

**CITY OF MIAMI BEACH EMPLOYEES' RETIREMENT PLAN**  
ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2012

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2014





March 11, 2013

Board of Trustees  
City of Miami Beach Employees'  
Retirement Plan  
Miami Beach, Florida

Dear Board Members:

The results of the October 1, 2012 Actuarial Valuation of the City of Miami Beach Employees' Retirement Plan are presented in this report.

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

The purpose of the valuation is to measure the Plan's funding progress, to determine the employer contribution rate for the fiscal years ending September 30, 2014 and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 25.

This report should not be relied on for any purpose other than the purpose described above.

The findings in this report are based on data or other information through September 30, 2012. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

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

This report was prepared using certain assumptions prescribed by the Board as described in Section B.

The undersigned actuaries are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

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

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

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

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**SECTION A**  
**DISCUSSION OF VALUATION RESULTS**

## DISCUSSION OF VALUATION RESULTS

### Comparison of Required Employer Contributions

A comparison of the required employer contribution developed in this and the last actuarial valuation is shown below.

	Required City Contribution			Non-DROP Covered Payroll	Total Covered Payroll
	Amount	% of Non-DROP Payroll	% of Total Payroll		
For FYE 9/30/14 Based on 10/1/12 Valuation	\$ 26,212,015	40.29 %	37.56 %	\$ 65,053,945	\$ 69,782,689
For FYE 9/30/13 Based on 10/1/11 Valuation	21,222,051	31.99 %	29.84 %	\$ 66,346,904	\$ 71,127,701
Increase (Decrease)	4,989,964	8.30	7.72	(1,292,959)	(1,345,012)

The contribution has been adjusted for interest on the basis that the employer contribution is made in a single payment on the first day of the fiscal year. The actual employer contribution for the year ending September 30, 2012 was \$16,312,068 plus \$1,271,123 of prepaid employer contributions for a total of \$17,583,191. The minimum required contribution was \$17,583,191.

### Revisions in Benefits

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

### Revisions in Actuarial Assumptions and Methods

The investment return assumption was reduced from 8.15% last year to 8.00% this year.

The Actuarial Standard of Practice (ASOP) with regard to the mortality assumption has recently been revised. ASOP No. 35 Disclosure Section 4.1.1 now states *“The disclosure of the mortality assumption should contain sufficient detail to permit another qualified actuary to understand the provision made for future mortality improvement. If the actuary assumes zero mortality improvement after the measurement date, the actuary should state that no provision was made for future mortality improvement.”*

The mortality table used was the RP-2000 Combined Healthy Participant Mortality Tables for males and females projected to the year 2010 using Scale AA. There is no provision for future mortality improvements after 2010. We recommend that the mortality assumption be revised to include a margin for

mortality improvements after 2010. Detail on this assumption can be found in the Actuarial Assumptions and Cost Method section.

### **Actuarial Experience**

There was a net actuarial loss of \$23,859,099 for the year which means actual experience was less favorable than expected. The actuarial loss was primarily due to lower than expected recognized return on investments, and was partially offset by gains due to lower salary increases than expected. The return on the Actuarial Value of Assets was 2.1% and the return on the Market Value of Assets was 20.5%. The actuarial loss translates into an increase in the employer contribution equal to 3.31% of non-DROP payroll.

### **Funded Ratio**

The funded ratio this year is 66.1% compared to 70.7% last year. This year's ratio was 67.2% before the assumption change described above.

The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.

### **Analysis of Change in Employer Contribution**

The components of change in the required employer contribution as a percent of non-DROP payroll are as follows:

Contribution rate last year	31.99 %
Change in assumptions/methods	1.66
Payment on unfunded liability	3.38
Change in employer normal cost rate	(0.19)
Experience gain/loss	3.31
Adjustment due to prepaid contribution	0.12
Change in administrative expense	<u>0.02</u>
Contribution rate this year	40.29 %

### **Asset Values**

It is important to keep in mind that under the asset smoothing method, the difference between actual and expected return is recognized over five years. As of September 30, 2012 the market value of assets exceeded the actuarial value by \$2,071,601. Once all the gains and losses through September 30, 2012 are fully recognized in the actuarial asset values, the contribution rate will decrease by roughly 0.3% of non-DROP payroll unless there are further gains or losses.

If we were not using an asset smoothing method, the City contribution rate would have been 40.01% and the funded ratio would have been 66.4%.

### **Projections of Required Contributions and Funded Ratio**

The following three pages show the estimated City contributions and funded ratios over the next ten years, and a projection of the unfunded accrued liability and amortization payments over the next thirty years. The projections are based on these assumptions:

- An 8.0% return on market value of assets for 2013 and for each year after.
- Cash flow remains constant
- No future gains or losses other than the recognition of prior investment experience
- 3% payroll growth

The projections reflect the expiration of amortization bases. For example, for the 2013 valuation, there will be an increase in the amortization payments on the unfunded accrued liability in the amount of \$1,142,872. In 2014, the amortization payments will increase by \$1,194,337. In 2015, the amortization payments will increase by \$502,225. In 2016, the amortization payments will decrease by \$1,323,663.

### **Conclusion**

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.

## 10-Year Projection of Annual Required Contribution (ARC)

### Total ARC Current Assumptions

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Fiscal Year Ending 9/30	Dollar Amount (thousands)	% of Payroll
2014	\$ 26,212	40.29 %
2015	28,264	42.18
2016	29,454	42.68
2017	29,947	42.13
2018	27,761	37.91
2019	27,669	36.69
2020	27,573	35.50
2021	27,484	34.35
2022	27,378	33.22
2023	27,274	32.13
2024	27,163	31.07

#### Assumptions

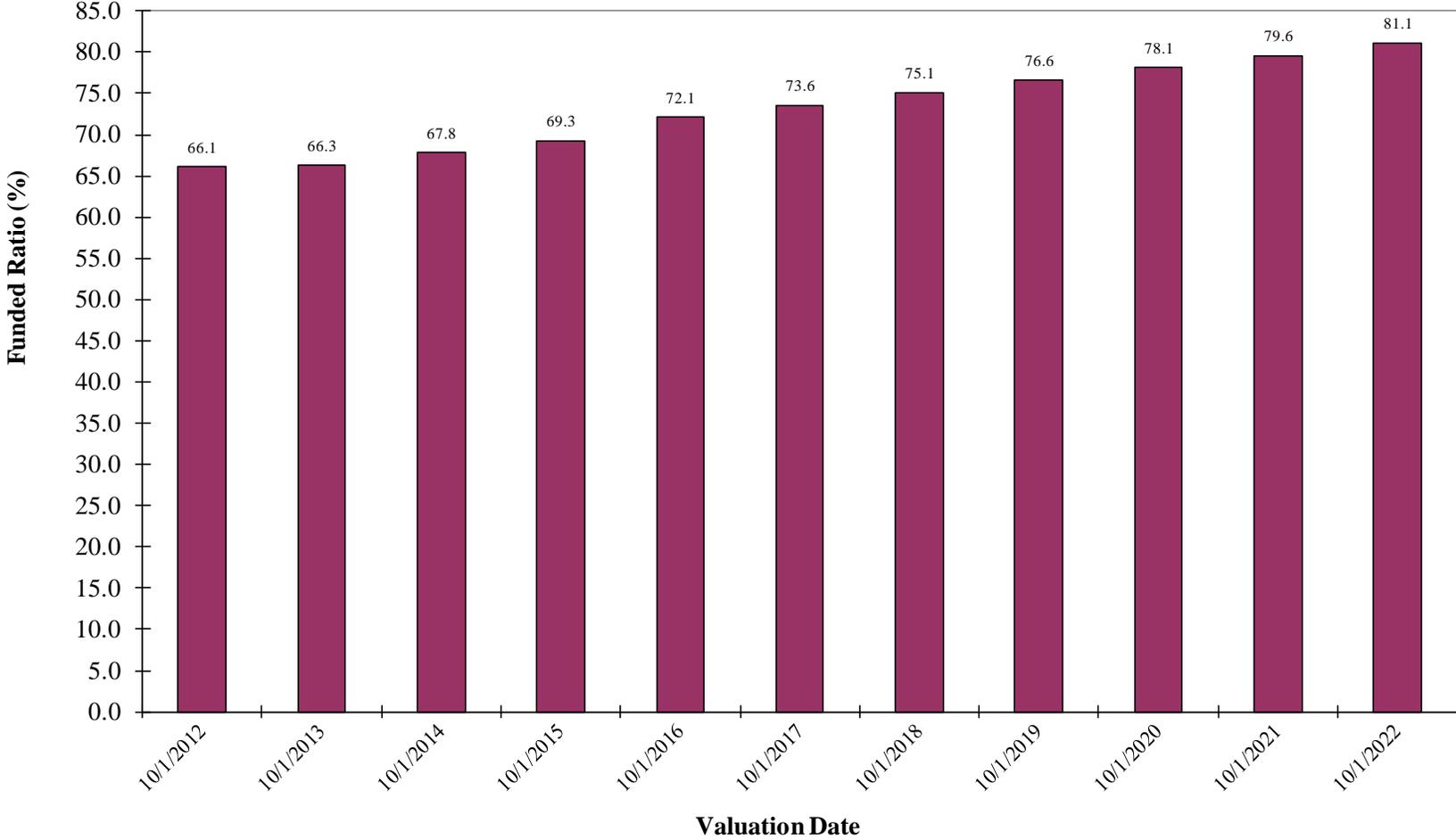
*8.0% return on Market Value of Assets*

*No gains or losses other than recognition  
of prior investment experience*

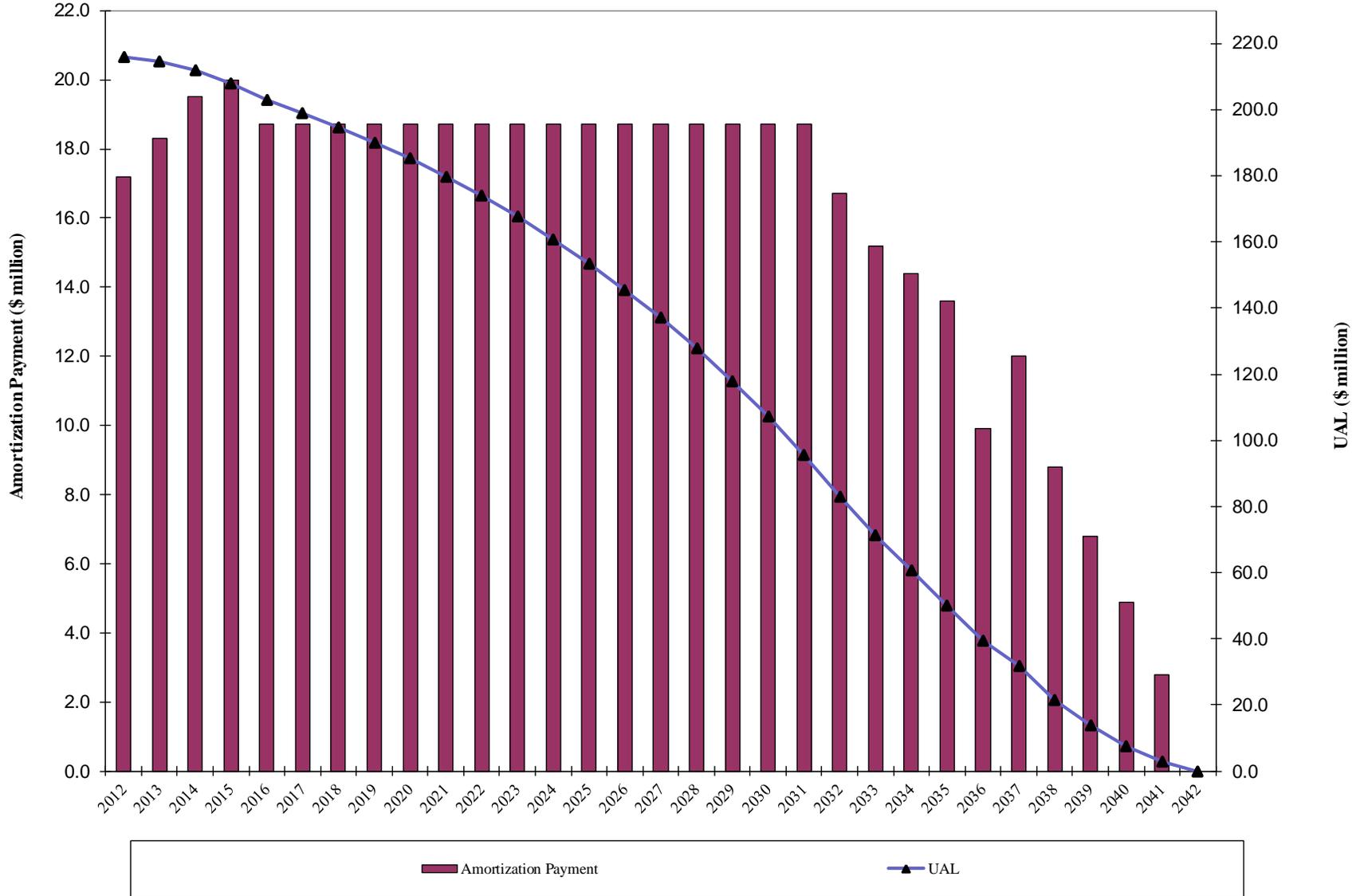
*Constant cash flow*

*3.0% payroll growth*

**City of Miami Beach Employees' Retirement Plan  
10-Year Projection of Funded Ratio**



### 30- Year Projection of Unfunded Actuarial Accrued Liability (UAL) and Amortization Payments



**SECTION B**  
**VALUATION RESULTS**

<b>PARTICIPANT DATA</b>		
	<b>October 1, 2012</b>	<b>October 1, 2011</b>
<b>ACTIVE MEMBERS</b>		
Number (Non-DROP)	1,049	1,072
Covered Annual Non-DROP Payroll	\$ 65,053,945	\$ 66,346,904
Average Annual Non-DROP Pay	\$ 62,015	\$ 61,891
Total Covered Annual Payroll	\$ 69,782,689	\$ 71,127,701
Average Total Annual Pay	\$ 63,209	\$ 62,834
Average Age (Non-DROP)	45.1	44.8
Average Past Service (Non-DROP)	9.8	9.6
Average Age at Hire (Non-DROP)	35.3	35.2
<b>DROP PARTICIPANTS</b>		
Number	55	60
Annual Benefits	\$ 2,994,703	3,038,978
Average Annual Benefit	\$ 54,449	50,650
Average Age	59.3	59.1
<b>RETIREES &amp; BENEFICIARIES</b>		
Number	1,002	972
Annual Benefits	\$ 33,085,394	\$ 30,321,221
Average Annual Benefit	\$ 33,019	\$ 31,195
Average Age	71.1	71.3
<b>DISABILITY RETIREES</b>		
Number	43	43
Annual Benefits	\$ 1,117,160	\$ 1,038,368
Average Annual Benefit	\$ 25,980	\$ 24,148
Average Age	65.6	66.3
<b>TERMINATED VESTED MEMBERS</b>		
Number	63	68
Annual Benefits	\$ 1,343,444	\$ 1,296,576
Average Annual Benefit	\$ 21,325	\$ 19,067
Average Age	45.9	46.5

<b>ANNUAL REQUIRED CONTRIBUTION (ARC)</b>			
A. Valuation Date	October 1, 2012 <i>After Assumption Change</i>	October 1, 2012 <i>Before Assumption Change</i>	October 1, 2011
B. ARC to Be Paid During Fiscal Year Ending	9/30/2014	9/30/2014	9/30/2013
C. Assumed Date of Employer Contrib.	10/1/2013	10/1/2013	10/1/2012
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 17,184,796	\$ 16,555,575	\$ 12,706,745
E. Employer Normal Cost	7,085,589	6,682,247	6,916,048
F. ARC if Paid on the Valuation Date: D+E	24,270,385	23,237,822	19,622,793
G. ARC Adjusted for Frequency of Payments	26,212,015	25,131,704	21,222,051
H. ARC as % of Covered Payroll			
- Non-DROP Payroll	40.29 %	38.63 %	31.99 %
- Total Payroll	37.56 %	36.01 %	29.84 %
I. Expected Covered Payroll			
- Non-DROP Payroll	65,053,945	65,053,945	66,346,904
- Total Payroll	69,782,689	69,782,689	71,127,701

<b>ACTUARIAL VALUE OF BENEFITS AND ASSETS</b>			
A. Valuation Date	October 1, 2012 <i>After Assumption Change</i>	October 1, 2012 <i>Before Assumption Change</i>	October 1, 2011
<b>B. Actuarial Present Value of All Projected Benefits for</b>			
1. Active Members			
a. Service Retirement Benefits	\$ 264,825,342	\$ 257,622,998	\$ 269,719,201
b. Vesting Benefits	31,967,178	30,885,431	31,827,213
c. Disability Benefits	7,271,899	7,097,334	6,968,416
d. Preretirement Death Benefits	3,953,764	3,855,931	3,901,096
e. Return of Member Contributions	631,843	628,393	618,849
f. Total	<u>308,650,026</u>	<u>300,090,087</u>	<u>313,034,775</u>
2. Inactive Members			
a. Service Retirees & Beneficiaries	409,347,392	404,010,960	372,407,944
b. Disability Retirees	12,377,127	12,213,881	11,255,203
c. Terminated Vested Members	11,480,115	11,210,208	12,545,886
d. Total	<u>433,204,634</u>	<u>427,435,049</u>	<u>396,209,033</u>
3. Total for All Members	741,854,660	727,525,136	709,243,808
C. Actuarial Accrued (Past Service) Liability per GASB No. 25	637,363,774	627,203,174	602,577,503
<b>D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35</b>			
1. Based on Plan's Interest Rate	596,192,659	586,776,312	563,637,296
2. Based on FRS Interest Rate	612,487,510	612,487,510	588,546,798
<b>E. Plan Assets</b>			
1. Market Value	423,447,642	423,447,642	362,764,920
2. Actuarial Value	421,376,041	421,376,041	425,781,050
F. Unfunded Actuarial Accrued Liability: C-E2	215,987,733	205,827,133	176,796,453
G. Actuarial Present Value of Projected Covered Payroll	543,825,043	539,308,153	548,806,758
H. Actuarial Present Value of Projected Member Contributions	51,791,078	51,395,925	52,578,408

<b>CALCULATION OF EMPLOYER NORMAL COST</b>			
A. Valuation Date	October 1, 2012 <i>After Assumption Change</i>	October 1, 2012 <i>Before Assumption Change</i>	October 1, 2011
<b>B. Normal Cost for</b>			
1. Service Retirement Benefits	\$ 9,825,032	\$ 9,508,736	\$ 9,815,719
2. Vesting Benefits	2,047,065	1,975,912	2,015,078
3. Disability Benefits	529,872	518,795	515,569
4. Preretirement Death Benefits	268,222	262,014	262,722
5. Return of Member Contributions	225,573	226,965	226,604
6. Total for Future Benefits	<u>12,895,764</u>	<u>12,492,422</u>	<u>12,835,692</u>
7. Assumed Amount for Administrative Expenses	<u>694,180</u>	<u>694,180</u>	<u>693,694</u>
8. Total Normal Cost	13,589,944	13,186,602	13,529,386
% of Covered Payroll			
- Non-DROP Payroll	20.89 %	20.27 %	20.39 %
- Total Payroll	19.47 %	18.90 %	19.02 %
<b>C. Expected Member Contribution</b>	6,504,355	6,504,355	6,613,338
% of Covered Payroll			
- Non-DROP Payroll	10.00 %	10.00 %	9.97 %
- Total Payroll	9.32 %	9.32 %	9.30 %
<b>D. Employer Normal Cost: B8-C</b>	7,085,589	6,682,247	6,916,048
% of Covered Payroll			
- Non-DROP Payroll	10.89 %	10.27 %	10.42 %
- Total Payroll	10.15 %	9.58 %	9.72 %

**LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY**

<b>A. Derivation of the Current UAAL</b>	
1. Last Year's UAAL	\$ 176,796,453
2. Employer Normal Cost for Contribution Year	7,433,480
3. Last Year's Contributions	
a. Employer Contribution Paid During FYE 9/30/2012	16,312,068
b. Prepaid Contribution Applied to FYE 9/30/2012	<u>466,878</u>
c. Total	16,778,946
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	15,014,740
b. 3 from dates paid	<u>1,367,484</u>
c. a - b	13,647,256
5. This Year's Expected UAAL Prior to Revision: 1 + 2 - 3 + 4c	181,098,243
6. Change in UAAL Due to Plan Amendments and/or Changes in Actuarial Assumptions	10,160,600
7. This Year's Expected UAAL After Revisions: 5 + 6	191,258,843
8. This Year's Actual UAAL After Revisions:	215,987,733
9. Adjustment for 2012 Prepaid Contribution*	869,791
10. This Year's Gain (Loss): 7 - 8 + 9	(23,859,099)
11. Gain (Loss) Due to Investments	(25,503,240)
12. Gain (Loss) Due to Other Causes	1,644,141

\* An excess contribution of \$804,245 was made during fiscal year ending 9/30/2011 that was used to offset the contribution requirement for the fiscal year ending 9/30/2012. Since this amount was already reflected in assets for the 10/1/2011 Valuation, an adjustment is required. Therefore, a charge base in the amount of \$869,791 (\$804,245 plus 8.15% interest) was created as of 10/1/2012.

<b>B. UAAL Amortization Period and Payments</b>							
<b>Original UAAL</b>				<b>Current UAAL</b>			
<b>Date Established</b>	<b>Source</b>	<b>Amortization Period (Years)</b>	<b>Amount</b>	<b>Years Remaining</b>	<b>Amount</b>	<b>Payment</b>	
						<b>Before Changes</b>	<b>After Changes</b>
10/1/98	(Gain) Loss	15	\$ (9,492,383)	1	\$ (1,142,872)	\$ (1,142,872)	\$ (1,142,872)
10/1/99	(Gain) Loss	15	(11,197,306)	2	(2,467,935)	(1,282,283)	(1,281,428)
10/1/99	Plan Chg.	15	761,013	2	167,731	87,149	87,091
10/1/00	(Gain) Loss	15	(1,184,364)	3	(361,679)	(130,119)	(129,948)
10/1/01	(Gain) Loss	15	4,182,294	4	1,563,571	437,958	437,106
10/1/01	Plan Chg.	15	8,482,719	4	3,171,302	888,286	886,557
10/1/02	(Gain) Loss	30	24,017,296	20	20,763,850	1,977,351	1,958,189
10/1/03	(Gain) Loss	30	16,972,622	21	16,343,016	1,526,028	1,510,704
10/1/04	(Gain) Loss	30	9,682,048	22	9,131,281	837,543	828,850
10/1/05	(Gain) Loss and Assum. Chg.*	30	9,377,578	23	8,608,071	776,841	768,527
10/1/06	(Gain) Loss	30	11,796,972	24	10,858,091	965,521	954,888
10/1/06	(Gain) Loss	30	34,747,408	24	31,981,987	2,843,896	2,812,578
10/1/07	(Gain) Loss	30	(14,036,710)	25	(13,079,347)	(1,147,475)	(1,134,497)
10/1/07	Assum. and Method Chg.**	30	(12,143,754)	25	(11,315,499)	(992,730)	(981,502)
10/1/08	(Gain) Loss	30	29,844,325	26	29,463,272	2,553,274	2,523,669
10/1/08	Assum. Chg	30	8,228,994	26	8,123,925	704,016	695,853
10/1/09	(Gain) Loss	30	28,291,986	27	27,828,306	2,384,639	2,356,339
10/1/09	Assum. Chg	30	8,975,372	27	8,828,274	756,505	747,527
10/1/09	Assum. Chg	30	(7,968,884)	27	(7,838,281)	(671,671)	(663,700)
10/1/09	Plan Chg.	30	(6,161,412)	27	(6,060,432)	(519,325)	(513,162)
10/1/09	***	6	(1,126,404)	3	(1,036,146)	(372,767)	(372,277)
10/1/10	(Gain) Loss	30	15,123,488	28	15,306,995	1,298,259	1,282,512
10/1/10	Assum. Chg	30	8,061,915	28	8,159,739	692,066	683,672
10/1/11	(Gain) Loss	30	22,163,141	29	22,422,914	1,883,978	1,860,656
10/1/11	Assum. Chg	30	1,658,668	29	1,678,109	140,995	139,250
10/1/12	****	29	869,791	29	869,791	73,080	72,175
10/1/12	(Gain) Loss	30	23,859,099	30	23,859,099	1,987,432	1,962,354
10/1/12	Assum. Chg	30	10,160,600	30	10,160,600	N/A	835,685
			213,946,112		215,987,733	16,555,575	17,184,796

\* Loss of 7,060,041 plus assumption change of 2,317,537.

\*\*Assumption change of 5,311,398 plus method change of (17,455,152).

\*\*\*Credit Base established to reflect receivables from Excess Plan

\*\*\*\*Charge Base established to reflect excess contribution for fiscal year ending 9/30/11 that was included in assets. This base is established as of 10/1/12.

**C. Amortization Schedule**

The UAAL is being liquidated as a level dollar amount over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

<b>Amortization Schedule</b>	
<b>Year</b>	<b>Expected UAAL</b>
2012	\$ 215,987,733
2013	214,707,175
2014	212,089,868
2015	207,973,292
2016	202,984,986
2017	199,027,173
2022	173,950,748
2027	137,105,252
2032	82,967,131
2037	31,880,733
2042	-

## ACTUARIAL GAINS AND LOSSES

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

Net actuarial gains in previous years are as follows:

Year Ended	Gain (Loss)
9/30/1990	\$ (9,106,524)
9/30/1991	2,727,904
9/30/1992	4,954,823
9/30/1993	5,370,894
9/30/1994	(1,696,061)
9/30/1995	6,661,918
9/30/1996	7,568,621
9/30/1997	13,539,264
9/30/1998	6,894,790
9/30/1999	16,168,137
9/30/2000	6,540,306
9/30/2001	(6,572,791)
9/30/2002	(32,586,068)
9/30/2003	(18,414,901)
9/30/2004	(9,682,048)
9/30/2005	(7,060,041)
9/30/2006	(11,796,971)
9/30/2007	14,036,710
9/30/2008	(29,844,325)
9/30/2009	(28,291,986)
9/30/2010	(15,123,488)
9/30/2011	(22,163,141)
9/30/2012	(23,859,099)

## HISTORY OF INVESTMENT RETURNS AND SALARY INCREASES

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

Year Ending	General Plan				Unclassified Plan			
	Investment Return		Salary Increases		Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed	Actual	Assumed	Actual	Assumed
9/30/1989	11.6 %	8.0 %	1.9 %	6.0 %	14.6 %	8.0 %	3.2 %	6.0 %
9/30/1990	7.3	8.5	7.5	6.0	(2.3)	8.0	12.3	6.0
9/30/1991	8.1	8.5	3.0	6.0	21.6	8.5	3.4	6.0
9/30/1992	13.7	8.5	2.0 *	6.0	5.8	9.0	2.4	6.0
9/30/1993	11.4	8.5	3.1	6.0	14.1	9.0	6.3	6.0
9/30/1994	6.8	8.5	3.9	6.0	4.8	9.0	6.0	6.0
9/30/1995	11.4	8.5	8.8	6.0	24.1	9.0	7.6	6.0
9/30/1996	15.3	8.5	4.2	6.0	13.9	9.0	8.6	6.0
9/30/1997	13.8	8.5	6.0	6.0	19.1	9.0	7.4	6.0
9/30/1998	12.5	8.5	5.0	6.0	4.3	9.0	4.1	6.0
9/30/1999	14.4	8.5	7.3	6.0	18.8	9.0	7.1	6.0
9/30/2000	10.7	8.5	6.7	6.0	16.5	9.0	6.7	6.0
9/30/2001	7.2	8.5	9.3	6.0	9.7	9.0	7.0	6.0
9/30/2002	0.3	8.5	8.9	6.0	1.7	9.0	9.2	6.0
9/30/2003	4.3	8.5	8.1	6.0	4.6	9.0	7.5	6.0
9/30/2004	4.1	8.5	3.1	6.0	9.7	9.0	5.7	6.0
9/30/2005	4.4	8.5	4.7	6.0	10.7	9.0	6.8	6.0
9/30/2006	7.7	8.5	11.9	6.0	10.2	8.75	7.9	6.0
9/30/2007 **	12.0	8.75	(3.6)	6.0	NA	NA	NA	NA
9/30/2008 **	5.2	8.65	11.3	6.0	NA	NA	NA	NA
9/30/2009 **	1.1	8.50	4.8	6.0	NA	NA	NA	NA
9/30/2010 **	5.0	8.35	2.5	6.0	NA	NA	NA	NA
9/30/2011 **	1.1	8.25	0.8	6.8	NA	NA	NA	NA
9/30/2012 **	2.1	8.15	1.7	5.7	NA	NA	NA	NA
Averages	7.9 %	---	5.1 %	---	11.0 %	---	6.6 %	---

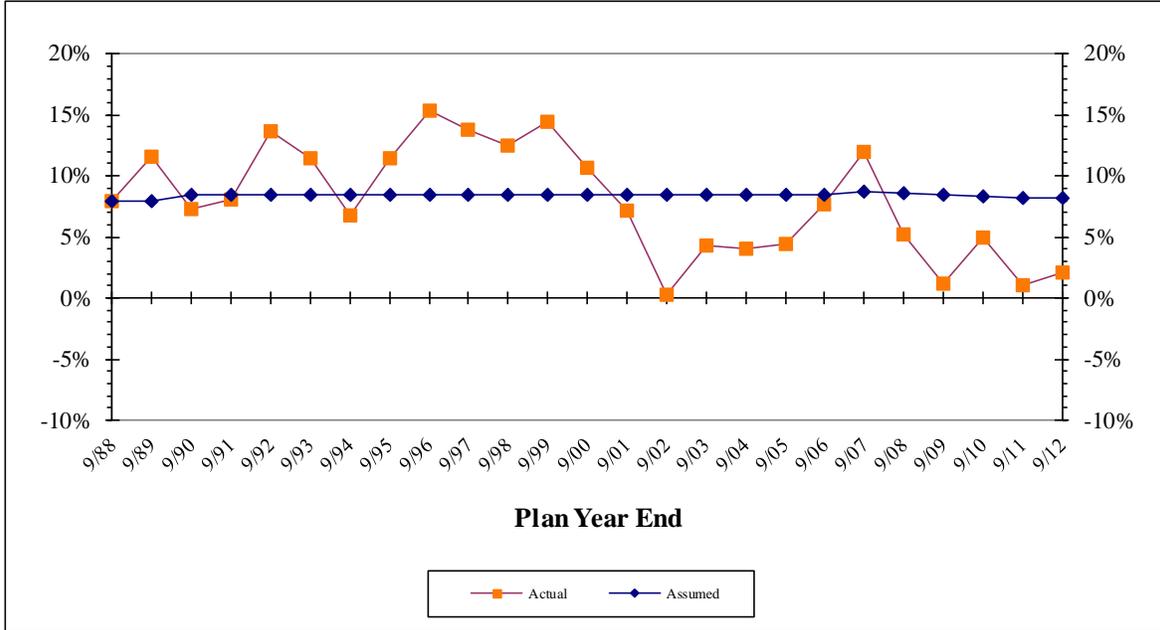
\* Approximate rate

\*\* Represents salary increases and investment return for the total group

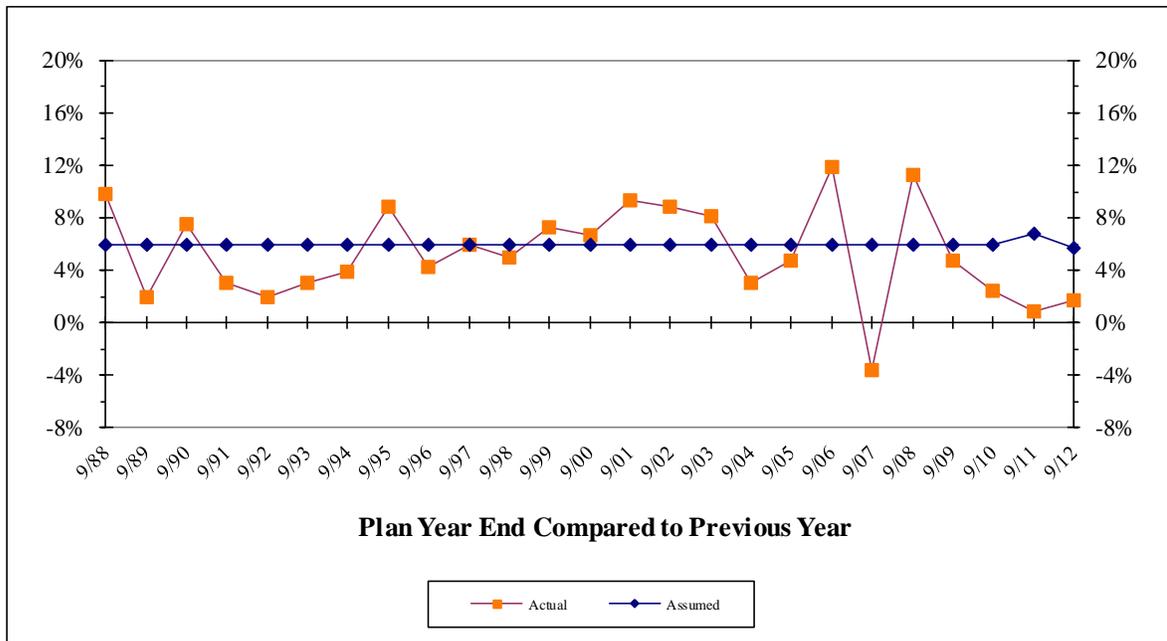
Note: Figures before 1992 were taken from Reports of Buck Consultants.

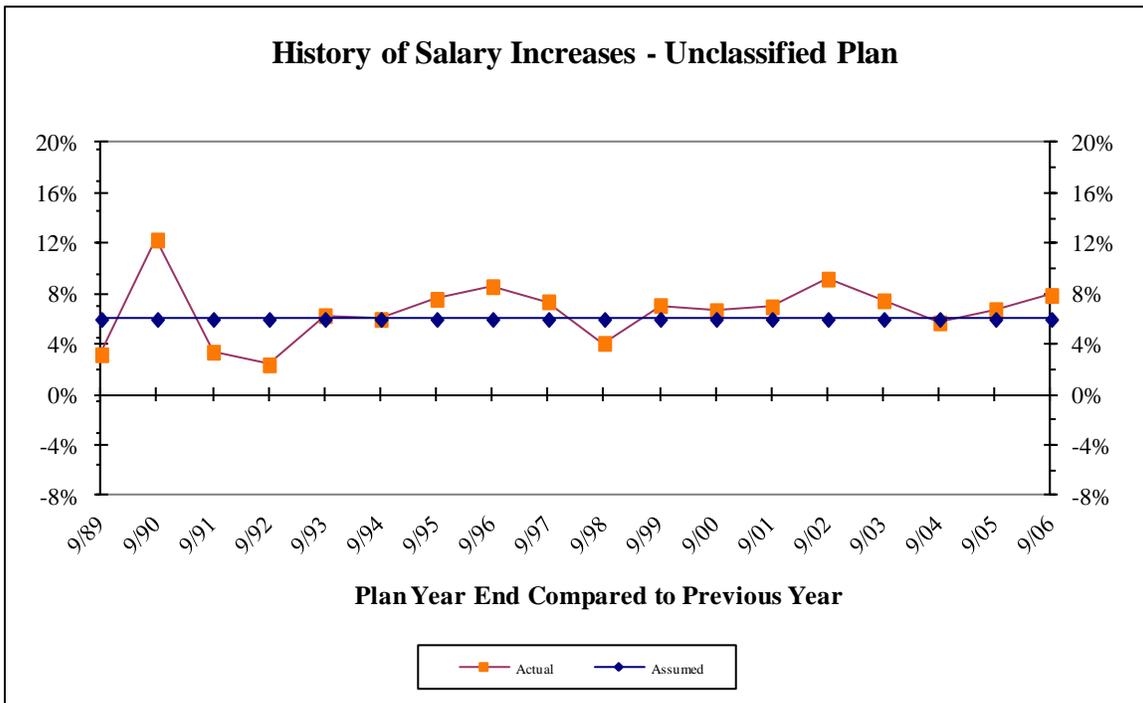
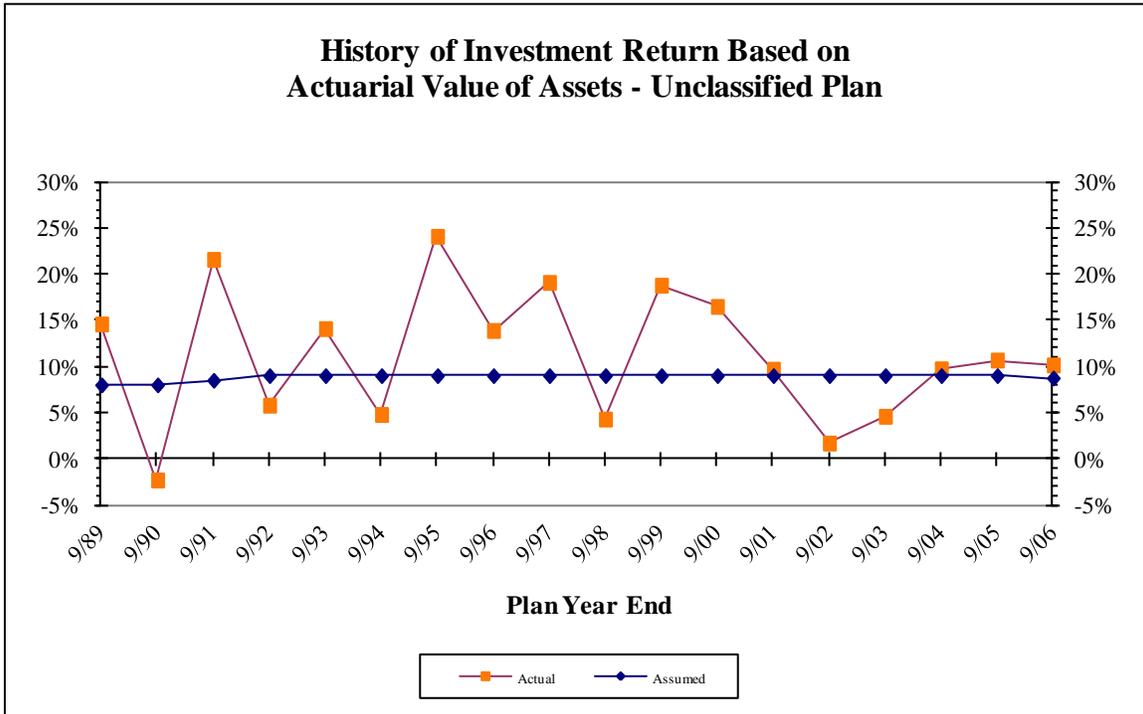
The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuation both at the beginning and the end of each period. The exhibits that follow illustrate the table above in graphic form.

**History of Investment Return Based  
on Actuarial Value of Assets – General Plan  
and Combined Plan after 2006**



**History of Salary Increases – General Plan  
and Combined Plan after 2006**





<b>Actual (A) Compared to Expected (E) Decrements Among Active Employees</b>															
<b>Year Ended</b>	<b>Number Added During Year</b>		<b>Service &amp; DROP Retirement</b>		<b>Disability Retirement</b>		<b>Death</b>		<b>Terminations</b>				<b>Active Members End of Year</b>		
	<b>A</b>	<b>E</b>	<b>A</b>	<b>E</b>	<b>A</b>	<b>E</b>	<b>A</b>	<b>E</b>	<b>Vested</b>		<b>Other</b>			<b>Totals</b>	
									<b>A</b>	<b>E</b>	<b>A</b>	<b>E</b>		<b>A</b>	<b>E</b>
9/30/2003	109	46	20	40	0	3	2	1	15	9	24	33	<b>714</b>		
9/30/2004	65	54	24	37	2	3	1	1	18	9	27	35	<b>725</b>		
9/30/2005	73	62	16	43	2	3	2	1	23	19	42	37	<b>736</b>		
9/30/2006 *	357	75	40	40	0	3	1	1	21	13	34	37	<b>1018</b>		
9/30/2007	149	106	40	86	2	3	1	2	17	46	63	49	<b>1061</b>		
9/30/2008	182	85	29	92	1	3	1	2	24	30	54	61	<b>1158</b>		
9/30/2009	78	29	55	123	2	3	1	2	12	12	24	64	<b>1154</b>		
9/30/2010	35	72	31	114	0	3	1	2	10	30	40	69	<b>1117</b>		
9/30/2011	37	82	27	38	3	1	3	2	9	40	49	43	<b>1072</b>		
9/30/2012	60	83	41	46	2	1	1	2	16	23	39	39	<b>1049</b>		
9/30/2013				45		1		2				38			
10 Yr Totals **	1145	694	323	659	14	26	14	16	165	231	396	467			

\* Includes 401a transfers

\*\* Totals are through current Plan Year only

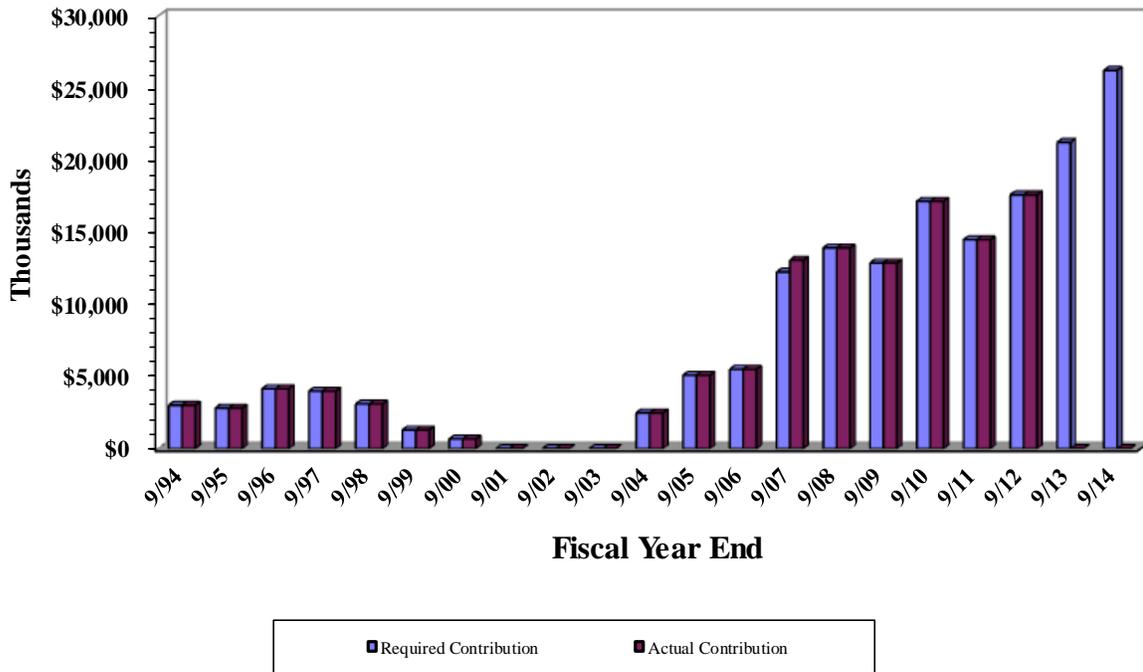
RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS						
Valuation Date	End of Year To Which Valuation Applies	Required Employer Contribution		Actual Employer Contribution	Expected Employee Contribution	
		Amount	% of Payroll <sup>1</sup>		Amount	% of Payroll
10/1/92	9/30/94	\$ 3,004,556	13.59 %	\$ 3,004,556	2,210,760	10.00 %
10/1/93	9/30/95	2,809,509	13.32	2,809,509	2,109,411	10.00
10/1/94	9/30/96	4,151,807	18.92	4,151,807	2,194,453	10.00
10/1/95	9/30/97	3,982,477	16.97	3,982,477	2,346,131	10.00
10/1/96	9/30/98	3,091,359	12.29	3,091,359	2,514,836	10.00
10/1/97	9/30/99	1,293,920	4.99	1,293,920	2,593,998	10.00
10/1/98	9/30/00	666,897	2.66	666,897	2,507,033	10.00
10/1/99	9/30/01	-	-	-	2,541,861	10.00
10/1/00	9/30/02	-	-	-	2,588,940	10.00
10/1/01	9/30/03	-	-	-	2,766,409	10.00
10/1/02	9/30/04	2,476,702	8.16	2,476,702	3,035,064	10.00
10/1/03	9/30/05	5,082,595	14.74	5,082,595	3,448,863	10.00
10/1/04	9/30/06	5,500,329	15.89	5,500,329	3,461,920	10.00
10/1/05	9/30/07	12,234,519 *	23.11	13,053,231	4,550,013 *	8.59
10/1/06	9/30/08	13,911,545	24.24	13,911,545	4,901,855	8.54
10/1/07	9/30/09	12,863,823	21.57	12,863,823	4,987,739	8.36
10/1/08	9/30/10	17,137,394	25.20	17,137,394	5,627,519	8.27
10/1/09	9/30/11	14,474,678	20.65	14,474,678	7,146,837	10.20
10/1/10	9/30/12	17,583,191	25.54	17,583,191 **	6,995,774	10.16
10/1/11	9/30/13	21,222,051	31.99	NA	6,613,338	9.97
10/1/12	9/30/14	26,212,015	40.29	NA	6,504,355	10.00
Average % of Payroll			15.91 %			9.72 %

\* From February 28, 2006 Actuarial Impact Statement.

\*\* Reflects use of \$1,271,123 prepaid contribution

<sup>(1)</sup> Non-DROP Payroll

### Recent History of Required and Actual Contributions Total



## **ACTUARIAL ASSUMPTIONS AND COST METHOD**

### **Valuation Methods**

**Actuarial Cost Method** - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

**Financing of Unfunded Actuarial Accrued Liabilities** - Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) dollar contributions over a reasonable period of future years.

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

### **Valuation Assumptions**

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

### **Economic Assumptions**

**The investment return rate** assumed in the valuations is 8.00% per year, compounded annually (net after investment expenses).

The **Wage Inflation Rate** assumed in this valuation was 4.00% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.

The assumed **real rate of return** over wage inflation is defined to be the portion of total investment return that is more than the assumed wage inflation rate. Considering other economic assumptions, the 8.00% investment return rate translates to an assumed real rate of return over wage inflation of 4.00%.

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

Years of Service	% Increase in Salary		
	Merit and Seniority	Base (Economic)	Total Increase
1	3.0%	4.0%	7.0%
2	2.9%	4.0%	6.9%
3	2.8%	4.0%	6.8%
4	2.7%	4.0%	6.7%
5	2.6%	4.0%	6.6%
6	2.5%	4.0%	6.5%
7	2.0%	4.0%	6.0%
8	1.9%	4.0%	5.9%
9	1.8%	4.0%	5.8%
10	1.7%	4.0%	5.7%
11	1.6%	4.0%	5.6%
12	1.5%	4.0%	5.5%
13	1.4%	4.0%	5.4%
14	1.3%	4.0%	5.3%
15	1.2%	4.0%	5.2%
16	1.1%	4.0%	5.1%
17	1.0%	4.0%	5.0%
18	0.9%	4.0%	4.9%
19	0.8%	4.0%	4.8%
20	0.7%	4.0%	4.7%
21+	0.5%	4.0%	4.5%

### Demographic Assumptions

*The mortality table* was the RP-2000 Combined Healthy Participant Mortality Tables for males and females projected to the year 2010 using Scale AA. There is no provision for future mortality improvements after 2010. As noted in the Discussion of Valuation Results, we recommend that the mortality assumption be revised to include a margin for mortality improvements after 2010. Sample values of the current life expectancies are shown below.

This assumption is used to measure the probabilities of each benefit being made after retirement. For active members, the probabilities of dying before retirement were based upon the same mortality table as members dying after retirement (25% of deaths are assumed to be service-connected).

### Current Mortality Assumption

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.18 %	0.14 %	31.85	34.16
55	0.30	0.25	27.17	29.44
60	0.57	0.48	22.66	24.89
65	1.11	0.92	18.44	20.61
70	1.91	1.59	14.60	16.69
75	3.29	2.59	11.12	13.15
80	5.82	4.28	8.13	10.00

*The rates of retirement* used to measure the probability of eligible members retiring during the next year are shown in the table below.

<b>Normal Retirement Rates</b>		
<b>Years of Service</b>	<b>Age</b>	<b>Assumed Rate of Retirement</b>
5-9	50-54	5.0 %
	55-59	5.0
	60-64	10.0
	65-69	20.0
	70+	100.0
10-14	50-54	5.0
	55-59	5.0
	60-64	10.0
	65-69	10.0
	70+	100.0
15-19	50-54	15.0
	55-59	15.0
	60-64	20.0
	65-69	25.0
	70+	100.0
20-24	50-54	25.0
	55-59	25.0
	60-64	35.0
	65-69	50.0
	70+	100.0
25-29	50-54	70.0
	55-59	40.0
	60-64	50.0
	65-69	50.0
	70+	100.0
30+	50-54	100.0
	55-59	100.0
	60-64	100.0
	65-69	100.0
	70+	100.0

The rate of retirement is 5% for each year of eligibility for early retirement.

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

<b>Sample Ages</b>	<b>Years of Service</b>	<b>% of Active Members Separating Within Next Year</b>
ALL	0	9.80 %
	1	7.70
	2	6.20
	3	5.00
	4	4.00
20	5 & Over	7.00
25		6.64
30		6.16
35		5.28
40		4.20
45		3.44
50		2.84
55		2.60

*Rates of disability* among active members are shown in the table below (50% of disabilities are assumed to be service connected).

<b>Sample Ages</b>	<b>% Becoming Disabled Within Next Year</b>
25	0.03 %
30	0.03
35	0.05
40	0.07
45	0.11
50	0.17
55	0.23
60	0.37
65	0.56

### Miscellaneous and Technical Assumptions

<i>Administrative &amp; Investment Expenses</i>	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be the average of non-investment related expenses averaged over the last two years. Assumed administrative expenses are added to the Normal Cost.
<i>Benefit Service</i>	Service rounded to the nearest month is used to determine the amount of benefit payable.
<i>Decrement Operation</i>	Disability and mortality decrements operate during retirement eligibility.
<i>Decrement Timing</i>	Decrements of all types are assumed to occur at the beginning of the year.
<i>Eligibility Testing</i>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<i>Forfeitures</i>	For vested separations from service, it is assumed that 0% of members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's accumulated contributions.
<i>Incidence of Contributions</i>	Employer contributions are assumed to be made in full on the first day of the fiscal year. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
<i>Marriage Assumption</i>	85% of males and 85% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
<i>Normal Form of Benefit</i>	50% joint and survivor annuity; life annuity for members hired after September 30, 2010.
<i>Pay Increase Timing</i>	Middle of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
<i>Cost of Living Increase</i>	2.5% per year for Tier A and Tier B members; 1.5% per year for Tier C members. Increases are assumed to begin 2.75 years after retirement / DROP for Tier A and Tier B members and 4 years after retirement / DROP for Tier C members. This assumption reflects the COLA delay for DROP members.
<i>Maximum Benefits</i>	Benefits calculated for valuation purposes are limited to the maximum allowable benefits under Section 415 of the Internal Revenue Code.

## GLOSSARY

<b><i>Actuarial Accrued Liability (AAL)</i></b>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<b><i>Actuarial Assumptions</i></b>	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
<b><i>Actuarial Cost Method</i></b>	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
<b><i>Actuarial Equivalent</i></b>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b><i>Actuarial Present Value (APV)</i></b>	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
<b><i>Actuarial Present Value of Future Benefits (APVFB)</i></b>	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
<b><i>Actuarial Valuation</i></b>	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 25, such as the Funded Ratio and the Annual Required Contribution (ARC).
<b><i>Actuarial Value of Assets</i></b>	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution (ARC).

<b><i>Amortization Method</i></b>	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
<b><i>Amortization Payment</i></b>	That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<b><i>Amortization Period</i></b>	The period used in calculating the Amortization Payment.
<b><i>Annual Required Contribution (ARC)</i></b>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB No. 25. The ARC consists of the Employer Normal Cost and Amortization Payment.
<b><i>Closed Amortization Period</i></b>	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
<b><i>Employer Normal Cost</i></b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b><i>Equivalent Single Amortization Period</i></b>	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
<b><i>Experience Gain/Loss</i></b>	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

<b><i>Funded Ratio</i></b>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<b><i>GASB</i></b>	Governmental Accounting Standards Board.
<b><i>GASB No. 25 and GASB No. 27</i></b>	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.
<b><i>Normal Cost</i></b>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<b><i>Open Amortization Period</i></b>	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
<b><i>Unfunded Actuarial Accrued Liability</i></b>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<b><i>Valuation Date</i></b>	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

**SECTION C**

**PENSION FUND INFORMATION**

## STATEMENT OF PLAN ASSETS AT MARKET VALUE

Item	September 30	
	2012	2011
A. Cash and Cash Equivalents (Operating Cash)	\$ -	\$ -
B. Receivables:		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	-	-
3. Investment Income and Other Receivables	677,079	6,690,355
4. Total Receivables	\$ 677,079	\$ 6,690,355
C. Investments		
1. Short Term Investments	\$ 8,587,189	\$ 11,420,963
2. Domestic Equities	220,807,764	184,999,731
3. International Equities	72,280,878	63,176,401
4. Domestic Fixed Income	119,997,247	106,295,271
5. International Fixed Income	543,630	250,000
6. Real Estate	-	-
7. Private Equity	-	-
8. ICMA Account (for DROP)*	6,215,544	5,522,157
9. Total Investments	\$ 428,432,252	\$ 371,664,523
D. Liabilities		
1. Benefits	\$ -	\$ -
2. Prepaid Employer Contribution	-	-
3. Expenses	(166,258)	(144,286)
4. Other	(213,117)	(10,700,944)
5. Total Liabilities	\$ (379,375)	\$ (10,845,230)
E. Total Market Value of Assets Available for Benefits	\$ 428,729,956	\$ 367,509,648
F. Reserves		
1. DROP Accounts*	\$ (6,215,544)	\$ (5,522,157)
2. Total Reserves	\$ (6,215,544)	\$ (5,522,157)
G. Adjustments		
1. Receivables from Excess Benefit Plan	\$ 933,230	\$ 1,244,307
2. Prepaid Contribution	-	(466,878)
3. Total Adjustments	\$ 933,230	\$ 777,429
H. Market Value Net of Reserves and Adjustments	\$ 423,447,642	\$ 362,764,920
I. Allocation of Investments		
1. Short Term Investments	2.00%	3.07%
2. Domestic Equities	51.54%	49.77%
3. International Equities	16.87%	17.00%
4. Domestic Fixed Income	28.01%	28.60%
5. International Fixed Income	0.13%	0.07%
6. Real Estate	0.00%	0.00%
7. Private Equity	0.00%	0.00%
8. ICMA Account (for DROP)	1.45%	1.49%
9. Total Investments	100.00%	100.00%

\* Includes outstanding loan balances.

\*\* Overpayment by the city for fiscal year ending 9/30/11.

**RECONCILIATION OF PLAN ASSETS**

Item	September 30	
	2012	2011
A. Market Value of Assets at Beginning of Year	\$ 367,509,648	\$ 381,385,702
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 7,425,051	\$ 7,278,327
b. Employer Contributions	16,312,068	14,474,678
c. Other	-	-
d. Total	<u>\$ 23,737,119</u>	<u>\$ 21,753,005</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 5,095,280	\$ 4,738,296
b. Net Realized and Unrealized Gains/(Losses)*	69,957,932	(7,308,679)
c. Investment Expenses	(907,577)	(913,759)
d. Net Investment Income	<u>\$ 74,145,635</u>	<u>\$ (3,484,142)</u>
3. Benefits and Refunds		
a. Refunds	\$ (811,738)	\$ (722,830)
b. Regular Monthly Benefits	(32,210,101)	(30,566,434)
c. DROP Disbursements	(2,934,154)	(173,747)
d. Other Payments (Transfers to Police & Fire Plan)	-	-
e. Total	<u>\$ (35,955,993)</u>	<u>\$ (31,463,011)</u>
4. Administrative and Miscellaneous Expenses	\$ (706,453)	\$ (681,906)
5. Transfers	\$ -	\$ -
C. Market Value of Assets at End of Year	\$ 428,729,956	\$ 367,509,648
D. Reserves		
1. DROP Accounts**	<u>\$ (6,215,544)</u>	<u>\$ (5,522,157)</u>
2. Total Reserves	<u>\$ (6,215,544)</u>	<u>\$ (5,522,157)</u>
E. Adjustments		
1. Receivables from Excess Benefit Plan	\$ 933,230	\$ 1,244,307
2. Prepaid Contribution	-	(466,878) ***
3. Total Adjustments	<u>\$ 933,230</u>	<u>\$ 777,429</u>
F. Market Value Net of Reserves and Adjustments	\$ 423,447,642	\$ 362,764,920

\* We were not provided with the breakdown of this amount between realized gains/(losses) and unrealized gains/(losses).

\*\* Includes outstanding loan balances.

\*\*\* Overpayment by the city for fiscal year ending 9/30/11.

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**Reconciliation of DROP Accounts**

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Value at Beginning of Year	\$	5,522,157
Payments Credited to Accounts*		3,352,662
Investment Earnings Credited to Accounts		274,879
Withdrawals from Accounts		(2,934,154)
Value at End of Year		6,215,544

\*Reflects change in outstanding loan balance.

## DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

Valuation Date – September 30	2011	2012	2013	2014	2015
A. Actuarial Value of Assets Beginning of Year	\$ 432,953,336	\$ 430,525,778	\$ -	\$ -	\$ -
B. Market Value End of Year	367,509,648	428,729,956	-	-	-
C. Market Value Beginning of Year	381,385,702	367,509,648	-	-	-
D. Non-Investment/Administrative Net Cash Flow	(10,391,912)	(12,925,327)	-	-	-
E. Investment Income			-	-	-
E1. Actual Market Total: B-C-D	(3,484,142)	74,145,635	-	-	-
E2. Assumed Rate of Return	8.25%	8.15%	8.00%	8.00%	8.00%
E3. Assumed Amount of Return	35,289,984	34,561,144	-	-	-
E4. Amount Subject to Phase-In: E1–E3	(38,774,126)	39,584,491	-	-	-
F. Phase-In Recognition of Investment Income			-	-	-
F1. Current Year: 0.20 x E4	(7,754,825)	7,916,898	-	-	-
F2. First Prior Year	709,422	(7,754,825)	7,916,898	-	-
F3. Second Prior Year	(7,750,361)	709,422	(7,754,825)	7,916,898	-
F4. Third Prior Year	(18,624,374)	(7,750,361)	709,422	(7,754,825)	7,916,898
F5. Fourth Prior Year	2,685,676	(18,624,374)	(7,750,361)	709,422	(7,754,825)
F6. ASOP No. 44 Compliance Adjustment*	3,408,832	-	-	-	-
F7. Total Phase-Ins	(27,325,630)	(25,503,240)	(6,878,866)	871,495	162,073
<b>G. Actuarial Value of Assets End of Year</b>					
G1. Preliminary Actuarial Value of Assets:	\$ 430,525,778	\$ 426,658,355	\$ -	\$ -	\$ -
G2. Upper Corridor Limit: 120%*B	441,011,578	514,475,947	-	-	-
G3. Lower Corridor Limit: 80%*B	294,007,718	342,983,965	-	-	-
G4. Funding Value End of Year	430,525,778	426,658,355	-	-	-
G5. Less: DROP Account Balances	5,522,157	6,215,544	-	-	-
G6. Plus: Adjustments	1,244,307	933,230	-	-	-
G7. Less: Prepaid Contribution	466,878	-	-	-	-
G8. Final Funding Value End of Year	425,781,050	421,376,041	-	-	-
H. Difference between Market & Actuarial Value	\$ (63,016,130)	\$ 2,071,601	\$ -	\$ -	\$ -
<b>I. Actuarial Rate of Return</b>	1.06% **	2.14%	0.00%	0.00%	0.00%
<b>J. Market Value Rate of Return</b>	-0.93%	20.54%	0.00%	0.00%	0.00%
<b>K. Ratio of Actuarial Value to Market Value</b>	117.15%	99.52%	0.00%	0.00%	0.00%

\* Per ASOP No. 44, a one-time adjustment of \$3,408,832 is required.

\*\* Before adjustment for ASOP No. 44

## INVESTMENT RATE OF RETURN

Year Ended	General Plan **		Unclassified Plan	
	Market Value	Actuarial Value	Market Value	Actuarial Value
9/30/89	NA %	11.6 %	14.6 %	14.6 %
9/30/90	NA	7.3	(2.3)	(2.3)
9/30/91	NA	8.1	21.6	21.6
9/30/92	12.2	13.7	5.8	5.8
9/30/93	14.6	11.4	14.6	14.1
9/30/94	1.4	6.8	5.3	4.8
9/30/95	20.0	11.4	25.9	24.1
9/30/96	9.8	15.3	22.7	13.9
9/30/97	23.0	13.8	35.2	19.1
9/30/98	8.4	12.5	(0.3)	4.3
9/30/99	13.1	14.4	19.1	18.8
9/30/00	10.8	10.7	11.5	16.5
9/30/01	(7.4)	7.2	(8.1)	9.7
9/30/02	(5.9)	0.3	(9.8)	1.7
9/30/03	17.4	4.3	16.9	4.6
9/30/04	11.4	4.1	13.0	9.7
9/30/05	12.8	4.4	13.8	10.7
9/30/06	7.4 *	7.7	7.5 *	10.2 *
9/30/07	15.3	12.0	NA	NA
9/30/08	(13.6)	5.2	NA	NA
9/30/09	(0.8)	1.1	NA	NA
9/30/10	11.3	5.0	NA	NA
9/30/11	(0.9)	1.1	NA	NA
9/30/12	20.5	2.1	NA	NA
<b>Average Returns:</b>				
Last 5 Years	2.6 %	2.9 %	NA %	NA %
Last 10 Years	7.6 %	4.7 %	NA %	NA %
All Years	8.2 %	7.9 %	10.9 %	11.0 %

\* Note: Effective 10/1/06, the former General and Unclassified Plans were merged and assets were combined. Investment returns after this date are for the total group.

\*\* Combined Plan after 2006

**SECTION D**

**FINANCIAL ACCOUNTING INFORMATION**

**FASB NO. 35 INFORMATION**

A. Valuation Date	October 1, 2012	October 1, 2011
<b>B. Actuarial Present Value of Accumulated Plan Benefits</b>		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 421,724,519	\$ 383,663,147
b. Terminated Vested Members	11,480,115	12,545,886
c. Other Members	<u>156,713,222</u>	<u>161,655,997</u>
d. Total	589,917,856	557,865,030
2. Non-Vested Benefits	6,274,803	5,772,266
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	596,192,659	563,637,296
4. Accumulated Contributions of Active Members	61,073,761	60,662,311
<b>C. Changes in the Actuarial Present Value of Accumulated Plan Benefits</b>		
1. Total Value at Beginning of Year	563,637,296	534,033,829
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions	9,416,347	5,939,085
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	59,513,517	55,127,393
d. Benefits Paid	<u>(36,374,501)</u>	<u>(31,463,011)</u>
e. Net Increase	32,555,363	29,603,467
3. Total Value at End of Period	596,192,659	563,637,296
<b>D. Actuarial Present Value of Accumulated Plan Benefits Using FRS Interest Rate</b>		
a. Vested	605,681,200	581,914,369
b. Non-Vested	<u>6,806,310</u>	<u>6,632,429</u>
c. Total	612,487,510	588,546,798
<b>E. Market Value of Assets</b>	423,447,642	362,764,920
<b>F. Funded Ratio Using FRS Interest Rate</b>	69.1 %	61.6 %
<b>G. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods</b>		

**SCHEDULE OF FUNDING PROGRESS**  
(GASB Statement No. 25)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL As % of Covered Payroll (b - a) / c
10/1/1993	\$ 185,721,855	\$ 187,130,465	\$ 1,408,610	99.2 %	\$ 21,094,111	6.7 %
10/1/1994	188,997,087	202,078,377	13,081,290	93.5	21,944,531	59.6
10/1/1995	208,877,297	213,844,465	4,967,168	97.7	23,461,309	21.2
10/1/1996	226,633,680	222,221,064	(4,412,616)	102.0	25,148,361	(17.5)
10/1/1997	251,171,973	232,871,332	(18,300,641)	107.9	25,939,981	(70.5)
10/1/1998	266,716,007	240,760,472	(25,955,535)	110.8	25,070,334	(103.5)
10/1/1999	305,344,213	263,462,059	(41,882,154)	115.9	25,418,614	(164.8)
10/1/2000	326,816,322	277,933,325	(48,882,997)	117.6	25,889,403	(188.8)
10/1/2001	336,024,366	292,748,088	(43,276,278)	114.8	27,664,085	(156.4)
10/1/2002	322,181,146	319,831,292	(2,349,854)	100.7	30,350,644	(7.7)
10/1/2003	320,053,468	338,904,200	18,850,732	94.4	34,488,630	54.7
10/1/2004	320,735,755	352,105,058	31,369,303	91.1	34,619,199	90.6
10/1/2005	325,727,087	368,096,409	42,369,322	88.5	36,680,110	115.5
10/1/2006	358,458,949	448,933,278	90,474,329	79.8	57,390,894	157.6
10/1/2007	412,824,235	478,067,829	65,243,594	86.4	59,632,425	109.4
10/1/2008	425,714,565	526,481,586	100,767,021	80.9	68,009,550	148.2
10/1/2009	420,520,122	545,536,965	125,016,843	77.1	70,097,549	178.3
10/1/2010	431,479,305	580,246,165	148,766,860	74.4	68,844,264	216.1
10/1/2011	425,781,050	602,577,503	176,796,453	70.7	66,346,904	266.5
10/1/2012 (b)	421,376,041	627,203,174	205,827,133	67.2	65,053,945	316.4
10/1/2012 (a)	421,376,041	637,363,774	215,987,733	66.1	65,053,945	332.0

(a) After Changes

(b) Before Changes

**SCHEDULE OF EMPLOYER CONTRIBUTIONS**

**(GASB Statement No. 25)**

<b>Year Ended September 30</b>	<b>Annual Required Contribution</b>	<b>Actual Contribution</b>	<b>Percentage Contributed</b>
1994	\$ 3,004,556	\$ 3,004,556	100.0 %
1995	2,809,509	2,809,509	100.0
1996	4,151,807	4,151,807	100.0
1997	3,982,477	3,982,477	100.0
1998	3,091,359	3,091,359	100.0
1999	1,293,920	1,293,920	100.0
2000	666,897	666,897	100.0
2001	0	0	NA
2002	0	0	NA
2003	0	0	NA
2004	2,476,702	2,476,702	100.0
2005	5,082,595	5,082,595	100.0
2006	5,500,329	5,500,329	100.0
2007	12,234,519	13,053,231	106.7
2008	13,911,545	13,911,545	100.0
2009	12,863,823	12,863,823	100.0
2010	17,137,394	17,137,394	100.0
2011	14,474,678	14,474,678	100.0
2012	17,583,191	17,583,191	100.0

**SECTION E**  
**MISCELLANEOUS INFORMATION**

<b>RECONCILIATION OF MEMBERSHIP DATA</b>		
	<b>From 10/1/11 To 10/1/12</b>	<b>From 10/1/10 To 10/1/11</b>
<b>A. Active Members</b>		
1. Number Included in Last Valuation	1,072	1,117
2. New Members Included in Current Valuation	60	37
3. Employment Terminations	(35)	(49)
4. Service Retirements	(13)	(12)
5. DROP Retirements	(28)	(15)
6. Disability Retirements	(2)	(3)
7. Deaths	(1)	(3)
8. Other - Transfers Out and Data Adjustments	(4)	0
9. Number Included in This Valuation	<u>1,049</u>	<u>1,072</u>
<b>B. Terminated Vested Members</b>		
1. Number Included in Last Valuation	68	75
2. Additions from Active Members	16	8
3. Lump Sum Payments/Refund of Contributions	(10)	(5)
4. Payments Commenced	(11)	(9)
5. Deaths	0	0
6. Other - Data Adjustments	0	(1)
7. Number Included in This Valuation	<u>63</u>	<u>68</u>
<b>C. DROP Plan Members</b>		
1. Number Included in Last Valuation	60	49
2. Additions from Active Members	28	15
3. Retirements	(32)	(4)
4. Deaths	(1)	0
5. Other	0	0
6. Number Included in This Valuation	<u>55</u>	<u>60</u>
<b>D. Service Retirees, Disability Retirees and Beneficiaries</b>		
1. Number Included in Last Valuation	1,015	1,021
2. Additions from Active Members	15	17
3. Additions from Terminated Vested Members	11	9
4. Additions from DROP Plan	33	4
5. Deaths Resulting in No Further Payments	(30)	(37)
6. Deaths Resulting in New Survivor Benefits	1	0
7. End of Certain Period - No Further Payments	0	0
8. Other	0	1
9. Number Included in This Valuation	<u>1,045</u>	<u>1,015</u>

## MIAMI BEACH EMPLOYEES' RETIREMENT PLAN - ACTIVE MEMBERS ON OCTOBER 1, 2012

Age Group	Years of Service							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	
20-24	8							8
Total Pay	315,444							315,444
Avg Pay	39,431							39,431
25-29	41	31						72
Total Pay	1,731,144	1,203,502						2,934,646
Avg Pay	42,223	38,823						40,759
30-34	44	59	9					112
Total Pay	2,037,301	2,794,671	452,603					5,284,575
Avg Pay	46,302	47,367	50,289					47,184
35-39	35	59	27	6				127
Total Pay	1,766,394	3,074,098	1,741,978	307,580				6,890,050
Avg Pay	50,468	52,103	64,518	51,263				54,252
40-44	37	56	45	25	2			165
Total Pay	2,016,184	3,110,985	2,841,591	1,835,234	141,623			9,945,617
Avg Pay	54,491	55,553	63,146	73,409	70,812			60,276
45-49	34	48	44	41	23	7	1	198
Total Pay	2,372,127	2,889,856	3,111,759	2,910,006	1,854,330	483,786	58,986	13,680,850
Avg Pay	69,768	60,205	70,722	70,976	80,623	69,112	58,986	69,095
50-54	20	51	40	42	10	9	4	176
Total Pay	1,218,613	2,885,974	2,785,749	2,997,090	859,051	740,235	396,840	11,883,552
Avg Pay	60,931	56,588	69,644	71,359	85,905	82,248	99,210	67,520
55-59	18	19	27	22	5			91
Total Pay	982,329	1,009,870	1,596,067	1,453,669	384,327			5,426,262
Avg Pay	54,574	53,151	59,114	66,076	76,865			59,629
60-64	8	25	14	21		1		69
Total Pay	653,782	1,739,751	923,785	1,682,187		63,466		5,062,971
Avg Pay	81,723	69,590	65,985	80,104		63,466		73,376
65-99	3	9	6	8	3	2		31
Total Pay	246,909	479,847	345,142	485,151	171,852	110,911		1,839,812
Avg Pay	82,303	53,316	57,524	60,644	57,284	55,456		59,349
Total No.	248	357	212	165	43	19	5	1,049
Total Pay	13,340,227	19,188,554	13,798,674	11,670,917	3,411,183	1,398,398	455,826	63,263,779
Avg Pay	53,791	53,749	65,088	70,733	79,330	73,600	91,165	60,309

## INACTIVE MEMBERS ON OCTOBER 1, 2012

Age	Terminated Vested		Disabled		Retirees, Beneficiaries & DROP		Grand Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	23	\$ 489,869	1	\$ 15,847	5	79,817	29	\$ 585,533
45-49	23	571,763	5	135,657	5	162,300	33	869,720
50-54	17	281,812	7	239,288	85	4,233,473	109	4,754,573
55-59	0	-	5	121,500	112	5,093,837	117	5,215,337
60-64	0	-	4	96,683	182	7,937,185	186	8,033,868
65-69	0	-	7	240,413	161	6,203,706	168	6,444,119
70-74	0	-	1	33,079	127	3,759,671	128	3,792,750
75-79	0	-	3	67,854	127	3,392,548	130	3,460,402
80-84	0	-	3	45,720	113	2,631,053	116	2,676,773
85-89	0	-	6	110,722	79	1,628,311	85	1,739,033
90 & Up	0	-	1	10,397	61	958,196	62	968,593
<b>Total</b>	<b>63</b>	<b>\$ 1,343,444</b>	<b>43</b>	<b>\$1,117,160</b>	<b>1057</b>	<b>\$ 36,080,097</b>	<b>1,163</b>	<b>\$ 38,540,701</b>

**SECTION F**  
**SUMMARY OF PLAN PROVISIONS**

## SUMMARY OF PLAN PROVISIONS

### Effective Date

September 30, 2010 under Ordinance No. 2010-3693 and Ordinance No. 2010-3706

### Eligibility

Each general employee who works more than 30 hours per week is eligible for membership on his date of employment

### Creditable Service

Service credited under the predecessor system plus service after such date with respect to which member contributions are made.

### Tiers of Employees

Tier C – All members hired on or after September 30, 2010 (October 27, 2010 for members of CWA)

Tier B – Members of AFSCME hired on or after April 30, 1993; members classified as GSA or "Other" hired on or after August 1, 1993; members of CWA hired on or after February 21, 1994; and Unclassified members hired on or after October 18, 1992.

Tier A – All other members

### Earnings

For Tier B and C members, base pay including longevity, but excluding overtime, shift differential or extra compensation allowances. For Tier A members, actual salary or wages received. Earnings do not include lump sum payments of unused sick or vacation time. Overtime pay for Classified Tier A members is limited to 10% of regular pay.

### Final Average Monthly Earnings (FAME)

One-twelfth of average annual Earnings during the two highest paid years of Creditable Service, not less than the average monthly earnings for the 12 months as of March 8, 2006 for Unclassified Tier A members

Effective September 30, 2010 averaging period is five years except for members who are less than five years away from normal retirement eligibility. Members who are eligible for normal retirement within in two years or less as of September 30, 2010 will have average earnings of two years. Members who are eligible for normal retirement in within three years as of September 30, 2010 will have average earnings of three years. Members who are eligible for normal retirement within four years as of September 30, 2010 will have average earnings of four years.

### Normal Retirement

<b>Eligibility</b>	Age 50 and five years of Creditable Service for those in Tier A
	Age 55 and five years of Creditable Service for those in Tier B
	Age 55 with 30 years of service or age 62 with 5 years of service for those in Tier C

**Benefit** 3% of FAME multiplied years of Creditable Service with the total not to exceed 80% of FAME. There is a 90% cap for certain Tier A members.

2.5% of FAME multiplied years of Creditable Service with the total not to exceed 80% of FAME for Tier C members.

**Form of Benefit** 50% joint and survivor annuity payable only to the spouse or, if no spouse, to the surviving children until age 21; other options are also available. Spouse's benefits cease upon remarriage.

Life annuity for Tier C members

**COLA** 2.5% for Tier A and Tier B members; 1.5% for Tier C members

### Early Retirement

**Eligibility** Tier B members of the General Plan whose total of age plus service is 75, not earlier than age 50

Tier C members whose total of age plus service is 75, not earlier than age 55

**Benefit** Accrued pension actuarially reduced for number of years by which Early Retirement Date precedes Normal Retirement Date.

**Form of Benefit** 50% joint and survivor annuity payable only to the spouse or, if no spouse, to the surviving children until age 21; other options are also available. Spouse's benefits cease upon remarriage.

Life annuity for Tier C members

**COLA** 2.5% for Tier A and Tier B members; 1.5% for Tier C members

### Delayed Retirement

**Eligibility** Any time after the Normal Retirement Date.

**Benefit** Calculated in the same manner as the Normal Retirement Benefit but using the FAME and Creditable Service as of the actual retirement date.

**Form of Benefit** 50% joint and survivor annuity payable only to the spouse or, if no spouse, to the surviving children until age 21; other options are also available. Spouse's benefits cease upon remarriage.

Life annuity for Tier C members

**COLA** 2.5% for Tier A and Tier B members; 1.5% for Tier C members

### Disability Benefits

**Eligibility** A total and permanent disability which renders a member incapacitated for the further performance of duty. Five years of Creditable Service is also required unless the disability is service-connected.

<b>Benefit</b>	<p>Ordinary Disability: Accrued retirement benefit, without reduction, with a minimum of 35% of FAME.</p> <p>Service-Connected Disability: Accrued retirement benefit without reduction, with a minimum of 65% of FAME; 75% of FAME minimum for General Tier A members.</p> <p>Such amounts are reduced by workers' compensation benefits and, in certain cases, earned income will be considered in offsetting the benefit. The period of disability shall be included in Creditable Service for purposes of computing normal retirement benefits when a disability retiree reaches normal retirement age.</p>
<b>Form of Benefit</b>	<p>50% joint and survivor annuity payable only to the spouse or, if no spouse, to the surviving children until age 21; other options are also available. Spouse's benefits cease upon remarriage.</p> <p>Life annuity for Tier C members</p>
<b>COLA</b>	2.5% for Tier A and Tier B members; 1.5% for Tier C members

### **Preretirement Death Benefits**

For a member who has at least three years of Creditable Service but who dies before commencement of retirement benefits, a monthly benefit is payable to the spouse or, if no spouse, to the children until age 21. The benefit is equal to 50% of the accrued normal retirement benefit without reduction with the result being a minimum of 30% of FAME and a maximum of 40% of FAME for General members.

### **Termination Benefits**

Any member who terminates employment and does not request a refund of his own contributions and has completed at least five years of Creditable Service will be eligible to receive his accrued benefit upon reaching his normal retirement age.

### **Contributions**

**Tier A Members** 12% of Earnings.

**Tier B and Tier C Members** 10% of Earnings.

Employees who have reached the applicable benefit accrual cap (90% for General Tier A employees and 80% for all others) but have not yet reached retirement age will continue to contribute to the pension Plan, but only on the amount by which pay increases after reaching the cap

**From the City** The amount necessary to fund the Plan properly according to the Plan's actuary.

**Deferred Retirement Option Plan (DROP)**

<b>Eligibility</b>	Members who are eligible for Normal Retirement
<b>Benefit</b>	The member's Credited Service and AFC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and AFC.
<b>Maximum DROP Period</b>	36 months for Tier A and Tier B members; 60 months for Tier C members
<b>Interest Credited</b>	The investment return is determined by the self-directed investments.
<b>Normal Form of Benefit</b>	Lump Sum
<b>COLA</b>	None

**Changes Since Last Valuation**

The have been no changes since the last valuation.