 1% Decrease (6.30%) | Current Discount Rate (7.30%) | 1% Increase (8.30%) |
|-----------------------|---------------------|-------------------------------|---------------------|
| Net Pension Liability | \$25,766            | \$19,551                      | \$14,501            |





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

**CHANGES IN THE NET PENSION LIABILITY**  
**(\$ in Thousands)**

|   | Total Pension<br>Liability<br>(TPL)<br>(a) | Fiduciary Net<br>Position<br>(FNP)<br>(b) | Net Pension<br>Liability<br>(NPL)<br>(a) – (b) |
|---|--|---|--|
| Balances at June 30, 2017   | 40,085                                     | 20,711                                    | 19,374   |
| Changes for the year:   |  |   |  |
| Service cost  | 84   |   | 84   |
| Interest  | 2,964                                      |   | 2,964  |
| Difference between<br>expected and actual<br>experience             | 116  |   | 116  |
| Changes in Assumptions  | 1,093                                      |   | 1,093  |
| Contributions - employer  |  | 2,377                                     | (2,377)  |
| Contributions - employee  |  | 0   | 0  |
| Net investment income   |  | 1,928                                     | (1,928)  |
| Benefit payments,<br>including refunds of<br>employee contributions | (1,138)                                    | (1,138)                                   | 0  |
| Administrative expense  |  | (225)                                     | 225  |
| Other changes   | <u>          </u>                          | <u>          0</u>                        | <u>          0</u>                             |
| Net changes   | <u>          3,119</u>                     | <u>          2,942</u>                    | <u>          177</u>                           |
| Balances at June 30, 2018   | <u>          43,204</u>                    | <u>          23,653</u>                   | <u>          19,551</u>                        |



**Paragraph 45 (a):** June 30, 2017 is the actuarial valuation date upon which the TPL is based. An expected TPL is determined as of June 30, 2018 using standard roll forward techniques. The procedure used to determine the TPL as of June 30, 2018 is shown on page 7 of the GASB 67 report for GMPF submitted on August 29, 2018.

**Paragraph 45 (c):** Since the previous measurement date, the Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for June 30, 2017 actuarial valuation. In addition, based on the Board's new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 Measurement Date.

**Paragraph 45 (d):** There was no change in the benefit terms that affected the measurement of the TPL since the prior measurement date.

**Paragraph 45 (g):** See Section IV for the annual Pension Expense.

**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 deferred outflows. 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 expected remaining service life of the active and inactive System members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five year period.

The table below provides a summary of the deferred inflows and outflows as of June 30, 2018.

|  | Deferred Outflows<br>of Resources<br>(\$ thousands) | Deferred Inflows of<br>Resources<br>(\$ thousands) |
|--|---|--|
| Differences between expected and actual experience                       | \$2,001   | \$0  |
| Changes of assumptions   | 1,709   | 0  |
| Net difference between projected and actual earnings on Plan investments | 0   | 276  |
| Employer contributions subsequent to the measurement date                | <u>    *</u>  | <u>    0</u>                                       |
| Total  | <u>\$ 3,710</u>                                     | <u>\$ 276</u>                                      |

\*The deferred outflow of resources reported by an employer should include contributions made by the employer during its fiscal year that will be reflected in the net pension liability in the next measurement period.

The following tables show the components of the deferred outflows of resources and the deferred inflows of resources by year.



Deferred Outflows and Inflows for Differences between Expected and Actual Experience (\$ thousands)

| Year         | Initial<br>Balance of<br>Losses /<br>Deferred<br>Outflow | Initial<br>Balance of<br>Gains /<br>Deferred<br>Inflow | Amortization<br>Period | Beginning<br>Balance<br>Deferred<br>Outflows<br>(a) | Beginning<br>Balance<br>Deferred<br>Inflows<br>(b) | Losses /<br>Deferred<br>Outflows<br>(c) | Gains /<br>Deferred<br>Inflows<br>(d) | Amounts<br>Recognized<br>in Pension<br>Expense /<br>Deferred<br>Outflow<br>(e) | Amounts<br>Recognized<br>in Pension<br>Expense /<br>Deferred<br>Inflow<br>(f) | Ending<br>Balance<br>Deferred<br>Outflows<br>(a) + (c) - (e) | Ending<br>Balance<br>Deferred<br>Inflows<br>(b) + (d) - (f) |
|--------------|--|--|------------------------|---|--|---|---------------------------------------|--|---|--|---|
| 2018         | \$116  | \$0  | 8.8                    | \$0   | \$0  | \$116                                   | \$0                                   | \$13   | \$0   | \$103  | \$0   |
| 2017         | 1,356  | 0  | 9.2                    | 1,209   | 0  | 0                                       | 0                                     | 147  | 0   | 1,062  | 0   |
| 2016         | 950  | 0  | 9.5                    | 750   | 0  | 0                                       | 0                                     | 100  | 0   | 650  | 0   |
| 2015         | 326  | 0  | 9.2                    | 221   | 0  | 0                                       | 0                                     | 35   | 0   | 186  | 0   |
| 2014         | 0  | 0  | 9.3                    | 0   | 0  | 0                                       | 0                                     | 0  | 0   | 0  | 0   |
| <b>Total</b> |  |  |                        | <u>\$2,180</u>                                      | <u>\$0</u>   | <u>\$116</u>                            | <u>\$0</u>                            |  |   | <u>\$2,001</u>   | <u>\$0</u>  |



**Deferred Outflows and Inflows for Differences from Assumption Changes (\$ thousands)**

| Year         | Initial<br>Balance of<br>Losses /<br>Deferred<br>Outflow | Initial<br>Balance of<br>Gains /<br>Deferred<br>Inflow | Amortization<br>Period | Beginning<br>Balance<br>Deferred<br>Outflows<br>(a) | Beginning<br>Balance<br>Deferred<br>Inflows<br>(b) | Losses /<br>Deferred<br>Outflows<br>(c) | Gains /<br>Deferred<br>Inflows<br>(d) | Amounts<br>Recognized<br>in Pension<br>Expense /<br>Deferred<br>Outflow<br>(e) | Amounts<br>Recognized<br>in Pension<br>Expense /<br>Deferred<br>Inflow<br>(f) | Ending<br>Balance<br>Deferred<br>Outflows<br>(a) + (c) - (e) | Ending<br>Balance<br>Deferred<br>Inflows<br>(b) + (d) - (f) |
|--------------|--|--|------------------------|---|--|---|---------------------------------------|--|---|--|---|
| 2018         | \$1,093  | \$0  | 8.8                    | \$0   | \$0  | \$1,093                                 | \$0                                   | \$124  | \$0   | \$969  | \$0   |
| 2017         | 0  | 0  | 9.2                    | 0   | 0  | 0                                       | 0                                     | 0  | 0   | 0  | 0   |
| 2016         | 1,082  | 0  | 9.5                    | 854   | 0  | 0                                       | 0                                     | 114  | 0   | 740  | 0   |
| 2015         | 0  | 0  | 9.2                    | 0   | 0  | 0                                       | 0                                     | 0  | 0   | 0  | 0   |
| 2014         | 0  | 0  | 9.3                    | 0   | 0  | 0                                       | 0                                     | 0  | 0   | 0  | 0   |
| <b>Total</b> |  |  |                        | <u>\$854</u>  | <u>\$0</u>   | <u>\$1,093</u>                          | <u>\$0</u>                            |  |   | <u>\$1,709</u>   | <u>\$0</u>  |



**Deferred Outflows and Inflows for Differences in Investment Experience (\$ thousands)**

| Year   | Initial<br>Balance of<br>Losses /<br>Deferred<br>Outflow | Initial<br>Balance of<br>Gains /<br>Deferred<br>Inflow | Amortization<br>Period | Beginning<br>Balance<br>Deferred<br>Outflows<br>(a) | Beginning<br>Balance<br>Deferred<br>Inflows<br>(b) | Losses /<br>Deferred<br>Outflows<br>(c) | Gains /<br>Deferred<br>Inflows<br>(d) | Amounts<br>Recognized<br>in Pension<br>Expense /<br>Deferred<br>Outflow<br>(e) | Amounts<br>Recognized<br>in Pension<br>Expense /<br>Deferred<br>Inflow<br>(f) | Ending<br>Balance<br>Deferred<br>Outflows<br>(a) + (c) - (e) | Ending<br>Balance<br>Deferred<br>Inflows<br>(b) + (d) - (f) |
|--|--|--|------------------------|---|--|---|---------------------------------------|--|---|--|---|
| 2018   | \$0  | \$337  | 5.0                    | \$0   | \$0  | \$0                                     | \$337                                 | \$0  | \$67  | \$0  | \$270   |
| 2017   | 0  | 906  | 5.0                    | 0   | 725  | 0                                       | 0                                     | 0  | 181   | 0  | 544   |
| 2016   | 1,042  | 0  | 5.0                    | 626   | 0  | 0                                       | 0                                     | 208  | 0   | 418  | 0   |
| 2015   | 592  | 0  | 5.0                    | 238   | 0  | 0                                       | 0                                     | 118  | 0   | 120  | 0   |
| 2014   | 0  | 1,234  | 5.0                    | 0   | 246  | 0                                       | 0                                     | 0  | 246   | 0  | 0   |
| <b>Total</b>   |  |  |                        | <u>\$864</u>  | <u>\$971</u>                                       | <u>\$0</u>                              | <u>\$337</u>                          |  |   | <u>\$538</u>   | <u>\$814</u>  |
| <b>Net difference between projected and actual earnings on investments</b> |  |  |                        |   |  |   |                                       |  |   |  | \$276   |



**Summary of Deferred Outflows and Inflows (\$ thousands)**

| Year   | Amortization<br>Period | Beginning<br>Balance | Additions      | Deductions   | Ending<br>Balance |
|--|------------------------|----------------------|----------------|--------------|-------------------|
| <b>Deferred Outflows of Resources:</b>             |                        |                      |                |              |                   |
| Difference between expected and actual experience  |                        |                      |                |              |                   |
| 2018   | 8.8                    | \$0                  | \$116          | \$13         | \$103             |
| 2017   | 9.2                    | 1,209                | 0              | 147          | 1,062             |
| 2016   | 9.5                    | 750                  | 0              | 100          | 650               |
| 2015   | 9.2                    | 221                  | 0              | 35           | 186               |
| 2014   | 9.3                    | 0                    | 0              | 0            | 0                 |
| Difference between expected and actual assumptions |                        |                      |                |              |                   |
| 2018   | 8.8                    | \$0                  | \$1,093        | \$124        | \$969             |
| 2017   | 9.2                    | 0                    | 0              | 0            | 0                 |
| 2016   | 9.5                    | 854                  | 0              | 114          | 740               |
| 2015   | 9.2                    | 0                    | 0              | 0            | 0                 |
| 2014   | 9.3                    | 0                    | 0              | 0            | 0                 |
| Difference between projected and actual earnings   |                        |                      |                |              |                   |
| 2018   | 5.0                    | \$0                  | \$0            | \$0          | \$0               |
| 2017   | 5.0                    | 0                    | 0              | 0            | 0                 |
| 2016   | 5.0                    | 0                    | 0              | 0            | 0                 |
| 2015   | 5.0                    | 0                    | 0              | 0            | 0                 |
| 2014   | 5.0                    | 0                    | 0              | 0            | 0                 |
| Subtotal   |                        |                      |                |              | \$0               |
| <b>Total Deferred Outflows of Resources</b>        |                        | <u>\$3,034</u>       | <u>\$1,209</u> | <u>\$533</u> | <u>\$3,710</u>    |

| Year   | Amortization<br>Period | Beginning<br>Balance | Additions    | Deductions   | Ending<br>Balance |
|--|------------------------|----------------------|--------------|--------------|-------------------|
| <b>Deferred Inflows of Resources:</b>              |                        |                      |              |              |                   |
| Difference between expected and actual experience  |                        |                      |              |              |                   |
| 2018   | 8.8                    | \$0                  | \$0          | \$0          | \$0               |
| 2017   | 9.2                    | 0                    | 0            | 0            | 0                 |
| 2016   | 9.5                    | 0                    | 0            | 0            | 0                 |
| 2015   | 9.2                    | 0                    | 0            | 0            | 0                 |
| 2014   | 9.3                    | 0                    | 0            | 0            | 0                 |
| Difference between expected and actual assumptions |                        |                      |              |              |                   |
| 2018   | 8.8                    | \$0                  | \$0          | \$0          | \$0               |
| 2017   | 9.2                    | 0                    | 0            | 0            | 0                 |
| 2016   | 9.5                    | 0                    | 0            | 0            | 0                 |
| 2015   | 9.2                    | 0                    | 0            | 0            | 0                 |
| 2014   | 9.3                    | 0                    | 0            | 0            | 0                 |
| Difference between projected and actual earnings   |                        |                      |              |              |                   |
| 2018   | 5.0                    | \$0                  | \$337        | \$67         | \$270             |
| 2017   | 5.0                    | 725                  | 0            | 181          | 544               |
| 2016   | 5.0                    | (626)                | 0            | (208)        | (418)             |
| 2015   | 5.0                    | (238)                | 0            | (118)        | (120)             |
| 2014   | 5.0                    | 246                  | 0            | 246          | 0                 |
| Difference between projected and actual earnings   |                        |                      |              |              | \$276             |
| <b>Total Deferred Inflows of Resources</b>         |                        | <u>\$107</u>         | <u>\$337</u> | <u>\$168</u> | <u>\$276</u>      |



**Paragraph 45 (i):** Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in Pension Expense as follows:

| <b>Deferred Amounts to be Recognized in Fiscal Years<br/>Following the Reporting Date (\$ thousands):</b> |       |
|---|-------|
| Year 1  | \$613 |
| Year 2  | 495   |
| Year 3  | 284   |
| Year 4  | 464   |
| Year 5  | 533   |
| Thereafter  | 1,045 |



## **SECTION IV – 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 (EAN) actuarial funding method. The second item is interest on the beginning of year TPL and the cash flows during the year at the 7.50% rate of return in effect as of the previous measurement date.

The next three items refer to any changes that occurred in the TPL due to:

- benefit changes,
- actual versus expected experience or
- changes in actuarial assumptions.

Benefit changes, which are reflected immediately in PE, can be positive, if there is a benefit improvement for existing Plan members, or negative if there is a benefit reduction. For the year ended June 30, 2018 there were no benefit changes to be recognized.

The next item to be recognized is the portion of current year changes in TPL due to actual versus expected experience for the year. 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 Plan membership. The remaining service life of active members is the average number of years the active members are expected to remain active. For the year ended June 30, 2018, this number is 11.4. The remaining service life of the inactive members is zero. Therefore, the figure to use for the amortization is the weighted average of these two amounts, or 8.8 years.

The last item 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 Plan membership, or 8.8 years.

Member contributions for the year and projected earnings on the FNP, again at the rate used to calculate the liabilities, are subtracted from the amount determined thus far. One-fifth of current period differences between actual and projected earnings on the FNP are recognized in the pension expense.

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

The calculation of the Pension Expense is shown in the following table.





| <b>Pension Expense</b><br><b>Determined as of the Measurement Date</b><br><b>(\$ thousands)</b>                     |                       |
|---|-----------------------|
| Service Cost  | \$84                  |
| Interest  | 2,964                 |
| Current-period benefit changes  | 0                     |
| Expensed portion of current-period difference between expected and actual experience in the total pension liability | 13                    |
| Expensed portion of current-period changes of assumptions   | 124                   |
| Member contributions  | 0                     |
| Projected earnings on plan investments  | (1,591)               |
| Expensed portion of current-period differences between actual and projected earnings on plan investments            | (67)                  |
| Administrative expense  | 225                   |
| Other   | 0                     |
| Recognition of beginning deferred outflows of resources as pension expense  | 396                   |
| Recognition of beginning deferred inflows of resources as pension expense   | <u>(101)</u>          |
| <b>Pension Expense</b>  | <b><u>\$2,047</u></b> |



## **SECTION V – REQUIRED SUPPLEMENTARY INFORMATION**

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

**Paragraph 46:** The required tables are provided in Schedule A.

**Paragraph 47:** In addition the following should be noted regarding the RSI:

**Changes of benefit terms:** None.

**Changes of assumptions:** In 2010 and later, the expectation of retired life mortality was changed to the RP-2000 Mortality Tables rather than the 1994 Group Annuity Mortality Table, which was used prior to 2010. In 2010, rates of withdrawal, retirement and mortality were adjusted to more closely reflect actual experience.

On December 17, 2015, the Board adopted recommended changes to the economic and demographic assumptions utilized by the System. Primary among the changes were the updates to rates of mortality, retirement and withdrawal. The expectation of retired life mortality was changed to the RP-2000 Combined Mortality Table projected to 2025 with projection scale BB (set forward 2 years for both males and females).

On March 15, 2018, the Board adopted a new funding policy. Because of this new funding policy, the assumed investment rate of return was reduced from 7.50% to 7.40% for the June 30, 2017 actuarial valuation. In addition, based on the Board's new funding policy, the assumed investment rate of return was further reduced by 0.10% from 7.40% to 7.30% as of the June 30, 2018 Measurement Date. Therefore, an assumption change from 7.50% to 7.30% was reflected in the calculation of the Total Pension Liability.

**Method and assumptions used in calculations of actuarially determined contributions.** The actuarially determined contribution rates in the schedule of employer contributions are calculated as of June 30, three years prior to the end of the fiscal year in which contributions are reported (June 30, 2018 employer contributions were determined in the June 30, 2015 valuation). The following actuarial methods and assumptions were used to determine the most recent contributions reported in that schedule:

|                               |   |
|-------------------------------|---|
| Actuarial cost method         | Entry age   |
| Amortization method           | Level dollar, closed  |
| Remaining amortization period | 18.2 years  |
| Asset valuation method        | 5-year smoothed market  |
| Inflation                     | 2.75 percent  |
| Salary increase               | N/A   |
| Investment rate of return     | 7.50 percent, net of pension plan investment expense, including inflation |



**SCHEDULE A**

**REQUIRED SUPPLEMENTARY INFORMATION**

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY  
(\$ in Thousands)**

|   | 2014             | 2015             | 2016             | 2017             | 2018             | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------------------|------------------|------------------|------------------|------------------|------|------|------|------|------|
| <b>Total pension liability</b>                    |                  |                  |                  |                  |                  |      |      |      |      |      |
| Service Cost                                      | \$ 73            | \$ 72            | \$ 73            | \$ 89            | \$ 84            |      |      |      |      |      |
| Interest  | 2,223            | 2,330            | 2,465            | 2,732            | 2,964            |      |      |      |      |      |
| Benefit changes                                   | 0                | 0                | 0                | 0                | 0                |      |      |      |      |      |
| Difference between expected and actual experience | 0                | 326              | 950              | 1,356            | 116              |      |      |      |      |      |
| Changes of assumptions                            | 0                | 0                | 1,082            | 0                | 1,093            |      |      |      |      |      |
| Benefit payments                                  | (841)            | (896)            | (963)            | (1,042)          | (1,138)          |      |      |      |      |      |
| Refunds of contributions                          | 0                | 0                | 0                | 0                | 0                |      |      |      |      |      |
| <b>Net change in total pension liability</b>      | <b>1,455</b>     | <b>1,832</b>     | <b>3,607</b>     | <b>3,135</b>     | <b>3,119</b>     |      |      |      |      |      |
| <b>Total pension liability - beginning</b>        | <b>30,056</b>    | <b>31,511</b>    | <b>33,343</b>    | <b>36,950</b>    | <b>40,085</b>    |      |      |      |      |      |
| <b>Total pension liability - ending (a)</b>       | <b>\$ 31,511</b> | <b>\$ 33,343</b> | <b>\$ 36,950</b> | <b>\$ 40,085</b> | <b>\$ 43,204</b> |      |      |      |      |      |
| <b>Plan net position</b>                          |                  |                  |                  |                  |                  |      |      |      |      |      |
| Contributions - employer                          | \$ 1,892         | \$ 1,893         | \$ 1,990         | \$ 2,018         | \$ 2,377         |      |      |      |      |      |
| Contributions - member                            | 0                | 0                | 0                | 0                | 0                |      |      |      |      |      |
| Net investment income                             | 2,179            | 585              | 240              | 2,262            | 1,928            |      |      |      |      |      |
| Benefit payments                                  | (841)            | (896)            | (963)            | (1,042)          | (1,138)          |      |      |      |      |      |
| Administrative expense                            | (110)            | (121)            | (262)            | (244)            | (225)            |      |      |      |      |      |
| Refunds of contributions                          | 0                | 0                | 0                | 0                | 0                |      |      |      |      |      |
| Other   | 0                | 0                | 0                | 0                | 0                |      |      |      |      |      |
| <b>Net change in plan net position</b>            | <b>3,120</b>     | <b>1,461</b>     | <b>1,005</b>     | <b>2,994</b>     | <b>2,942</b>     |      |      |      |      |      |
| <b>Plan net position - beginning</b>              | <b>12,131</b>    | <b>15,251</b>    | <b>16,712</b>    | <b>17,717</b>    | <b>20,711</b>    |      |      |      |      |      |
| <b>Plan net position - ending (b)</b>             | <b>\$ 15,251</b> | <b>\$ 16,712</b> | <b>\$ 17,717</b> | <b>\$ 20,711</b> | <b>\$ 23,653</b> |      |      |      |      |      |
| <b>Net pension liability - ending (a) - (b)</b>   | <b>\$ 16,260</b> | <b>\$ 16,631</b> | <b>\$ 19,233</b> | <b>\$ 19,374</b> | <b>\$ 19,551</b> |      |      |      |      |      |

**SCHEDULE OF THE NET PENSION LIABILITY**  
**(\$ in Thousands)**



|   | 2014      | 2015      | 2016      | 2017      | 2018      | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|-----------|-----------|-----------|-----------|-----------|------|------|------|------|------|
| Total pension liability   | \$ 31,511 | \$ 33,343 | \$ 36,950 | \$ 40,085 | \$ 43,204 |      |      |      |      |      |
| Plan net position   | 15,251    | 16,712    | 17,717    | 20,711    | 23,653    |      |      |      |      |      |
| Net pension liability   | \$ 16,260 | \$ 16,631 | \$ 19,233 | \$ 19,374 | \$ 19,551 |      |      |      |      |      |
| Ratio of plan net position to total pension liability             | 48.40%    | 50.12%    | 47.95%    | 51.67%    | 54.75%    |      |      |      |      |      |
| Covered-employee payroll  | N/A       | N/A       | N/A       | N/A       | N/A       |      |      |      |      |      |
| Net pension liability as a percentage of covered-employee payroll | N/A       | N/A       | N/A       | N/A       | N/A       |      |      |      |      |      |



**SCHEDULE OF EMPLOYER CONTRIBUTIONS**  
**(\$ in Thousands)**

|  | 2018         | 2017         | 2016         | 2015         | 2014         | 2013         | 2012         | 2011         | 2010         | 2009         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Actuarially determined employer contribution                     | \$ 2,377     | 2,018        | 1,990        | 1,893        | 1,892        | 1,703        | 1,521        | 1,282        | 1,434        | 1,323        |
| Actual employer contributions                                    | <u>2,377</u> | <u>2,018</u> | <u>1,990</u> | <u>1,893</u> | <u>1,892</u> | <u>1,703</u> | <u>1,521</u> | <u>1,282</u> | <u>1,434</u> | <u>1,323</u> |
| Annual contribution deficiency (excess)                          | <u>\$ -</u>  | <u>-</u>     | <u>-</u>     | <u>-</u>     | <u>-</u>     | <u>-</u>     | <u>-</u>     | <u>-</u>     | <u>-</u>     | <u>-</u>     |
| Covered-employee payroll   | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          |
| Actual contributions as a percentage of covered-employee payroll | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          |



## **SCHEDULE B**

### **SUMMARY OF BENEFIT PROVISIONS EVALUATED**

#### **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 C**

**STATEMENT 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:

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

| <b>AGE</b>  | <b>RATES OF RETIREMENT</b> |
|-------------|----------------------------|
| 60          | 75.0%                      |
| 61          | 60.0                       |
| 62          | 70.0                       |
| 63          | 60.0                       |
| 64          | 60.0                       |
| 65 and over | 100.0                      |

| <b>AGE</b> | <b>RATES OF DEATH</b> |               |
|------------|-----------------------|---------------|
|            | <b>Male</b>           | <b>Female</b> |
| 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        |



**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 Fund. 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:** Market value.

**VALUATION METHOD:** Entry age actuarial cost method.





## SCHEDULE D

### 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.

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