

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

**October 1, 2014 Actuarial Report  
(UPDATED FOR EXPENSE ASSUMPTION)**

**For the Fiscal and Plan Year  
October 1, 2015  
through  
September 30, 2016**

**Prepared By:**

**The Nyhart Company, Inc.  
2000 RiverEdge Parkway/ Suite 900  
Atlanta, GA 30328**

**(770) 933-1933**

**July 10, 2015**

July 10, 2015

Board of Trustees  
City of Miami Fire Fighters' and  
Police Officers' Retirement Trust  
1895 SW 3 Avenue  
Miami, FL 33129-1456

October 1, 2014 Actuarial Report

Dear Board Members:

Enclosed is our report on the actuarial valuation of the City of Miami Fire Fighters' and Police Officers' Retirement Trust as of October 1, 2014, for the fiscal year beginning October 1, 2015.


The report is based upon the terms of Ordinance No. 10002 and the Amended Final Judgment in the matter of Gates v. City of Miami, as well as Ordinance 13344.

The City contribution requirement for the 2015/2016 fiscal year is \$43,964,153, compared to \$43,995,049 for the 2014/2015 fiscal year.

When expressed as a percentage of total payroll (for active members and members in forward DROP), the City contribution rate decreased from 35.32% as of October 1, 2013 to 34.40% as of October 1, 2014. The percentages of total payroll reflect the hypothetical impact on funding if there were no forward DROP, since members who are presently in DROP could well be more likely to be retired and replaced with active members. The ordinance and State law do not permit funding after members enter a forward DROP.

Respectfully submitted,

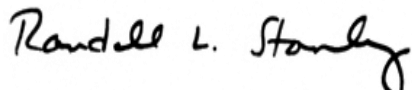
**THE NYHART COMPANY, INC.**



David D. Harris, ASA, FCA, MAAA, EA  
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Actuary

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Bound (10 copies)

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**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

**OCTOBER 1, 2014 ACTUARIAL REPORT**

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**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

**OCTOBER 1, 2014 ACTUARIAL REPORT**

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**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Comparative Summary of Principal Valuation Results - Regular Fund

	Actuarial Valuation	
	Prepared as of	
	<u>10/1/2014</u>	<u>10/1/2013</u>
<b>A. <u>Participant Data</u> (Ex.7)</b>		
Active Members	1,482	1,273
Covered Payroll	\$93,705,765	\$85,222,842
Members in Forward DROP	401	474
DROP Payroll	\$34,080,879	\$39,340,208
Projected Total Payroll	\$127,786,644	\$124,563,050
Retired Members and Beneficiaries	2,098	2,119
Total Annualized Benefits	\$122,009,571	\$122,124,656
Disabled Members	149	161
Total Annualized Benefits	\$3,297,718	\$3,438,990
Terminated Vested Members	12	13
Total Annualized Benefits	\$319,796	\$391,669
<b>B. <u>Assets</u></b>	-\$-	-\$-
Actuarial Value (Ex. 2A)	1,151,016,531	1,145,461,866
Market Value (Ex. 4)	1,136,462,242	1,121,166,552
<b>C. <u>Liabilities</u> (Excl. COLA)</b>		
Present Value of Projected Benefits (Ex. 1)		
Active Members - Retirement	406,475,370	355,226,122
Vesting	25,029,798	22,199,983
Disability	51,259,582	45,613,622
Death	7,307,646	6,437,282
Return of Contributions	<u>2,235,295</u>	<u>1,777,650</u>
Total	492,307,691	431,254,659
Inactive Members - Retired and Beneficiaries	1,338,709,196	1,344,589,383
Disabled	28,692,260	29,878,873
Terminated Vested	<u>2,307,321</u>	<u>2,847,867</u>
Total	1,369,708,777	1,377,316,123
<b>Total</b>	<u>1,862,016,468</u>	<u>1,808,570,782</u>
Actuarial Accrued Liability	N/A	N/A
Unfunded Actuarial Accrued Liability	N/A	N/A

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Comparative Summary of Principal Valuation Results - Regular Fund  
(Continued)

	Actuarial Valuation	
	Prepared as of	
	<u>10/1/2014</u>	<u>10/1/2013</u>
D. <u>Present Value of Accrued Benefits</u> (Exhibit 5)	-\$-	-\$-
Vested Accrued Benefits		
Inactive Members and Beneficiaries	1,369,708,777	1,377,316,123
Active Members	<u>208,780,651</u>	<u>172,853,328</u>
Total	1,578,489,428	1,550,169,451
Non-Vested Accrued Benefits	<u>11,128,196</u>	<u>6,592,056</u>
Total	1,589,617,624	1,556,761,507
E. <u>Pension Cost</u> (Exhibit 1)		
Normal Cost	52,045,324	52,517,333
Payment to Amortize Unfunded Liability	N/A	N/A
Expected Plan Sponsor Contribution	43,964,153	43,995,049
As % of Covered Payroll	46.92%	51.62%
As % of Total Payroll	34.40%	35.32%
Expected Member Contribution	8,081,171	8,522,284
As % of Payroll	8.62%	10.00%
F. <u>Past Contributions</u>	Year Ending <u>9/30/2014</u>	Year Ending <u>9/30/2013</u>
	-\$-	-\$-
Required Plan Sponsor Contribution	42,057,691	40,977,546
Required Member Contributions	9,462,569	9,427,186
Actual Contributions		
Plan Sponsor	42,057,691	40,977,546
Members	9,462,569	9,417,186
G. <u>Net Actuarial Gain (Loss)</u>	N/A	N/A
H. <u>Other Disclosures</u>		
Active Members:		
Present Value Future Salaries (at attained age)	1,441,538,742	1,271,916,984
Present Value Future Contributions (at attained age)	112,603,159	85,481,072

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Comparative Summary of Principal Valuation Results – COLA Fund

		Actuarial Valuation	
		<u>Prepared as of</u>	
		<u>10/1/2014</u>	<u>10/1/2013</u>
<b>A. <u>Participant Data</u></b>			
Retired Members and Beneficiaries		2,098	2,118
Total Annualized Benefits		\$22,606,546	\$21,919,475
Disabled Members		149	161
Total Annualized Benefits		\$3,135,330	\$3,290,932
Table		\$1,670	\$1,629
<b>B. <u>Assets</u></b>			
		-\$-	-\$-
Actuarial Value (Ex. 13)		476,271,814	456,457,838
Market Value (Ex. 3)		394,567,656	378,739,577
<b>C. <u>Liabilities (COLA Only)</u></b>			
Present Value of Allocated Benefits (Ex. 13)			
Active Members -	Reserve for Current Actives	41,302,497	31,689,347
	Reserve for Contribution Refunds	N/A	N/A
Reserve for Future Actives		<u>6,195,375</u>	<u>4,753,402</u>
Total (excl. 457 Service)		47,497,872	36,442,749
Inactive Members -	Frozen COLA I Benefits	856,184	1,000,098
	COLA II Benefits	<u>326,413,125</u>	<u>282,539,187</u>
	Total	327,269,309	283,539,285
<b>Total</b>		<u>374,767,181</u>	<u>319,982,034</u>

Comparative Summary of Total Assets - Combined

Market Value (Ex. 4)	<u>1,531,029,898</u>	<u>1,499,906,129</u>
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**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

REVIEW OF COSTS

Summary Discussion

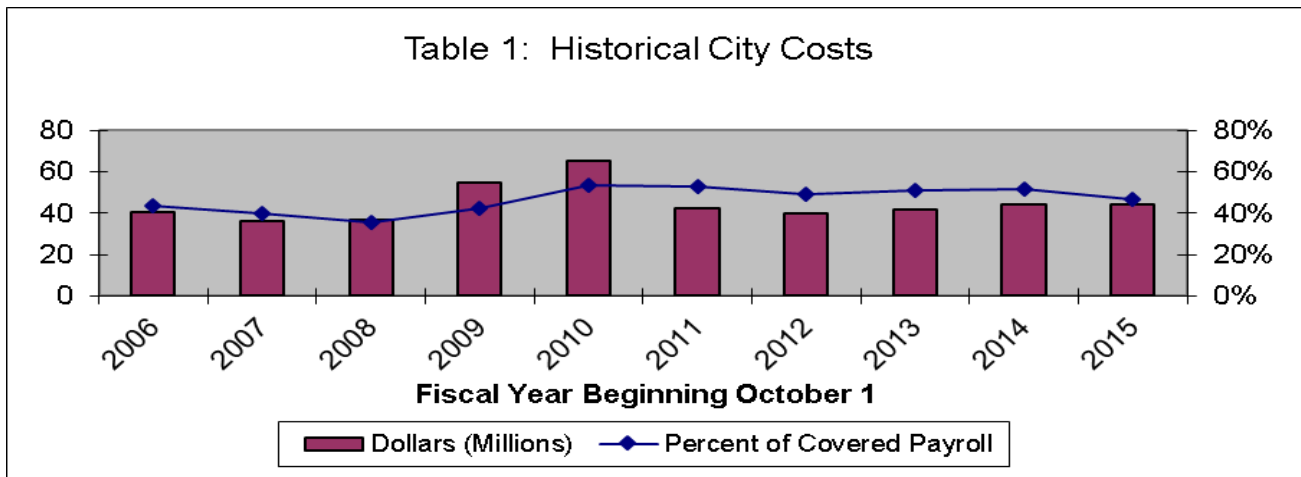
This is the actuarial report for the fiscal year beginning October 1, 2015 for the City of Miami Fire Fighters' and Police Officers' Retirement Trust. This is the thirty-first annual actuarial report prepared by The Nyhart Company. This report is intended to reflect the provisions and requirements of Ordinance No. 10002, as well as Ordinance 13344.

Comparison of Deposit Requirements

The City contribution requirements, and the results calculated for the 2015/2016 fiscal year, are as follows:

	<u>2015/2016</u> (new assumptions)	<u>2015/2016</u> (prior assumptions)	<u>2014/2015</u>
Past Service Cost	-\$-	-\$-	-\$-
Normal Cost	N/A	N/A	N/A
Payment Timing	0	0	0
	43,964,153	43,085,410	43,995,049
Percentage of Covered Payroll	46.92%	45.98%	51.62%
Percentage of Total Payroll	34.40%	33.72%	35.32%

The 2015/2016 deposit amount of \$43,964,153 is \$30,896 less than the \$43,995,049 for the prior year and \$878,743 more than the amount under the prior assumptions.





## Analysis of Cost Changes

The Normal Cost element of FIPO costs is expected to remain level as a percentage of covered payroll, if the actual Plan experience is the same as the actuarial assumptions and there are no Plan or assumption changes. In the absence of Plan or assumption changes, an increase in the Normal Cost rate indicates that experience in the previous year has been less favorable than assumed, while a decrease indicates more favorable experience.

Quantification of the reasons for the changes is as follows:

<u>Table 2 – Gain/Loss Analysis of Cost Changes from October 1, 2013 to October 1, 2014 Valuations</u>		
	<u>Normal Cost</u>	
	<u>-\$-</u>	<u>-%-</u>
2013/2014 Normal Cost (Valuation Report)	43,995,049	51.62 <sup>(1)</sup>
2014/2015 Normal Cost Expected (for continuing participants)	43,907,730	49.68 <sup>(1)</sup>
<u>Element of Experience</u>		
Salary Increases	(2,675,342)	(5.66)
Turnover	(67,954)	(0.08)
Mortality	(444,226)	(0.50)
Retirement	263,230	0.30
New Participants	1,501,255	1.60
Disability	(93,552)	(0.11)
Investment Return	256,021	0.27
Other, Data	438,248	0.48
Assumption Change	<u>878,743</u>	<u>0.94</u>
Total	56,423	(2.76)
2014/2015 Normal Cost	43,964,153	46.92 <sup>(1)</sup> 34.40 <sup>(2)</sup>

(1) Percentage of Covered Payroll

(2) Percentage of Total Payroll

Projected Total Payroll of \$127,786,644 is equal to 100% of Covered Payroll of \$93,705,765 plus \$34,080,879 payroll for members in DROP.

Following is a more detailed description of the elements of experience:

Salary Increases - During the period October 1, 2013 through September 30, 2014, covered payroll for the continuing actives increased less than expected. This resulted in a decrease of \$2,675,342 in the Normal Cost. Covered payroll for continuing active participants at September 30, 2014 increased 1.38% compared to an expected 7.72% increase.

Mortality - For active members there were 2 deaths, as compared to 1 expected; for inactive members there were 71 deaths, as compared to 52 expected. This decreased the normal cost by \$444,226.

Disability - During the past year there were no disabilities, as compared to 5 expected. This decreased the normal cost by \$93,552.

Turnover - From October 1, 2013 to September 30, 2014, there were 31 employee terminations, as compared to 19 predicted by the actuarial assumptions. This decreased the normal cost by \$67,954.

Retirement - There were 16 retirements during the period, as compared to 1 expected. This large number of retirements caused an increase in costs of \$263,230.

Investment Return - The rate of return for the year ending September 30, 2014 was 7.18% on actuarial asset value (Exhibit 2A).

As shown in Exhibit 2C, there is no COLA transfer as of January 1, 2015; there could be a transfer on January 1, 2016 of \$34,111,625 only if there were a favorable cumulative experience position as of September 30, 2015. The city minimum COLA contributions without the transfer is \$5,696,920 on January 1, 2015 and \$5,924,797 on January 1, 2016 to the COLA fund.

New Members - During the year there were 255 new members, who increased the City contribution by \$1,501,255. Last year, 99 new members increased the cost by \$581,328.

Administrative Expense - The prior year's assumed administrative cost was \$2,222,561. This decreased to \$2,029,168 for the current year, decreasing the City contribution (with interest) by \$207,897.

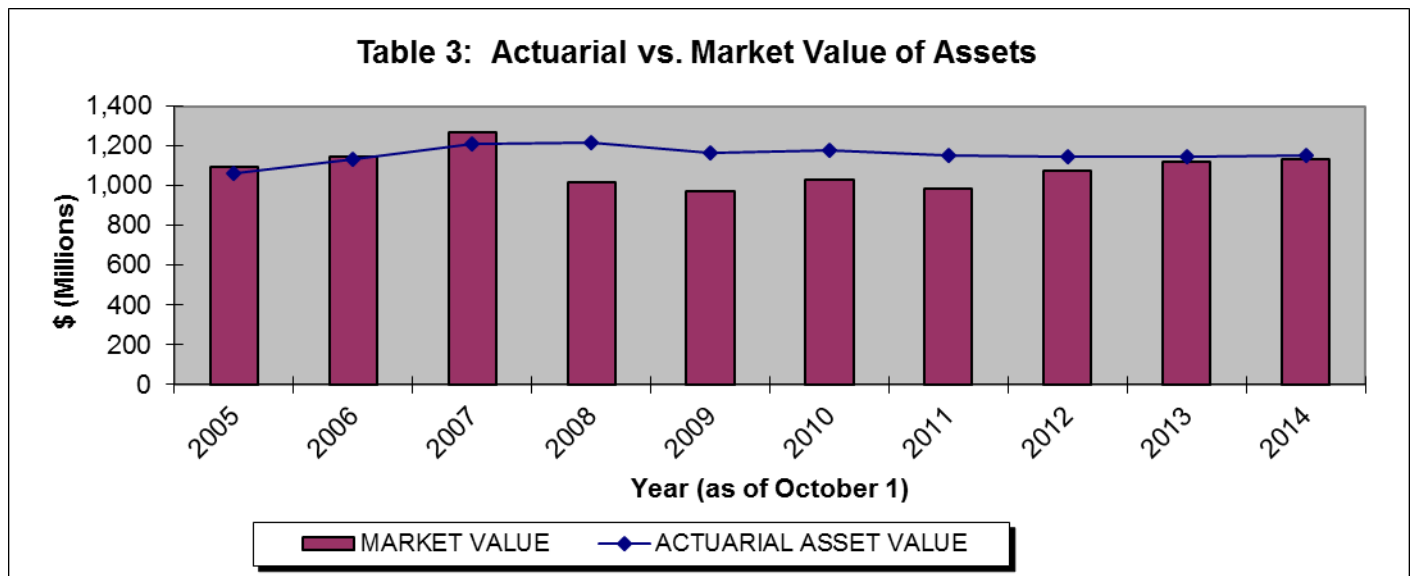
Assumption Change - The interest rate was decreased to 7.42% from 7.50%. This increased the City contribution by \$878,743.

Plan Assets

Exhibits 3 and 4 show the asset transactions and investment results during the year. The rate of return on mean market value for the period ending September 30, 2014 was 8.6%; net of investment expenses.

The asset valuation method results in an actuarial asset value of \$1.151 billion as of October 1, 2014 (Exhibit 2A), 101% of the market value of \$1.136 billion, as compared to 102% in the previous year. The rate of return on Actuarial Asset Value was 7.18%, as compared to the 7.5% assumption for the fiscal year ending September 30, 2014 (Exhibit 2A).

Table 3 illustrates the effect of using the current asset smoothing methodology. The volatility of the market value of assets can be seen in the columns, while the actuarial value is illustrated by the line. The actuarial asset value line reflects the 20% Write-Up Method from September 30, 2005.



For COLA transfer purposes, the actuarial asset valuation method utilizes a 3-year moving average (Exhibit 2B). Under this method, the rate of return for the year ending September 30, 2014 was 13.39%. This would result in a transfer of \$34,111,625 from the Regular Fund to the COLA Fund on January 1, 2016 (Exhibit 2C), if there were a favorable cumulative experience position. However, the cumulative experience position is unfavorable – a cumulative net loss of \$233 million as of October 1, 2014 (Exhibit 14).

Expected Ongoing Cost Levels

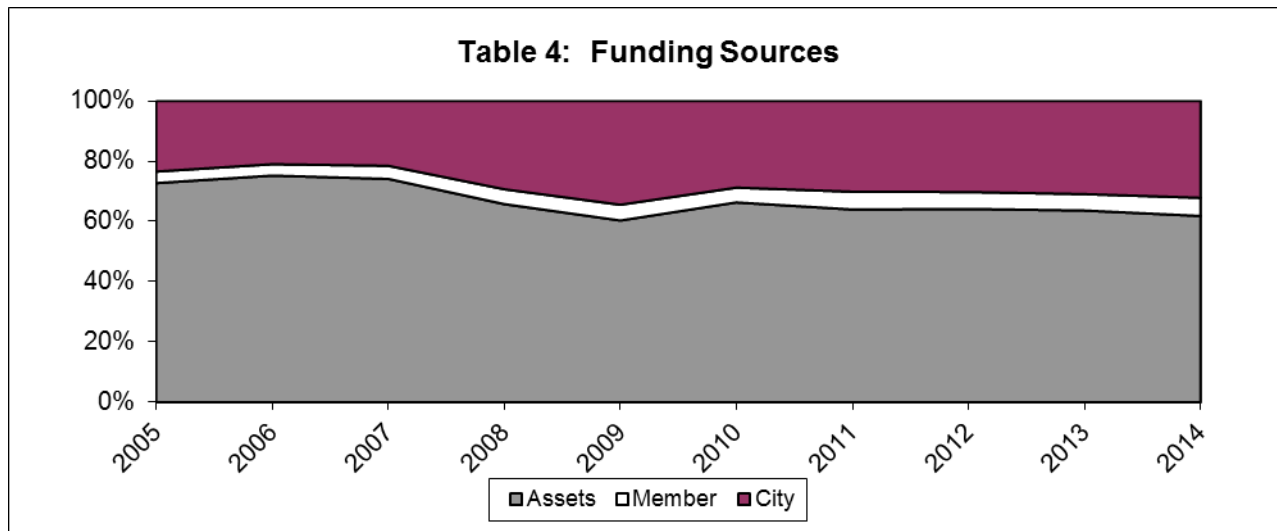
System costs have varied dramatically over the past several years, due to asset performance, payroll practices, and benefit changes. Since the City’s contribution requirement is the primary variable, it has been significantly impacted.

Nevertheless, it is important to distinguish between individual annual costs (which may be somewhat erratic) and expected ongoing annual costs. The following table compares the City contribution requirement as a percentage of payroll to the theoretical entry age normal City contribution percentages:

<u>Valuation Date</u>	<u>Contribution %</u>	<u>EAN %</u>
10/1/2014	47	18
10/1/2013	52	18
10/1/2012	51	17
10/1/2011	56	16
10/1/2010	53	18
10/1/2009	54	21
10/1/2008	43	21
10/1/2007	36	22
10/1/2006	40	23
10/1/2005 (Revised AAV)	44	23
10/1/2005 (Prior AAV)	60	23

Sources of Benefit Funding

Table 4 compares the sources of benefit funding for the past 10 years. The present value of benefits is equal to 100% in the Table. The present value of benefits is provided by three sources; the actuarial value of assets, the present value of member contributions, and the present value of future normal costs (city).



As seen in the table, the city portion of future benefit responsibility decreased as asset values climbed during the late nineties. When asset values started to decline, the city portion increased. As of October 1, 2014, the actuarial value of assets equals 62% of the present value of projected benefits, the present value of member contributions equals 6%, and the present value of future City normal costs equal 32% of the present value of future benefits.

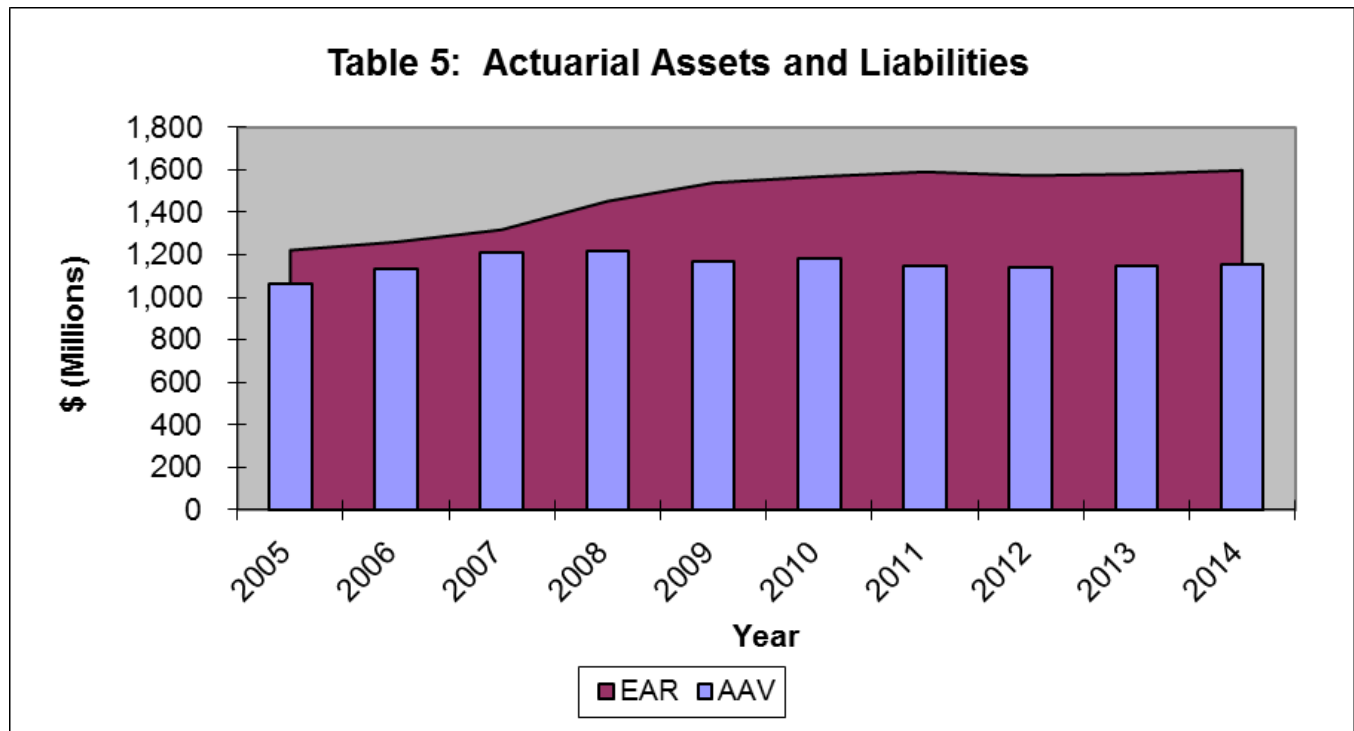
Funding Progress

The comparison of the present values of vested and accrued benefits to FIPO assets from one year to the next, or over a period of time, is a measure of interim funding progress and the degree of benefit security.

Exhibit 6 contains the result of this comparison for the past three years. The market value of assets on October 1, 2014 is \$1,136,462,242, as compared to the value of accrued benefits of \$1,589,671,624 for a ratio of 71.5%. The ratio as of October 1, 2013 was 72.0%.

A ratio in excess of 80% typically is one indication of a well-funded program.

As of October 1, 2014 the entry age reserve is \$1,597.8 million. This compares to an Actuarial Asset Value of \$1,151.0 million, for a funded ratio of 72%. Last year the funded ratio was also 72%. These amounts, together with other disclosures, are contained in Exhibit 11 and illustrated in the following Table 5:



### Governmental Accounting Standards

The Governmental Accounting Standards Board (GASB) has issued Statement No. 67 to replace GASB Statement No. 25 (“Financial Reporting for Pension Plans”) and Statement No. 68 to replace Statement No. 27 (“Financial Reporting for Pensions”).

A separate report, dated December 22, 2014, provides the necessary disclosures under GASB 67 and 68 for the plan year ending September 30, 2014.

As was the case for GASB 25 and GASB 27, the new standards are not meant to be used as a funding basis.

### Allocated Contribution Requirements

The Division of Retirement is now requiring that plans covering both police and firefighters disclose the costs separately for the two groups. Since assets have not been separately maintained, this necessitates a hypothetical asset allocation. Exhibit 11 shows this allocation, based on the Entry Age Accrued Liabilities, calculated separately for the two groups.

As shown in Exhibit 11, the asset and resulting Unfunded allocation approach based on the Actuarial Accrued Liability results in allocated amounts for these two cost components that are equal to the total components.

### Florida SB 534 Disclosures

The State of Florida now requires that plans report their funded ratio, recommended contribution, and asset duration under a standard set of assumptions, using both the funding rate and a rate 200 basis points lower. The required mortality table is RP 2000 with generational projection using Scale AA. Exhibit 10 provides this information. For balance, we also have calculated and shown results using a rate 200 basis points higher than the current funding rate.

## COLA Fund

Calculations were made based on the information provided as of 10/1/2014. The calculations reflect the approach adopted with the Amended Final Judgment in the matter of Gates vs. City of Miami.

Exhibit 12, parts I and II, illustrate the general impact of the COLA increases which have been provided thus far (under the \$1,629 table as of 1/1/2015), by duration since retirement and by age, respectively.

As discussed in earlier reports, there is probably no completely acceptable index for measuring the impact of inflation on retirees' benefits. Although the CPI is the most widely used inflation index, it is generally considered to distort inflation for retirees, since it includes components which are not typically germane to them, such as home purchases. In the absence of a suitable alternative, a percentage of the CPI is often used as a target. If the cumulative CPI were used as a target, the current COLA averages 58% of the target. A comparison of COLA increases to the CPI is shown in Exhibit 12, part III. Historical data on the CPI is shown in Exhibit 12, part IV.

## Cumulative Experience Position

Ordinance Section 40-204(C) (4) provides that transfers of excess investment return from the Regular Fund to the COLA Fund may be made only if the System remains in a net positive experience position on a cumulative basis from October 1, 1982. This result is the same as that for the previous year - a potential transfer eliminated due to the experience position. Since the aggregate cost method is used for determining funding requirements, the determination of the experience position is measured under the entry age normal method.

The cumulative experience loss increased from \$219,095,159 as of October 1, 2013, to a cumulative loss of \$232,905,953 as of October 1, 2014 (Exhibit 14).

## COLA Transfer Calculations

Exhibit 2C shows the transfer calculations as of this valuation. As will be noted, the excess return transfer as of January 1, 2015 is scheduled to be \$0 and the excess return transfer as of January 1, 2016 is \$0. Therefore, a City contribution to the COLA fund of \$5,696,920 was due as of January 1, 2015.

The excess return on the COLA Funds resulted in a \$41 increase in the COLA Table, from \$1,629 to \$1,670 (Exhibit 13).

Enrolled Actuary's Statement

This report has been prepared in accordance with standards established by the American Academy of Actuaries. To the best of our knowledge, it reflects the actuarial condition of the City of Miami Fire Fighters' and Police Officers' Retirement Trust as of October 1, 2014 for the Retirement Fund and for the COLA Fund.

All costs and cost components are calculated on the basis of actuarial assumptions which reasonably reflect the experience of the Trust.

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, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, 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 increase in plan costs or required contribution rates have been taken into account in the valuation.

With respect to reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were 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, and in my opinion, meet the requirements of Section 112.664 (1), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

*David D. Harris*

\_\_\_\_\_  
David D. Harris  
Enrolled Actuary No. 14-5609

\_\_\_\_\_  
July 10, 2015  
Date

Copies of this Report are to be furnished to the Division of Retirement within 60 days of receipt from the actuary at the following addresses:

Ms. Sarah Carr  
Benefits Administrator  
Municipal Police Officers' &  
Firefighters' Trust Funds  
Division of Retirement  
Post Office Box 3010  
Tallahassee, FL 32315-3010

Mr. Keith Brinkman  
Bureau & Chief  
Local Retirement Systems  
Division of Retirement  
Department of Management Services  
P. O. Box 9000  
Tallahassee, FL 32315-9000



**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

City Contribution Requirement for 2015/2016 Fiscal Year

	<u>2015/2016</u>	<u>2014/2015</u>
	-\$-	-\$-
I. <u>Unfunded Actuarial Accrued Liability</u>	N/A	N/A
II. <u>Normal Cost</u>		
A. Present Value of Future Benefits		
1. <u>Active Members</u>		
a. Retirement	406,475,370	355,226,122
b. Disability	51,259,582	45,613,622
c. Death	7,307,646	6,437,282
d. Turnover	25,029,798	22,199,983
e. Return of Contributions	<u>2,235,295</u>	<u>1,777,650</u>
f. Total	492,307,691	431,254,659
2. <u>Retired Members and Beneficiaries</u>		
a. Service Retirements and Beneficiaries	1,338,709,196	1,344,589,383
b. Disability Retirements	28,692,260	29,878,873
c. Terminated Vested Members	<u>2,307,321</u>	<u>2,847,867</u>
d. Total	1,369,708,777	1,377,316,123
3. Total	<u>1,862,016,468</u>	<u>1,808,570,782</u>

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

City Contribution Requirement for 2015/2016 Fiscal Year

	<u>2015/2016</u>	<u>2014/2015</u>
	-\$-	-\$-
<b>II. <u>Normal Cost</u> (Cont'd)</b>		
A. Total Present Value of Future Benefits	1,862,016,468	1,808,570,782
B. Present Value of Future Member Contributions	112,603,159	85,481,072
C. Actuarial Asset Value	1,151,016,531	1,145,461,866
D. Unfunded Actuarial Accrued Liability	<u>0</u>	<u>0</u>
E. Present Value of Future Normal Costs (A-B-C-D)	598,396,778	577,627,844
F. Present Value of Future Payrolls	1,441,538,742	1,271,916,984
G. Administrative Expense	2,029,168	2,222,561
H. Current Payroll for those under Expected Retirement Age	93,705,765	85,222,842
I. Interest Rate	7.42%	7.50%
J. Current Normal Cost - Payable 10/1/2014 ( [ (E)x(H) / (F) ] + (G)) (1+(I))	43,964,153	43,995,049
K. Covered Payroll	93,705,765	85,222,842
L. Normal Cost as Percentage of Covered Payroll (J)/ (K)	46.92%	51.62%
<b>III. <u>Quarterly City Contribution Schedule</u></b>		
A. Past Service Cost	0	0
B. Normal Cost	43,964,153	43,995,049
C. Payment Timing	<u>0</u>	<u>0</u>
D. Total	<u>43,964,153</u>	<u>43,995,049</u>

**CITY OF MIAMI**  
**FIRE FIGHTERS' AND POLICE OFFICERS'**  
**RETIREMENT TRUST**

Actuarial Asset Value – 20% Write Up Method

I. <u>Determination of Actuarial Asset Value as of October 1, 2014</u>	-\$-
A. Actuarial Value of Assets as of 10/01/2013	1,145,461,866
B. City Contributions	42,057,691
C. Member Contributions	9,462,569
D. Benefits Paid	125,502,361
E. Contributions Refunded	950,026
F. Expected Return <sup>(1)</sup>	<u>84,125,364</u>
G. Expected Actuarial Value of Assets (A+B+C-D-E+F)	1,154,655,103
H. Market Value of Assets at 9/30/2014	1,136,462,242
I. Present Value of 01/01/15 COLA Transfer	0
J. Present Value of 01/01/16 COLA Transfer	0
K. Difference (H-I-J-G)	(18,192,861)
L. 20% of Difference	(3,638,572)
M. Preliminary Actuarial Asset Value (G+L)	1,151,016,531
N. Maximum Actuarial Asset Value (120% of H-I-J)	1,363,754,690
O. Minimum Actuarial Asset Value (80% of H-I-J)	909,169,794
P. Actuarial Asset Value at 10/1/2014	1,151,016,531
Q. Contribution Surplus Account Balance	0
<b>R. Final Actuarial Value at 10/01/2014 (P – Q)</b>	<b><u>1,151,016,531</u></b>
II. <u>Rate of Return on Actuarial Asset Value</u>	-\$-
A. Actuarial Asset Value at 10/01/2013	1,145,461,866
B. Contributions	
1. City (Including amount from Contribution Surplus Account)	42,057,691
2. Members	<u>9,462,569</u>
3. Total	51,520,260
C. Benefits and Refunds	126,452,387
D. Contribution Surplus	0
E. Actuarial Asset Value at 10/01/2014	1,151,016,531
F. Net Return on Investment [E+D+C-B-A]	80,486,792
G. Rate of Return (II F/I F) (.075)	7.18%

<sup>(1)</sup> [1,145,461,866 + 9,462,569 (2.5/4) - (125,502,361 + 950,026) (13/24)] (.075) + \$2,909,294

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

I. Development of Actuarial Asset Value (3 Years, for COLA Transfer Purposes)

	<u>9/30/2014</u>	<u>9/30/2013</u>	<u>9/30/2012</u>
	-\$-	-\$-	-\$-
A. Book Value	990,924,999	981,432,150	982,006,300
B. Market Value	1,136,462,242	1,121,166,552	1,075,059,845
C. B/A	1.1468701	1.1423781	1.0947586
-----			
D. $1/3 \sum (C)$		1.1280023	
E. Adjusted Market Value at 9/30/2014 D x \$990,924,999		1,117,765,678	
F. Contribution Surplus at 9/30/2014		0	
G. 1. 80% of (Market Value – (F))		909,169,794	
2. 120% of (Market Value – (F))		1,363,754,690	
H. Preliminary Actuarial Asset Value (E – F)		1,117,765,678	
I. Present Value of 1/1/2016 COLA Transfer, discounted at 7.50%		0	
J. Actuarial Asset Value		1,117,765,678	

II. Rate of Return on Actuarial Asset Value

A. Actuarial Asset Value at 10/01/2013	1,056,251,304
B. Contributions	
1. City (Including amount from Contribution Surplus Account)	42,057,691
2. Members	9,462,569
3. Total	<u>51,520,260</u>
C. Benefits and Refunds	126,452,387
D. Present Value of 1/1/2016 COLA Transfer	0
E. Contribution Surplus	0
F. Actuarial Asset Value at 10/01/2014	1,117,765,678
G. Net Return on Investment [F+E+D+C-B-A]	136,446,501
H. Rate of Return [2 x G/ (A+F-G)]	13.39%

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Calculation of Excess Investment Return  
On Membership and Benefits Accounts for 2013/2014 Fiscal Year  
2016 COLA Transfer

<b>I.</b>	<b>Net Actual Return on Actuarial Asset Value</b>		-\$-
	A. Preliminary Actuarial Asset Value as of 10/1/2014		1,117,765,678
	B. Benefits Paid During Plan Year		125,502,361
	C. Contributions Refunded During Plan Year		950,026
	D. City Contributions During Plan Year (Required)		42,057,691
	E. Member Contributions During Plan Year		9,462,569
	F. Actuarial Asset Value as of 10/1/2013		<u>1,056,251,304</u>
	G. Total Actual Return During Plan year (A)+(B)+(C)-(D)-(E)-(F)		136,446,501
<b>II.</b>	<b>Net Expected Return on Actuarial Asset Value</b>		
	A. Actuarial Asset Value as of 10/1/2013		1,056,251,304
	B. Benefits Paid During Plan Year		125,502,361
	C. Contributions Refunded During Plan Year		950,026
	D. City Contributions During Plan Year (Required)		42,057,691
	E. Member Contributions During Plan Year		9,462,569
	F. Expected Rate of Return		7.50%
	G. Expected Return During Plan Year		77,434,572 <sup>(1)</sup>
	H. Base Amount for Expected Return (G)/.075		1,032,460,960
	I. Excess Return on Assets (I(G) - II(G))		59,011,929
	J. Excess Return as % of II(H)		5.715657% <sup>(2)</sup>
<b>III.</b>	<b>Amount to be Transferred to COLA Fund</b>		
	A.		
		<u>Excess Return</u>	<u>COLA Transfer</u>
		%                      \$	%                      -\$-
	First	2.5                      25,811,524	75                      19,358,643
	Next	2.5                      25,811,524	50                      12,905,762
	Next	2.5                      7,388,881	25                      1,847,220
			--                      --
	B.	Total Transfer Amount at 1/1/2016	<u>34,111,625 <sup>(3)</sup></u>

<sup>(1)</sup>Assumes Uniform Quarterly Contributions and Monthly Benefits

$$[1,056,251,304 + (9,462,569) (2.5/4) - (125,502,361 + 950,026) (13/24)](.075) + 2,909,294 =$$

77,434,572

<sup>(2)</sup> Before 1/1/2016 COLA Transfer

<sup>(3)</sup> Limited to favorable cumulative experience position

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Asset Transactions for Year Ending September 30, 2014 <sup>(1)</sup>

	<u>Membership and Benefits Accounts</u>	<u>COLA I Account</u>	<u>COLA II Account</u>
	-\$-	-\$-	-\$-
A. Market Value as of October 1, 2013	1,121,166,552	53,148,851	325,590,726
B. Book Value as of October 1, 2013	981,432,150	46,508,512	284,911,896
C. Income During Year			
1. City Contributions	42,057,691	0	5,477,808
2. Member Contributions	9,462,569	0	0
3. Other Contributions	0	0	0
4. Interest	16,928,376	824,233	5,023,799
5. Dividends	9,581,173	461,789	2,776,954
6. Net Realized Gains (Losses)	63,534,335	3,052,730	18,365,703
7. Securities Lending Income	684,999	32,966	198,236
8. Rental and Other Income	226,132	10,897	65,315
9. Income Transfer	<u>0</u>	<u>0</u>	<u>0</u>
	142,475,275	4,382,615	31,907,815
D. Disbursements during Years			
1. Benefit Payments	125,502,361	185,354	22,003,055
2. Contribution Refunds	950,026	0	0
3. Custodial and Investment Expenses	4,188,007	201,417	1,211,047
4. Administrative Expense	2,131,915	0	0
5. Other Expense	38,918	1,889	11,359
6. Securities Lending Fees	139,449	6,782	40,292
7. Building Depreciation	<u>31,750</u>	<u>1,603</u>	<u>9,373</u>
	132,982,426	397,045	23,275,126
E. Book Value as of September 30, 2014 (B)+(C)-(D)	990,924,999	50,494,082	293,544,585
F. Net Change in Unrealized Gains (Losses)	5,802,841	775,731	2,434,089
G. Unrealized Gains (Losses)	145,537,243	7,416,070	43,112,919
H. Market Value as of September 30, 2014 (A)+(C)-(D)+(F)	1,136,462,242	57,910,152	336,657,504
I. January 1, 2015 Allocation to COLA II (discounted)	<u>0</u>	N/A	<u>0</u>
J. Net Market Value as of September 30, 2014	1,136,462,242	57,910,152	336,657,504

<sup>(1)</sup> Based on unaudited financial statements.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Distribution of Assets as of September 30, 2014 <sup>(1)</sup>

Membership and Benefits and Cost-of-Living Adjustment Accounts

<u>Description</u>	<u>Market</u>	<u>Book</u>
	-\$-	-\$-
Bills, Bonds, Notes	557,707,119	551,597,651
Domestic Stocks	440,474,162	314,336,011
International Stocks	240,748,408	208,671,851
Private Equity	89,928,665	81,676,149
Money Market Funds and Time Deposits	20,142,818	21,324,999
Mutual Funds	130,082,977	105,411,256
Real Estate <sup>(2)</sup>	1,914,461	1,914,461
Securities Lending Adjustment	<u>0</u>	<u>0</u>
<b>A: Sub-Total</b>	<b>1,480,998,610</b>	<b>1,284,932,378</b>
<b>B: Cash</b>	<b>54,502,218</b>	<b>54,502,218</b>
Receivables:		
City Contributions	0	0
Accounts Receivable	5,768	5,768
Member Contributions	0	0
Accrued Interest	2,777,229	2,777,229
Accrued Dividends	1,031,602	1,031,602
Securities Sold	<u>8,518,663</u>	<u>8,518,663</u>
<b>C: Sub-Total</b>	<b>12,333,262</b>	<b>12,333,262</b>
Payables:		
Budget Advance	0	0
Accrual Expense	131,123	131,123
Transfer	0	0
Tax Withheld	0	0
Accounts Payable	352,554	352,554
Securities Purchased	<u>16,320,515</u>	<u>16,320,515</u>
<b>D: Sub-Total</b>	<b>16,804,192</b>	<b>16,804,192</b>
<b>E. Total (A+B+C-D)</b>	<b>1,531,029,898</b>	<b>1,334,963,666</b>
Accounts:		
<b>COLA I Account</b>	<b>57,910,152</b>	<b>50,494,082</b>
<b>COLA II Account</b>	<b>336,657,504</b>	<b>293,544,585</b>
<b>COLA II Transfer (1/1/2015)</b>	<b>0</b>	<b>0</b>
<b>F: Membership &amp; Benefits Account</b>	<b>1,136,462,242</b>	<b>990,924,999</b>

(1) Based on unaudited financial statements.

(2) Reflects accumulated depreciation of \$512,709.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Investment Results

Yield on Mean Values for 12-Month Period Ending September 30, 2014<sup>(1)</sup>

	-\$-	<u>Market</u> -%-	<u>Book</u> -%-
<u>Membership and Benefits Accounts</u>			
Interest	16,928,376	1.6	1.8
Dividends	9,581,173	0.9	1.0
Rental and Other Income, less Depreciation	194,382	0.0	0.0
Realized Gains	63,534,335	5.9	6.7
Securities Lending (Net)	545,550	0.1	0.1
Increase in Unrealized Gains	5,802,841	0.5	--
Custodial and Investment Expenses	<u>(4,188,007)</u>	<u>(0.4)</u>	<u>(0.4)</u>
	92,398,650	8.6	9.2
 <u>COLA I Account</u>			
Interest	824,233	1.6	1.8
Dividends	461,789	0.9	1.0
Rental and Other Income, less Depreciation	9,294	0.0	0.0
Realized Gains	3,052,730	5.8	6.6
Securities Lending (Net)	26,184	0.0	0.1
Increase in Unrealized Gains	775,731	1.5	--
Custodial and Investment Expenses	<u>(201,417)</u>	<u>(0.4)</u>	<u>(0.4)</u>
	4,948,544	9.4	9.1
 <u>COLA II Account</u>			
Interest	5,023,799	1.6	1.8
Dividends	2,776,954	0.9	1.0
Rental and Other Income, less Depreciation	55,942	0.0	0.0
Realized Gains	18,365,703	5.8	6.6
Securities Lending (Net)	157,944	0.0	0.1
Increase in Unrealized Gains	2,434,089	0.8	--
Custodial and Investment Expenses	<u>(1,211,047)</u>	<u>(0.4)</u>	<u>(0.4)</u>
	27,603,384	8.7	9.1

<sup>(1)</sup> Before 1/1/2016 COLA transfer, if any



**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Accounting Information  
As of October 1

	<u>2014</u>	<u>2013</u>
I. <u>Present Value of Vested Accrued Benefits</u>	-\$-	-\$-
A. Service Retirements and Beneficiaries	1,338,709,196	1,344,589,383
B. Disability Retirements	28,692,260	29,878,873
C. Vested Terminated Members	2,307,321	2,847,867
D. Active Members	<u>208,780,651</u>	<u>172,853,328</u>
E. Total	1,578,489,428	1,550,169,451
II. <u>Present Value of Non-Vested Accrued Benefits</u>	11,128,196	6,592,056
III. <u>Present Value of Accrued Benefits</u>	1,589,617,624	1,556,761,507
IV. The values of accumulated plan benefits were determined in accordance with the Academy of Actuaries Interpretations and ASC 960 (formerly FASB Statement No. 35, <u>Accounting and Reporting by Defined Benefit Pension Plans.</u> )		
V. <u>Statement of Changes in Accrued Benefits</u>		
A. Present Value of Accrued Benefits at Beginning of Year		1,556,761,507
B. Increase (Decrease) During the Year Attributable to:		
1. Benefits Accumulated		34,913,897
2. Benefits Paid and Contributions Refunded		(126,452,387)
3. Plan Amendment		0
4. Assumption/Method Changes		12,379,458
5. Increase Due to Decrease in Discount Period		<u>112,015,149</u>
6. Net Increase		32,856,117
C. Present Value of Accrued Benefits at End of Year		1,589,617,624

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Comparison of Funding Progress  
(\$000)

I.	<u>Assets</u>				
		<u>10/1/2014</u>	<u>10/1/2013</u>	<u>10/1/2012</u>	
		-\$-	-\$-	-\$-	
	A.	Book Value	990,925	981,516	982,006
	B.	Market Value	1,136,462	1,121,167	1,075,060
II.	<u>Liabilities</u> <sup>(1)</sup>				
	A.	Retired and Vested	1,369,709	1,377,316	1,381,464
	B.	Active			
		Employee Contributions	87,602	79,175	72,203
		Other Vested	121,179	93,679	79,288
		Non-Vested Accrued	<u>11,128</u>	<u>6,592</u>	<u>6,222</u>
	C.	Total Accrued	1,589,618	1,556,762	1,539,177
III.	<u>Ratios</u>		%	%	%
		IA/IIC	62.3	63.0	63.8
		IB/IIC	71.5	72.0	69.8

<sup>(1)</sup> Item II amounts are present values of accrued benefits.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Member Statistics

I. Active Members

	<u>10/1/2014</u>	<u>10/1/2013</u>	<u>10/1/2012</u>
Number of			
Males	1,280	1,097	1,064
Females	<u>202</u>	<u>176</u>	<u>172</u>
Total	1,482	1,273	1,236

Averages

Current Age	36.0	36.8	36.6
Past Service	9.1	9.8	9.6
Credited Past Service	9.1	9.8	9.6
Annual Earnings	\$63,229	\$66,946	\$66,510

II. Inactive Members

A. Retirees and Beneficiaries

Number	2,098	2,119	2,101
Average Annual Benefit	\$58,155	\$57,633	\$57,617
Average Age	63.9	63.5	62.8

B. Disabled

Number	149	161	170
Average Annual Benefit	\$22,132	\$21,360	\$20,958
Average Age	69.8	69.7	69.2

C. Vested Terminated

Number	12	13	14
Average Deferred Benefit	\$26,650	\$30,128	\$28,460
Average Age	41.7	42.7	43.2

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Age-Service Distribution

<u>Age</u>	<u>Completed Years of Service</u>										<u>Earnings</u>	
	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35+</u>	<u>Total</u>	<u>Total</u>	<u>Average</u>
											<u>-\$-</u>	<u>-\$-</u>
15-24	73	31	2	0	0	0	0	0	0	106	4,440,340	41,890
25-29	72	126	86	2	0	0	0	0	0	286	14,167,010	49,535
30-34	40	53	182	47	0	0	0	0	0	322	18,321,800	56,900
35-39	4	21	98	86	59	0	0	0	0	268	18,433,040	68,780
40-44	2	11	57	52	103	48	1	0	0	274	20,405,794	74,473
45-49	4	3	33	26	64	39	7	0	0	176	13,636,128	77,478
50-54	0	2	5	7	9	15	2	1	0	41	3,570,690	87,090
55-59	0	0	1	2	1	3	1	0	0	8	653,376	81,672
60-64	0	0	0	0	0	1	0	0	0	1	77,587	77,587
65+	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total</b>	195	247	464	222	236	106	11	1	0	1482	93,705,765	63,229

Average Age: 36.0

Average Service: 9.1

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Reconciliation of Participant Counts

	<u>Actives</u>	<u>Retirees &amp; Beneficiaries</u>	<u>Disableds</u>	<u>Vested Terminated</u>
10/1/2013	1,273	2,119	161	13
Changes due to:				
Retirement	-16	+18		-2
Terminated				
Non-Vested	-12			
Cash Out	-17			-1
Vested	-2			+2
Terminated	-2			+2
Disability				
Death	-2	-59	-12	
New Beneficiary		+19		
New Hires	+258			
Data Changes		+1		
	_____	_____	_____	_____
10/1/2014	1,482	2,098	149	12

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Principal System Provisions

(Based on Ordinance No. 10002, as Amended)

- Effective Date: January 1, 1940, as restated effective May 23, 1985, and amended through September 30, 2014.
- Fiscal Year: October 1 - September 30.
- Membership: Police officers and fire fighters.
- Covered Compensation: An employee's base salary, including pick-up contributions, for all straight time hours worked, plus assignment pay and payments received for vacation and sick leave taken, jury duty, and death-in-family leave taken. Earnable compensation shall not include overtime pay; payments for accrued sick leave, accrued vacation leave, or accrued compensatory leave; holiday pay; premium pay for holidays worked; the value of any employment benefits or non-monetary entitlements; or any other form of remuneration.
- Contributions: For Police Officers: 10%
- For Fire Fighters hired prior to October 1, 2014:  
Effective 10/1/2012: 10%  
Effective 9/30/2014: 7%
- For Fire Fighters hired on or after October 1, 2014, 10%
- City: Balance, as actuarially determined.
- Creditable Service: Service credited under Retirement System; military service (maximum of four years) during wartime for which Member makes contributions; maternity leave (maximum of 180 days for each leave) for which Member makes contributions; up to 5 years, without member contributions, if member was an employee before period of military service.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Principal System Provisions  
(continued)

Average Final  
Compensation:

For members who retire or terminate employment with ten or more years of creditable service prior to October 1, 2010, the annual earnable compensation of a member during either the last one year or the highest year of membership service, whichever is greater. Effective September 30, 2010, for members who retire on or after October 1, 2010, average final compensation shall mean the average of the highest 5 years of service, to be phased in over the next 4 years as follows: for members who retire on or after October 1, 2010 and on or before September 30, 2011, the average of the highest 2 years of membership service; for members who retire on or after October 1, 2011 and on or before September 30, 2012, the average of the highest 3 years of membership service; for members who retire on or after October 1, 2012 and on or before September 30, 2013, the average of the highest 4 years of membership service; and for members who retire on or after October 1, 2013, the average of the highest 5 years of membership service. Provided, in no event shall the average final compensation of any member who was employed as a police officer or firefighter on September 30, 2010 and retires on or after October 1, 2010, be less than the highest year of membership service prior to September 30, 2010.

Normal Service Age:

Age 50

**CITY OF MIAMI**  
**FIRE FIGHTERS' AND POLICE OFFICERS'**  
**RETIREMENT TRUST**

Summary of Principal System Provisions

(Continued)

- Service Retirement: For Police Officers who have reached Rule of 64 by September 30, 2010, for Fire Fighters who had reached Rule of 64 by September 30, 2009, and for Fire Fighters who have reached Rule of 68 by September 30, 2010: 3% of Average Final Compensation for each of the first fifteen years of Creditable Service plus 3.5% of Average Final Compensation for each year of Creditable Service after the fifteenth year; maximum of 100% of Average Final Compensation.
- For all others, for service prior to October 1, 2010: 3% of Average Final Compensation for each of the first fifteen years of Creditable Service plus 3.5% of Average Final Compensation for each of Creditable Service after the fifteenth year; for service after September 30, 2010: 3% of Average Final Compensation for each year of Creditable Service; The combined percentage for service before October 1, 2010 and service after September 30, 2010 may not exceed 100% of Average Final Compensation. The final benefit may not exceed the larger of the September 30, 2010 accrued benefit and \$100,000.
- Early Service Retirement: After 20 years of Creditable Service. Benefits are based on Average Final Compensation and Creditable Service at retirement date. Actuarial equivalence for early commencement.
- Rule of 64 Retirement: Service retirement on the basis of combined age and Creditable Service equaling 64 or more. Rule of 64 applies to Fire Fighters who had obtained 64 points by September 30, 2009 and Police Officers who had 64 points by September 30, 2010. Rule of 64 also applies to the accrued benefit as of September 30, 2010 of Police Officers who were active members as of September 29, 2010.
- Rule of 68 Retirement: Service retirement on the basis of combined age and Creditable Service equaling 68 or more. Rule of 68 applies to Fire Fighters who had not attained 64 points by September 30, 2009 and had attained 68 points by September 30, 2010. Rule of 68 also applies to the accrued benefit as of September 30, 2010 of Fire Fighters who were active members as of September 29, 2010.



**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Principal System Provisions  
(Continued)

- Rule of 70 Retirement: Service retirement on the basis of combined age and Creditable Service equaling 70 or more, after attainment of age 50 and completion of 10 years of Creditable Service. Rule of 70 applies to all new members hired on or after October 1, 2010, as well as to all benefits accrued after September 30, 2010 by Fire Fighters who had not attained 68 points on September 30, 2010 and Police Officers who had not attained 64 points on September 30, 2010.
- Disability: Ordinary Disability: After 10 or more years of Creditable Service, and not eligible for service retirement. Not incurred as accident in performance of duties. 90% of benefit rate times Average Final Compensation times Creditable Service, with a minimum benefit of 30% of Average Final Compensation; 10 years' certain and life normal form.
- Accidental Disability: Incurred as accident in performance of duties.  $66 \frac{2}{3}\%$  of Average Final Compensation, or  $66 \frac{2}{3}\%$  of Final Compensation, whichever is greater. 40% joint & survivor normal form, with a minimum of 10 years' certain and life.
- Deferred Retirement Option Plan: Effective January 1, 2013, members may elect the BackDROP option (maximum of 7 years), to receive:
- (a) monthly benefit based on earlier retirement date
  - (b) lump sum of past payments compounded at 3%/year
- Election must be made within 10 years after eligibility for normal retirement. Members eligible for forward DROP as of January 1, 2013 or vested as of January 1, 2010 remain eligible for forward DROP.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Principal System Provisions  
(Continued)

- Death:**   Ordinary Death: (a) Between 3 and 10 years of Creditable Service, and death not accidentally incurred in performance of duties: Lump sum benefit equal to 50% of Compensation received in year preceding death. (b) After 10 years of Creditable Service and before eligibility for Early Service or Rule of 64 Retirement, accrued benefit, deferred to earlier of member's 50th birthday or Rule of 64 eligibility, payable for 10 years. Beneficiary does not have to survive deferred period or 10 years' certain period. (c) If eligible for Service, Early Service, or Rule of 64 retirement, considered to have retired on the date of death. Surviving spouse would receive 40% of the member's monthly retirement allowance.
- Accidental Death: Incurred in performance of duties. (a) Pension of 50% of Average Final compensation to spouse until death or remarriage. If there is no spouse, or if spouse dies or remarries before youngest child is 18, payable until attainment of age 18. If no spouse or no children under 18, benefit is payable to dependent parents. (b) After 10 years of Creditable Service. Beneficiary does not have to survive deferral period or 10 years' certain period.
- Employment Termination:**             After 10 years of Creditable Service, based on Creditable Service and Average Final Compensation at termination date. If Member contributions are withdrawn, benefit is forfeited. Benefits are deferred to Normal Retirement Age.
- Optional Allowances:**                   Normal Form: For Police Officers who have reached Rule of 64 by September 30, 2010, for Fire Fighters who had reached Rule of 64 by September 30, 2009, and for Fire Fighters who have reached Rule of 68 by September 30, 2010: Normal Form is joint and 40% contingent survivor, with a minimum of 10 years' certain and life.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Principal System Provisions  
(Continued)

Optional Allowances: (Continued)	For all others, for benefits based on service prior to October 1, 2010: Normal Form is joint and 40% contingent survivor, with a minimum of 10 years' certain and life; for benefits based on service after September 30, 2010, Normal Form is 10 years' certain and life.
	Option 1 is cash refund annuity, based on present value at retirement. Option 2 is joint and 100% survivor. Option 3 is joint and 50% contingent survivor. Option 4 is open option. Option 5 is determined by Board due to incapacity of Member. Option 6 is withdrawal of member contributions with credited interest; monthly benefit is ½ of normal level.
Transfer of Compensated Leave Balances:	Accumulated leave balances may be transferred into system immediately prior to retirement to purchase additional Creditable Service, on an actuarially equivalent basis.
Transfer of 457 Balances:	457 balances of Firefighters may be transferred into System at retirement to purchase additional Service for multiplier purposes.
Changes Since Prior Valuation:	Police Officers hired prior to October 1, 2012 will continue to contribute 10%.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Actuarial Basis

Valuation Date: October 1, 2014 for Fiscal Year beginning October 1, 2015.

Valuation Method: Aggregate Cost Method.

Asset Valuation Method: 20% Write-Up Method: Expected value is based on the Interest Discount/Investment Return rate applied to the actuarial asset value as of previous valuation date and cash flow during the year. 20% of the difference between the Expected Value and the Market Value (net of pending transfers to the COLA Fund) is added to the Expected Value.

The result cannot be greater than 120% of market value or less than 80% of market value (net of pending COLA transfers).

Actuarial Assumptions:

Interest Discount/  
Investment Return: 7.42%, compounded annually.

Inflation: 3.25%, compounded annually.

Mortality: RP 2000 Mortality Table, Employees and Annuitants Combined, projected by scale AA to 2020, producing following specimen rates:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	.0235%	.0138%
30	.0402%	.0216%
40	.0919%	.0522%
50	.1487%	.1189%
60	.4887%	.4573%
70	1.6413%	1.5145%
80	5.2647%	3.9866%

Disabled Mortality: RP 2000 Disabled Mortality Table projected by scale AA to 2020, producing following specimen rates:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	1.5696%	.5287%
30	2.0418%	.6093%
40	1.9221%	.5507%
50	2.0149%	.8186%
60	3.0450%	1.9756%
70	4.6257%	3.4045%
80	8.9456%	6.2834%

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Actuarial Basis  
(Continued)

<u>Age</u>	<u>Disability</u>	<u>Turnover</u>	
		<u>&lt;5</u>	<u>5+</u>
25	.00130	.0240	.0192
30	.00180	.0240	.0192
35	.00285	.0240	.0192
40	.00390	.0180	.0144
45	.00800	.0120	.0096
50	.01210	.0000	.0000
55	.01620	.0000	.0000
60	.00000	.0000	.0000

Retirement: Fire Fighters who had attained 64 points by September 30, 2009 and Police Officers who had attained 64 points by September 30, 2010 are subject to the Rule of 64; Fire Fighters who had attained 68 points by September 30, 2010 are subject to the Rule of 68; all others are subject to the Rule of 70. If eligible for Retirement, the following decrements apply, based on service:

<u>Years of Service</u>	<u>Police %</u>	<u>Fire %</u>
<20	0	0
20	10	10
21-24	3	3
25-29	40	5
30-34	50	25
35	100	25
36		25
37		100

All Members retire in accordance with the probabilities above. All Members are assumed to elect a five-year BackDROP when they reach five years following first retirement eligibility.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Actuarial Basis  
(Continued)

Salary Merit Scale:

<u>Service</u>	<u>Police</u>	<u>Fire</u>
0	.0500	.0500
1	.0500	.0500
2	.0500	.0500
3	.0500	.0500
4	.0500	.0500
5	.0500	.0500
6	.0500	.0500
7	.0250	.0500
8	.0500	.0500
9	.0500	.0500
10	.0100	.0000
11	.0100	.0000
12	.0100	.0000
13	.0100	.0000
14	.0100	.0000
15	.0125	.0250
16	.0125	.0250
17	.0100	.0100
18	.0100	.0100
19	.0100	.0100
20	.0100	.0100
21	.0100	.0100
22 +	.0000	.0000

Salary Merit Scale is combined with 3.25% inflation and 1.5% for promotions and other increases. There is no additional increase at retirement.

Projected Total Payroll: Covered Payroll plus \$34,080,879 in payroll for members in forward DROP during 2013/2014 year.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Summary of Actuarial Basis  
(Continued)

Type of Disability:	100% of the disabilities are expected to be accidental disabilities.
Recovery:	No probabilities of recovery are used.
Type of Death:	100% of the assumed deaths are expected to be ordinary deaths.
Remarriage:	No probabilities of remarriage are used.
Spouse's Ages:	Female spouses are assumed to be 3 years younger than male spouses.
Marital Status:	All employees are assumed to be married. For Members currently receiving benefits, actual spouse's information is provided.
Investment Expenses:	The investment return assumption of 7.42% is net of investment expenses.
Administration Expenses:	Budget for fiscal year ending 9/30/16 (\$2,029,168) as provided by plan administrator.
Withdrawal of Employee Contributions:	It is assumed that employees do not withdraw their contribution balances upon employment termination or retirement.
Compensated Absence Balance Transfers:	No liabilities or costs are included for the provision to transfer compensated absence balances into FIPO to purchase additional creditable service, based on our understanding that assets will be transferred immediately prior to retirement to cover 100% of the liability for the additional service.
Adjustments from Valuation Date:	One year's interest is added to the calculated deposit to reflect ordinance provision. For purposes of minimum City contributions as specified by State Division of Retirement (Exhibit 18), additional interest discount is included to reflect monthly contributions.
Sources of Data:	Asset data is from unaudited financial statements and includes an appraised value for the real estate to be used for Market Value. Membership data was furnished by Administrator. Member compensation used is final bi-weekly pay in the year, annualized, with estimated reductions for each active member as of October 1, 2012 based on approach summarized in Tables 2 and 3 in September 24, 2012 Actuarial Impact Statement.
Changes Since Prior Valuation:	Interest discount decreased to 7.42% from 7.50%. Administration expenses have been decreased to \$2,029,168 from \$2,222,561.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Information Under Florida Statutes

I. Comparison of Salary Increases

<u>Year Ending</u>	<u>Actual</u>	<u>Assumed</u>
	-%-	-%-
9/30/14	1.38	7.72
9/30/13	3.64	7.77
9/30/12	(0.75)	7.92
9/30/11	7.14	7.48
9/30/10	(9.33) <sup>(1)</sup>	7.51
9/30/09	6.35	7.26
9/30/08	18.20	7.17
9/30/07	18.19 <sup>(1)</sup>	5.81
9/30/06	2.84	5.79
9/30/05	8.15	5.77

<sup>(1)</sup> Including impact of change in valuation pay definition.

II. Comparison of Investment Returns

<u>Year Ending</u>	<u>Actual MV</u>	<u>Actual AAV<sup>(2)</sup></u>	<u>Assumed</u>
-%-	-%-	-%-	-%-
9/30/14	8.6	7.18	7.50
9/30/13	11.2	6.95	7.50
9/30/12	17.4	5.98	7.50
9/30/11	3.6	3.98	7.50
9/30/10	9.8	4.48	7.75
9/30/09	(0.3)	(1.31)	7.75
9/30/08	(14.3)	3.65	7.75
9/30/07	14.2	8.27	7.75
9/30/06	9.1	7.57	7.75
9/30/05 (Revised)	15.6	7.83	7.75
9/30/05 (Prior)	15.6	8.43	7.75

<sup>(2)</sup> Based on mean actuarial asset values for periods ending 9/30.



**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Information Under Florida Statutes  
(Continued)

III. Comparison of Payroll Growth

<u>Year Ending</u>	<u>Actual</u>	<u>Assumed</u>
	-%-	-%-
9/30/14	10.0	N.A.
9/30/13	3.7	N.A.
9/30/12	0.1	N.A.
9/30/11	2.5	N.A.
9/30/10	(34.4)	N.A.
9/30/09	(5.5)	N.A.
9/30/08	24.8	N.A.
9/30/07	14.7	N.A.
9/30/06	(1.3)	N.A.
9/30/05	2.6	N.A.
Average (10 years)	1.7	N.A.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Information to Comply with Florida SB 534 (as interpreted)

	Valuation <sup>(1)</sup> 7.42%	- 200 bp <sup>(2)</sup> 5.42%	Funding Rate <sup>(2)</sup> 7.42%	+ 200 bp <sup>(2)</sup> 9.42%
<b>I. Total Pension Liability</b>				
Service Cost	17,233,272	17,233,272	17,233,272	17,233,272
Interest	155,338,970	155,338,970	155,338,970	155,338,970
Benefit changes	0	0	0	0
Difference between expected and actuarial experience	(6,638,755)	(6,638,755)	(6,638,755)	(6,638,755)
Changes in assumptions	11,080,277	499,297,941	31,635,033	(300,067,490)
Benefit payments	(138,869,919)	(138,869,919)	(138,869,919)	(138,869,919)
Contribution refunds	(990,357)	(990,357)	(990,357)	(990,357)
<b>Net change in pension liability</b>	<b>37,153,488</b>	<b>525,371,152</b>	<b>57,708,244</b>	<b>(273,994,279)</b>
<b>Total pension liability – beginning of year</b>	<b>2,123,883,136</b>	<b>2,123,883,136</b>	<b>2,123,883,136</b>	<b>2,123,883,136</b>
<b>Total pension liability – end of year</b>	<b>2,161,036,624</b>	<b>2,649,254,288</b>	<b>2,181,591,380</b>	<b>1,849,888,857</b>
<b>II. Plan fiduciary net position</b>				
Contributions – Employer	47,535,499	47,535,499	47,535,499	47,535,499
Contributions – State	0	0	0	0
Contributions – Member	9,462,569	9,462,569	9,462,569	9,462,569
Net investment income	133,426,360	133,426,360	133,426,360	133,426,360
Benefit payments	(138,869,919)	(138,869,919)	(138,869,919)	(138,869,919)
Contribution refunds	(990,357)	(990,357)	(990,357)	(990,357)
Administrative expense	(2,086,240)	(2,086,240)	(2,086,240)	(2,086,240)
Other	259,616	259,616	259,616	259,616
<b>Net change in plan fiduciary net position</b>	<b>48,737,528</b>	<b>48,737,528</b>	<b>48,737,528</b>	<b>48,737,528</b>
<b>Plan fiduciary net position – beginning of year</b>	<b>1,699,958,806</b>	<b>1,699,958,806</b>	<b>1,699,958,806</b>	<b>1,699,958,806</b>
<b>Plan fiduciary net position – end of year</b>	<b>1,748,696,334</b>	<b>1,748,696,334</b>	<b>1,748,696,334</b>	<b>1,748,696,334</b>
<b>III. Net Pension Liability</b>	<b>(412,340,290)</b>	<b>(900,557,954)</b>	<b>(432,895,046)</b>	<b>(101,192,523)</b>
<b>IV. Funded Ratio</b>	<b>80.92%</b>	<b>66.01%</b>	<b>80.16%</b>	<b>94.53%</b>
<b>V. Years that Assets support expected benefit payments</b>	<b>16</b>	<b>13</b>	<b>16</b>	<b>21</b>
<b>VI. Estimated City Contribution</b>				
- Annual Dollar Value	43,964,153	69,695,411	45,390,616	23,729,232
- Percentage of Payroll	46.92%	74.38%	48.44%	25.32%

(1) This information is based on the assumptions noted in Exhibit 8.

(2) This information is based on the assumptions noted in Exhibit 8 except for the interest rate as noted above and the mortality table of RP 2000 with generational projection using Scale AA.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Sustainment of Expected Benefit Payments

Mortality: Valuation

Interest: 7.42%

<u>Year</u>	<u>Market Value of Assets</u> -\$-	<u>Investment Return</u> -\$-	<u>Benefit Payments</u> -\$-
1	1,748,696,334 <sup>(1)</sup>	116,976,685	350,656,277 <sup>(1)</sup>
2	1,515,016,742	106,912,712	150,990,770
3	1,470,938,684	103,609,156	151,895,483
4	1,422,652,357	100,003,778	152,513,894
5	1,370,142,241	96,092,318	152,931,325
6	1,313,303,234	91,809,385	154,728,392
7	1,250,384,227	87,078,426	156,440,114
8	1,181,022,539	81,840,121	158,955,947
9	1,103,906,713	76,003,048	162,114,330
10	1,017,795,431	69,501,850	165,181,063
11	922,116,218	62,319,294	167,463,378
12	816,972,134	54,350,063	172,061,561
13	699,260,636	45,512,187	174,907,143
14	569,865,680	35,824,350	177,287,513
15	428,402,517	25,171,828	181,567,747
16	272,006,598	13,458,837	184,543,189
17	100,922,246		188,105,149

<sup>(1)</sup> Benefit Payments Include the DROP balance at 9/30/2014

**CITY OF MIAMI**  
**FIRE FIGHTERS' AND POLICE OFFICERS'**  
**RETIREMENT TRUST**

Sustainment of Expected Benefit Payments

Mortality: SB534

Interest: 5.42%

<u>Year</u>	<u>Market Value of Assets</u> -\$-	<u>Investment Return</u> -\$-	<u>Benefit Payments</u> -\$-
1	1,748,696,334 <sup>(1)</sup>	85,403,292	350,605,850 <sup>(1)</sup>
2	1,483,493,776	76,371,639	150,836,128
3	1,409,029,287	72,313,731	151,656,296
4	1,329,686,722	67,998,510	152,211,738
5	1,245,473,494	63,424,062	152,589,061
6	1,156,308,495	58,543,720	154,368,998
7	1,060,483,217	53,304,000	156,088,737
8	957,698,480	47,664,894	158,637,984
9	846,725,390	41,564,091	161,856,155
10	726,433,326	34,959,916	165,010,110
11	596,383,132	27,847,055	167,408,587
12	456,821,600	20,155,965	172,152,176
13	304,825,389	11,836,957	175,174,091
14	141,488,255		177,762,553

<sup>(1)</sup> Benefit Payments Include the DROP balance at 9/30/2014

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Sustainment of Expected Benefit Payments

Mortality: SB534

Interest: 7.42%

<u>Year</u>	<u>Market Value of Assets</u> -\$-	<u>Investment Return</u> -\$-	<u>Benefit Payments</u> -\$-
1	1,748,696,334 <sup>(1)</sup>	116,978,523	350,605,850 <sup>(1)</sup>
2	1,515,069,007	106,922,225	150,836,128
3	1,471,155,104	103,633,929	151,656,296
4	1,423,132,737	100,050,432	152,211,738
5	1,370,971,431	96,166,314	152,589,061
6	1,314,548,684	91,914,892	154,368,998
7	1,252,094,578	87,218,137	156,088,737
8	1,183,223,978	82,015,054	158,637,984
9	1,106,601,048	76,212,374	161,856,155
10	1,020,957,267	69,742,688	165,010,110
11	925,689,845	62,586,453	167,408,587
12	820,867,711	54,635,813	172,152,176
13	703,351,348	45,805,992	175,174,091
14	573,983,249	36,112,565	177,762,553
15	432,333,261	25,437,281	182,287,020
16	275,483,522	13,680,423	185,542,244
17	103,621,701		189,423,934

<sup>(1)</sup> Benefit Payments Include the DROP balance at 9/30/2014

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Sustainment of Expected Benefit Payments

Mortality: SB534

Interest: 9.42%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
	-\$-	-\$-	-\$-
1	1,748,696,334 <sup>(1)</sup>	148,585,248	350,605,850 <sup>(1)</sup>
2	1,546,675,732	138,752,336	150,836,128
3	1,534,591,940	137,576,282	151,656,296
4	1,520,511,926	136,224,372	152,211,738
5	1,504,524,560	134,700,990	152,589,061
6	1,486,636,489	132,933,985	154,368,998
7	1,465,201,476	130,835,630	156,088,737
8	1,439,948,369	128,339,419	158,637,984
9	1,409,649,804	125,337,130	161,856,155
10	1,373,130,779	121,751,829	165,010,110
11	1,329,872,498	117,566,472	167,408,587
12	1,280,030,383	112,652,950	172,152,176
13	1,220,531,157	106,908,993	175,174,091
14	1,152,266,059	100,359,248	177,762,553
15	1,074,862,754	92,859,549	182,287,020
16	985,435,283	84,285,611	185,542,244
17	884,178,650	74,568,522	189,423,934
18	769,323,238	63,556,605	193,605,879
19	639,273,964	51,250,893	194,802,016
20	495,722,841	37,567,515	198,295,979
21	334,994,377	22,255,177	202,025,696
22	155,223,858		203,984,458

<sup>(1)</sup> Benefit Payments Include the DROP balance at 9/30/2014

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Hypothetical City Contribution Requirement for 2015/2016 Fiscal Year

	2014/2015		
	<u>Total</u>	<u>Police</u>	<u>Fire</u>
	-\$-	-\$-	-\$-
I. <u>Unfunded Actuarial Accrued Liability</u>	N/A	N/A	N/A
3. <u>Normal Cost</u>			
3. Present Value of Future Benefits			
1. <u>Active Members</u>			
a. Retirement	406,475,370	230,859,495	175,615,875
b. Disability	51,259,582	29,306,289	21,953,293
c. Death	7,307,646	3,636,175	3,671,471
d. Turnover	25,029,798	13,174,743	11,855,055
e. Return of Contributions	<u>2,235,295</u>	<u>1,330,921</u>	<u>904,374</u>
f. Total	492,307,691	278,307,623	214,000,068
2. <u>Retired Members and Beneficiaries</u>			
3. Service Retirements + Beneficiaries	1,338,709,196	733,883,135	604,826,061
b. Disability Retirements	28,692,260	24,912,273	3,779,987
c. Terminated Vested Members	<u>2,307,321</u>	<u>2,006,817</u>	<u>300,504</u>
d. Total	<u>1,369,708,777</u>	<u>760,802,225</u>	<u>608,906,552</u>
3. Total	<u>1,862,016,468</u>	<u>1,039,109,848</u>	<u>822,906,620</u>
Entry Age Reserve			
1. Active	228,069,868	126,530,973	101,538,895
2. Inactive	<u>1,369,708,777</u>	<u>760,802,225</u>	<u>608,906,552</u>
3. Total	1,597,778,645	887,333,198	710,445,447
Actuarial Asset Value <sup>(1)</sup>	1,151,016,531	639,221,949	511,794,582

<sup>(1)</sup> Allocated based on Entry Age Reserve

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Hypothetical City Contribution Requirement for 2015/2016 Fiscal Year

	2014/2015		
	<u>Total</u> -\$-	<u>Police</u> -\$-	<u>Fire</u> -\$-
<b>II. <u>Normal Cost</u> (Cont'd)</b>			
A. Total Present Value of Future Benefits	1,862,016,468	1,039,109,848	822,906,620
B. Present Value of Future Member Contributions	112,603,159	67,956,109	44,647,050
C. Actuarial Asset Value <sup>(1)</sup>	1,151,016,531	639,221,949	511,794,582
D. Unfunded Actuarial Accrued Liability	<u>0</u>	<u>0</u>	<u>0</u>
E. Present Value of Future Normal Costs (A-B-C-D)	598,396,778	331,931,790	266,464,988
F. Present Value of Future Payrolls	1,441,538,742	747,887,187	693,651,555
G. Administrative Expense <sup>(1)</sup>	2,029,168	1,127,000	902,168
H. Current Payroll for those under Expected Retirement Age	93,705,765	50,725,581	42,980,183
I. Interest Rate	7.42%	7.42%	7.42%
J. Current Normal Cost - Payable 10/1/2013 ([ (E)x(H) / (F) ] + (G)) (1+(I))	43,964,153	25,394,445	18,704,967
K. Covered Payroll	93,705,765	50,725,581	42,980,184
L. Normal Cost as Percentage of Covered Payroll (J)/ (K)	46.92%	50.06%	43.52%
<b>III. <u>Quarterly City Contribution Schedule</u></b>			
A. Past Service Cost	0	0	0
B. Normal Cost	43,964,153	25,394,445	18,704,967
C. Payment Timing	<u>0</u>	<u>0</u>	<u>0</u>
D. Total	<u>43,964,153<sup>(2)</sup></u>	<u>25,394,445</u>	<u>18,704,967</u>

(1) Allocated based on Entry Age Reserve

(2) Hypothetical Total: \$44,099,412



**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

(COLA Fund)

I. COLA Increases by Duration Since Retirement

<u>Years Retired</u>	<u>No.</u>	<u>FIPO Benefits</u>	<u>COLA Benefits</u>	<u>%</u>
		<u>-\$-</u>	<u>-\$-</u>	
0 - 5	722	5,210,262	0	0.0
5 -10	343	1,946,817	112,715	5.8
10-15	218	953,897	149,055	15.6
15-20	269	987,698	284,673	28.8
20-25	208	689,545	330,741	48.0
25-30	149	332,275	273,783	82.4
30-35	126	168,700	258,871	153.5
35-40	157	122,166	317,173	259.6
40-45	48	27,739	106,339	383.4
45-50	6	2,805	18,771	669.2
50+	1	370	3,445	931.1
Total	2,247	10,442,274	1,855,566	17.8

II. COLA Increases by Attained Age (2014 Table)

<u>Age</u>	<u>No.</u>	<u>FIPO Benefits</u>	<u>COLA Benefits</u>	<u>%</u>
		<u>-\$-</u>	<u>-\$-</u>	
<45	17	76,213	736	1.0
45-50	156	916,016	1,603	0.2
50-54	398	2,596,149	30,788	1.2
55-59	411	2,614,647	94,012	3.6
60-64	321	1,719,847	187,060	10.9
65-69	269	1,074,860	277,180	25.8
70-74	215	694,018	305,741	44.1
75-79	154	351,235	264,849	75.4
80-84	152	243,229	338,940	139.4
85-89	116	126,867	264,496	208.5
>90	38	29,193	90,161	308.8
Total	2,247	10,442,274	1,855,566	17.8

**CITY OF MIAMI**  
**FIRE FIGHTERS' AND POLICE OFFICERS'**  
**RETIREMENT TRUST**  
(COLA Fund)

III. COLA Increases vs. CPI

<u>Years Retired</u>	<u>No.</u>	<u>COLA</u> <u>-%-</u>	<u>CPI</u> <u>-%-</u>	<u>COLA/CPI</u> <u>%</u>
0 - 5	722	0.0	8.4	0.0
5 -10	343	5.8	21.3	27.2
10-15	218	15.6	33.7	46.4
15-20	269	28.8	50.5	57.1
20-25	208	48.0	70.6	68.0
25-30	149	82.4	105.6	78.0
30-35	126	153.5	146.3	104.9
35-40	157	259.6	262.3	99.0
40-45	48	383.4	406.1	94.4
45-50	6	669.2	640.5	104.5
50+	1	931.1	652.6	142.8
Total	<u>2,247</u>	<u>17.8</u>	<u>30.7</u>	<u>57.8</u>

IV. Consumer Price Index (CPI-U)

<u>Year</u>	<u>December Index</u>	<u>Annual</u> <u>%</u>
2006	201.800	2.5
2007	210.036	4.1
2008	210.228	0.1
2009	215.949	2.7
2010	219.179	1.5
2011	225.672	3.0
2012	229.601	1.7
2013	233.049	1.5
2014	234.812	0.8

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

(COLA Fund)

**I. Summary of Assets Available for Benefits at October 1, 2014**

	<u>Revised Assumptions</u>	<u>Prior Assumptions</u>
	-\$-	-\$-
A. COLA Accounts (Exhibit 4)		
1. COLA I Account at 9/30/2014	57,910,152	57,910,152
2. COLA II Account at 9/30/2014	336,657,504	336,657,504
B. Transfers of Excess Investment Income		
1. \$0 due on 1/1/2015	0	0
2. \$0 due on 1/1/2016	0	0
C. Minimum City Contributions <sup>(1)</sup>		
\$6,161,789 beginning 1/1/2017 permanent, discounted	70,690,546	69,819,465
D. City Contribution		
1. Contribution of \$5,696,920 due on 1/1/2015, discounted	5,595,886	5,594,844
2. Contribution of \$5,924,797 due on 1/1/2016, discounted	5,417,726	5,412,687
E. Assets Available for COLA Benefits	<u>476,271,814</u>	<u>475,394,652</u>

**II. COLA Fund Liabilities for Benefits at October 1, 2014<sup>(2)</sup>**

A. Present Value of Existing COLA Benefits for Inactives		
1. Frozen COLA I benefits	856,184	853,165
2. COLA II benefits	<u>326,413,125</u>	<u>323,718,347</u>
3. Total inactive COLA benefits	327,269,309	324,571,512
B. Present Value of Projected COLA Benefits for Actives		
1. Reserve for current actives	41,302,497	40,337,051
2. Reserve for future actives (15% of B(1))	<u>6,195,375</u>	<u>6,050,558</u>
3. Total	47,497,872	46,387,609
C. Total Liability Allocated (A(3) + (B3))	374,767,181	370,959,121
D. Contingency Reserve [20% of I(E)-I(B)(2)]		95,078,930
E. Contingency Reserve [19.3276% of I(E)-I(B)(2)]	92,051,789	
F. Unallocated Reserve <sup>(3)</sup>	<u>9,452,844</u>	<u>9,356,601</u>
G. Total Liability for COLA Benefits	476,271,814	475,394,652

- Notes: (1) Revised:  $(1/1.0742)^{2.25} \times (\ddot{a}_{\infty}) = 11.4724061$   
 Prior:  $(1/1.0750)^{2.25} \times (\ddot{a}_{\infty}) = 11.3310379$   
 (2) Service for COLA excludes 457 buyback service.  
 (3) For \$1,629 Table, II(D)+II(E) = \$101,504,633 (Revised) or \$104,435,531 (Prior)

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

(COLA Fund)

III. Derivation of Increase in Table as of January 1, 2015

	<u>Revised</u> <u>Assumptions</u>	<u>Prior</u> <u>Assumptions</u>
	-\$-	-\$-
A. Liability based on current \$1,629 table		
1. Inactive COLA II Benefits	326,413,125	323,718,347
2. Present Value of Projected COLA benefits for current actives	41,302,497	40,337,051
3. Reserve for future actives [15% of (2)]	<u>6,195,375</u>	<u>6,050,558</u>
4. Total	<u>373,910,997</u>	<u>370,105,956</u>
B. Assets available to increase table		
1. Total assets available for COLA Benefits	476,271,814	475,394,652
2. Total Liability Allocated (current \$1,629 table)	374,767,181	370,959,121
3. Contingency Reserve II(D)	<u>92,051,789</u>	<u>95,078,930</u>
4. Available Assets [(1)-(2)-(3)]	9,452,844	9,356,601
5. \$0 due on 1/1/2016, discounted	<u>0</u>	<u>0</u>
6. Net Available Assets [(4)-(5)]	9,452,844	9,356,601
7. Increase ratio [(B6)/ (A4)]	0.025281	0.025281
8. Potential table increase [\$1,629x (7)]	41	41
9. Potential table amount [\$1,629+ (8)]	1,670	1,670
10. Actual new table amount	1,670	1,670

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

(COLA Fund)

Cumulative Experience Position Net of Asset Transfers

	<u>Revised Assumptions</u>	<u>Prior Assumptions</u>
	-\$-	-\$-
I. <u>Calculation of Expected Unfunded Actuarial Accrued Liability at 10/1/2014</u>		
A. Expected Unfunded Actuarial Liability at 10/1/2013	222,498,240	222,498,240
B. Entry Age Normal Cost for 2012/2014 Year Paid or Payable by Employer	7,225,630	7,225,630
C. Interest on (A) and (B) at 7.50%	17,229,290	17,229,290
D. Contributions for 2013/2014 Year Paid or Payable by Employer (Required)	42,057,691	42,057,691
E. Interest on (D) at 7.50%	<u>2,909,294</u>	<u>2,909,294</u>
F. Expected Unfunded Actuarial Liability at 9/30/2014	201,986,175	201,986,175
G. Additional Unfunded Actuarial Liability due to		
1. Assumption Changes	11,869,986	0
2. Plan Amendment	0	0
H. Final Expected Unfunded Actuarial Liability at 9/30/2014	213,856,161	201,986,175
II. <u>Determination of Net Cumulative Experience Position at 10/1/2014</u>		
A. Expected Unfunded Actuarial Liability at 9/30/2014	213,856,161	201,986,175
B. Entry Age Reserve		
1. Actives	228,069,868	225,611,274
2. Inactives	<u>1,369,708,777</u>	<u>1,360,297,385</u>
2. Total	<u>1,597,778,645</u>	<u>1,585,908,659</u>
C. Actuarial Asset Value	1,151,016,531	1,151,016,531
D. Actual Unfunded Actuarial Liability (B)-(C)	<u>446,762,114</u>	<u>434,892,128</u>
E. Cumulative Experience Gain (Loss) (A)-(D)	(232,905,953)	(232,905,953)
III. <u>Future Transfers of Excess Investment Income at 10/1/2014</u>		
A. \$0 due on 1/1/2015, discounted	0	0
B. \$34,111,625 due on 1/1/2016, discounted <sup>(1)</sup>	<u>0</u>	<u>0</u>
C. Total Future Transfers at 10/1/2014 (A)+(B)	0	0

<sup>(1)</sup> No transfer permitted unless cumulative experience is positive at the valuation date preceding transfer

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

(COLA Fund)

Summary of Principal COLA Provisions

Effective Date:	January 1, 1994, amended January 1, 1995.
Eligibility:	All inactive members in Miami Fire Fighters' and Police Officers' Retirement Trust.
Prior COLA:	Benefits granted through 1993 continue to be paid, in addition to benefits to be granted in the future.
Available Assets:	Existing COLA assets as of January 1, 1995; beginning with the 1991/92 fiscal year, a percentage of excess investment return on FIPO assets (75% of first 2.5%, 50% of next 2.5%, 25% of next 2.5%), subject to a minimum City contribution of \$2.5 million, increasing 4% annually.
Allocated Assets:	Current COLA assets as of September 30, 2014, plus present value of \$2.5 million minimum guarantee. The 4% future annual increases is not pre-allocated. A contingency reserve of 20% has been established for adverse experience.
COLA Benefits:	In addition to prior COLA, benefits are based on attached table, with \$1,670 monthly benefit for 25 years of creditable service and 22 completed years of retirement (after age 46). The \$1,670 amount is reduced by 5% for each year of retirement less than 22 and each year of creditable service less than 25 and increased similarly for years of retirement greater than 22 and years of creditable service greater than 25.  Benefits are based on the FIPO option elected. Tabular amounts are adjusted, based on the FIPO adjustments at the time of FIPO benefit commencement, for options other than Option 8 (Joint & 40%). Surviving spouses receive the percentage of the table amount determined under the FIPO election.  Service-incurred and accidental disabilities and deaths receive benefits based on the greater of 25 years or actual creditable service.
<b>Changes from Prior Year Valuation:</b>	<b>The radix of the COLA table was increased from \$1,629 to \$1,670.</b>

**Miami Firefighters' and Police Officers' Retirement Trust  
2015 Monthly Retirement Supplements (\$1670 Table)**

		Completed Years of Retirement (after age 46)																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
10		0	0	0	42	63	84	104	125	146	167	188	209	230	251	271	292	313	334	355	376	397	418	438	459	480
11		0	0	0	50	75	100	125	150	175	200	225	251	276	301	326	351	376	401	426	451	476	501	526	551	576
12		0	0	0	58	88	117	146	175	205	234	263	292	321	351	380	409	438	468	497	526	555	585	614	643	672
13		0	0	0	67	100	134	167	200	234	267	301	334	367	401	434	468	501	534	568	601	635	668	701	735	768
14		0	0	0	75	113	150	188	225	263	301	338	376	413	451	488	526	564	601	639	676	714	752	789	827	864
15		0	0	0	84	125	167	209	251	292	334	376	418	459	501	543	585	626	668	710	752	793	835	877	919	960
16		0	0	0	92	138	184	230	276	321	367	413	459	505	551	597	643	689	735	781	827	873	919	964	1010	1056
17		0	0	0	100	150	200	251	301	351	401	451	501	551	601	651	701	752	802	852	902	952	1002	1052	1102	1152
18	Y	0	0	0	109	163	217	271	326	380	434	488	543	597	651	706	760	814	868	923	977	1031	1086	1140	1194	1248
19	e	0	0	0	117	175	234	292	351	409	468	526	585	643	701	760	818	877	935	994	1052	1111	1169	1227	1286	1344
20	a	0	0	0	125	188	251	313	376	438	501	564	626	689	752	814	877	939	1002	1065	1127	1190	1253	1315	1378	1440
21	r	0	0	0	134	200	267	334	401	468	534	601	668	735	802	868	935	1002	1069	1136	1202	1269	1336	1403	1470	1536
22	s	0	0	0	142	213	284	355	426	497	568	639	710	781	852	923	994	1065	1136	1207	1278	1349	1420	1490	1561	1632
23	o	0	0	0	150	225	301	376	451	526	601	676	752	827	902	977	1052	1127	1202	1278	1353	1428	1503	1578	1653	1728
24	f	0	0	0	159	238	317	397	476	555	635	714	793	873	952	1031	1111	1190	1269	1349	1428	1507	1587	1666	1745	1824
25		0	0	0	167	251	334	418	501	585	668	752	835	919	1002	1086	1169	1253	1336	1420	1503	1587	1670	1754	1837	1921
26		0	0	0	175	263	351	438	526	614	701	789	877	964	1052	1140	1227	1315	1403	1490	1578	1666	1754	1841	1929	2017
27	C	0	0	0	184	276	367	459	551	643	735	827	919	1010	1102	1194	1286	1378	1470	1561	1653	1745	1837	1929	2021	2113
28	r	0	0	0	192	288	384	480	576	672	768	864	960	1056	1152	1248	1344	1440	1536	1632	1728	1824	1921	2017	2113	2209
29	e	0	0	0	200	301	401	501	601	701	802	902	1002	1102	1202	1303	1403	1503	1603	1703	1804	1904	2004	2104	2204	2305
30	d	0	0	0	209	313	418	522	626	731	835	939	1044	1148	1253	1357	1461	1566	1670	1774	1879	1983	2088	2192	2296	2401
31	i	0	0	0	217	326	434	543	651	760	868	977	1086	1194	1303	1411	1520	1628	1737	1845	1954	2062	2171	2280	2388	2497
32	t	0	0	0	225	338	451	564	676	789	902	1015	1127	1240	1353	1465	1578	1691	1804	1916	2029	2142	2255	2367	2480	2593
33	e	0	0	0	234	351	468	584	701	818	935	1052	1169	1286	1403	1520	1637	1754	1870	1987	2104	2221	2338	2455	2572	2689
34	d	0	0	0	242	363	484	605	726	848	969	1090	1211	1332	1453	1574	1695	1816	1937	2058	2179	2300	2422	2543	2664	2785
35		0	0	0	251	376	501	626	752	877	1002	1127	1253	1378	1503	1628	1754	1879	2004	2129	2255	2380	2505	2630	2756	2881
36	S	0	0	0	259	388	518	647	777	906	1035	1165	1294	1424	1553	1683	1812	1941	2071	2200	2330	2459	2589	2718	2847	2977
37	e	0	0	0	267	401	534	668	802	935	1069	1202	1336	1470	1603	1737	1870	2004	2138	2271	2405	2538	2672	2806	2939	3073
38	r	0	0	0	276	413	551	689	827	964	1102	1240	1378	1516	1653	1791	1929	2067	2204	2342	2480	2618	2756	2893	3031	3169
39	v	0	0	0	284	426	568	710	852	994	1136	1278	1420	1561	1703	1845	1987	2129	2271	2413	2555	2697	2839	2981	3123	3265
40	i	0	0	0	292	438	585	731	877	1023	1169	1315	1461	1607	1754	1900	2046	2192	2338	2484	2630	2776	2923	3069	3215	3361
41	c	0	0	0	301	451	601	751	902	1052	1202	1353	1503	1653	1804	1954	2104	2255	2405	2555	2705	2856	3006	3156	3307	3457
42	e	0	0	0	309	463	618	772	927	1081	1236	1390	1545	1699	1854	2008	2163	2317	2472	2626	2781	2935	3090	3244	3398	3553
43		0	0	0	317	476	635	793	952	1111	1269	1428	1587	1745	1904	2062	2221	2380	2538	2697	2856	3014	3173	3332	3490	3649
44		0	0	0	326	488	651	814	977	1140	1303	1465	1628	1791	1954	2117	2280	2442	2605	2768	2931	3094	3257	3419	3582	3745
45		0	0	0	334	501	668	835	1002	1169	1336	1503	1670	1837	2004	2171	2338	2505	2672	2839	3006	3173	3340	3507	3674	3841
46		0	0	0	342	514	685	856	1027	1198	1369	1541	1712	1883	2054	2225	2396	2568	2739	2910	3081	3252	3424	3595	3766	3937
47		0	0	0	351	526	701	877	1052	1227	1403	1578	1754	1929	2104	2280	2455	2630	2806	2981	3156	3332	3507	3682	3858	4033
48		0	0	0	359	539	718	898	1077	1257	1436	1616	1795	1975	2154	2334	2513	2693	2872	3052	3231	3411	3591	3770	3950	4129
49		0	0	0	367	551	735	919	1102	1286	1470	1653	1837	2021	2204	2388	2572	2756	2939	3123	3307	3490	3674	3858	4041	4225
50		0	0	0	376	564	752	939	1127	1315	1503	1691	1879	2067	2255	2442	2630	2818	3006	3194	3382	3570	3758	3945	4133	4321

**Miami Firefighters' and Police Officers' Retirement Trust**  
**2015 Monthly Retirement Supplements (\$1670 Table)**

Completed Years of Retirement (after age 46)

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
10	501	522	543	564	585	605	626	647	668	689	710	731	752	772	793	814	835	856	877	898	919	939	960	981	1002
11	601	626	651	676	701	726	752	777	802	827	852	877	902	927	952	977	1002	1027	1052	1077	1102	1127	1152	1177	1202
12	701	731	760	789	818	848	877	906	935	964	994	1023	1052	1081	1111	1140	1169	1198	1227	1257	1286	1315	1344	1374	1403
13	802	835	868	902	935	969	1002	1035	1069	1102	1136	1169	1202	1236	1269	1303	1336	1369	1403	1436	1470	1503	1536	1570	1603
14	902	939	977	1015	1052	1090	1127	1165	1202	1240	1278	1315	1353	1390	1428	1465	1503	1541	1578	1616	1653	1691	1728	1766	1804
15	1002	1044	1086	1127	1169	1211	1253	1294	1336	1378	1420	1461	1503	1545	1587	1628	1670	1712	1754	1795	1837	1879	1921	1962	2004
16	1102	1148	1194	1240	1286	1332	1378	1424	1470	1516	1561	1607	1653	1699	1745	1791	1837	1883	1929	1975	2021	2067	2113	2158	2204
17	1202	1253	1303	1353	1403	1453	1503	1553	1603	1653	1703	1754	1804	1854	1904	1954	2004	2054	2104	2154	2204	2255	2305	2355	2405
18	1303	1357	1411	1465	1520	1574	1628	1683	1737	1791	1845	1900	1954	2008	2062	2117	2171	2225	2280	2334	2388	2442	2497	2551	2605
19	1403	1461	1520	1578	1637	1695	1754	1812	1870	1929	1987	2046	2104	2163	2221	2280	2338	2396	2455	2513	2572	2630	2689	2747	2806
20	1503	1566	1628	1691	1754	1816	1879	1941	2004	2067	2129	2192	2255	2317	2380	2442	2505	2568	2630	2693	2756	2818	2881	2943	3006
21	1603	1670	1737	1804	1870	1937	2004	2071	2138	2204	2271	2338	2405	2472	2538	2605	2672	2739	2806	2872	2939	3006	3073	3140	3206
22	1703	1774	1845	1916	1987	2058	2129	2200	2271	2342	2413	2484	2555	2626	2697	2768	2839	2910	2981	3052	3123	3194	3265	3336	3407
23	1804	1879	1954	2029	2104	2179	2255	2330	2405	2480	2555	2630	2705	2781	2856	2931	3006	3081	3156	3231	3307	3382	3457	3532	3607
24	1904	1983	2062	2142	2221	2300	2380	2459	2538	2618	2697	2776	2856	2935	3014	3094	3173	3252	3332	3411	3490	3570	3649	3728	3808
25	2004	2088	2171	2255	2338	2422	2505	2589	2672	2756	2839	2923	3006	3090	3173	3257	3340	3424	3507	3591	3674	3758	3841	3925	4008
26	2104	2192	2280	2367	2455	2543	2630	2718	2806	2893	2981	3069	3156	3244	3332	3419	3507	3595	3682	3770	3858	3945	4033	4121	4208
27	2204	2296	2388	2480	2572	2664	2756	2847	2939	3031	3123	3215	3307	3398	3490	3582	3674	3766	3858	3950	4041	4133	4225	4317	4409
28	2305	2401	2497	2593	2689	2785	2881	2977	3073	3169	3265	3361	3457	3553	3649	3745	3841	3937	4033	4129	4225	4321	4417	4513	4609
29	2405	2505	2605	2705	2806	2906	3006	3106	3206	3307	3407	3507	3607	3707	3808	3908	4008	4108	4208	4309	4409	4509	4609	4709	4810
30	2505	2609	2714	2818	2923	3027	3131	3236	3340	3444	3549	3653	3758	3862	3966	4071	4175	4279	4384	4488	4593	4697	4801	4906	5010
31	2605	2714	2822	2931	3039	3148	3257	3365	3474	3582	3691	3799	3908	4016	4125	4233	4342	4451	4559	4668	4776	4885	4993	5102	5210
32	2705	2818	2931	3044	3156	3269	3382	3494	3607	3720	3833	3945	4058	4171	4284	4396	4509	4622	4734	4847	4960	5073	5185	5298	5411
33	2806	2923	3039	3156	3273	3390	3507	3624	3741	3858	3975	4092	4208	4325	4442	4559	4676	4793	4910	5027	5144	5261	5377	5494	5611
34	2906	3027	3148	3269	3390	3511	3632	3753	3874	3995	4117	4238	4359	4480	4601	4722	4843	4964	5085	5206	5327	5448	5569	5691	5812
35	3006	3131	3257	3382	3507	3632	3758	3883	4008	4133	4259	4384	4509	4634	4760	4885	5010	5135	5261	5386	5511	5636	5762	5887	6012
36	3106	3236	3365	3494	3624	3753	3883	4012	4142	4271	4400	4530	4659	4789	4918	5048	5177	5306	5436	5565	5695	5824	5954	6083	6212
37	3206	3340	3474	3607	3741	3874	4008	4142	4275	4409	4542	4676	4810	4943	5077	5210	5344	5478	5611	5745	5878	6012	6146	6279	6413
38	3307	3444	3582	3720	3858	3995	4133	4271	4409	4547	4684	4822	4960	5098	5235	5373	5511	5649	5787	5924	6062	6200	6338	6475	6613
39	3407	3549	3691	3833	3975	4117	4259	4400	4542	4684	4826	4968	5110	5252	5394	5536	5678	5820	5962	6104	6246	6388	6530	6672	6814
40	3507	3653	3799	3945	4092	4238	4384	4530	4676	4822	4968	5114	5261	5407	5553	5699	5845	5991	6137	6283	6430	6576	6722	6868	7014
41	3607	3758	3908	4058	4208	4359	4509	4659	4810	4960	5110	5261	5411	5561	5711	5862	6012	6162	6313	6463	6613	6764	6914	7064	7214
42	3707	3862	4016	4171	4325	4480	4634	4789	4943	5098	5252	5407	5561	5716	5870	6025	6179	6333	6488	6642	6797	6951	7106	7260	7415
43	3808	3966	4125	4284	4442	4601	4760	4918	5077	5235	5394	5553	5711	5870	6029	6187	6346	6505	6663	6822	6981	7139	7298	7457	7615
44	3908	4071	4233	4396	4559	4722	4885	5048	5210	5373	5536	5699	5862	6025	6187	6350	6513	6676	6839	7001	7164	7327	7490	7653	7816
45	4008	4175	4342	4509	4676	4843	5010	5177	5344	5511	5678	5845	6012	6179	6346	6513	6680	6847	7014	7181	7348	7515	7682	7849	8016
46	4108	4279	4451	4622	4793	4964	5135	5306	5478	5649	5820	5991	6162	6333	6505	6676	6847	7018	7189	7361	7532	7703	7874	8045	8216
47	4208	4384	4559	4734	4910	5085	5261	5436	5611	5787	5962	6137	6313	6488	6663	6839	7014	7189	7365	7540	7715	7891	8066	8241	8417
48	4309	4488	4668	4847	5027	5206	5386	5565	5745	5924	6104	6283	6463	6642	6822	7001	7181	7361	7540	7720	7899	8079	8258	8438	8617
49	4409	4593	4776	4960	5144	5327	5511	5695	5878	6062	6246	6430	6613	6797	6981	7164	7348	7532	7715	7899	8083	8267	8450	8634	8818
50	4509	4697	4885	5073	5261	5448	5636	5824	6012	6200	6388	6576	6764	6951	7139	7327	7515	7703	7891	8079	8267	8454	8642	8830	9018



**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

(COLA Fund)

Summary of Actuarial Basis

Valuation Date: January 1, 2015.

Valuation Method: Accrued Benefit Cost Method, based on benefits granted to date.

Asset Valuation Method: Market Value, plus present value of future minimum City contributions.

Actuarial Assumptions:

Interest Discount/  
Investment Return: 7.42%, compounded annually.

Mortality: RP 2000 Mortality Table, Employees and Annuitants Combined, projected by scale AA to 2020, producing following specimen rates:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	.0235%	.0138%
30	.0402%	.0216%
40	.0919%	.0522%
50	.1487%	.1189%
60	.4887%	.4573%
70	1.6413%	1.5145%
80	5.2647%	3.9866%

Disabled Mortality: RP 2000 Disabled Mortality Table projected by scale AA to 2020, producing following specimen rates:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	1.5696%	.5287%
30	2.0418%	.6093%
40	1.9221%	.5507%
50	2.0149%	.8186%
60	3.0450%	1.9756%
70	4.6257%	3.4045%
80	8.9456%	6.2834%

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**  
(COLA Fund)

Summary of Actuarial Basis  
(Continued)

<u>Age</u>	<u>Disability</u>	<u>Turnover</u>	
		<u>&lt;5</u>	<u>5+</u>
20	.00085	.0240	.0192
25	.00130	.0240	.0192
30	.00180	.0240	.0192
35	.00285	.0240	.0192
40	.00390	.0180	.0144
45	.00800	.0120	.0096
50	.01210	.0000	.0000
55	.01620	.0000	.0000
60	.00000	.0000	.0000

Retirement: Fire Fighters who had attained 64 points by September 30, 2009 and Police Officers who had attained 64 points by September 30, 2010 are subject to the Rule of 64; Fire Fighters who had attained 68 points by September 30, 2010 are subject to the Rule of 68; all others are subject to the Rule of 70. If eligible for Retirement, the following decrements apply, based on service.

<u>Years of Service</u>	<u>Police %</u>	<u>Fire %</u>
<20	0	0
20	10	10
21-24	3	3
25-29	40	5
30-34	50	25
35	100	25
36		25
37		100

There is no explicit assumption on the percentage of retirements expected to enter the DROP. No distinction is necessary, since funding is calculated to expected retirement or expected DROP entry.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

(COLA Fund)

Summary of Actuarial Basis  
(Continued)

Type of Disability:	100% of the disabilities are expected to be accidental disabilities.
Recovery:	No probabilities of recovery are used.
Type of Death:	100% of the assumed deaths are expected to be ordinary deaths.
Remarriage:	No probabilities of remarriage are used.
Spouse's Ages:	Female spouses are assumed to be 3 years younger than male spouses.
Marital Status:	All employees are assumed to be married.
Investment Expenses:	Not provided for.
Withdrawal of Employee Contributions:	It is assumed that employees do not withdraw their contribution balances upon employment termination or retirement.
Adjustments from Valuation Date:	Liabilities are discounted for 3 months at the Investment Return assumption.
Sources of Data:	Asset data is from unaudited financial statements. Membership data was furnished by Administrator.
Changes from Prior Year Valuation:	Interest discount decreased to 7.42% from 7.50%.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Disclosure Information Under GASB 5  
(COLA Fund)

I. Funding Status and Progress as of September 30, 2014 and 2013

Pension benefit obligation:	<u>\$(Millions)</u>	
	<u>2014</u>	<u>2013</u>
	(\$1,629 Table)	(\$1,427 Table)
- Retirees and beneficiaries currently receiving prior COLA benefits	0.9	1.0
- Retirees and beneficiaries receiving COLA tabular benefits (beginning January 1) and terminated employees not yet receiving tabular benefits	323.7	282.5
- Current Employees Accumulated employee contributions including interest	0.2	0.2
Employer - financed vested	0.0	0.0
Employer - financed non-vested	<u>46.2</u>	<u>36.3</u>
- Total pension benefit obligation	371.0	320.0
Net assets available for benefits	<u>394.6</u>	<u>378.7</u>
Unfunded pension benefit (obligation)/asset	23.6	58.7

The pension benefit obligations were determined as part of actuarial valuations at January 1, 2015 and January 1, 2014, based on data and asset information at September 30, 2014 and September 30, 2013. Significant actuarial assumptions used include (a) a rate of return on the investment of present and future assets of 7.50% per year compounded annually, (b) post retirement COLA benefits based on the table in effect at January 1, 2014 and January 1, 2013.

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Disclosure Information Under GASB 5  
(COLA Fund)  
(Based on 01/01/2014 \$1,629 Table)

II. Contributions Required and Contributions Made

The funding policy provides for annual employer contributions from January 1, 1994. The amount of the contribution was \$2.5 million, beginning January 1, 1994, increasing 4% per year each year thereafter, and reduced (but not below zero) by any excess investment income transfer due on the same date.

The excess investment income transfer consists of a portion of gains due to investment return exceeding the 7.50 percent assumption.

III. Analysis of funding Progress (\$ Millions)

<u>Fiscal Year</u>	(1) Net Assets Available for <u>Benefits</u> <sup>(1)</sup> (\$)	(2) Pension Benefit <u>Obligation</u> <sup>(2)</sup> (\$)	(3) Percent <u>Funded</u> (%)	(4) Unfunded PBO <u>(2)-(1)</u> (\$)	(5) Annual Covered <u>Payroll</u> (\$)	<u>(4)/(5)</u> (%)
2005	231.6	195.0	119	(36.6)	91.5	(40)
2006	249.0	216.8	115	(32.2)	90.4	(36)
2007	300.2	242.9	124	(57.3)	103.6	(55)
2008	305.8	279.4	109	(26.4)	129.4	(20)
2009	296.3	290.0	102	(6.3)	122.2	(5)
2010	311.8	315.6	99	3.8	80.2	5
2011	310.0	303.6	102	(6.4)	82.2	(8)
2012	350.3	312.6	112	(37.7)	82.2	(46)
2013	378.7	320.0	118	(58.7)	85.2	(69)
2014	394.6	370.1	107	(24.5)	93.7	(26)

<sup>(1)</sup> Excluding future City minimum contributions.

<sup>(2)</sup> Excluding new increment and contingency reserves

**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

Disclosure Information Under GASB 5  
(COLA Fund)

IV. Revenues and Expenses

<u>Fiscal Year</u>	<u>Revenues by Source</u>			
	<u>Employee Contributions</u>	<u>Employer Contributions</u>	<u>Investment Income</u>	<u>Total</u>
	(\$)	(\$)	(\$)	(\$)
2005	0	3,848,635	12,516,741	16,365,377
2006	0	0	25,340,983	25,340,983
2007	0	0	47,781,293	47,781,293
2008	0	0	44,539,016	44,539,016
2009	0	0	44,696,486	44,696,486
2010	0	4,682,453	18,493,888	23,176,341
2011	0	4,869,751	25,484,227	30,353,978
2012	0	5,064,541	21,399,142	26,463,683
2013	0	5,267,123	27,293,996	32,561,119
2014	0	5,477,808	30,812,622	36,290,430

<u>Fiscal Year</u>	<u>Expenses by Type</u>			
	<u>Benefits</u>	<u>Administrative Expenses</u>	<u>Refunds</u>	<u>Total</u>
	(\$)	(\$)	(\$)	(\$)
2005	10,614,510	672,938	1,182	11,288,630
2006	11,760,071	807,594	1,934	12,569,599
2007	13,304,749	944,477	388	14,249,614
2008	15,666,175	1,053,599	14,154	16,733,928
2009	16,925,422	867,083	0	17,795,505
2010	17,236,918	1,164,379	0	18,401,297
2011	17,363,841	1,321,324	0	18,685,165
2012	17,747,481	1,456,098	421	19,204,000
2013	19,522,271	1,604,698	0	21,126,969
2014	22,188,409	1,483,762	0	23,672,171