## Gabriel Roeder Smith \& Company Consultants \& Actuaries

GRS

September 1, 2015
Board of Trustees
City of Sunrise Police Officers'
Retirement System
Sunrise, Florida
Dear Board Members:
The results of the October 1, 2014 Annual Actuarial Valuation of the City of Sunrise Police Officers' Retirement System are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board.

The purpose of the valuation is to measure the System's funding progress, to estimate the employer contribution rate for the fiscal year ending September 30, 2016, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 27 and No. 67 for the fiscal year ending September 30, 2014. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2015.

This report should not be relied on for any purpose other than the purpose described above.
The findings in this report are based on data or other information through September 30, 2014. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such measurements.

The valuation was based upon information furnished by the Plan Administrator and City concerning Retirement Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator and City.

This report was prepared using certain assumptions prescribed by the Board as described in Section B.
Jeffrey Amrose and Trisha Amrose 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. The signing actuaries are independent of the plan sponsor.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate. In my opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Respectfully submitted,
GABRIEL, ROEDER, SMITH AND COMPANY



Trisha Amrose, MAAA
Enrolled Actuary No. 14-8010
Consultant \& Actuary

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## SECTION A

DISCUSSION OF VALUATION RESULTS

## GRS

## DISCUSSION OF VALUATION RESULTS

## Comparison of Required Employer Contributions

The required employer contribution this year compared with the preceding year is as follows:

|  | For FYE 9/30/2016 <br> Based on 10/1/2014 <br> Valuation | For FYE 9/30/2015 <br> Based on 10/1/2013 <br> Valuation | Increase (Decrease) |
| :---: | :---: | :---: | :---: |
| Required Contribution <br> As \% of Contr. Year Payroll | $\begin{aligned} & \$ \quad 9,899,972 \\ & 68.06 \% \end{aligned}$ | $\begin{aligned} & \$ \quad 9,186,463 \\ & 66.45 \% \end{aligned}$ | $\begin{aligned} & \$ \quad 713,509 \\ & 1.61 \% \end{aligned}$ |
| Estimated State Contribution As \% of Contr. Year Payroll | $\begin{array}{r} 639,176 \\ 4.39 \% \end{array}$ | $\begin{array}{r} 639,176 * \\ 4.62 \% \end{array}$ | $\begin{gathered} 0 \\ (0.23) \% \end{gathered}$ |
| Net Employer Contribution** As \% of Contr. Year Payroll | $\begin{array}{r} 9,260,796 \\ 63.67 \% \end{array}$ | $\begin{array}{r} 8,547,287 \\ 61.83 \% \end{array}$ | $\begin{array}{r} 713,509 \\ 1.84 \% \end{array}$ |

*We have updated the amount shown in the October 1, 2013 Actuarial Valuation Report to reflect the State contribution received in August 2015.
**Does not reflect \$93,526 City prepaid contribution.

## Required Contribution Expressed as a Percentage of Payroll Including DROP Members

The following table shows the required contribution developed in this valuation as a percentage of payroll including the salaries of members who are participating in the DROP as of October 1, 2014.

|  | 2014 <br> Valuation | 2013 <br> Valuation |
| :--- | ---: | ---: |
| Required Contribution | $56.30 \%$ | $51.46 \%$ |
| Estimated State Contribution | $3.63 \%$ | $3.58 \%$ |
| Net Employer Contribution | $52.67 \%$ | $47.88 \%$ |

## Payment of Required Contribution

The contribution developed in this valuation has been calculated as though payments are made at the end of each biweekly pay period. If the full contribution for the fiscal year ending September 30, 2016 is paid on October 1, 2015, the net required employer contribution is $\$ 8,888,420$ or $61.11 \%$ of covered payroll.

Further, the required Employer contribution has been computed with the assumption that the amount to be received from the State in 2016 will be equal to the amount received in 2015 of $\$ 639,176$. If the actual payment from the State falls below this amount, then the Employer must increase its contribution by the difference.

Actual contributions for the last year were $\$ 7,472,477$ from the City plus $\$ 620,714$ of annual State revenue, for a total of $\$ 8,093,191$. The total annual required contribution was $\$ 8,093,191$ reflecting an expedited payment schedule.

## Revisions in Benefits

There have been no changes in benefits since the last valuation.

## Revisions in Actuarial Assumptions and Methods

This valuation reflects the following changes in assumptions since the prior actuarial valuation:

- The assumed investment rate of return has been lowered from $8.0 \%$ to $7.8 \%$.
- The salary increase assumption has been lowered by $1 \%$ by lowering each of the merit and inflation assumptions by $0.5 \%$. In addition, the payroll growth assumption has been lowered by $1 \%$.
- The retirement rates have been adjusted to more accurately reflect recent retirement experience.

The assumption changes recognized in this valuation have increased the required employer contribution by 4.36\% of covered payroll.

## Actuarial Experience

There was a net actuarial gain of $\$ 1,812,870$ since the last valuation which means that actual experience was more favorable than expected. The gain was primarily due to investment returns greater than the $8.0 \%$ assumed rate and lower than expected salary increases. The investment return was $9.0 \%$ based on market value of assets and $9.9 \%$ based on actuarial value of assets. The net gain caused the required employer contribution to decrease by $1.02 \%$ of covered payroll.

## Funded Ratio

This year's funded ratio is $59.1 \%$ compared to $57.6 \%$ last year. The funded ratio was $61.7 \%$ before the changes in assumptions. The ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.

## Analysis of Change in Employer Contribution

The components of change in the required Employer contribution are as follows:

| Contribution Rate Last Year | 61.83 \% |
| :--- | :---: |
| Experience (Gains) or Losses | $(1.02)$ |
| Revision in Assumptions/Methods | 4.36 |
| Amortization Payment on UAAL | $(1.66)$ |
| Normal Cost Rate | 0.06 |
| Administrative Expense | $(0.21)$ |
| Change in State Contribution Rate | 0.31 |
| Contribution Rate This Year | 63.67 |

## Variability of Future Contribution Rates

The Actuarial Cost Method used to determine the required contribution is intended to produce contribution rates which are generally level as a percent of payroll. Even so, when experience differs from the assumptions, as it often does, the employer's contribution rate can vary significantly from year-to-year.

Over time, if the year-to-year gains and losses offset each other, the contribution rate would be expected to return to the current level, but this does not always happen.

The Market Value of Assets exceeds the Actuarial Value of Assets by $\$ 5,334,990$ as of the valuation date (see Section C). This difference will be gradually recognized in the absence of offsetting losses. In turn, the computed employer contribution rate will decrease by approximately $3.0 \%$ of covered payroll.

A potential area of variability has to do with the annual payment on the unfunded accrued liability (UAL). This payment is computed as a level percent of covered payroll under the assumption that covered payroll will rise by 3\% per year. According to Chapter 112, Florida Statutes, this payroll growth assumption may not exceed the average growth over the last ten years, which is $2.63 \%$. If the ten-year average falls below this rate, the amortization payments will increase. For example, if the payroll growth assumption is lowered to $0 \%$, the UAL payment will increase from $\$ 6,324,768$ next year to $\$ 7,304,710$. If the total covered payroll as of October 1, 2015 for active members remains at $\$ 14.1$ million, the tenyear payroll growth will decrease to $2.2 \%$.

## Relationship to Market Value

If Market Value had been the basis for the valuation, the City contribution rate would have been $60.75 \%$ and the funded ratio would have been $62.5 \%$. In the absence of other gains and losses, the City contribution rate should decrease to that level over the next several years.

## Conclusion

It is important to note that system assets are barely sufficient to cover the liabilities for current retirees. As of October 1, 2014, the assets are $\$ 98.3$ million and the liability for current retirees is $\$ 91.8$ million. Additionally, the funded ratio has dropped from over $100 \%$ in 2000 to the current level of $59.1 \%$. Some steps have been taken to address these issues, such as strengthening the actuarial assumptions and shortening the amortization period. Given the low funded ratio, it is advisable to consider further steps, such as a further shortening of the amortization period and/or further reductions in the investment return assumption. Any of these steps would result in higher contributions in the short-term for the City. For each additional $\$ 1$ million contributed, the funded ratio will increase by $0.6 \%$.

The remainder of this Report includes detailed actuarial valuation results, information relating to the pension fund, financial accounting information, miscellaneous employee data and a summary of plan provisions.

## GRS

## CHAPTER REVENUE

Increments in Chapter revenue over that received in 1998 must first be used to fund the cost of compliance with minimum benefits. As of the valuation date, all minimum benefits of Chapter 185 have been adopted.

## Actuarial Confirmation of the Use of State Chapter Money

| 1. Base Amount Previous Plan Year | 5 |
| :--- | ---: |
| 2. Amount Received for Previous Plan Year | 568,388 |
| 3. Benefit Improvements | 620,714 |
| 4. Excess Funds for Previous Plan Year | 0 |
| 5. Accumulated Excess at Beginning of Previous Year | 0 |
| 6. Prior Excess Used in Previous Plan Year | 0 |
| 7. Accumulated Excess as of Valuation Date |  |
| (Available for Benefit Improvements): (4) + (5) - (6) | 0 |
| 8. Base Amount This Plan Year | 0 |

The Accumulated Excess shown in line 7 is being held in reserve and is subtracted from Plan assets (see Section C of this Report). The Base Amount in line 8 is the amount the employer may take as a credit against its required contribution; however, in no event may the employer take credit for more than the actual amount of Chapter revenue received.

The Base Amount will be updated each year based on actual Chapter revenue up to a maximum of \$2,137,895.

## SECTION B

## VALUATION RESULTS

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| PARTICIPANT DATA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | October 1, 2014 |  | October 1, 2013 |  |
| ACTIVE MEMBERS |  |  |  |  |
| Number of non-DROP members Number of DROP members Covered Annual Non-DROP Payroll Average Annual Non-DROP Salary Total Payroll Including DROP Members Average Age (Non-DROP Members) Average Past Service (Non-DROP Members) Average Age at Hire (Non-DROP Members) | \$ | 145 26 $14,122,280$ 97,395 $17,161,640$ 38.1 10.5 27.6 | \$ | $\begin{array}{r} 135 \\ 35 \\ 13,292,908 \\ 98,466 \\ 17,318,913 \\ 38.0 \\ 10.5 \\ 27.5 \end{array}$ |
| RETIREES, BENEFICIARIES \& DROP |  |  |  |  |
| Number <br> Annual Benefits* <br> Average Annual Benefit <br> Average Age | \$ | $\begin{array}{r} 123 \\ 6,286,770 \\ 51,112 \\ 58.8 \end{array}$ | \$ | $\begin{array}{r} 122 \\ 6,114,626 \\ 50,120 \\ 57.9 \end{array}$ |
| DISABILITY RETIREES |  |  |  |  |
| Number <br> Annual Benefits <br> Average Annual Benefit <br> Average Age | \$ | $\begin{array}{r} 9 \\ 409,696 \\ 45,522 \\ 51.5 \end{array}$ | \$ | $\begin{array}{r} 8 \\ 341,925 \\ 42,741 \\ 51.4 \end{array}$ |
| TERMINATED VESTED MEMBERS |  |  |  |  |
| Number <br> Annual Benefits <br> Average Annual Benefit <br> Average Age | \$ | $\begin{array}{r} 1 \\ 30,627 \\ 30,627 \\ 45.1 \end{array}$ | \$ | $\begin{array}{r} 1 \\ 30,627 \\ 30,627 \\ 44.1 \end{array}$ |

[^0]
## ANNUAL REQUIRED CONTRIBUTION (ARC)


*We have updated the amount shown in the October 1, 2013 Actuarial Valuation Report to reflect the State contribution received in August 2015.

## ACTUARIAL VALUE OF BENEFITS AND ASSETS

A. Valuation Date
B. Actuarial Present Value of All Projected Benefits for

1. Active Members
a. Service Retirement Benefits
b. Vesting Benefits
c. Disability Benefits
d. Preretirement Death Benefits
e. Return of Member Contributions
f. Total
2. Inactive Members
a. Service Retirees \& Beneficiaries
b. Disability Retirees
c. Terminated Vested Members
d. Total
3. Total for All Members
C. Actuarial Accrued (Past Service) Liability under Entry Age Normal
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35
E. Plan Assets
4. Market Value
5. Actuarial Value
F. Unfunded Actuarial Accrued Liability
G. Actuarial Present Value of Projected Covered Payroll
H. Actuarial Present Value of Projected Member Contributions
I. Accumulated Contributions of Active Members

| October 1, 2014 After Changes | October 1, 2014 Before Changes | October 1, 2013 |
| :---: | :---: | :---: |
| \$ 87,693,735 | \$ 86,790,237 | \$ 79,690,175 |
| 3,209,273 | 3,163,684 | 3,187,008 |
| 3,988,531 | 5,004,008 | 4,731,148 |
| 799,731 | 943,624 | 908,207 |
| 388,971 | 391,646 | 350,509 |
| 96,080,241 | 96,293,199 | 88,867,047 |
| 87,000,079 | 85,163,900 | 83,321,940 |
| 4,783,199 | 4,692,833 | 3,927,390 |
| 211,779 | 204,372 | 189,008 |
| 91,995,057 | 90,061,105 | 87,438,338 |
| 188,075,298 | 186,354,304 | 176,305,385 |
| 157,303,477 | 150,637,202 | 142,425,301 |
| 143,977,042 | 134,701,896 | 126,935,091 |
| 98,289,845 | 98,289,845 | 87,604,883 |
| 92,954,855 | 92,954,855 | 81,989,315 |
| 64,348,622 | 57,682,347 | 60,435,986 |
| 106,332,857 | 125,650,187 | 119,390,843 |
| 10,463,153 | 12,363,979 | 11,748,059 |
| 10,659,660 | 10,659,660 | 9,559,967 |

## CALCULATION OF EMPLOYER NORMAL COST

| A. Valuation Date | October 1, 2014 <br> After Changes |  | October 1, 2014 Before Changes |  | October 1, 2013 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B. Normal Cost for |  |  |  |  |  |  |
| 1. Service Retirement Benefits | \$ | 3,365,058 | \$ | 3,322,307 | \$ | 3,090,073 |
| 2. Vesting Benefits |  | 220,429 |  | 209,486 |  | 196,848 |
| 3. Disability Benefits |  | 333,158 |  | 360,819 |  | 333,769 |
| 4. Preretirement Death Benefits |  | 66,009 |  | 67,289 |  | 62,924 |
| 5. Return of Member Contributions |  | 117,096 |  | 108,160 |  | 101,249 |
| 6. Total for Future Benefits |  | 4,101,750 |  | 4,068,061 |  | 3,784,863 |
| 7. Assumed Amount for Administrative Expenses |  | 213,871 |  | 213,871 |  | 226,196 |
| 8. Total Normal Cost |  | 4,315,621 |  | 4,281,932 |  | 4,011,059 |
| C. Expected Member Contribution |  | 1,389,632 |  | 1,402,843 |  | 1,308,022 |
| D. Employer Normal Cost: B8-C |  | 2,925,989 |  | 2,879,089 |  | 2,703,037 |
| E. Employer Normal Cost as a \% of Covered Payroll |  | 20.72\% |  | 20.19\% |  | 20.33\% |


| A. UAAL AMORTIZATION PERIOD AND PAYMENTS (AFTER CHANGES) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original UAAL |  |  | Current UAAL |  |  |  |
| Date <br> Established | Amortization <br> Period <br> (Years) | Amount | Years Remaining | Amount |  | ayment |
| 10/1/1991 | 28 | \$ 1,878,178 | 5 | \$ 1,681,426 | \$ | 370,125 |
| 10/1/1996 | 23 | $(242,141)$ | 5 | $(198,061)$ |  | $(43,598)$ |
| 10/1/1997 | 22 | $(22,893)$ | 5 | $(18,767)$ |  | $(4,131)$ |
| 10/1/1998 | 21 | $(712,664)$ | 5 | $(576,220)$ |  | $(126,841)$ |
| 10/1/1998 | 21 | 4,937,922 | 5 | 3,992,517 |  | 878,855 |
| 10/1/1999 | 20 | 566,236 | 5 | 426,572 |  | 93,899 |
| 10/1/2000 | 19 | 1,077,845 | 5 | 810,982 |  | 178,518 |
| 10/1/2003 | 30 | $(1,528,469)$ | 19 | $(1,933,453)$ |  | $(152,777)$ |
| 10/1/2005 | 30 | 7,739,078 | 21 | 9,405,989 |  | 700,754 |
| 10/1/2006 | 30 | 736,681 | 22 | 858,753 |  | 62,324 |
| 10/1/2008 | 30 | 1,493,880 | 24 | 1,697,685 |  | 117,560 |
| 10/1/2009 | 20 | 29,172,763 | 15 | 29,851,935 |  | 2,745,020 |
| 10/1/2010 | 20 | 912,239 | 16 | 928,594 |  | 81,790 |
| 10/1/2010 | 20 | 2,344,741 | 16 | 2,386,778 |  | 210,226 |
| 10/1/2010 | 20 | $(773,531)$ | 16 | $(787,399)$ |  | $(69,354)$ |
| 10/1/2011 | 20 | 3,495,369 | 17 | 3,559,920 |  | 301,461 |
| 10/1/2011 | 20 | 2,623,230 | 17 | 2,671,675 |  | 226,243 |
| 10/1/2012 | 20 | 247,206 | 18 | 249,355 |  | 20,368 |
| 10/1/2012 | 20 | 2,912,111 | 18 | 2,937,413 |  | 239,935 |
| 10/1/2013 | 20 | $(1,666,097)$ | 19 | $(1,670,561)$ |  | $(132,004)$ |
| 10/1/2013 | 20 | 3,211,480 | 19 | 3,220,084 |  | 254,443 |
| 10/1/2014 | 20 | $(1,812,870)$ | 20 | $(1,812,870)$ |  | $(138,934)$ |
| 10/1/2014 | 20 | 6,666,275 | 20 | 6,666,275 |  | 510,886 |
|  |  | \$ 63,256,569 |  | \$ 64,348,622 | \$ | 6,324,768 |


| B. UAAL AMORTIZATION PERIOD AND PAYMENTS (BEFORE CHANGES) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original UAAL |  |  | Current UAAL |  |  |  |
| Date <br> Established | Amortization <br> Period <br> (Years) | Amount | Years <br> Remaining | Amount | Payment |  |
| 10/1/1991 | 28 | \$ 1,878,178 | 5 | \$ 1,681,426 | \$ | 370,744 |
| 10/1/1996 | 23 | $(242,141)$ | 5 | $(198,061)$ |  | $(43,671)$ |
| 10/1/1997 | 22 | $(22,893)$ | 5 | $(18,767)$ |  | $(4,138)$ |
| 10/1/1998 | 21 | $(712,664)$ | 5 | $(576,220)$ |  | $(127,053)$ |
| 10/1/1998 | 21 | 4,937,922 | 5 | 3,992,517 |  | 880,326 |
| 10/1/1999 | 20 | 566,236 | 5 | 426,572 |  | 94,057 |
| 10/1/2000 | 19 | 1,077,845 | 5 | 810,982 |  | 178,817 |
| 10/1/2003 | 30 | $(1,528,469)$ | 19 | $(1,933,453)$ |  | $(153,793)$ |
| 10/1/2005 | 30 | 7,739,078 | 21 | 9,405,989 |  | 705,836 |
| 10/1/2006 | 30 | 736,681 | 22 | 858,753 |  | 62,794 |
| 10/1/2008 | 30 | 1,493,880 | 24 | 1,697,685 |  | 118,513 |
| 10/1/2009 | 20 | 29,172,763 | 15 | 29,851,935 |  | 2,759,748 |
| 10/1/2010 | 20 | 912,239 | 16 | 928,594 |  | 82,256 |
| 10/1/2010 | 20 | 2,344,741 | 16 | 2,386,778 |  | 211,424 |
| 10/1/2010 | 20 | $(773,531)$ | 16 | $(787,399)$ |  | $(69,749)$ |
| 10/1/2011 | 20 | 3,495,369 | 17 | 3,559,920 |  | 303,276 |
| 10/1/2011 | 20 | 2,623,230 | 17 | 2,671,675 |  | 227,605 |
| 10/1/2012 | 20 | 247,206 | 18 | 249,355 |  | 20,497 |
| 10/1/2012 | 20 | 2,912,111 | 18 | 2,937,413 |  | 241,456 |
| 10/1/2013 | 20 | $(1,666,097)$ | 19 | $(1,670,561)$ |  | $(132,882)$ |
| 10/1/2013 | 20 | 3,211,480 | 19 | 3,220,084 |  | 256,135 |
| 10/1/2014 | 20 | (1,812,870) | 20 | (1,812,870) |  | $(139,900)$ |
|  |  | \$ 56,590,294 |  | \$ 57,682,347 | \$ | 5,842,298 |

## C. Amortization Schedule

The UAAL is being amortized as a level percentage of covered annual payroll over the number of years remaining in the amortization period. The following schedule illustrates the expected amortization of the UAAL:

| Amortization Schedule |  |
| :---: | ---: |
| Year | Expected UAAL |
| 2014 | $\$$ |
| 2015 | $64,348,622$ |
| 2016 | $62,549,704$ |
| 2017 | $60,431,165$ |
| 2018 | $57,963,348$ |
| 2019 | $55,114,169$ |
| 2024 | $51,848,915$ |
| 2029 | $37,996,372$ |
| 2034 | $12,634,892$ |
| 2039 | $2,117,485$ |

## ACTUARIAL GAINS AND LOSSES

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year is computed as follows:

| 1. Last Year's UAAL | 60,435,986 |
| :---: | :---: |
| 2. Last Year's Employer Normal Cost | 2,703,037 |
| 3. Last Year's Contributions | 8,093,191 |
| 4. Interest at the Assumed Rate on: <br> a. 1 and 2 for one year <br> b. 3 from dates paid <br> c. $\mathrm{a}-\mathrm{b}$ | $\begin{array}{r} 5,051,122 \\ 601,737 \\ \hline 4,449,385 \end{array}$ |
| 5. This Year's Expected UAAL Prior to Revision: $1+2-3+4 c$ | 59,495,217 |
| 6. Change in UAAL Due to Plan Amendments and/or Changes in Actuarial Assumptions | 6,666,275 |
| 7. This Year's Expected UAAL (after changes): $5+6$ | 66,161,492 |
| 8. This Year's Actual UAAL (after changes): | 64,348,622 |
| 9. Net Actuarial Gain/(Loss): | 1,812,870 |
| 10. Gain/(Loss) Due to Investment: | 1,701,332 |
| 11. Gain/(Loss) Due to Other Sources: | 111,538 |

Net actuarial gains/(losses) in previous years have been as follows:

| Year Ending | Actuarial Gain / <br> (Loss) |
| :---: | ---: |
| $9 / 92$ | 300,204 |
| $9 / 93$ | 349,769 |
| $9 / 94$ | $(235,263)$ |
| $9 / 96$ | $2,828,948$ |
| $9 / 97$ | 274,306 |
| $9 / 98$ | $1,198,126$ |
| $9 / 99$ | $1,434,197$ |
| $9 / 00$ | $1,589,573$ |
| $9 / 01$ | $(2,225,048)$ |
| $9 / 02$ | $(2,912,478)$ |
| $9 / 03$ | $(1,617,825)$ |
| $9 / 04$ | $(2,097,257)$ |
| $9 / 05$ | $(2,791,395)$ |
| $9 / 06$ | $(3,884,844)$ |
| $9 / 07$ | $(445,973)$ |
| $9 / 08$ | $(5,873,241)$ |
| $9 / 09$ | $(4,445,762)$ |
| $9 / 10$ | $(912,239)$ |
| $9 / 11$ | $(3,495,369)$ |
| $9 / 12$ | $(247,206)$ |
| $9 / 13$ | $1,666,097$ |
| $9 / 14$ | $1,812,870$ |


$13^{\text {th }}$ and/or $14^{\text {th }}$ Checks are payable during years which there is a net actuarial gain and cumulative actuarial gains since October 1, 2000. Before are the net actuarial gains/(losses) since October 1, 2000:

| Year Ending | Actuarial Gain / <br> (Loss) | Cumulative Gain / <br> (Loss) |
| :---: | ---: | ---: |
| $9 / 01$ | $(2,225,048)$ | $(2,225,048)$ |
| $9 / 02$ | $(2,912,478)$ | $(5,137,526)$ |
| $9 / 03$ | $(1,617,825)$ | $(6,755,351)$ |
| $9 / 04$ | $(2,097,257)$ | $(8,852,608)$ |
| $9 / 05$ | $(2,791,395)$ | $(11,644,003)$ |
| $9 / 06$ | $(3,884,844)$ | $(15,528,847)$ |
| $9 / 07$ | $(445,973)$ | $(15,974,820)$ |
| $9 / 08$ | $(5,873,241)$ | $(21,848,061)$ |
| $9 / 09$ | $(4,445,762)$ | $(26,293,824)$ |
| $9 / 10$ | $(912,239)$ | $(27,206,063)$ |
| $9 / 11$ | $(3,495,369)$ | $(30,701,432)$ |
| $9 / 12$ | $(247,206)$ | $(30,948,638)$ |
| $9 / 13$ | $1,666,097$ | $(29,282,541)$ |
| $9 / 14$ | $1,812,870$ | $(27,469,671)$ |

The fund earnings and salary increase assumptions have considerable impact on the cost of the plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

| Year Ending | Investment Return |  | Salary Increases |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Actual* | Assumed | Actual | Assumed |
| 9/30/1978 | 7.2 \% | 6.0 \% | --- | --- |
| 9/30/1979 | 8.6 | 6.0 | --- | --- |
| 9/30/1980 | 9.7 | 6.0 | --- | --- |
| 9/30/1981 | 10.3 | 6.0 | --- | --- |
| 9/30/1982 | 11.6 | 7.0 | --- | --- |
| 9/30/1983 | 11.3 | 7.0 | --- | --- |
| 9/30/1984 | 11.4 | 7.0 | --- | --- |
| 9/30/1985 | 9.7 | 7.0 | --- | --- |
| 9/30/1986 | 17.8 | 9.0 | (1.8) \% | 9.0 \% |
| 9/30/1987 | 6.3 | 9.0 | 16.1 | 9.0 |
| 9/30/1988 | 8.3 | 9.0 | 24.6 | 9.0 |
| 9/30/1989 | 10.7 | 9.0 | 0.5 | 9.0 |
| 9/30/1990 | 5.8 | 9.0 | 9.4 | 9.0 |
| 9/30/1991 | 13.8 | 9.0 | 9.6 | 9.0 |
| 9/30/1992 | 15.0 | 9.0 | 8.4 | 9.0 |
| 9/30/1993 | 10.8 | 9.0 | 5.6 | 9.0 |
| 9/30/1994 | 2.6 | 9.0 | 6.5 | 9.0 |
| 9/30/1995 | 15.2 | 9.0 | 4.5 | 9.0 |
| 9/30/1996 | 12.4 | 9.0 | 4.8 | 9.0 |
| 9/30/1997 | 12.9 | 8.5 | 5.8 | 7.1 |
| 9/30/1998 | 12.9 | 8.5 | 4.9 | 6.8 |
| 9/30/1999 | 13.6 | 8.5 | 12.2 ** | 7.4 |
| 9/30/2000 | 14.0 | 8.5 | 6.9 | 7.1 |
| 9/30/2001 | 9.2 | 8.5 | 11.0 | 7.1 |
| 9/30/2002 | (0.8) | 8.5 | 5.1 | 7.1 |
| 9/30/2003 | 3.9 | 8.5 | 8.3 | 7.0 |
| 9/30/2004 | 2.8 | 8.5 | 7.1 | 7.0 |
| 9/30/2005 | 2.3 | 8.5 | 7.7 | 6.8 |
| 9/30/2006 | 5.5 | 8.5 | 10.7 | 6.7 |
| 9/30/2007 | 8.9 | 8.5 | 5.3 | 6.4 |
| 9/30/2008 | 4.3 | 8.5 | 12.8 | 6.6 |
| 9/30/2009 | 3.4 | 8.5 | 8.3 | 6.5 |
| 9/30/2010 | 8.7 | 8.4 | 5.4 | 6.5 |
| 9/30/2011 | 6.8 | 8.3 | 6.4 | 6.4 |
| 9/30/2012 | 9.3 | 8.2 | 3.2 | 6.4 |
| 9/30/2013 | 9.8 | 8.1 | 3.8 | 6.3 |
| 9/30/2014 | 9.9 | 8.0 | 3.2 | 6.2 |
| Average | 9.0 \% | --- | 7.4 \% | --- |

* Figures through 1989 reflect the entire fund before separation of plans.
** Includes retroactive payments of salary increases per the collective bargaining agreement.

The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and end of each period.

History of Investment Return Based on Actuarial Value of Assets


History of Salary Increases


## Number Added To and Removed from Active Participation

| Year <br> Ended | Number <br> Added <br> During <br> Year |  | Service \& DROP Retirement |  | Disability <br> Retirement |  | Died In <br> Service |  | Terminations |  |  |  | Active Members End of Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Vested | Other |  |  | Totals |  |
|  | A | E |  |  | A | E |  |  | A | E | A | E |  | A | A | A | E |
| 9/30/2002 | 15 | 16 | 5 | 3 | 0 | 1 | 0 | 0 | 1 | 10 | 11 | 6 | 159 |
| 9/30/2003 | 9 | 6 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 4 | 4 | 6 | 162 |
| 9/30/2004 | 6 | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 5 | 5 | 6 | 163 |
| 9/30/2005 | 6 | 11 | 1 | 4 | 0 | 1 | 0 | 0 | 1 | 9 | 10 | 6 | 158 |
| 9/30/2006 | 17 | 21 | 10 | 3 | 0 | 1 | 0 | 0 | 1 | 10 | 11 | 5 | 154 |
| 9/30/2007 | 15 | 11 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 6 | 6 | 5 | 158 |
| 9/30/2008 | 11 | 12 | 9 | 2 | 0 | 1 | 0 | 0 | 0 | 3 | 3 | 5 | 157 |
| 9/30/2009 | 5 | 8 | 5 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 5 | 154 |
| 9/30/2010 | 0 | 12 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | 142 |
| 9/30/2011 | 4 | 7 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 139 |
| 9/30/2012 | 12 | 12 | 8 | 2 | 1 | 0 | 0 | 0 | 0 | 3 | 3 | 4 | 139 |
| 9/30/2013 | 3 | 7 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 4 | 135 |
| 9/30/2014 | 12 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 145 |
| 9/30/2015 |  | 0 |  | 3 |  | 0 |  | 0 |  |  |  | 4 |  |
| 13 Yr Totals 2002-2014 | 115 | 130 | 65 | 27 | 5 | 6 | 0 | 0 | 4 | 56 | 60 | 66 |  |

*Totals are through current plan year only.

| RECENT HISTORY OF VALUATION RESULTS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation <br> Date | Number of |  | Covered Annual Payroll | Actuarial Value of Assets | Accrued <br> Liability | Unfunded <br> Accrued <br> Liability | Funded <br> Ratio | Employer Normal Cost |  |
|  | Active <br> Members | Inactive <br> Members |  |  |  |  |  | Amount | \% of Payroll |
| 10/1/1993 | 136 | 20 | \$6,267,523 | \$16,851,657 | \$18,823,880 | \$1,972,223 | 89.5 \% | \$627,218 | 10.01 \% |
| 10/1/1994 | 135 | 23 | 6,529,063 | 18,112,244 | 20,093,126 | 1,980,882 | 90.1 | 671,749 | 10.29 |
| 10/1/1996 | 132 | 30 | 6,613,181 | 24,322,087 | 26,135,593 | 1,813,506 | 93.1 | 475,798 | 7.19 |
| 10/1/1997 | 141 | 35 | 7,170,493 | 27,830,337 | 29,616,974 | 1,786,637 | 94.0 | 570,529 | 7.96 |
| 10/1/1998 | 153 | 36 | 7,837,902 | 31,671,180 | 32,769,924 | 1,098,744 | 96.6 | 471,685 | 6.02 |
| 10/1/1999 | 145 | 67 | 7,357,096 | 35,269,226 | 41,748,203 | 6,478,977 | 84.5 | 364,562 | 4.96 |
| 10/1/2000 ${ }^{1}$ | 143 | 68 | 7,770,678 | 37,512,699 | 45,644,494 | 8,131,795 | 82.2 | 305,271 | 3.93 |
| 10/1/2001 | 160 | 68 | 9,295,368 | 40,151,353 | 48,341,005 | 8,189,652 | 83.1 | 616,612 | 6.63 |
| 10/1/2002 | 159 | 72 | 9,383,281 | 39,137,722 | 47,650,933 | 8,513,211 | 82.1 | 966,444 | 10.30 |
| 10/1/2003 ${ }^{2}$ | 162 | 73 | 10,210,382 | 40,274,122 | 47,662,496 | 7,388,374 | 84.5 | 1,008,913 | 9.88 |
| 10/1/2004 | 163 | 73 | 10,894,352 | 41,494,126 | 48,949,314 | 7,455,188 | 84.8 | 1,328,531 | 12.19 |
| 10/1/2005 | 158 | 75 | 11,323,389 | 42,540,854 | 57,715,082 | 15,174,228 | 73.7 | 1,983,928 | 17.52 |
| 10/1/2006 ${ }^{3}$ | 154 | 86 | 11,686,231 | 45,227,418 | 61,786,401 | 16,558,983 | 73.2 | 2,556,952 | 21.88 |
| 10/1/2007 | 158 | 90 | 12,497,032 | 50,977,275 | 67,462,013 | 16,484,738 | 75.6 | 2,800,876 | 22.41 |
| 10/1/2008 | 157 | 97 | 13,475,617 | 54,724,468 | 72,562,321 | 17,837,853 | 75.4 | 3,738,725 | 27.74 |
| 10/1/2009 | 154 | 103 | 13,936,365 | 50,805,922 | 97,672,897 | 46,866,975 | 52.0 | 2,287,840 | 16.42 |
| 10/1/2010 ${ }^{4}$ | 142 | 112 | 13,027,405 | 57,735,928 | 107,600,348 | 49,864,420 | 53.7 | 2,265,775 | 17.39 |
| 10/1/2011 | 139 | 118 | 13,521,139 | 64,270,627 | 120,138,527 | 55,867,900 | 53.5 | 2,486,192 | 18.39 |
| 10/1/2012 | 139 | 127 | 13,359,510 | 72,267,056 | 131,526,358 | 59,259,302 | 54.9 | 2,609,560 | 19.53 |
| 10/1/2013 | 135 | 131 | 13,292,908 | 81,989,315 | 142,425,301 | 60,435,986 | 57.6 | 2,703,037 | 20.33 |
| 10/1/2014 | 145 | 133 | 14,122,280 | 92,954,855 | 157,303,477 | 64,348,622 | 59.1 | 2,925,989 | 20.72 |

From 6/30/2001 Actuarial Impact Statement
${ }^{2}$ From 12/10/2004 Actuarial Impact Statement
${ }^{3}$ From 1/10/2008 Actuarial Impact Statement
4 From 7/27/2011 Actuarial Impact Statement

| RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | End of <br> Year To <br> Which <br> Valuation Applies | Required Contributions |  |  |  |  |  | Actual Contributions |  |  |
|  |  | Employer \& State |  | Estimated State |  | Net Employer |  |  |  |  |
|  |  | Amount | $\%$ of Payroll | Amount | \% of <br> Payroll | Amount | $\%$ of Payroll | Employer | State | Total |
| 10/1/1985 | 9/30/1986 | \$407,519 | 13.22 \% | \$103,616 | 3.36 \% | \$303,903 | 9.86 \% | \$387,854 | \$124,762 | \$512,616 |
| 10/1/1985 | 9/30/1987 | 407,519 | 13.22 | 103,616 | 3.36 | 303,903 | 9.86 | 358,170 | 152,810 | 510,980 |
| 10/1/1987 | 9/30/1988 | 385,876 | 12.07 | 152,810 | 4.78 | 233,066 | 7.29 | 280,715 | 172,641 | 453,356 |
| 10/1/1987 | 9/30/1989 | 385,876 | 12.07 | 152,810 | 4.78 | 233,066 | 7.29 | 307,860 | 184,331 | 492,191 |
| 10/1/1989 | 9/30/1990 | 615,410 | 13.73 | 184,331 | 4.11 | 431,079 | 9.62 | 426,236 | 198,379 | 624,615 |
| 10/1/1989 | 9/30/1991 | 615,410 | 13.73 | 184,331 | 4.11 | 431,079 | 9.62 | 480,918 | 205,525 | 686,443 |
| 10/1/1991 | 9/30/1992 | 730,550 | 13.74 | 205,525 | 3.87 | 525,025 | 9.88 | 533,717 | 215,510 | 749,227 |
| 10/1/1992 | 9/30/1993 | 796,196 | 13.63 | 215,510 | 3.69 | 580,686 | 9.94 | 580,815 | 222,772 | 803,587 |
| 10/1/1993 | 9/30/1994 | 814,782 | 13.00 | 222,772 | 3.55 | 592,010 | 9.45 | 588,409 | 235,414 | 823,823 |
| 10/1/1994 | 9/30/1995 | 828,505 | 12.69 | 226,212 | 3.46 | 602,293 | 9.22 | 580,795 | 257,223 | 838,018 |
| 10/1/1995 ${ }^{1}$ | 9/30/1996 | 860,550 | 12.69 | 257,223 | 3.79 | 603,327 | 9.22 | 597,981 | 281,695 | 879,676 |
| 10/1/1996 | 9/30/1997 | 623,056 | 9.42 | 281,695 | 4.26 | 341,361 | 5.16 | 343,282 | 311,098 | 654,380 |
| 10/1/1997 | 9/30/1998 | 723,467 | 10.09 | 311,098 | 4.34 | 412,369 | 5.75 | 413,775 | 307,312 | 721,087 |
| 10/1/1998 | 9/30/1999 | 573,363 | 7.32 | 307,312 | 3.92 | 266,051 | 3.40 | 277,685 | 295,625 | 573,310 |
| 10/1/1998 | 9/30/2000 | 1,010,905 | 13.33 | 307,312 | 4.05 | 703,593 | 9.28 | 746,594 | 264,311 | 1,010,905 |
| 10/1/1999 | 9/30/2001 | 916,278 | 11.85 | 295,625 | 3.82 | 620,653 | 8.03 | 652,379 | 280,803 | 933,182 |
| $\left\lvert\, \begin{array}{\|l\|l\|l\|l\|l\|l\|} \end{array}\right.$ | 9/30/2002 | 1,000,716 | 12.30 | 264,311 | 3.25 | 736,405 | 9.05 | 700,913 | 307,312 | 1,008,225 |
| $10 / 1 / 2001$ | 9/30/2003 | 1,317,632 | 13.63 | 307,312 | 3.18 | 1,010,320 | 10.45 | 1,019,184 | 307,312 | 1,326,496 |
| 10/1/2002 | 9/30/2004 | 1,539,895 | 15.78 | 307,312 | 3.15 | 1,232,583 | 12.63 | 1,252,491 | 307,312 | 1,559,803 |
| 10/1/2003 ${ }^{3}$ | 9/30/2005 | 1,694,795 | 15.96 | 352,973 | 3.32 | 1,341,822 | 12.64 | 1,341,822 | 352,973 | 1,694,795 |
| 10/1/2004 | 9/30/2006 | 2,017,275 | 17.81 | 352,973 | 3.12 | 1,664,302 | 14.69 | 1,664,302 | 352,973 | 2,017,275 |
| 10/1/2005 ${ }^{4}$ | 9/30/2007 | 3,483,437 | 29.58 | 512,973 | 4.36 | 2,630,010 | 22.33 | 2,630,010 | 559,679 | 3,530,143 |
| 10/1/2006 ${ }^{5}$ | 9/30/2008 | 4,227,050 | 34.78 | 559,679 | 4.60 | 3,507,371 | 28.86 | 3,452,721 | 567,623 | 4,180,344 |
| 10/1/2007 | 9/30/2009 | 4,547,620 | 34.99 | 559,679 | 4.31 | 3,987,941 | 30.68 | 3,968,694 | 578,926 | 4,547,620 |
| 10/1/2008 | 9/30/2010 | 5,705,361 | 40.71 | 552,722 | 3.94 | 5,152,639 | 36.77 | 5,152,639 | 552,722 | 5,705,361 |
| 10/1/2009 | 9/30/2011 | 6,462,794 | 44.59 | 552,722 | 3.81 | 5,910,072 | 40.78 | 5,954,543 | 508,251 | 6,462,794 |
| 10/1/2010 ${ }^{6}$ | 9/30/2012 | 6,542,571 | 48.29 | 527,188 | 3.89 | 6,015,383 | 44.40 | 6,015,383 | 527,188 | 6,542,571 |
| 10/1/2011 | 9/30/2013 | 7,431,759 | 52.85 | 568,388 | 4.04 | 6,863,371 | 48.81 | 6,863,371 | 568,388 | 7,431,759 |
| 10/1/2012 | 9/30/2014 | 8,093,191 | 58.25 | 568,388 | 4.09 | 7,524,803 | 54.16 | 7,472,477 | 620,714 | 8,093,191 |
| 10/1/2013 | 9/30/2015 | 9,186,463 | 66.45 | 639,176 | 4.62 | 8,547,287 | 61.83 | --- | --- | --- |
| 10/1/2014 | 9/30/2016 | 9,899,972 | 68.06 | 639,176 | 4.39 | 9,260,796 | 63.67 | --- | --- | --- |

${ }^{1}$ Rates from 10/1/1994 Valuation were applied to 10/1/1995 payroll
${ }^{2}$ From 6/20/2001 Actuarial Impact Statement
${ }^{3}$ From 12/10/2004 Actuarial Impact Statement
${ }^{4}$ Reflects change in member contribution rate from $10.15 \%$ to $9.84 \%$; additional contribution of $\$ 340,454$ due to one-time use of State Reserve reflected in net employer contribution and actual total contribution but not shown separately
${ }^{5}$ From 1/10/2008 Actuarial Impact Statement additional contribution of $\$ 160,000$ due to one-time use of State Reserve reflected in net required contribution and actual total contribution but not shown separately
${ }^{6}$ From 7/27/2011 Actuarial Impact Statement

## Recent History of Required and Actual Contributions



## ACTUARIAL ASSUMPTIONS AND COST METHOD

## Valuation Methods

Actuarial Cost Method - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an Individual Entry-Age Actuarial Cost Method having the following characteristics:
(i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;
(ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.
Financing of Unfunded Actuarial Accrued Liabilities - Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal \& interest combined) percent-of-payroll contributions over a reasonable period of future years.

Actuarial Value of Assets - The Actuarial Value of Assets was written down to Market Value as of September 30, 2009.

Effective October 1, 2009, the Actuarial Value of Assets phases in the difference between the expected and actual return on actuarial value of assets at the rate of $20 \%$ per year. The Actuarial Value of Assets is further adjusted to the extent necessary to fall within the corridor whose lower limit is $80 \%$ of the Market Value of plan assets and whose upper limit is $120 \%$ of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

## Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section.

## Economic Assumptions

The investment return rate assumed in the valuation is $7.8 \%$ per year, compounded annually (net after investment expenses).

The Wage Inflation Rate assumed in this valuation was $2.5 \%$ per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.

The assumed real rate of return over wage inflation is defined to be the portion of total investment return that is more than the assumed wage inflation rate. Considering other economic assumptions, the $7.8 \%$ investment return rate translates to an assumed real rate of return over wage inflation of $5.3 \%$.

The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at 3\% per year. According to the Florida Administrative Code, this payroll growth assumption may not exceed the average growth over the last ten years, which is $2.63 \%$.

Pay increase assumptions for individual active members are shown below. Part of the assumption for each age for merit and/or seniority increase, and the other $2.5 \%$ recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

The rates of salary increase used are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

|  | \% Increase in Salary |  |  |
| :---: | :---: | :---: | :---: |
| Age | Merit and <br> Seniority | Base <br> (Economic) | Total <br> Increase |
| 20 | $5.0 \%$ | $2.5 \%$ | $7.5 \%$ |
| 25 | $5.0 \%$ | $2.5 \%$ | $7.5 \%$ |
| 30 | $4.8 \%$ | $2.5 \%$ | $7.3 \%$ |
| 35 | $3.7 \%$ | $2.5 \%$ | $6.2 \%$ |
| 40 | $1.7 \%$ | $2.5 \%$ | $4.2 \%$ |
| 45 | $1.7 \%$ | $2.5 \%$ | $4.2 \%$ |
| 50 | $1.7 \%$ | $2.5 \%$ | $4.2 \%$ |
| 55 | $1.7 \%$ | $2.5 \%$ | $4.2 \%$ |

## Demographic Assumptions

The mortality table was the RP-2000 Combined Healthy Participant Mortality Tables for males and females. Future mortality improvements are projected to all future years from the year 2000 using Scale AA (on a fully generational basis).

| Sample <br> Attained <br> Ages (in 2014) | Probability of <br> Dying Next Year |  | Future Life <br> Expectancy (years) |  |
| :---: | :---: | :---: | :---: | ---: |
|  | Men | Women | Men | Women |
| 50 | $0.17 \%$ | $0.13 \%$ | 34.26 | 35.63 |
| 55 | 0.28 | 0.24 | 29.14 | 30.66 |
| 60 | 0.54 | 0.47 | 24.21 | 25.89 |
| 65 | 1.05 | 0.90 | 19.60 | 21.40 |
| 70 | 1.80 | 1.56 | 15.41 | 17.28 |
| 75 | 3.11 | 2.51 | 11.63 | 13.56 |
| 80 | 5.59 | 4.16 | 8.41 | 10.25 |

This assumption is used to measure the probabilities of each benefit payment being made after retirement. For active members, the probabilities of dying before retirement were based upon the same mortality table as members dying after retirement ( $75 \%$ of deaths are assumed to be service-connected).

For disabled retirees, the regular mortality tables are set forward 5 years in ages to reflect impaired longevity.
The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

## GRS

## Annual Rate of Retirement for Those Eligible for Normal or Early Retirement

|  | Retirement Rates |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 42-45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
|  | 10 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 25.0\% | 25.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | 11 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | 12 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | 13 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| S | 14 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| e | 15 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| r | 16 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| v | 17 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| i | 18 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| c | 19 | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 2.0\% | 25.0\% | 35.0\% | 35.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| e | 20 | 50.0\% | 60.0\% | 60.0\% | 60.0\% | 60.0\% | 60.0\% | 75.0\% | 75.0\% | 75.0\% | 75.0\% | 75.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | 21 | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | 22 | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 15.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | 23 | 40.0\% | 40.0\% | 40.0\% | 50.0\% | 50.0\% | 50.0\% | 50.0\% | 50.0\% | 50.0\% | 50.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | 24 | 40.0\% | 40.0\% | 40.0\% | 50.0\% | 50.0\% | 50.0\% | 50.0\% | 50.0\% | 50.0\% | 50.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | 25 | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

| Sample <br> Ages | \% of Active Members <br> Separating Within Next Year |
| :---: | :---: |
| 20 | $6.0 \%$ |
| 25 | 5.7 |
| 30 | 5.0 |
| 35 | 3.8 |
| 40 | 2.6 |
| 45 | 1.6 |
| 50 | 0.8 |
| 55 | 0.3 |

Rates of disability among active members (75\% of disabilities are assumed to be service-connected).

| Sample <br> Ages | \% Becoming Disabled <br> Within Next Year |
| :---: | :---: |
| 20 | $0.14 \%$ |
| 25 | 0.15 |
| 30 | 0.18 |
| 35 | 0.23 |
| 40 | 0.30 |
| 45 | 0.51 |
| 50 | 1.00 |
| 55 | 1.55 |

## Miscellaneous and Technical Assumptions

## Administrative \& Investment Expenses

Benefit Service

Cost of Living Adjustment

Decrement Operation

Decrement Timing

Eligibility Testing

Forfeitures

Incidence of Contributions

Marriage Assumption

Normal Form of Benefit
Pay Increase Timing

Service Credit Accruals

The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the prior two years' expenses. Assumed administrative expenses are added to the Normal Cost.

Service calculated based on completed months is used to determine the amount of benefit payable.

The cost of living adjustment for members who receive future normal retirement benefits is $2.5 \%$ starting 5 years after retirement.

Disability and mortality decrements operate during retirement eligibility.

Decrements of all types are assumed to occur at the beginning of the year.

Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

For vested separations from service, it is assumed that $0 \%$ of members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's accumulated contributions.

Employer contributions are assumed to be made at the end of each biweekly pay period. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
$100 \%$ of males and $100 \%$ of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.

A 10-year certain and life annuity is the normal form of benefit.
Beginning of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.

It is assumed that members accrue one year of service credit per year.

## GLOSSARY

## Actuarial Accrued Liability (AAL)

## Actuarial Assumptions

## Actuarial Cost Method

Actuarial Equivalent

Actuarial Present Value (APV)

## Actuarial Present Value of Future Benefits (APVFB)

Actuarial Value of Assets

The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.

Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.

A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.

Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.

The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.

The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67, such as the Funded Ratio and the Annual Required Contribution (ARC).

The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution (ARC).
Amortization Method

## Amortization Payment

## Amortization Period

Annual Required
Contribution (ARC)

A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

The period used in calculating the Amortization Payment.
The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB No. 67. The ARC consists of the Employer Normal Cost and Amortization Payment.

## Closed Amortization Period

## Employer Normal Cost

## Equivalent Single Amortization Period

## Experience Gain/Loss

## Funded Ratio

GASB
GASB No. 67 and
GASB No. 27

A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.

The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

A measure of the difference between the normal cost rate from last year and the normal cost rate from this year.

The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.

Governmental Accounting Standards Board.
These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.

The annual cost assigned, under the Actuarial Cost Method, to the current plan year.

Open Amortization Period An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30 -year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

Unfunded Actuarial Accrued Liability

Valuation Date

The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.

The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

## SECTION C

PENSION FUND INFORMATION

## GRS

## Statement of Plan Assets at Market Value

| Item | September 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2014 |  | 2013 |  |
| A. Cash and Cash Equivalents (Operating Cash) | \$ | - | \$ | \$ - |
| B. Receivables: |  |  |  |  |
| 1. Member Contributions | \$ | 76,091 | \$ | 69,991 |
| 2. Employer Contributions |  | - |  | - |
| 3. State Contributions |  | - |  | - |
| 4. Investment Income and Other Receivables |  | 1,101,896 |  | 417,846 |
| 5. Total Receivables | \$ | 1,177,987 |  | 487,837 |
| C. Investments |  |  |  |  |
| 1. Short Term Investments | \$ | 1,626,664 |  | 2,973,808 |
| 2. Domestic Equities |  | 56,446,580 |  | 48,808,758 |
| 3. International Equities |  | 9,053,873 |  | 7,865,380 |
| 4. Domestic Fixed Income |  | 37,589,251 |  | 36,584,159 |
| 5. International Fixed Income |  | - |  | - |
| 6. Real Estate |  | - |  | - |
| 7. Private Equity |  | - |  | - |
| 8. Total Investments |  | 104,716,368 |  | 96,232,105 |
| D. Liabilities |  |  |  |  |
| 1. Benefits Payable | \$ | - |  |  |
| 2. Accrued Expenses and Other Payables |  | $(236,924)$ |  | $(224,741)$ |
| 3. Prepaid City Contribution |  | $(93,526)$ |  | - |
| 4. Total Liabilities | \$ | $(330,450)$ |  | $(224,741)$ |
| E. Total Market Value of Assets Available for Benefits |  | 105,563,905 |  | 96,495,201 |
| F. Reserves |  |  |  |  |
| 1. State Contribution Reserve | \$ | - | \$ |  |
| 2. DROP Accounts |  | (7,274,060) |  | $(8,890,318)$ |
| 3. Total Reserves | \$ | (7,274,060) |  | $(8,890,318)$ |
| G. Market Value Net of Reserves | \$ | 98,289,845 |  | 87,604,883 |
| H. Allocation of Investments |  |  |  |  |
| 1. Short Term Investments |  | 1.6\% |  | 3.1\% |
| 2. Domestic Equities |  | 53.9\% |  | 50.7\% |
| 3. International Equities |  | 8.6\% |  | 8.2\% |
| 4. Domestic Fixed Income |  | 35.9\% |  | 38.0\% |
| 5. International Fixed Income |  | 0.0\% |  | 0.0\% |
| 6. Real Estate |  | 0.0\% |  | 0.0\% |
| 7. Private Equity |  | 0.0\% |  | 0.0\% |
| 8. Total Investments |  | 100.0\% |  | 100.0\% |

## Reconciliation of Plan Assets

| Item | September 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2014 |  | 2013 |  |
| A. Market Value of Assets at Beginning of Year | \$ | 96,495,201 | \$ | 83,527,845 |
| B. Revenues and Expenditures <br> 1. Contributions |  |  |  |  |
| a. Member Contributions | \$ | 1,293,252 | \$ | 1,260,531 |
| b. Employer Contributions |  | 7,472,477 |  | 6,863,371 |
| c. State Contributions |  | 620,714 |  | 568,388 |
| d. Purchased Service Credit |  | - |  | - |
| e. Total | \$ | 9,386,443 | \$ | 8,692,290 |
| 2. Investment Income |  |  |  |  |
| a. Interest, Dividends, and Other Income | \$ | 2,963,564 | \$ | 2,642,870 |
| b. Net Realized Gains/(Losses) |  | - |  | 5,987,994 |
| c. Net Unrealized Gains/(Losses) |  | 6,303,229 |  | 1,455,475 |
| d. Investment Expenses |  | $(561,146)$ |  | $(497,857)$ |
| e. Net Investment Income | \$ | 8,705,647 | \$ | 9,588,482 |
| 3. Benefits and Refunds |  |  |  |  |
| a. Regular Monthly Benefits | \$ | $(4,423,555)$ | \$ | $(3,710,309)$ |
| b. Refunds |  | $(40,078)$ |  | $(86,289)$ |
| c. Lump Sum Benefits Paid |  | - |  | - |
| d. DROP Distributions |  | $(4,336,905)$ |  | $(1,311,925)$ |
| e. Total | \$ | $(8,800,538)$ | \$ | $(5,108,523)$ |
| 4. Administrative and Miscellaneous Expenses | \$ | $(222,848)$ | \$ | $(204,893)$ |
| 5. Transfers | \$ | - | \$ | - |
| C. Market Value of Assets at End of Year | \$ | 105,563,905 | \$ | 96,495,201 |
| D. Reserves |  |  |  |  |
| 1. State Contribution Reserve | \$ | - | \$ | - |
| 2. DROP Accounts |  | $(7,274,060)$ |  | $(8,890,318)$ |
| 3. Total Reserves | \$ | $(7,274,060)$ | \$ | $(8,890,318)$ |
| E. Market Value Net of Reserves | \$ | 98,289,845 | \$ | 87,604,883 |

* Breakdown between realized and unrealized gains (losses) were not available.


## Reconciliation of DROP Accounts

| Year <br> Ended <br> 9/30 | Balance at <br> Beginning of Year | Credits | Interest |  | tributions | Balance at End of Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002 | \$ | \$ 148,006 | \$ 5,101 | \$ | $(16,178)$ | \$ 136,929 |
| 2003 | 136,929 | 180,567 | 20,636 |  | - | 338,132 |
| 2004 | 338,132 | 180,567 | 38,421 |  | - | 557,120 |
| 2005 | 557,120 | 180,567 | 57,778 |  | - | 795,465 |
| 2006 | 795,465 | 422,350 | 69,061 |  | $(188,744)$ | 1,098,132 |
| 2007 | 1,098,132 | 479,883 | 101,029 |  | $(1,020,132)$ | 658,912 |
| 2008 | 658,912 | 682,875 | 78,772 |  | $(316,082)$ | 1,104,477 |
| 2009 | 1,104,477 | 904,840 | 137,425 |  | - | 2,146,742 |
| 2010 | 2,146,742 | 1,428,932 | 249,854 |  | $(95,349)$ | 3,730,179 |
| 2011 | 3,730,179 | 1,935,801 | 320,520 |  | $(197,552)$ | 5,788,948 |
| 2012 | 5,788,948 | 2,219,679 | 476,027 |  | $(1,245,018)$ | 7,239,636 |
| 2013 | 7,085,581 | 2,554,707 | 561,955 |  | $(1,311,925)$ | 8,890,318 |
| 2014 | 8,890,318 | 2,155,050 | 565,597 |  | $(4,336,905)$ | 7,274,060 |

*Beginning of Year balance adjusted to match client's reconciliation and financial statements

## Actuarial Value of Assets

| Valuation Date - September 30 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Actuarial Value of Assets Beginning of Year* | \$79,506,692 | \$ 90,879,633 |  |  |  |  |
| B. Market Value End of Year* | 96,495,201 | 105,563,905 |  |  |  |  |
| C. Market Value Beginning of Year* | 83,527,845 | 96,495,201 |  |  |  |  |
| D. Non-Investment/Administrative Net Cash Flow | 3,378,874 | 363,057 |  |  |  |  |
| E. Investment Income |  |  |  |  |  |  |
| E1. Actual Market Total: B-C-D | 9,588,482 | 8,705,647 |  |  |  |  |
| E2. Assumed Rate of Return | 8.10\% | 8.00\% | 7.80\% | 7.80\% | 7.80\% | 7.80\% |
| E3. Assumed Amount of Return | 6,576,886 | 7,284,893 |  |  |  |  |
| E4. Amount Subject to Phase-In: E1-E3 | 3,011,596 | 1,420,754 |  |  |  |  |
| F. Phased-In Recognition of Investment Income |  |  |  |  |  |  |
| F1. Current Year: $0.2 \times$ E4 | 602,319 | 284,151 |  |  |  |  |
| F2. First Prior Year | 1,745,863 | 602,319 | 284,151 |  |  |  |
| F3. Second Prior Year | $(1,100,298)$ | 1,745,863 | 602,319 | 284,151 |  |  |
| F4. Third Prior Year | 169,297 | $(1,100,298)$ | 1,745,863 | 602,319 | 284,151 |  |
| F5. Fourth Prior Year | - | 169,297 | $(1,100,298)$ | 1,745,863 | 602,319 | 284,151 |
| F6. Total Phase-Ins | 1,417,181 | 1,701,332 | 1,532,035 | 2,632,333 | 886,470 | 284,151 |

G. Actuarial Value of Assets End of Year

G1. Preliminary Actuarial Value of Assets End of Year:
A+D+E3+F6 90,879,633 100,228,915

G2. Upper Corridor Limit: $120 \%$ *B $\quad 115,794,241 \quad 126,676,686$
G3. Lower Corridor Limit: 80\%*B $\quad 77,196,161 \quad 84,451,124$
G4. Actuarial Value of Assets End of Year 90,879,633 100,228,915
G5. State Contribution Reserve
G6. DROP Accounts
$(8,890,318) \quad(7,274,060)$
G7. Final Actuarial Value of Assets End of Year 81,989,315 92,954,855
H. Difference between Market \& Actuarial Value of Assets 5,615,568 5,334,990
I. Actuarial Rate of Return $9.8 \% \quad 9.9 \%$
J. Market Value Rate of Return $\quad 11.3 \% \quad 9.0 \%$
K. Ratio of Actuarial Value of Assets to Market Value $94.2 \%$ 94.9\%

## * Before offset of State Contribution Reserve and DROP Accounts.

The Actuarial Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment income (Line E4) are phased-in over a closed 5 -year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for 5 consecutive years, Actuarial Value of Assets will become equal to Market Value.

| Year Ending September 30th | Investment Rate of Return |  |
| :---: | :---: | :---: |
|  | Market Value * | Actuarial Value |
| 1978 | 7.2 \% | 7.2 \% |
| 1979 | 8.6 | 8.6 |
| 1980 | 9.7 | 9.7 |
| 1981 | 10.3 | 10.3 |
| 1982 | 11.6 | 11.6 |
| 1983 | 11.3 | 11.3 |
| 1984 | 11.4 | 11.4 |
| 1985 | 9.7 | 9.7 |
| 1986 | 17.8 | 17.8 |
| 1987 | 6.3 | 6.3 |
| 1988 | 8.3 | 8.3 |
| 1989 | 10.7 | 10.7 |
| 1990 | 5.8 | 5.8 |
| 1991 | 13.8 | 13.8 |
| 1992 | 15.0 | 15.0 |
| 1993 | 11.4 | 10.8 |
| 1994 | 3.0 | 2.6 |
| 1995 | 15.8 | 15.2 |
| 1996 | 13.0 | 12.4 |
| 1997 | 27.7 | 12.9 |
| 1998 | 10.3 | 12.9 |
| 1999 | 13.5 | 13.6 |
| 2000 | 11.8 | 14.0 |
| 2001 | (9.8) | 9.2 |
| 2002 | (6.9) | (0.8) |
| 2003 | 14.6 | 3.9 |
| 2004 | 7.9 | 2.8 |
| 2005 | 9.0 | 2.3 |
| 2006 | 6.4 | 5.5 |
| 2007 | 11.9 | 8.9 |
| 2008 | (11.7) | 4.3 |
| 2009 | 1.2 | 3.4 |
| 2010 | 9.9 | 8.7 |
| 2011 | (0.3) | 6.8 |
| 2012 | 21.6 | 9.3 |
| 2013 | 11.3 | 9.8 |
| 2014 | 9.0 | 9.9 |
| Average Returns: |  |  |
| Last 5 Years | 10.1 \% | 8.9 \% |
| Last 10 Years | 6.5 \% | 6.9 \% |
| All Years | 8.9 \% | 9.0 \% |

*Net of investment expenses starting in 2006.
The above rates are based on the retirement system's financial information reported to the actuary. They may differ from figures that the investment consultant reports, in part because of differences in the handling of administrative and investment expenses, and in part because of differences in the handling of cash flows.

## GRS

## History of Premium Tax Refunds

| Year Received | Amount |
| :---: | :---: |
| 1973 | 162.73 |
| 1974 | 969.40 |
| 1975 | 5,140.84 |
| 1976 | 11,554.80 |
| 1977 | 29,468.92 |
| 1978 | 29,787.49 |
| 1979 | 32,251.00 |
| 1980 | 39,792.00 |
| 1981 | 45,645.00 |
| 1982 | 60,336.53 |
| 1983 | 72,150.14 |
| 1984 | 83,242.99 |
| 1985 | 103,615.68 |
| 1986 | 124,761.71 |
| 1987 | 152,810.22 |
| 1988 | 172,640.89 |
| 1989 | 184,331.26 |
| 1990 | 198,379.19 |
| 1991 | 205,524.75 |
| 1992 | 215,510.42 |
| 1993 | 222,771.55 |
| 1994 | 235,414.53 |
| 1995 | 257,223.00 |
| 1996 | 281,695.14 |
| 1997 | 311,097.66 |
| 1998 | 307,311.95 |
| 1999 | 295,625.18 |
| 2000 | 264,310.96 |
| 2001 | 280,803.49 |
| 2002 | 323,403.51 |
| 2003 | 374,159.74 |
| 2004 | 497,444.66 |
| 2005 | 503,294.47 |
| 2006 | 512,972.82 |
| 2007 | 559,678.84 |
| 2008 | 567,622.66 |
| 2009 | 578,925.89 |
| 2010 | 552,721.74 |
| 2011 | 508,250.66 |
| 2012 | 527,188.24 |
| 2013 | 568,387.94 |
| 2014 | 620,714.25 |
| 2015 | 639,175.78 |
|  | 11,558,270.62 |

## GRS

## SECTION D

FINANCIAL ACCOUNTING INFORMATION

## GRS

## FASB NO. 35 INFORMATION

A. Valuation Date
B. Actuarial Present Value of Accumulated
Plan Benefits

1. Vested Benefits
a. Members Currently Receiving Payments
b. Terminated Vested Members
c. Other Members
d. Total
2. Non-Vested Benefits
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2
4. Accumulated Contributions of Active Members
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits
5. Total Value at Beginning of Year
6. Increase (Decrease) During the Period Attributable to:
a. Plan Amendment
b. Change in Actuarial Assumptions
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period
d. Benefits Paid
e. Net Increase
7. Total Value at End of Period
D. Market Value of Assets
E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods

| ANNUAL PENSION COST AND NET PENSION OBLIGATION <br> (GASB STATEMENT NO. 27) |  |  |
| :--- | ---: | ---: |
| Employer FYE September 30 |  |  |
| Annual Required Contribution (ARC)* |  |  |
| Interest on Net Pension Obligation (NPO) | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 3}$ |
| Adjustment to ARC | $8,093,191$ | $\$ 7,431,759$ |
| Annual Pension Cost (APC) | $(15,309)$ | $(15,983)$ |
| Contributions made | $(20,755)$ | $(21,943)$ |
| Increase (decrease) in NPO | $8,098,637$ | $7,437,719$ |
| NPO at beginning of year | $8,093,191$ | $7,431,759$ |
| NPO at end of year | 5,446 | 5,960 |
| (191,362) | $(197,322)$ |  |
| Includes expected State contribution | $(185,916)$ | $(191,362)$ |

THREE YEAR TREND INFORMATION

| Fiscal <br> Year Ending | Annual Pension <br> Cost (APC) | Actual <br> Contribution | Percentage of <br> APC Contributed | Net Pension <br> Obligation |
| :---: | ---: | ---: | ---: | ---: |
| $9 / 30 / 2012$ | $\$$ | $6,548,381$ | $\$$ | $6,542,571$ |

## REQUIRED SUPPLEMENTARY INFORMATION <br> GASB Statement No. 27

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation:

| Valuation Date | October 1, 2014 |
| :--- | :--- |
| Contribution Rates: |  |
| $\quad$ Employer (and State) | $68.06 \%$ |
| $\quad$ Plan Members | $9.84 \%$ |
| Actuarial Cost Method | Entry Age Normal |
| Amortization Method | Level percent, Closed |
| Remaining amortization period | 24 years |
| Asset valuation method | 5 -year smoothed market |
|  |  |
| Actuarial assumptions: |  |
| Investment rate of return | $7.8 \%$ |
| Projected salary increases | $4.2 \%$ to $7.5 \%$ depending |
| Includes inflation and other general increases at | on age |
| Cost-of-living adjustments | $2.5 \%$ |
|  | $2.5 \%$ after 5 years of retirement |

## SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS GASB Statement No. 67

Fiscal year ending September 30,
Total pension liability
Service Cost
Interest
Benefit Changes
Difference between actual \& expected experience
Assumption Changes
Benefit Payments
Refunds
Net Change in Total Pension Liability
Total Pension Liability - Beginning
Total Pension Liability - Ending (a)
Plan Fiduciary Net Position
Contributions - Employer
Contributions - Non-Employer Contributing Entity
Contributions - Member
Net Investment Income
Benefit Payments
Refunds
Administrative Expense
Other
Net Change in Plan Fiduciary Net Position
Plan Fiduciary Net Position - Beginning
Plan Fiduciary Net Position - Ending (b)
Net Pension Liability - Ending (a) - (b)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability
Covered Employee Payroll
Net Pension Liability as a Percentage of Covered Employee Payroll

| 2015* |  | 2014 |
| :--- | :---: | ---: |
|  |  |  |
| $\$$ | $4,101,750$ | $\$$ |
|  | $12,391,078$ | $3,784,863$ |
|  | - | $12,056,017$ |
|  | $(416,480)$ | - |
|  | $7,186,244$ | $(58,354)$ |
|  | $(6,991,025)$ | - |
|  | $(87,740)$ | $(8,760,460)$ |
|  | $16,183,828$ | $6,981,988$ |
|  | $158,297,607$ | $151,315,619$ |
| $\$$ | $174,481,435$ | $\$$ |
|  |  | $158,297,607$ |


| $\$$ | $8,547,287$ | $\$$ |
| ---: | ---: | ---: |
| 639,176 | $7,472,477$ |  |
|  | $1,389,632$ | 620,714 |
|  | $8,342,776$ | $1,293,252$ |
|  | $(6,991,025)$ | $8,705,647$ |
|  | $(87,760,460)$ |  |
|  | $(2,740)$ | $(40,078)$ |

$(222,848)$

|  | - | - |
| ---: | ---: | ---: |
|  | $11,611,687$ | $9,068,704$ |
|  | $105,563,905$ | $96,495,201$ |
| $\$$ | $117,175,592$ | $\$$ |
|  | $57,305,843$ | $52,563,905$ |

67.16 \% 66.69 \%

14,122,276 \$
13,142,805
405.78 \%
401.24 \%
*These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

## SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY <br> GASB Statement No. 67

| FY Ending September 30, |  | Plan Net <br> Position | Net Pension Liability | Plan Net Position as a \% of Total $\xrightarrow{\text { Pension Liability }}$ | Covered Payroll | Net Pension Liability as a \% of Covered Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | \$158,297,607 | \$105,563,905 | \$ 52,733,702 | 66.69\% | \$ 13,142,805 | 401.24\% |
| 2015* | 174,481,435 | 117,175,592 | 57,305,843 | 67.16\% | 14,122,276 | 405.78\% |

*These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

## SCHEDULE OF CONTRIBUTIONS

GASB Statement No. 67

| FY Ending September 30, | Actuarially <br> Determined <br> Contribution |  |  | Actual <br> ontribution | Contribution Deficiency (Excess) |  | Covered Payroll* | Actual Contribution as a \% of Covered Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2005 | \$ | 1,694,795 | \$ | 1,694,795 | \$ | - | \$ 10,894,352 | 15.56\% |
| 2006 |  | 2,017,275 |  | 2,017,275 |  | - | 11,323,389 | 17.82\% |
| 2007 |  | 3,483,437 |  | 3,530,143 |  | $(46,706)$ | 11,686,231 | 30.21\% |
| 2008 |  | 4,227,050 |  | 4,180,344 |  | 46,706 | 12,497,032 | 33.45\% |
| 2009 |  | 4,547,620 |  | 4,547,620 |  | - | 13,475,617 | 33.75\% |
| 2010 |  | 5,705,361 |  | 5,705,361 |  | - | 13,936,365 | 40.94\% |
| 2011 |  | 6,462,794 |  | 6,462,794 |  | - | 13,027,405 | 49.61\% |
| 2012 |  | 6,542,571 |  | 6,542,571 |  | - | 13,521,139 | 48.39\% |
| 2013 |  | 7,431,759 |  | 7,431,759 |  | - | 13,359,510 | 55.63\% |
| 2014 |  | 8,093,191 |  | 8,093,191 |  | - | 13,292,908 | 60.88\% |
| 2015* |  | 9,186,463 |  | 9,186,463 |  | - | 14,122,280 | 65.05\% |

*These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

## NOTES TO SCHEDULE OF CONTRIBUTIONS

## GASB Statement No. 67

Valuation Date:
Notes

October 1, 2013
Actuarially determined contribution rates are calculated as of October 1, which is two year(s) prior to the end of the fiscal year in which contributions are reported.

| Methods and Assumptions Used to Determine Contribution Rates: |  |
| :--- | :--- |
| Actuarial Cost Method | Entry Age Normal |
| Amortization Method | Level Percent of Pay, Closed |
| Remaining Amortization Period | 25 years |
| Asset Valuation Method | 5 -year smoothed market |
| Inflation | $3.0 \%$ |
| Salary Increases | $5.2 \%$ to $8.5 \%$ depending on age, including inflation |
| Investment Rate of Return | $8.00 \%$ |
| Retirement Age | Experience-based table of rates that are specific to the type of eligibility |
|  | condition |
| Mortality | RP-2000 Combined Healthy Participant Mortality Table for males and |
|  | females with mortality improvement projected to all future years using |
|  | Scale AA |

## Other Information:

Notes
See Discussion of Valuation Results from the October 1, 2013 Actuarial Valuation Report

## SINGLE DISCOUNT RATE

## GASB Statement No. 67

A single discount rate of $7.80 \%$ was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of $7.80 \%$. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position 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 (7.80\%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of $7.80 \%$, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher.

## Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption*

|  |  |  | ent Single Discount |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1\% Decrease |  | Rate Assumption |  | 1\% Increase |
|  | 6.80\% |  | 7.80\% |  | 8.80\% |
| \$ | 82,779,778 | \$ | 57,305,843 | \$ | 39,911,991 |

[^1]
## SECTION E

MISCELLANEOUS INFORMATION

## GRS

| RECONCILIATION OF MEMBERSHIP DATA |  |  |
| :---: | :---: | :---: |
|  | $\begin{gathered} \text { From 10/1/13 } \\ \text { To 10/1/14 } \\ \hline \end{gathered}$ | $\begin{gathered} \text { From 10/1/12 } \\ \text { To 10/1/13 } \\ \hline \end{gathered}$ |
| A. Active Members |  |  |
| 1. Number Included in Last Valuation <br> 2. New Members Included in Current Valuation <br> 3. Non-Vested Employment Terminations <br> 4. Vested Employment Terminations <br> 5. DROP Retirement <br> 6. Service Retirements <br> 7. Disability Retirements <br> 8. Deaths <br> 9. Other - Transfer/Rehire <br> 10. Number Included in This Valuation | 135 <br> 12 <br> 0 <br> 0 <br> $(1)$ <br> 0 <br> $(1)$ <br> 0 <br> 0 <br> 145 | 139 <br> 3 <br> $(3)$ <br> 0 <br> $(4)$ <br> 0 <br> 0 <br> 0 <br> 0 <br> 135 |
| B. Terminated Vested Members |  |  |
| 1. Number Included in Last Valuation <br> 2. Additions from Active Members <br> 3. Lump Sum Payments/Refund of Contributions <br> 4. Payments Commenced <br> 5. Deaths <br> 6. Other - Rehire <br> 7. Number Included in This Valuation | 1 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 1 | 1 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 1 |
| C. DROP Plan Members |  |  |
| 1. Number Included in Last Valuation <br> 2. Addition from Active Members <br> 3. Retirements <br> 4. Deaths Resulting in No Further Payments <br> 5. Other <br> 6. Number Included in This Valuation | $\begin{array}{r}35 \\ 1 \\ (10) \\ 0 \\ 0 \\ \hline 26\end{array}$ | $\begin{array}{r} 35 \\ 4 \\ (4) \\ 0 \\ 0 \\ \hline 35 \end{array}$ |
| D. Service Retirees, Disability Retirees and Beneficiaries |  |  |
| 1. Number Included in Last Valuation <br> 2. Additions from Active Members <br> 3. Additions from DROP <br> 4. Additions from Terminated Vested Members <br> 5. Deaths Resulting in No Further Payments <br> 6. Deaths Resulting in New Survivor Benefits <br> 7. End of Certain Period - No Further Payments <br> 8. Other <br> 9. Number Included in This Valuation | $\begin{array}{r} 95 \\ 1 \\ 10 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ \hline 106 \\ \hline \hline \end{array}$ | $\begin{array}{r} 91 \\ 0 \\ 4 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ \hline 95 \\ \hline \hline \end{array}$ |

## ACTIVE MEMBERS AS OF OCTOBER 1, 2014

| Years of Service to Valuation Date |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Group | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-9 | 10-14 | 15-19 | 20-24 | 25 \& Up | Totals |
| 20-24 NO | 1 | - | 1 | - | - | - | - | - | - | - | 2 |
| TOT PAY | 62,970 | - | 67,605 | - | - | - | - | - | - | - | 130,575 |
| AVG PAY | 62,970 | - | 67,605 | - | - | - | - | - | - | - | 65,287 |
| 25-29 NO | 6 | 2 | 5 | 2 | - | - | - | - | - | - | 15 |
| TOT PAY | 373,217 | 131,680 | 367,537 | 155,166 | - | - | - | - | - | - | 1,027,600 |
| AVG PAY | 62,203 | 65,840 | 73,507 | 77,583 | - | - | - | - | - | - | 68,507 |
| 30-34 NO | 3 | - | 2 | - | - | 19 | 2 | - | - | - | 26 |
| TOT PAY | 185,841 | - | 146,206 | - | - | 1,599,187 | 203,916 | - | - | - | 2,135,150 |
| AVG PAY | 61,947 | - | 73,103 | - | - | 84,168 | 101,958 | - | - | - | 82,121 |
| 35-39 NO | 1 | 1 | 1 | 1 | - | 11 | 19 | 2 | - | - | 36 |
| TOT PAY | 61,435 | 64,920 | 81,091 | 71,862 | - | 929,759 | 1,964,724 | 270,240 | - | - | 3,444,031 |
| AVG PAY | 61,435 | 64,920 | 81,091 | 71,862 | - | 84,524 | 103,407 | 135,120 | - | - | 95,668 |
| 40-44 NO | - | 1 | 2 | - | - | 5 | 15 | 18 | 1 | - | 42 |
| TOT PAY | - | 62,421 | 183,905 | - | - | 441,448 | 1,532,121 | 1,922,206 | 150,733 | - | 4,292,834 |
| AVG PAY | - | 62,421 | 91,952 | - | - | 88,290 | 102,141 | 106,789 | 150,733 | - | 102,210 |
| 45-49 NO | - | - | - | - | - | 2 | 5 | 10 | 4 | - | 21 |
| TOT PAY | - | - | - | - | - | 176,295 | 468,253 | 1,035,218 | 426,161 | - | 2,105,927 |
| AVG PAY | - | - | - | - | - | 88,148 | 93,651 | 103,522 | 106,540 | - | 100,282 |
| 50-54 NO | - | - | - | - | - | - | 2 | - | - | - | 2 |
| TOT PAY | - | - | - | - | - | - | 202,282 | - | - | - | 202,282 |
| AVG PAY | - | - | - | - | - | - | 101,141 | - | - | - | 101,141 |
| 55-59 NO | - | - | - | - | - | - | - | - | - | - | - |
| TOT PAY | - | - | - | - | - | - | - | - | - | - | - |
| AVG PAY | - | - | - | - | - | - | - | - | - | - | - |
| 60-64 NO | - | - | - | - | - | 1 | - | - | - | - | 1 |
| TOT PAY | - | - | - | - | - | 86,639 | - | - | - | - | 86,639 |
| AVG PAY | - | - | - | - | - | 86,639 | - | - | - | - | - |
| 65 \& Up NO | - | - | - | - | - | - | - | - | - | - | - |
| TOT PAY | - | - | - | - | - | - | - | - | - | - | - |
| AVG PAY | - | - | - | - | - | - | - | - | - | - | - |
| TOT NO | 11 | 4 | 11 | 3 | - | 38 | 43 | 30 | 5 | - | 145 |
| TOT AMT | 683,464 | 259,021 | 846,344 | 227,028 | - | 3,233,328 | 4,371,296 | 3,227,664 | 576,894 | - | 13,425,039 |
| AVG AMT | 62,133 | 64,755 | 76,940 | 75,676 | - | 85,088 | 101,658 | 107,589 | 115,379 | - | 92,586 |

## GRS

## INACTIVE MEMBERS AS OF OCTOBER 1, 2014

| Age | Terminated Vested |  | Disabled |  | Retired* |  | Beneficiaries |  | Grand Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Total Benefits | Number | Total Benefits | Number | Total Benefits | Number | Total Benefits | Number | Total Benefits |
| Under 20 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 20-24 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 25-29 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 30-34 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 35-39 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 40-44 | 0 | - | 5 | 271,756 | 2 | 193,049 | 0 | - | 7 | 464,805 |
| 45-49 | 1 | 30,627 | 0 | - | 21 | 1,665,344 | 0 | - | 22 | 1,695,971 |
| 50-54 | 0 | - | 0 | - | 26 | 1,565,682 | 0 | - | 26 | 1,565,682 |
| 55-59 | 0 | - | 2 | 65,197 | 27 | 1,179,797 | 0 | - | 29 | 1,244,994 |
| 60-64 | 0 | - | 1 | 29,605 | 16 | 784,650 | 0 | - | 17 | 814,255 |
| 65-69 | 0 | - | 1 | 43,138 | 17 | 531,492 | 0 | - | 18 | 574,630 |
| 70-74 | 0 | - | 0 | - | 9 | 234,491 | 1 | 16,353 | 10 | 250,844 |
| 75-79 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 80-84 | 0 | - | 0 | - | 1 | 18,566 | 3 | 39,321 | 4 | 57,887 |
| 85-89 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 90-94 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 95-99 | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| 100 \& Over | 0 | - | 0 | - | 0 | - | 0 | - | 0 | 0 |
| Total | 1 | 30,627 | 9 | 409,696 | 119 | 6,173,071 | 4 | 55,674 | 133 | 6,669,068 |
| Average Age |  | 45 |  | 51 |  | 57 |  | 80 |  | 57 |

* Does not include deferred supplemental benefits for DROP members.


## GRS

## SECTION F

SUMMARY OF PLAN PROVISION

GRS

## SUMMARY OF PLAN PROVISIONS

## A. Ordinances

The Plan was established under the Code of Ordinances for the City of Sunrise, Florida, Chapter 11, Article II, and was most recently amended under Ordinance No. 124-X-11-A passed and adopted on its second reading on August 9, 2011. The Plan is also governed by certain provisions of Chapter 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

## B. Effective Date

July 1, 1972
C. Plan Year

October 1 through September 30
D. Type of Plan

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

## E. Eligibility Requirements

All full-time police officers participate as a condition of employment. The police chief may elect not to participate.

## F. Credited Service

Years and completed months of full-time service with the City during which time prescribed employee contributions are made. Under certain conditions, military service is includable. No service is credited for any periods of employment for which the member received a refund of their contributions.

## G. Compensation

Compensation is the total actual fixed cash compensation including overtime, holiday and other payroll cash incentives and general monthly expense allowances, but excluding lump sum payouts of accrued benefits upon termination of employment, auto and uniform allowances, travel reimbursements and special detail pay. Effective August 9, 2011, overtime pay for hours earned after August 9, 2011 in excess of 300 hours of overtime per year is not included.

## H. Final Average Compensation (FAC)

The average of Compensation over the highest 3 years of Credited Service.

## I. Normal Retirement

Eligibility: A member may retire on the first day of the month coincident with or next following the earlier of:
(1) age 53 and 10 years of Credited Service, or
(2) 20 years of Credited Service regardless of age.

Benefit: (a) $3.0 \%$ of FAC for each of the first 10 years of Credited Service, plus $4.0 \%$ of FAC for the next 10 years of Credited Service, plus $2.0 \%$ of FAC for each year of Credited Service thereafter; subject to a maximum benefit equal to $80 \%$ of FAC.
(b) Any Police Officer who was actively employed on October 1, 2003, and retires or enters the DROP on or after January 1, 2006 will receive the greater of (a) above and:
4.0\% of FAC for each of first 10 years of Credited Service, plus $2.0 \%$ of FAC for each year thereafter. $2.0 \%$ of FAC will be added to the total percentage for officers who were vested as of January 1, 2006. An additional 2.0\% of FAC will be added to the total percentage for officers who are actively employed until age 53 with 10 or more years of Credited Service.
(c) In addition, police officers who terminate and begin receiving Early or Normal Retirement Benefits will receive a monthly supplemental benefit payable for life and ceasing upon the retiree's death according to the following table:

| Termination or <br> DROP Exit Date | Until Age 65 | Age 65 and later |
| :---: | :---: | :---: |
|  | $\$ / 14 / 01-12 / 31 / 05$ | $\$ 10.00$ * Service ( $\max \$ 200)$ |
| $1 / 1 / 06-9 / 30 / 07$ | $\$ 16.25$ * Service $(\max \$ 325)$ | $\$ 10.05^{*}$ Service ( $\left.\max \$ 125\right)$ |
| On or after $10 / 1 / 07$ | $\$ 25.00^{*}$ Service $(\max \$ 200)$ |  |

Normal Form of Benefit:

10 Years Certain and Life thereafter; other options are also available.
COLA: Cost of living increases are paid according to the following table:

| Termination or <br> DROP Entry Date | Annual <br> COLA $^{\mathbf{1}}$ | COLA Start Date |
| :---: | :---: | :--- |$|$| Cefore $1 / 1 / 06$ | $0.0 \%$ | No COLA is payable |
| :---: | :---: | :--- |
| $1 / 1 / 06-9 / 30 / 08$ | $2.0 \%$ | Fifth anniversary of the commencement date |
| On or after $10 / 1 / 08$ | $2.5 \%$ | Fifth anniversary of the commencement date |

${ }^{1}$ The COLA is payable for the lifetime of the retiree and continues to the retiree's survivor upon the retiree's death.

## J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 47 and 10 years of Credited Service.

Benefit: The Normal Retirement Benefit is reduced by $3.0 \%$ for each year by which the Early Retirement date precedes the Normal Retirement date. In addition, police officers who terminate and begin receiving Early Retirement Benefits will receive the monthly supplemental benefit.

Normal Form
of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: None

## K. Delayed Retirement

Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.

## L. Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit: The disability benefit is equal to $75 \%$ of the member's salary in effect on the date of disability subject to the offsets described below. However, the offsets shall not reduce the benefit below the greater of the member's accrued benefit or $42 \%$ of the member's FAC.

Offsets:
To determine whether there will be an offset against the disability benefit, the first step is to add the following four items for a particular year.

1. Service incurred disability benefit paid from the plan
2. Workers' compensation disability benefit
3. Any salary received in excess of $\$ 50,000$ as evidenced by federal tax returns
4. Any net earnings from self-employment in excess of $\$ 50,000$

If the sum of these four items is greater than the pre-disability salary, the service disability benefit shall be reduced. The annual reduction shall be equal to $50 \%$ of the first $\$ 50,000$ of excess plus $100 \%$ of the remaining excess, if any.

Normal Form
of Benefit: Payable until death or recovery from disability or until the member reaches Early or Normal Retirement Age and elects to receive Early or Normal Retirement Benefits in lieu of disability benefits. Other options are also available.

COLA: None

## M. Non-Service Connected Disability

Eligibility: Any member with 10 years of Credited Service who becomes totally and permanently disabled is immediately eligible for a disability benefit.

Benefit: The accrued Normal Retirement Benefit with a minimum equal to 25\% of FAC and a maximum equal to $50 \%$ of FAC. If employed by the City on or after September 13,2004 the $50 \%$ of FAC maximum is ignored.

Normal Form
of Benefit: Payable until death or recovery from disability or until the member reaches Early or Normal Retirement Age and elects to receive Early or Normal Retirement Benefits in lieu of disability benefits. Other options are also available.

COLA: None

## N. Death in the Line of Duty

Eligibility: Any member whose death is determined to be the result of a service incurred injury is eligible for survivor benefits regardless of Credited Service.

Benefit: Beneficiary will receive a benefit equal to the greater of $75 \%$ of the member's FAC or the accrued Normal Retirement Benefit.

Normal Form
of Benefit: Payable for the life of beneficiary, or if no designated beneficiary, payable for 10 years to the member's estate.

COLA: None

## O. Other Pre-Retirement Death

Eligibility: Members are eligible for survivor benefits after the completion of 10 or more years of Credited Service.

Benefit: The beneficiary shall be entitled to receive an amount equal to the benefit that would have been payable at early or normal retirement age based upon Credited Service and FAC on the date of death, but payable as if the member had died on the day after commencement of benefits. Benefits will be paid according to the member's written election of an optional form of payment and begin on the member's early or normal retirement date. If there is no designated beneficiary, benefits are paid to the member's estate.

Normal Form
of Benefit: Payable according to the option elected or, if there was no option elected, 10 years.
COLA: None
The beneficiary of a plan member with less than 10 years of Credited Service at the time of death will receive a refund of the member's regular contributions without interest.

## P. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.

## Q. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are the life annuity and the $50 \%, 662 / 3 \%, 75 \%$ and $100 \%$ Joint and Survivor options with or without the pop-up feature.

## R. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit. Benefit begins on the date that would have been the member's Normal Retirement date based on Credited Service at termination. Members can also elect a reduced Early Retirement Benefit any time after age 47.

Normal Form
of Benefit: 10 Years Certain and Life thereafter; other options are also available.
COLA: $\quad$ Cost of living increases are paid according to the following table:

| Termination or <br> DROP Entry Date | Annual <br> COLA $^{\mathbf{1}}$ | COLA Start Date |
| :---: | :---: | :--- |
| Before $1 / 1 / 06$ | $0.0 \%$ | No COLA is payable |
| $1 / 1 / 06-9 / 30 / 08$ | $2.0 \%$ | Fifth anniversary of the commencement date |
| On or after $10 / 1 / 08$ | $2.5 \%$ | Fifth anniversary of the commencement date |

${ }^{1}$ The COLA is payable for the lifetime of the retiree and continues to the retiree's survivor
upon the retiree's death.

## S. Refunds

Eligibility: All members terminating employment with less than 10 years of Credited Service are eligible.

Benefit: Refund of the member's contributions without interest.

## T. Member Contributions

9.84\% of Compensation

## U. State Contributions

Chapter 185 Premium Tax Refunds.

## V. Employer Contributions

Any additional amount determined by the actuary needed to fund the plan properly according to State laws.

## W. Cost of Living Increases

Cost of living increases are payable on Normal Retirement Benefits only, whether paid directly or through the DROP, and are paid according to the following table:

| Termination or <br> DROP Entry Date | Annual <br> COLA $^{\mathbf{1}}$ | COLA Start Date |
| :---: | :---: | :--- |$|$| Before 1/1/06 | $0.0 \%$ | No COLA is payable |
| :---: | :---: | :---: |
| $1 / 1 / 06-9 / 30 / 08$ | $2.0 \%$ | Fifth anniversary of the commencement date |
| On or after 10/1/08 | Fifth anniversary of the commencement <br> date |  |

${ }^{1}$ The COLA is payable for the lifetime of the retiree and continues to the retiree's survivor upon the retiree's death.
${ }^{2}$ For DROP members, the COLA will start on the later of the fifth anniversary of the commencement date or the first of the month following termination of employment and will continue annually on the anniversary of that date.

## X. $13^{\text {th }} / 14^{\text {th }}$ Check

A $13^{\text {th }}$ and/or $14^{\text {th }}$ Check may be payable during years in which there is a net actuarial gain and cumulative gains since October 1, 2000. Members who terminated employment with immediate eligibility for early or normal retirement on or after August 14, 2001 and retired before December 13,2004 are eligible for the $13^{\text {th }}$ or $14^{\text {th }}$ Check.

## Y. Deferred Retirement Option Plan

Eligibility: Plan members who have met one of the following criteria are eligible for the DROP:
(1) age 53 with 10 years of Credited Service, or
(2) 20 years of Credited Service regardless of age.

Members who meet eligibility must submit a written election to participate in the DROP.

Benefit: The member's Credited Service and FAC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and FAC. The monthly supplemental benefit is payable once DROP participation ends.

Maximum
DROP Period: 84 months; for DROP members as of August 9, 2011 who did not elect to extend the maximum DROP participation period, 72 months.

Interest
Credited: For members who enter the DROP on or after August 9, 2011, the member's DROP account is credited at a fixed rate of $6 \%$ per year. If the member elects a selfdirected DROP, the investment return is determined by the self-directed investments. For DROP members as of August 9, 2011 who did not elect to extend the maximum period of DROP participation from 72 months to 84 months, the member's DROP account is credited at the same interest rate, compounded monthly, as the investment earnings assumption for the Pension Plan.

Normal Form
of Benefit: Lump Sum, Direct Rollover, or Partial Lump Sum with a Direct Rollover of remaining balance.

COLA: Cost of living increases are paid to DROP participants according to the following table:

| Termination or <br> DROP Entry Date | Annual <br> COLA $^{\mathbf{1}}$ | COLA Start Date |
| :---: | :---: | :--- |$|$| Before 1/1/06 | $0.0 \%$ | No COLA is payable |
| :---: | :---: | :---: |
| $1 / 1 / 06-9 / 30 / 08$ | $2.0 \%$ | Fifth anniversary of the commencement date |
| On or after 10/1/08 | $2.5 \%$ | Fifth anniversary of the commencement <br> date $^{2}$ |

${ }^{1}$ The COLA is payable for the lifetime of the retiree and continues to the retiree's survivor upon the retiree's death.
${ }^{2}$ For DROP members, the COLA will start on the later of the fifth anniversary of the commencement date or the first of the month following termination of employment and will continue annually on the anniversary of that date.

## Z. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Sunrise Police Officers' Retirement System liability if continued beyond the availability of funding by the current funding source.

## AA. Changes from Previous Valuation

None


[^0]:    * Does not include deferred supplemental benefits for DROP members.

[^1]:    *These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

