# Retirement Plan for the Firefighters <br> Of the Southern Manatee Fire \& Rescue District 

Actuarial Valuation<br>As of October l, 2013

Determines the Contribution<br>For the 2013/14 Fiscal $Y_{\text {Ear }}$

Discussion 1

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January 2, 2014

## Introduction

This report presents the results of the October 1, 2013 actuarial valuation for the Retirement Plan for the Firefighters of the Southern Manatee Fire \& Rescue District. The report is based on the participant data and asset information provided by the pension plan administrator and, except for a cursory review for reasonableness including a comparison to the data provided for the previous valuation, we have not attempted to verify the accuracy of this information.

The primary purpose of this report is to provide a summary of the funded status of the plan as of October 1, 2013 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2013/14 plan year. In addition, this report provides a projection of the long-term funding requirements of the plan, accounting disclosures pursuant to Governmental Accounting Standards Board Statement Nos. 25 and 27 (GASB 25/27), statistical information concerning the assets held in the trust, statistical information concerning the participant population, and a summary of any recent plan changes.

The liabilities and cost presented in this report are based on numerous assumptions concerning the cost of benefits to be provided in the future, long-term investment returns, and the future demographic experience of the current participants. Anyone referring to this report should remember that the cost developed herein is only an estimate of the true cost of providing post-employment pension benefits. No one can predict with certainty whether the true cost will be higher or lower than the cost presented in this report. The calculated cost is entirely dependent upon the assumptions that are described in Table V-A. If any of the assumptions is changed, then the cost shown in this report will change accordingly. Likewise, if any of the assumptions is not completely realized, then the cost shown in this report will change in the future.

Certain assumptions play a bigger role than others in determining the cost of the post-employment pension benefits. In some cases, relatively small changes in a particular assumption can have a dramatic impact on the anticipated cost of benefits. Although a thorough analysis of the impact of such changes is beyond the scope of this report, Table I-B illustrates the impact that alternative long-term investment retums would have on the normal cost rate.

## Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the 2013/14 plan year. The minimum required contribution rate is $42.54 \%$ of covered payroll, which represents an increase of $0.82 \%$ of payroll from the prior valuation.

The normal cost rate is $41.08 \%$, which is $0.89 \%$ of payroll greater than the normal cost rate that was developed in the prior valuation. Table I-C provides a breakdown of the sources of change in the normal cost rate. Significantly, the rate decreased by $2.51 \%$ of payroll due to investment gains, decreased by another $2.00 \%$ of payroll due to demographic experience, and increased by $5.40 \%$ of payroll due to the assumption changes that are described below.

The market value of assets earned $11.92 \%$ during the 2012/13 plan year, whereas a $7.50 \%$ annual investment return was required to maintain a stable contribution rate. The demographic gain occurred primarily because salaries increased less than expected.

Chapter 112, Florida Statutes, sets forth the rules concerning the minimum required contribution for public pension plans within the state. Essentially, the District must contribute an amount equal to the annual normal cost of the plan plus an adjustment as necessary to reflect interest on any delayed payment of the contribution beyond the valuation date. On this basis, the District's 2013/14 minimum required contribution will be equal to $42.54 \%$ multiplied by the total pensionable earnings for the 2013/14 plan year for the active employees who are covered by the plan and reduced by the portion of the Chapter 175/185 contribution that is allowed to be recognized during the 2013/14 plan year. As of the date of this report, the allowable portion of the Chapter $175 / 185$ contribution is $\$ 438,971$ per year. However, this amount is subject to change depending on the amount of the Chapter 175/185 contribution for the 2013/14 plan year and whether additional qualifying benefit improvements have been adopted at that time. Furthermore, if an actuarial valuation is not prepared as of October 1, 2014, then the $42.54 \%$ contribution rate should also be applied to the covered payroll for the 2014/15 fiscal year and offset by the allowable Chapter 175/185 contribution in order to determine the minimum required contribution for that year.

Based on the current assets, participant data, and actuarial assumptions and methods that are used to value the plan, the present-day value of the total long-term funding requirement is $\$ 35,160,483$. As illustrated in Table I-A, current assets are sufficient to cover $\$ 21,754,439$ of this amount, the employer's $2013 / 14$ expected contribution will cover $\$ 1,649,205$ of this amount, and future employee contributions are expected to cover \$1,052,567 of this amount, leaving $\$ 10,704,272$ to be covered by future employer funding beyond the 2013/14 fiscal year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

## Advance Employer Contribution

The District has made contributions to the plan in excess of the minimum amount that was required to be contributed pursuant to Chapter 112. In this report, the excess contributions are referred to as an "advance employer contribution." As of October 1, 2013, the advance employer contribution is $\$ 522,705$, which reflects the advance employer contribution of $\$ 137,052$ as of October 1,2012 plus $\$ 385,653$ that was contributed in excess of the minimum funding requirement for the 2012/13 plan year as shown in Table III-F.

The District may apply all or any portion of the advance employer contribution towards the minimum required contribution for the 2013/14 plan year or for any later plan year. The minimum required contribution for that plan year will be reduced dollar-for-dollar by the amount of the advance employer contribution that is applied in this manner.

Alternatively, at any time, the District may apply all or any portion of the advance employer contribution as an extra contribution in excess of the minimum required contribution. In this case, the immediate application of the entire balance of the advance employer contribution as of October 1, 2013 would reduce the normal cost rate to $39.34 \%$ of payroll and would reduce the minimum required contribution for the 2013/14 plan year to $40.74 \%$ of payroll.

## Excess Chapter 175/185 Contributions

As of October 1, 2013, the plan has accumulated excess Chapter 175/185 contributions of $\$ 24,479$ as shown in Table III-F. This amount is equal to the accumulated excess Chapter 175/185 contribution balance as of October 1, 2012. The total Chapter $175 / 185$ distribution received during the $2012 / 13$ plan year was $\$ 408,775$, all of which was allowed to be used to offset the District's minimum required contribution. This amount consisted of a $\$ 304,728$ regular distribution plus a $\$ 104,047$ supplemental distribution. The accumulated excess Chapter 175/185 contributions cannot be used to pay for the current plan of benefits. Instead, the excess contributions may only be used to pay for qualifying benefit improvements in excess of the Chapter 175/185 minimum benefits. Tables III-G and III-H provide a history of the Chapter $175 / 185$ contributions and the portion that is allowed to be recognized.

## Contents of the Report

Tables I-D through I-G provide a detailed breakdown of various liability amounts by type of benefit and by participant group. Tables II-A through II-C provide information needed by both the plan's and the employer's accountants in order to prepare the relevant financial statements that cover the period October 1, 2013 through September 30, 2014. Tables III-A through III-F provide information concerning the assets of the trust fund. Tables IV-A through IV-G provide statistical information concerning the plan's participant population. In particular, Table IV-G gives a 10-year projection of the cash that is expected to be required from the trust fund in order to pay benefits to the current group of participants. Finally, Tables V-A through VI-B provide a summary of the actuarial assumptions and methods that are used to value the plan's benefits and of the relevant plan provisions as of October 1, 2013, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

## Assumption Changes

Since the previous valuation was prepared, three assumptions have been changed. First, the assumed interest rate was decreased from $7.50 \%$ per annum to $7.00 \%$ per annum. Second, the assumed future salary increase was decreased from a range of rates based on service to a flat $4.50 \%$ per year. Finally, the mortality basis was changed from the RP-2000 Mortality Table, projected to 2007 by Scale AA, to the RP-2000 Mortality Table, projected to 2015 by Scale AA, both as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430. The combined effect of these assumption changes was to increase the normal cost rate by $5.40 \%$ of payroll.

## Refund of Participant Contributions

It is our understanding that there are 24 participants who are due a refund of their contributions. We have estimated the accumulated amount of their refunds to be $\$ 8,784$ as of October 1, 2013. The average amount owed to these individuals is only $\$ 366$. If possible, we recommend that the accumulated contributions be distributed to these individuals in order to simplify the administration of the plan and to reduce future administrative costs.

## Certification

This actuarial valuation was prepared 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 and, in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Chapter 112, Florida Statutes. 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 change in plan costs or required contribution rates have been taken into account in the valuation.

For the firm,


Charles T. Carr

## Consulting Actuary

Southern Actuarial Services Company, Inc.
Enrolled Actuary No. 11-04927

The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Minimum Required Contribution


For the 2013/14 Plan Year

| Present Value of Future Benefits | $\$ 34,812,359$ |
| ---: | ---: |
| Present Value of Future Administrative Expenses | $\$ 348,124$ |
| Actuarial Value of Assets | $(\$ 21,754,439)$ |
| Present Value of Future Employee Contributions | $(\$ 1,052,567)$ |
| Present Value of Future Normal Costs | $\$ 12,353,477$ |
|  |  |
| Present Value of Future Payroll | $\div \$ 30,073,294$ |
| Normal Cost Rate | $=41,0779 \%$ |
| Expected Payroll | $x \$ 3,876,548$ |

Normal Cost \$1,592,404
Adjustment to Reflect Semi-Monthly Employer Contributions $\$ 56,801$
Preliminary Employer Contribution for the 2013/14 Plan Year $\$ 1,649,205$
Expected Payroll for the 2013/14 Plan Year $\div \$ 3,876,548$
Minimum Required Contribution Rate $\square 42.54 \%$ *
(The actual contribution should be based on the minimum required contribution rate multiplied by the actual payroll for the year.)
*The minimum required contribution rate includes both the District contribution and the allowable Chapter 175 contribution. The actual District contribution rate is expected to be approximately $32.00 \%$. For comparison purposes, the actual District contribution rate for the 2012/13 plan year was 31.20\%.


The line above illustrates the sensitivity of the normal cost rate to changes in the long-term investment return.

## Gain and Loss Analysis

Previous normal cost rate ..... 40.19\%
Increase (decrease) due to investment gains and losses ..... $-2.51 \%$
Increase (decrease) due to demographic experience ..... -2.00\%
Increase (decrease) due to plan amendments ..... 0.00\%
Increase (decrease) due to actuarial assumption changes ..... 5.40\%
Increase (decrease) due to actuarial method changes ..... 0.00\%
Current normal cost rate ..... 41.08\%

## Present Value of Future Benefits

Old Assumptions<br>w/o Amendment

$$
\begin{array}{r}
\$ 22,010,413 \\
\$ 1,268,987 \\
\$ 1,149,070 \\
\$ 276,279 \\
\$ 33,913 \\
\$ 24,738,662
\end{array}
$$

Old Assumptions w/ Amendment

New Assumptions w/ Amendment

## Deferred Vested Participants

Retirement benefits
Termination benefits
Disability benefits Death benefits
Refund of employee contributions Sub-total

Due a Refund of Contributions \$31,710 \$31,710 \$37,502
\$0
\$22,512,245
\$22,010,413
\$1,268,987 \$1,400,620 \$1,149,070 \$1,187,604 \$276,279 \$256,111 \$33,913
\$24,738,662 \$33,985 \$25,390,565

Deferred Beneficiaries
Retired Participants
Service retirement
Disability retirements

Beneficiaries receiving
DROP participants Sub-total

Grand Total

Present Value of Future Payroll
Present Value of Future Employee Contribs.
Present Value of Future Employer Contribs.

| $\$ 31,066,891$ | $\$ 31,066,891$ | $\$ 30,073,294$ |
| ---: | ---: | ---: |
| $\$ 1,087,347$ | $\$ 1,087,347$ | $\$ 1,052,567$ |
| $\$ 11,084,686$ | $\$ 11,084,686$ | $\$ 12,353,477$ |

## Present Value of Accrued Benefits

Old Assumptions w/o Amendment

Deferred Vested Participants
Retirement benefits
Termination benefits
Disability benefits Death benefits
Refund of employee contributions
Sub-total

Due a Refund of Contributions
Actively Employed Participants
Retirement benefits
Termination benefits
Disability benefits
Death benefits
Refund of employee contributions
Sub-total


Old Assumptions w/ Amendment

New Assumptions
w/ Amendment

$$
\$ 9,280,419
$$

$$
\$ 745,127
$$

$$
\$ 669,877
$$

$$
\$ 180,566
$$

$$
\$ 28,899
$$

$$
\$ 10,904,888
$$

\$10,179,558 \$853,220 \$727,547 \$176,559
\$29,006
\$11,965,890

Deferred Beneficiaries


$\$ 0$

\$0
\$31,710
\$8,784
\$0
Retired Participants
Service retirements
Disability retirements

## Beneficiaries receiving

 DROP participants Sub-totalGrand Total
\$4,457,607
\$1,818,434

\$2,535,369
\$8,811,410
\$19,756,792
\$4,457,607
\$1,818,434
\$4,739,920
\$0
\$37,502
\$31,710
\$0

## \$0

\$0
\$31,710
\$8,784
\$8,784
\$0

## Present Value of Vested Benefits

Old Assumptions
w/o Amendment

Old Assumptions w/ Amendment<br>New Assumptions w/ Amendment

Actively Employed Participants
Retirement benefits
Termination benefits
Disability benefits
Death benefits
Refund of employee contributions
Sub-total

Deferred Vested Participants
Retirement benefits
\$31,710
Termination benefits
Disability benefits
Death benefits
Refund of employee contributions Sub-total

Due a Refund of Contributions

Deferred Beneficiaries
\$8,335,577
\$578,503
\$669,877
\$180,566
\$62,566
\$9,827,089
\$0
\$0
\$31,710
\$8,784
\$0
\$8,335,577
\$578,503
\$669,877
\$180,566
\$62,566
\$9,827,089
\$31,710
\$37,502
\$0
\$0
\$0
$\$ 0$
\$31,710
\$8,784
\$0
\$4,457,607
\$4,739,920
\$1,818,434
\$1,930,794
\$0
\$0
\$2,535,369
\$8,811,410
\$18,678,993
\$2,535,369
\$2,704,794
\$8,811,410
\$9,375,508
\$4,457,607
\$0
\$1,818,434
$\$ 0$
\$18,678,993
\$20,194,230

Grand Total
Retired Participants
Service retirements
Disability retirements
Beneficiaries receiving
DROP participants
Sub-total
,
(18,678,993

## Entry Age Normal Accrued Liability

Old Assumptions w/o Amendment

Old Assumptions w/ Amendment
Actively Employed Participants
Retirement benefits
Termination benefits
Disability benefits
Death benefits
Sub-total
Defund of employee contributions
Sested Participants

Retirement benefits
Termination benefits
Disability benefits Death benefits
Refund of employee contributions Sub-total

Due a Refund of Contributions

Deferred Beneficiaries

Retired Participants Service retirements
Disability retirements
Beneficiaries receiving
DROP participants Sub-total

Grand Total

$$
\begin{array}{r}
\$ 15,192,050 \\
\$ 964,179 \\
\$ 843,213 \\
\$ 205,938 \\
\$ 30,013 \\
\$ 17,235,393
\end{array}
$$

| $\$ 15,192,050$ | $\$ 15,614,146$ |
| ---: | ---: |
| $\$ 964,179$ | $\$ 1,067,419$ |
| $\$ 843,213$ | $\$ 875,129$ |
| $\$ 205,938$ | $\$ 192,024$ |
| $\$ 30,013$ | $\$ 30,071$ |
| $\$ 17,235,393$ | $\$ 17,778,789$ |

New Assumptions w/ Amendment
\$37,502
\$0

## \$0

\$0
\$0
\$31,710
\$8,784
\$8,784
\$0

| $\$ 4,457,607$ | $\$ 4,739,920$ |
| ---: | ---: |
| $\$ 1,818,434$ | $\$ 1,930,794$ |
| $\$ 0$ | $\$ 0$ |
| $\$ 2,535,369$ | $\$ 2,704,794$ |
| $\$ 8,811,410$ | $\$ 9,375,508$ |

\$26,087,297
\$26,087,297
$\$ 27,200,583$

## GASB 25/27 Results

## Development of the Net Pension Obligation (Asset)

Net Pension Obligation (Asset) as of October 1, 2012

Annual Pension Cost for the 2012/13 Plan Year
Employer Contributions for the 2012/13 Plan Year Net Increase (Decrease) in NPO

Net Pension Obligation (Asset) as of October 1, 2013

## Development of the Annual Required Contribution (ARC)

| $\$ 1,592,404$ |
| ---: |
| $\$ 4,846$ |
| $(\$ 4,846)$ |
| $\$ 56,801$ |
| $\$ 1,649,205$ |

Development of the Annual Pension Cost (APC) Annual Required Contribution (ARC) Interest on the Net Pension Obligation (Asset)
Adjustment to the ARC Annual Pension Cost (APC)
\$1,649,205
\$4,846
\$1,649,547

For the 2013/14 Plan Year

Schedule of Employer Contributions

|  | Annual <br> Required | $\%$ | Annual <br> Year Ended <br> September 30 |  |
| :---: | :---: | :---: | :---: | :---: |
| Contribution | $\underline{\text { Contrib. }}$ | $\underline{\text { Cost }}$ | $\%$ |  |
| 2008 | $\$ 1,206,262$ | $100 \%$ | $\$ 1,206,262$ | $\underline{\text { Contrib. }}$ |
| 2009 | $\$ 1,298,683$ | $100 \%$ | $\$ 1,298,683$ | $100 \%$ |
| 2011 | $\$ 1,901,704$ | $107 \%$ | $\$ 1,901,704$ | $107 \%$ |
| 2012 | $\$ 1,925,213$ | $97 \%$ | $\$ 1,925,730$ | $97 \%$ |
| 2013 | $\$ 1,851,672$ | $101 \%$ | $\$ 1,851,955$ | $101 \%$ |
|  | $\$ 1,644,744$ | $99 \%$ | $\$ 1,645,075$ | $99 \%$ |

Schedule of Funding Progress

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actuarial |  |  |  | UAAL |
| Actuarial | Actuarial | Accrued | Unfunded |  |  | as \% of |
| Valuation | Value of | Liability * | AAL | Funded | Covered | Covered |
| Date | Assets | (AAL) | (UAAL) | Ratio | Payroll | Payroll |
|  |  |  | (2) - (1) | (1) $\div$ (2) |  | (3) $\div(5)$ |
| Not Applicable | N/A | N/A | N/A | N/A | N/A | N/A |
| October 1, 2009 | \$9,778,891 | \$17,500,195 | \$7,721,304 | 55.88\% | \$4,126,922 | 187.10\% |
| October 1, 2010 | \$12,806,292 | \$20,126,718 | \$7,320,426 | 63.63\% | \$4,315,692 | 169.62\% |
| October 1, 2011 | \$14,407,208 | \$22,231,328 | \$7,824,120 | 64.81\% | \$3,954,450 | 197.86\% |
| October 1, 2012 | \$18,425,606 | \$24,417,932 | \$5,992,326 | 75.46\% | \$3,942,166 | 152.01\% |
| October 1, 2013 | \$21,754,439 | \$27,200,583 | \$5,446,144 | 79.98\% | \$3,876,548 | 140.49\% |

*The AAL has been calculated under the entry age normal cost method.

## Additional Information

Valuation Date October 1, 2013
Actuarial Cost Method Aggregate
Amortization Method Level dollar, open
Remaining Amortization Period 30 years
Asset Valuation Method Market value
Discount Rate 7.00\%
Salary Increase Rate 4.50\%

## SFAS 35 Disclosures

## Actuarial Present Value of Accrued Benefits

As of October 1, 2012
As of October 1, 2013

| Vested Benefits |  |  |
| :---: | :---: | :---: |
| Participants currently receiving benefits | \$8,865,143 | \$9,375,508 |
| Other participants | \$8,489,702 | \$10,818,722 |
| Sub-total | \$17,354,845 | \$20,194,230 |
| Non-Vested Benefits | \$949,619 | \$1,193,454 |
| Total Benefits | \$18,304,464 | \$21,387,684 |
| Funded Percentage | 101.41\% | 104.16\% |

## Statement of Change in Actuarial Present Value of Accrued Benefits

$$
\begin{array}{rr}
\begin{array}{r}
\text { Actuarial Present Value as of October 1, 2012 } \\
\text { Increase (Decrease) Due To: } \\
\text { Interest }
\end{array} & \$ 18,304,464 \\
\text { Benefits accumulated } & \\
\text { Benefits paid } & \$ 1,372,835 \\
\text { Plan amendments } & \$ 1,122,540 \\
(\$ 1,043,047) \\
\$ 0 \\
\text { Changes in actuarial methods and assumptions } & \$ 1,630,892 \\
\text { Net increase (decrease) } & \$ 3,083,220 \\
\text { Actuarial Present Value as of October 1, 2013 } & \mathbf{\$ 2 1 , 3 8 7 , 6 8 4} \\
\hline \hline
\end{array}
$$

## Actuarial Value of Assets

\$22,836,219

Minus DROP account balances
Minus advance employer contributions
Minus excess Chapter 175/185 contributions

Actuarial Value of Assets as of October 1, 2013
$(\$ 534,596)$
\$21,754,439

## Historical Actuarial Value of Assets

October 1, 2004 N/A
October 1, 2005
\$6,059,486
October 1, 2006
\$7,749,173
October 1, 2007
\$10,178,736
October 1, 2008
\$9,901,143
October 1, 2009
\$9,778,891
October 1, 2010
\$12,806,292
October 1, 2011
\$14,407,208
October 1, 2012
\$18,425,606
October 1, 2013
\$21,754,439

Market Value of Assets

As of October 1, 2013


## Historical Market Value of Assets

October 1, 2004
October 1, 2005
October 1, 2006
October 1, 2007
October 1, 2008
October 1, 2009
October 1, 2010
October 1, 2011
October 1, 2012
October 1, 2013
\$8,603,850 \$11,170,167
\$11,461,484
\$11,531,839
\$14,165,249
\$15,576,823
\$19,409,374
\$22,836,219

Investment Return
Table III-C


|  | Market | Actuarial |  |
| :---: | :---: | :---: | :---: |
| Plan | Value | Value | Assumed |
| Year | Return | Return | Return |
| 2003/04 | N/A | N/A | N/A |
| 2004/05 | N/A | N/A | N/A |
| 2005/06 | 7.38\% | 8.17\% | 7.50\% |
| 2006/07 | 11.80\% | 13.09\% | 7.50\% |
| 2007/08 | -13.08\% | -14.47\% | 7.50\% |
| 2008/09 | 2.81\% | 2.85\% | 7.50\% |
| 2009/10 | 9.34\% | 10.70\% | 7.50\% |
| 2010/11 | 0.68\% | 0.75\% | 7.50\% |
| 2011/12 | 17.18\% | 18.41\% | 7.50\% |
| 2012/13 | 11.92\% | 12.58\% | 7.50\% |
| 8yr. Avg. | 5.62\% | 6.05\% | 7.50\% |

## Asset Reconciliation

Market Value

As of October 1, 2012
Increases Due To:

Employer Contributions
Chapter 175/185 Contributions
Employee Contributions
Service Purchase Contributions
Total Contributions

Interest and Dividends
Realized Gains (Losses)
Unrealized Gains (Losses)
Total Investment Income

Other Income
Total Income

Decreases Due To:

Monthly Benefit Payments
Refund of Employee Contributions
DROP Credits
Total Benefit Payments

Investment Expenses
Administrative Expenses
Advance Employer Contribution
Excess Chapter 175/185 Contribution

Total Expenses

As of October 1, 2013
$(\$ 1,093,415)$
\$22,836,219
(\$1,191,427)
\$0

Income

|  |  |  |  | Service |  | Realized | Unrealized |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plan | Employer | Chapter | Employee | Purchase | Interest/ | Gains / | Gains / | Other |
| Year | Contribs. | Contribs. | Contribs. | Contribs. | Dividends | Losses | Losses | Income |
| 2003/04 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 2004/05 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 2005/06 | \$1,124,133 | \$239,425 | \$127,826 | \$0 | \$0 | \$0 | \$542,188 | \$0 |
| 2006/07 | \$1,054,605 | \$277,689 | \$141,642 | \$76,834 | \$0 | \$0 | \$1,101,297 | \$0 |
| 2007/08 | \$1,342,701 | \$432,471 | \$153,012 | \$40,772 | \$0 | \$0 | -\$1,584,177 | \$0 |
| 2008/09 | \$862,274 | \$463,450 | \$151,515 | \$0 | \$0 | \$0 | \$319,010 | \$0 |
| 2009/10 | \$1,036,007 | \$425,465 | \$154,877 | \$0 | \$0 | \$0 | \$1,146,562 | \$0 |
| 2010/11 | \$1,144,422 | \$398,462 | \$146,195 | \$0 | \$0 | \$0 | \$101,054 | \$0 |
| 2011/12 | \$907,375 | \$429,639 | \$139,372 | \$0 | \$0 | \$0 | \$2,767,695 | \$0 |
| 2012/13 | \$1,598,463 | \$408,775 | \$136,039 | \$0 | \$0 | \$0 | \$2,376,983 | \$0 |

## Expenses

Other Actuarial Adjustments

| Plan | Monthly |  | Admin. | Invest. |
| :---: | :---: | :---: | :---: | :---: |
|  | Benefit | Contrib. |  |  |
| Year | Payments | Refunds | Expenses | Expenses |
| 2003/04 | N/A | N/A | N/A | N/A |
| 2004/05 | N/A | N/A | N/A | N/A |
| 2005/06 | \$34,927 | \$4,150 | \$19,036 | \$0 |
| 2006/07 | \$57,191 | \$1,123 | \$27,436 | \$0 |
| 2007/08 | \$57,191 | \$3,441 | \$32,830 | \$0 |
| 2008/09 | \$1,685,869 | \$10,590 | \$29,435 | \$0 |
| 2009/10 | \$86,037 | \$425 | \$43,039 | \$0 |
| 2010/11 | \$326,691 | \$0 | \$51,868 | \$0 |
| 2011/12 | \$362,065 | \$1,262 | \$48,203 | \$0 |
| 2012/13 | \$1,041,946 | \$1,101 | \$50,368 | \$0 |


| DROP <br> Credits | Advance <br> Employer <br> Contribs. | Excess <br> Chapter |
| ---: | ---: | ---: |
| Contribs. |  |  |
| $\mathrm{N} / \mathrm{A} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| $\$ 0$ | $\$ 285,772$ | $\mathrm{~N} / \mathrm{A}$ |
| $\$ 0$ | $\$ 136,754$ | $\$ 0$ |
| $\$ 17,949$ | $\$ 568,910$ | $\$ 0$ |
| $\$ 147,617$ | $\$ 2,562$ | $\$ 0$ |
| $\$ 183,600$ | $-\$ 577,591$ | $\$ 0$ |
| $\$ 131,135$ | $-\$ 320,477$ | $\$ 0$ |
| $\$ 341,936$ | $-\$ 527,783$ | $\$ 0$ |
| $-\$ 287,641$ | $\$ 385,653$ | $\$ 0$ |

[^0]
## Other Reconciliations

Advance Emplover Contribution
Advance Employer Contribution as of October 1, 2012 ..... \$137,052
Additional Employer Contribution ..... \$2,007,238
Minimum Required Contribution ..... (\$1,621,585)
Net Increase in Advance Employer Contribution \$385,653
Advance Employer Contribution as of October 1, 2013 ..... \$522,705
Excess Chapter 175/185 Contribution
Excess Chapter 175/185 Contribution as of October 1, 2012 ..... \$24,479
Additional Chapter 175/185 Contribution ..... \$408,775
Allowable Chapter 175/185 Contribution ..... $(\$ 408,775)$
$\$ 0$
Net Increase in Excess Chapter 175/185 Contribution
Excess Chapter 175/185 Contribution as of October 1, 2013 ..... \$24,479
DROP Account Reconciliation
DROP Balance as of October 1, 2012 ..... \$822,237
DROP Benefit Credits ..... \$220,111
DROP Investment Credits ..... \$35,504 DROP Benefits Paid Out ..... $\frac{(\$ 543,256)}{(\$ 287,641)}$
DROP Balance as of October 1, 2013 ..... $\$ 534,596$

# Allowable Chapter 175/185 Contribution 

## 1997 Base Amounts

Chapter 175 Regular Distribution ..... \$21,065
Chapter 175 Supplemental Distribution ..... \$0
Chapter 185 Distribution ..... \$0
Qualifying Benefit Improvements
Resolution 04-09 ..... \$409,418
Resolution 2007-04 ..... \$8,488

## Historical Chapter 175/185 Contributions

Total Accumulated Excess Chapter 175/185 Contribution \$24,479

| Chapter 175 <br> Regular <br> Distribution | Chapter 175 <br> Supplemental <br> Distribution | Chapter 185 <br> Distribution | Allowable <br> Amount |
| ---: | ---: | ---: | ---: |
| $\$ 338,443$ |  |  |  |
| $\$ 49,368$ | $\$ 0$ | $\$ 0$ | $(\$ 38,443)$ |
| $\$ 76,102$ | $\$ 0$ | $\$ 0$ | $(\$ 49,368)$ |
| $\$ 99,756$ | $\$ 0$ | $\$ 0$ | $(\$ 76,102)$ |
| $\$ 132,354$ | $\$ 0$ | $\$ 0$ | $(\$ 99,756)$ |
| $\$ 158,638$ | $\$ 0$ | $\$ 0$ | $(\$ 132,354)$ |
| $\$ 196,521$ | $\$ 0$ | $\$ 0$ | $(\$ 158,638)$ |
| $\$ 239,425$ | $\$ 0$ | $\$ 0$ | $(\$ 196,521)$ |
| $\$ 273,425$ | $\$ 0$ | $\$ 0$ | $(\$ 239,425)$ |
| $\$ 297,089$ | $\$ 4,264$ | $\$ 0$ | $(\$ 277,689)$ |
| $\$ 329,717$ | $\$ 135,382$ | $\$ 0$ | $(\$ 432,471)$ |
| $\$ 324,870$ | $\$ 133,733$ | $\$ 0$ | $(\$ 438,971)$ |
| $\$ 324,070$ | $\$ 100,595$ | $\$ 0$ | $(\$ 425,465)$ |
| $\$ 333,648$ | $\$ 74,392$ | $\$ 0$ | $(\$ 398,462)$ |
| $\$ 304,728$ | $\$ 95,991$ | $\$ 0$ | $(\$ 429,639)$ |
|  | $\$ 104,047$ | $\$ 0$ | $(\$ 408,775)$ |

Summary of Participant Data


Acively Employed Participants

- Active Participants ..... 74

DROP Participants 3

Inactive Participants

Deferred Vested Participants ..... 1 ..... 24

Deferred Beneficiaries 0

Participants Receiving a Benefit
Service Retirements7
Disability Retirements ..... 5

Beneficiaries Receiving 0

Total Participants
114

Participant Distribution by Status

## Number of Participants Included in Prior Valuations

|  | Active | DROP | Inactive | Retired | Total |
| :--- | ---: | ---: | ---: | ---: | ---: |
| October 1, 2004 | N/A | N/A | N/A | N/A | N/A |
| October 1, 2005 | N/A | N/A | N/A | N/A | N/A |
| October 1, 2006 | 83 | 0 | 20 | 3 | 106 |
| October 1, 2007 | 87 | 0 | 21 | 3 | 111 |
| October 1, 2008 | N/A | N/A | N/A | N/A | N/A |
| October 1, 2009 | 89 | 2 | 22 | 4 | 117 |
| October 1, 2010 | 82 | 2 | 25 | 5 | 114 |
| October 1, 2011 | 81 | 4 | 26 | 9 | 120 |
| October 1, 2012 | 77 | 4 | 24 | 11 | 116 |
| October 1,2013 | 74 | 3 | 25 | 12 | 114 |


|  | Active | DROP | Deferred Vested | Due a Refund | Def. Benef. | Service Retiree | Disabled Retiree | Benef, <br> Rec'v. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| October 1, 2012 | 77 | 4 | 0 | 24 | 0 | 6 | 5 | 0 | 116 |
| Change in Status |  |  |  |  |  |  |  |  |  |
| Re-employed Terminated | (3) |  | 1 | 2 |  |  |  |  |  |
| Retired |  | (1) |  |  |  | 1 |  |  |  |
| Participation Ended |  |  |  |  |  |  |  |  |  |
| Transferred Out |  |  |  |  |  |  |  |  |  |
| Cashed Out |  |  |  | (2) |  |  |  |  | (2) |
| Participation Began |  |  |  |  |  |  |  |  |  |
| Newly Hired |  |  |  |  |  |  |  |  |  |
| Transferred In |  |  |  |  |  |  |  |  |  |
| New Beneficiary |  |  |  |  |  |  |  |  |  |
| Other Adjustment |  |  |  |  |  |  |  |  |  |
| October 1, 2013 | 74 | 3 | 1 | 24 | 0 | 7 | 5 | 0 | 114 |

## Data

Active Participant Data

Gender Mix
As of October 1, 2013


- Male
- Female

$$
\begin{array}{rr}
\text { Average Age } & 39.3 \text { years } \\
\text { Average Service } & 11.7 \text { years } \\
\text { Total Annualized Compensation for the Prior Year } & \$ 3,882,836 \\
\text { Total Expected Compensation for the Current Year } & \$ 3,876,548 \\
\text { Average Increase in Compensation for the Prior Year } & 1.23 \% \\
\text { Expected Increase in Compensation for the Current Year } & 4.50 \% \\
\text { Accumulated Contributions for Active Employees } & \$ 1,323,841
\end{array}
$$



Active Participant Statistics From Prior Valuations

October 1, 2004
October 1, 2005
October 1, 2006
October 1, 2007
October 1, 2008
October 1, 2009
October 1, 2010
October 1, 2011
October 1, 2012
October 1, 2013

|  |  |  | Average <br> Expected | Average <br> Actual |
| ---: | ---: | ---: | ---: | ---: |
| Average | Average | Average | Salary <br> Salary |  |
| Age | Service | Salary | Increase | Increase |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | $\$ 37,796$ | N/A | N/A |
| 34.9 | 7.7 | $\$ 43,574$ | N/A | N/A |
| 37.9 | 9.8 | $\$ 46,671$ | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| N/A | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $5.45 \%$ | $7.61 \%$ |
| 36.2 | 8.7 | $\$ 47,154$ | $5.20 \%$ | $2.14 \%$ |
| 37.7 | 10.1 | $\$ 53,650$ | $5.43 \%$ | $5.94 \%$ |
| 37.0 | 9.6 | $\$ 48,778$ | $5.13 \%$ | $0.21 \%$ |
| 37.9 | 10.5 | $\$ 50,965$ | $5.27 \%$ | $3.14 \%$ |
| 39.3 | 11.7 | $\$ 52,471$ | $5.12 \%$ | $1.23 \%$ |

## Active Age-Service Distribution


Eligible to retire
$\triangle$ May be eligible to retire
A Not eligible to retire

Data
Active Age-Service-Salary Table


## Inactive Participant Data



\[

\]

Projected Benefit Payments


Actual
For the period October 1, 2012 through September 30, 2013 \$719,902

## Projected

For the period October 1, 2013 through September 30, 2014
For the period October 1, 2014 through September 30, 2015
\$736,548

For the period October 1, 2015 through September 30, 2016 \$783,837

For the period October 1, 2016 through September 30, 2017
\$898,202

For the period October 1, 2017 through September 30, 2018
\$975,925

For the period October 1, 2018 through September 30, 2019
For the period October 1, 2019 through September 30, 2020
\$1,067,813

For the period October 1, 2020 through September 30, 2021
For the period October 1, 2021 through September 30, 2022 \$1,226,691

For the period October 1, 2020 through September 30, 2021
\$1,423,982

For the period October 1, 2022 through September 30, 2023

## Summary of Actuarial Methods and Assumptions

## 1. Actuarial Cost Method

Aggregate cost method. Under this actuarial cost method, a funding cost is developed for the plan as a level percentage of payroll. The level funding percentage is calculated as the excess of the total future benefit liability over accumulated assets and future employee contributions, with this excess spread over the expected future payroll for current active participants. The normal cost is equal to the level funding percentage multiplied by the expected payroll for the year immediately following the valuation date. The actuarial accrued liability is equal to the accumulated assets. Therefore, under the aggregate cost method, no unfunded accrued liability is developed.
2. Asset Method

The actuarial value of assets is equal to the market value of assets.
3. Interest (or Discount) Rate
$7.00 \%$ per annum
4. Salary Increases

Plan compensation is assumed to increase at the rate of $4.50 \%$ per annum, unless actual plan compensation is known for a prior plan year.
5. Decrements

- Pre-retirement mortality: Sex-distinct rates set forth in the RP-2000 Mortality Table for non-annuitants, projected to 2015 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430
- Post-retirement mortality: Sex-distinct rates set forth in the RP-2000 Mortality Table for annuitants, projected to 2015 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430
- Disability: Age- and gender-based rates of disability were assumed, ranging from $0.067 \%$ for males and $0.040 \%$ for females at age $25,0.119 \%$ for males and $0.118 \%$ for females at age $35,0.462 \%$ for males and $0.435 \%$ for females at age 45 , and $1.000 \%$ for males and $0.840 \%$ for females at age 55 ; all disabilities are assumed to be service-related.
- Termination:

With respect to participants with less than 10 years of service, the termination rates are both gender- and service-based, ranging from $15.00 \%$ for males and $10.01 \%$ for females with less than two years of service to $4.30 \%$ for males and $4.75 \%$ for females with between eight and 10 years of service; with respect to participants with at least 10 years of service, the termination rates are both gender- and age-based, ranging from $4.28 \%$ for males and $5.41 \%$ for females at age 25 to $0.00 \%$ for both genders at age 55 .

- Retirement: For those participants who have met the age and service requirements to retire, retirement is assumed to occur at the rate of $10 \%$ per year during each of the three years prior to normal retirement age; alternatively, $40 \%$ of participants who reach their normal retirement age are assumed to retire immediately, with $20 \%$ assumed to retire during each of the next two years after the attainment of normal retirement age and $100 \%$ assumed to retire three years after the attainment of normal retirement age. No early retirements are assumed to occur prior to age 50.


## 6. Form of Payment

Future retirees have been assumed to select the 10-year certain and life annuity.

## 7. Expenses

The total projected benefit liability has been loaded by $1.00 \%$ to account for anticipated administrative expenses. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.

## Changes in Actuarial Methods and Assumptions

Since the previous valuation was completed, the following assumptions were changed:
(1) The interest (or discount) rate was decreased from $7.50 \%$ per annum to $7.00 \%$ per annum.
(2) The assumed increase in future salaries was changed from a range of rates based on service ( $8.00 \%$ for employees with less than one year of service, $7.00 \%$ for employees with at least one but less than two years of service, $6.00 \%$ for employees with at least two but less than three years of service, $5.50 \%$ for employees with at least three but less than four years of service, and $5.20 \%$ for all other employees) to a flat $4.50 \%$ per year.
(3) The mortality basis was changed from the RP-2000 Mortality Table, projected to 2007 by Scale AA, to the RP-2000 Mortality Table, projected to 2015 by Scale AA, both as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430.

## Summary of Plan Provisions

## 1. Monthly Accrued Benefit

$3.50 \%$ of Average Final Compensation multiplied by Credited Service
2. Normal Retirement Age and Benefit

- Age

Age 55 with at least 10 years of Credited Service; or
Any age with at least 25 years of Credited Service

- Amount

Monthly Accrued Benefit

- Form of Payment

Actuarially increased single life annuity (optional);
10-year certain and life annuity (normal form of payment);
Actuarially reduced $50 \%$ joint and contingent annuity (optional);
Actuarially reduced $662 / 3 \%$ joint and contingent annuity (optional);
Actuarially reduced $75 \%$ joint and contingent annuity (optional);
Actuarially reduced 100\% joint and contingent annuity (optional); or
Any other actuarially equivalent form of payment approved by the Board other than a single lump sum payment
(Note: A participant may change his joint annuitant up to two times after retirement.)

## 3. Early Retirement Age and Benefit

- Age

Any age with at least 10 years of Credited Service

- Amount

Monthly Accrued Benefit (payable at Normal Retirement Age); or
Monthly Accrued Benefit reduced by 3\% for each year by which the participant's Early Retirement
Date precedes his Normal Retirement Date (payable at Early Retirement Age)

- Form of Payment

Same as for Normal Retirement

## Summary of Plan Provisions

## 4. Service Incurred Disability Eligibility and Benefit

- Eligibility

The participant is eligible if his disability was incurred during the course of his employment with the District.

- Condition

The Board must find that the participant has a physical or mental condition resulting from bodily injury, disease, or a mental disorder which renders him incapable of employment as a firefighter.

- Amount Payable

A monthly 10-year certain and life annuity equal to the larger of (a) or (b), as follows, but offset as necessary to preclude the total of the participant's worker's compensation, disability benefit, and other District-provided disability compensation from exceeding his Average Final Compensation:
(a) Monthly Accrued Benefit; or
(b) $42 \%$ of Average Final Compensation
5. Non-Service Incurred Disability Eligibility and Benefit

- Eligibility

The participant must have earned at least 10 years of Credited Service if his disability was incurred other than during the course of his employment with the District.

- Condition

Same as for a Service Incurred Disability Benefit

- Amount Payable

A monthly 10-year certain and life annuity equal to the larger of (a) or (b), as follows, but offset as necessary to preclude the total of the participant's worker's compensation, disability benefit, and other District-provided disability compensation from exceeding his Average Final Compensation:
(a) Monthly Accrued Benefit; or
(b) $25 \%$ of Average Final Compensation
6. Delayed Retirement Age and Benefit

- Age

After Normal Retirement Age

- Amount

Monthly Accrued Benefit

- Form of Payment

Same as for Normal Retirement

## Summary of Plan Provisions

## 7. Deferred Vested Benefit

- Age

Any age with at least 10 years of Credited Service

- Amount

Monthly Accrued Benefit (payable at Normal Retirement Age); or
Monthly Accrued Benefit reduced by 3\% for each year by which the participant's Early Retirement Date precedes his Normal Retirement Date (payable at Early Retirement Age)

- Form of Payment

Same as for Normal Retirement

## 8. Pre-Retirement Death Benefit

In the case of the death of a participant in the line of duty prior to retirement, his beneficiary will receive the greater of the participant's Monthly Accrued Benefit or $50 \%$ of the participant's salary payable for life. In the case of the death of a vested participant other than in the line of duty prior to retirement, his beneficiary will receive the participant's Monthly Accrued Benefit payable for 10 years beginning on the participant's early or normal retirement date. In the case of the death of a non-vested participant prior to retirement, his beneficiary will receive the participant's Accumulated Contributions in lieu of any other benefits payable from the plan.

## 9. Average Final Compensation

Average of the highest three years of Compensation out of the last 10 years of employment (or career average, if higher).
10. Compensation

Fixed monthly compensation or, in the case of voluntary firefighters, actual compensation for services rendered; annual compensation in excess of $\$ 200,000$ (as indexed) is excluded in accordance with IRC §401(a)(17).

## 11. Credited Service

The elapsed time from the participant's date of hire until his date of termination, retirement, or death, provided that the participant made all required contributions. In the case of a full-time firefighter, prior service as a volunteer firefighter is counted for vesting and eligibility purposes only. In addition, Credited Service includes prior service with the Oneco-Tallevast and Samoset Fire Districts.

## Summary of Plan Provisions

12. Participation Requirement

All firefighters of the Southern Manatee Fire \& Rescue District automatically become a participant in the plan on their date of hire.
13. Accumulated Contributions

The Employee Contributions accumulated with no interest; if the participant terminates his employment with less than 10 years of Credited Service, he receives his Accumulated Contributions in lieu of any other benefits payable from the plan.
14. Participant Contribution
$3.50 \%$ of earnings
15. Definition of Actuarially Equivalent

- Interest Rate
7.50\% per annum
- Mortality Table

Unisex mortality table promulgated by the IRS for purposes of determining the amount of lump sum distributions pursuant to IRC section 417(e)(3)
16. Plan Effective Date

March 11, 1997
17. Deferred Retirement Option Plan (DROP)

A participant who reaches his Normal Retirement Age is eligible to participate in the DROP for a period of up to 96 months. Interest is credited on the DROP accounts at the rate of $6.50 \%$ per annum.
18. Retiree Health Supplement

Participants who retire from active service with a normal or disability retirement benefit receive a monthly postretirement health supplement equal to $\$ 15$ for each year of service, with a minimum monthly benefit of $\$ 50$ and a maximum monthly benefit of $\$ 450$. In addition, this monthly supplement is paid to the participant's eligible spouse during the period that a retirement benefit is payable to the spouse, provided that the participant was either receiving a normal or disability retirement benefit or was eligible for normal retirement at his death.

## Plan Provisions

## Summary of Plan Amendments

Table VI-B

There were no significant plan amendments adopted since the completion of the previous valuation.


[^0]:    Note: Information was not available to separate the investment expenses from the investment income nor was information available to separate the investment income by source.

