

CITY OF ORLANDO GENERAL EMPLOYEES' PENSION FUND
ACTUARIAL VALUATION REPORT
SEPTEMBER 30, 2013

February 6, 2014

The City of Orlando
and
The Pension Advisory Committee
City of Orlando General Employees' Pension Fund
Orlando, Florida

The results of the September 30, 2013 Actuarial Valuation of the City of Orlando General Employees' Pension Fund are presented in this report. The purpose of the annual valuation is to measure the System's funding progress, to determine the City's contribution rate for the fiscal year beginning October 1, 2014 in accordance with established funding policies, and to determine actuarial information for Governmental Accounting Standards Board (GASB) Statements No. 25 and No. 27. The results of the valuation may not be applicable for other purposes.

This report should not be relied on for any purpose other than those described above. It was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board.

The signing actuaries are independent of the plan sponsor.

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.

Actuarial valuation highlights and our Statement by Enrolled Actuary are contained in Section A.

Valuation results are contained in Section B.

The valuation was based upon information, furnished by the City, concerning Pension Fund benefits, financial transactions, and individual members, terminated members, retired members and beneficiaries. Data was checked for reasonableness and missing information, but was not otherwise audited. We are not responsible for the accuracy or completeness of the data provided by the City. This information is summarized in Section C.

A description of the actuarial valuation process, actuarial assumptions, and definitions of technical terms are contained in Section D.

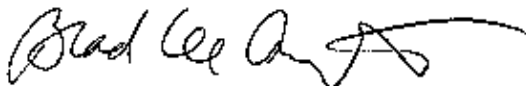
Governmental Accounting Standards Board Statements No. 25 and No. 27 information is contained in Section E.

The City of Orlando
and
The Pension Advisory Committee
February 6, 2014
Page 2

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. We certify that the information contained in this report is accurate and fairly presents the actuarial position of the City of Orlando General Employees' Pension Fund as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable.

Brad Lee Armstrong and David T. Kausch are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



Brad Lee Armstrong, ASA, EA, MAAA



David T. Kausch, FSA, EA, MAAA

BLA/DTK:bd

OUTLINE OF CONTENTS
REPORT OF SEPTEMBER 30, 2013 ACTUARIAL VALUATION

| Pages | Items |
|--------------|--|
| | Valuation Highlights and Statement by Enrolled Actuary |
| A-1 | Funding Objective |
| A-1/2 | Funding Progress Indicators |
| A-3 | Contribution Requirement |
| A-4 | Historical Comparisons |
| A-5 | Funding Obligations and Sources of Funding |
| A-6 | Expected Development of Present Active Population |
| A-7/8 | Comments, Conclusion, and Statement by Enrolled Actuary |
| | Detailed Valuation Results |
| B-1/2 | Contribution Requirement |
| B-3/4 | Funding Progress Indicators |
| B-5 | Experience Gain (Loss) |
| B-6 | Contribution History |
| B-7 | Actuarial Balance Sheet |
| B-8 | Actuarial Present Value of Future Benefit Payments and Compensation |
| B-9 | Projection of City Contributions |
| | Summary of Benefit Provisions and Valuation Data Submitted by Pension Fund |
| C-1/4 | Benefit Provisions |
| C-5 | Financial Data |
| C-6 | Derivation of Actuarial Value of Assets |
| C-7/15 | Participant Data |
| | Actuarial Cost Method, Actuarial Assumptions and Definitions of Technical Terms |
| D-1 | Actuarial Cost Method |
| D-2/8 | Assumptions |
| D-9/10 | Definitions |
| E-1/5 | Certain Disclosures Required by GASB Statements No. 25 and No. 27 |
| F-1 | Present Value of Accrued Benefits Under Valuation Assumptions and Under FRS Assumed Investment Rate of Return |

SECTION A

**VALUATION HIGHLIGHTS AND STATEMENT BY
ENROLLED ACTUARY**

ACTUARIAL VALUATION HIGHLIGHTS

SEPTEMBER 30, 2013

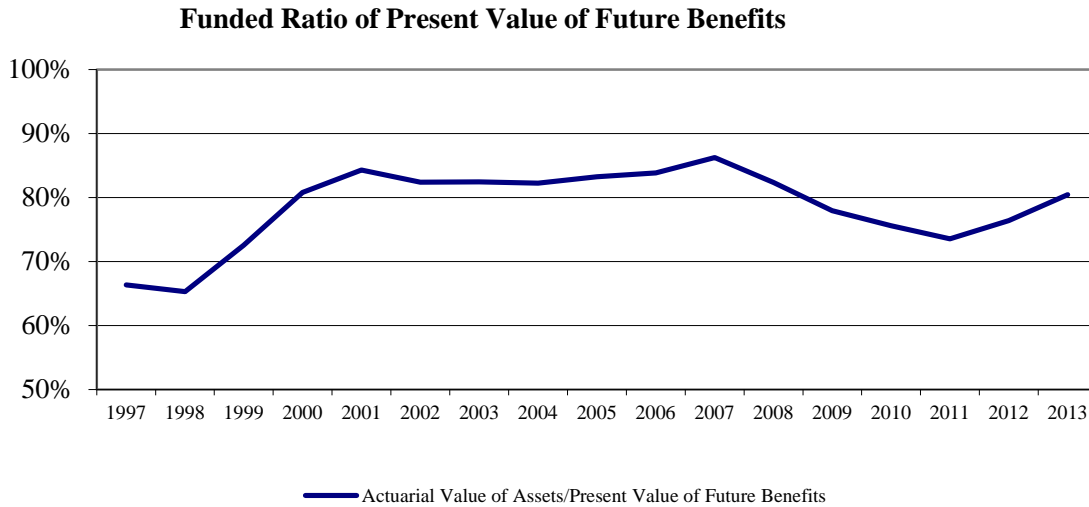
FUNDING OBJECTIVE

The funding objective of the Pension Fund is to establish and receive contributions which, expressed as dollar amounts, will remain approximately level from generation to generation of Orlando citizens, during the lifetime of the Fund.

The annual actuarial valuation measures the relationship between Pension Fund obligations and assets and determines the contribution amount for the ensuing year.

VALUATION RESULTS - FUNDING PROGRESS INDICATORS

With the Fund closed to new hires, costs have been computed using the aggregate cost method. The design of the aggregate cost method is to target that all benefits are fully funded when the plan has no active members. This is being accomplished through level-dollar amortization adopted during the most recent experience study. Under the aggregate cost method, the Present Value of Future Benefits (PVFB) is reduced by the actuarial value of assets and the present value of future member contributions. The remainder is financed by City contributions as a level dollar amount. The method does not generate an actuarial accrued liability. The percentage of PVFB funded by the actuarial value of assets is shown below.



Funded ratios are located on page E-3.

VALUATION RESULTS - FUNDING PROGRESS INDICATORS

The overall activities of the members during the year increased the obligations of the Fund approximately \$3.3 million more than projected by the long-term funding assumptions, because certain individual assumptions deviated from expected.

24 retirements versus 23 expected.

4 (including 3 DC transfers) terminations of members versus 3 expected.

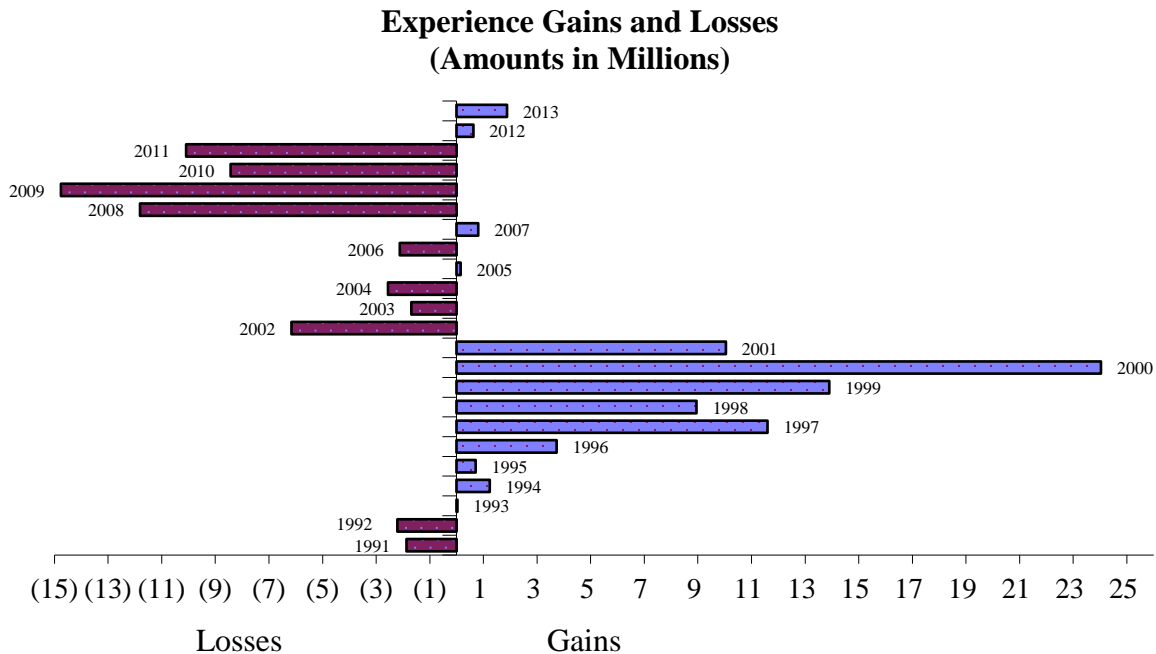
22 retiree removals versus 26 expected.

3.40% increase in salary versus 4.30% expected.

9.6% actuarial value rate of return versus 8.0% expected.

The estimate market value rate of return, net of investment expenses, on assets was 11.8% versus an 8.0% long-term assumption. The asset valuation method recognizes a portion of this year's gain and combines it with portions of gains and losses that occurred from 2010 – 2012. The result is a \$2.8 million recognized investment gain for the year which results in the 9.6% actuarial value rate of return shown above. Note that for funding purposes, deviations from assumed market value investment experience is smoothed over a 4-year period and the ratio of market value to actuarial value is restricted to an 85% to 115% corridor. Please refer to page C-6 for further details.

The net result of the participant and fiscal activities was favorable, generating a \$1.62 million net experience gain, which represents 0.7% of the present value of future benefits at the beginning of the year.



Derivation of the current and prior years' experience gain(loss) is located on page B-5.

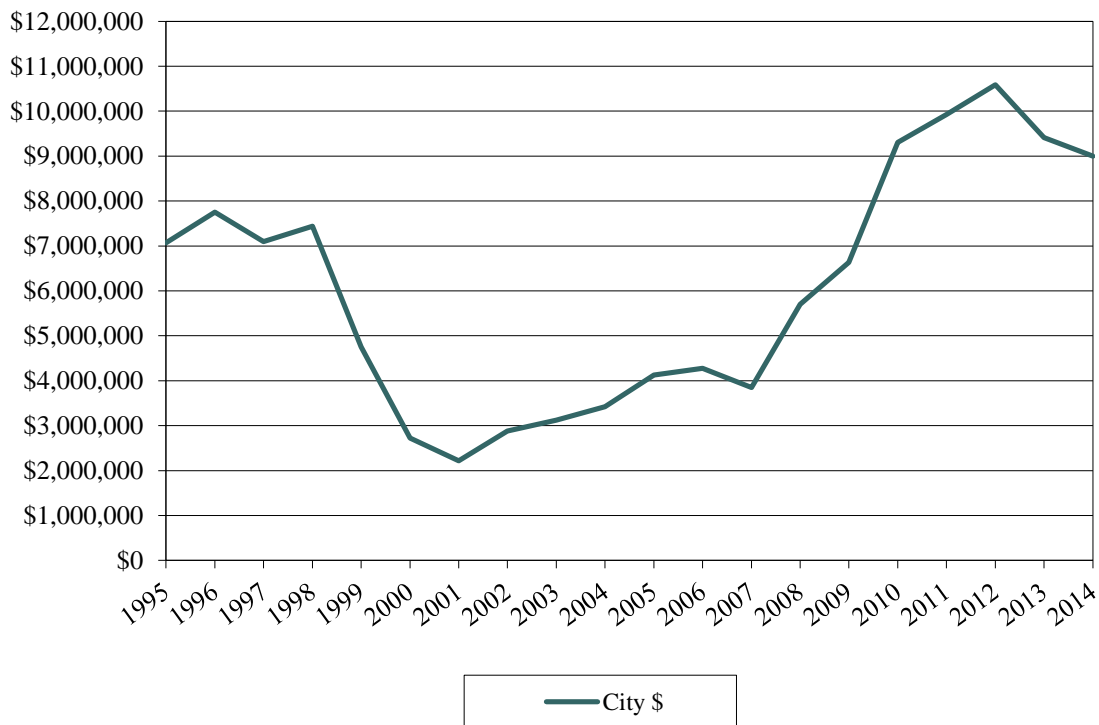
VALUATION RESULTS - CONTRIBUTION REQUIREMENT

The contribution requirements for the 2013-2014 and 2014-2015 fiscal years are:

***4.88% of pay by active members and;
\$9,412,100 by the City for 2013-2014;
\$9,062,366 by the City for 2014-2015***

The 2014-2015 fiscal year contribution requirement reflects a \$0.35 million decrease in the City's dollar contribution requirement from the prior year.

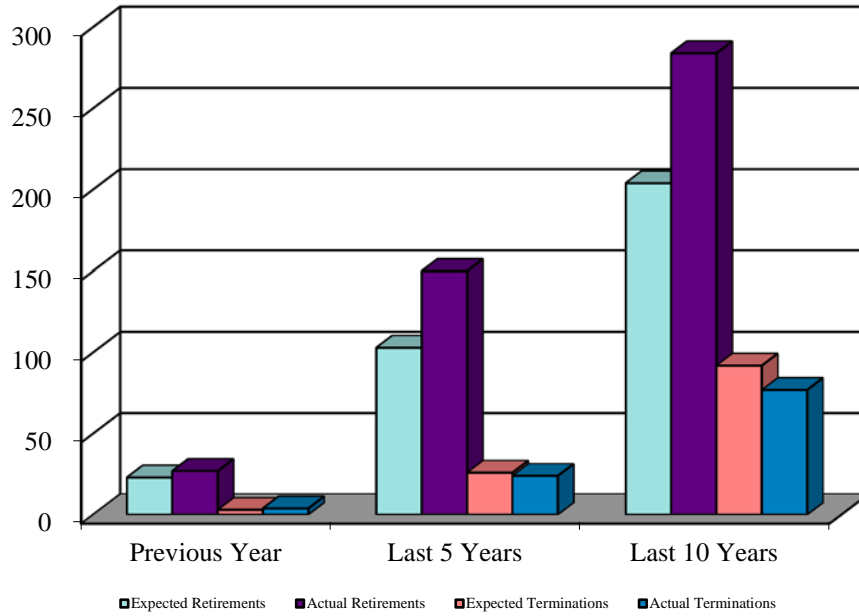
Employer Contributions



Comparative contribution information is located on page B-6. Composition of the current City contribution amount is located on page B-1.

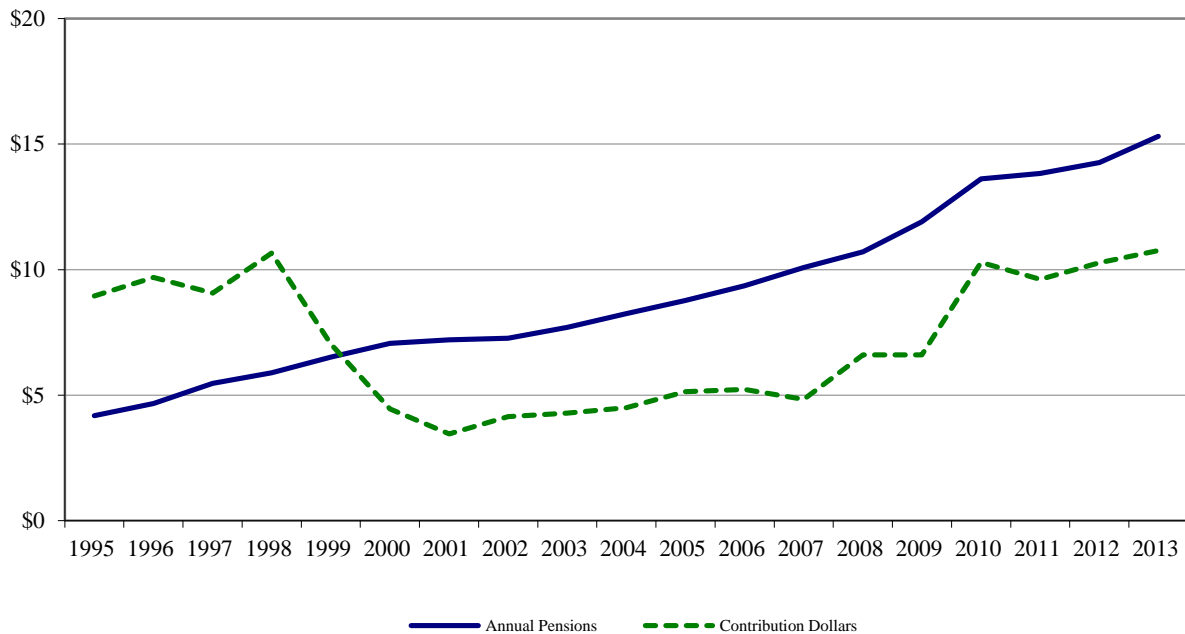
HISTORICAL COMPARISONS

Retirements and Terminations



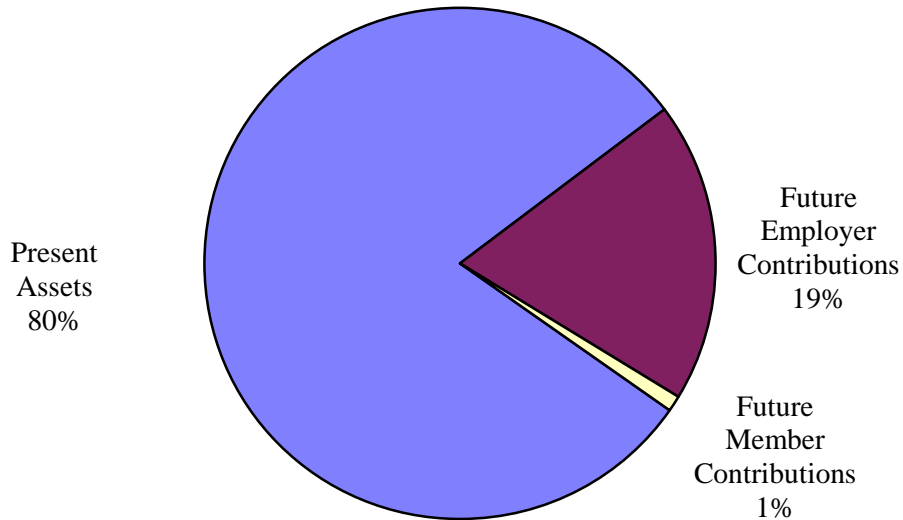
DC transfers are included in the chart above as Retirements or Terminations as appropriate. Actual retirements in the last 5 and 10 years reflect multiple early retirement incentives.

Pension Payments and Total Contributions (In Millions of Dollars)

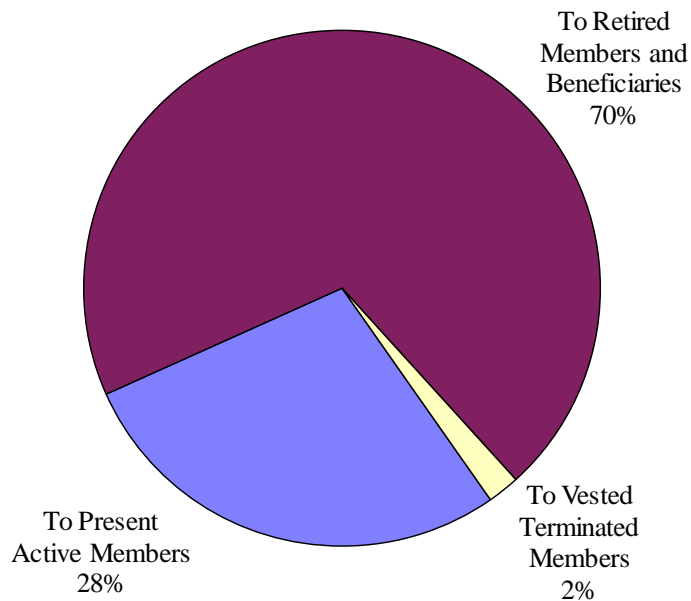


FUND OBLIGATIONS AND SOURCES OF FUNDING SEPTEMBER 30, 2013

Present Resources and Expected Future Resources (\$232 Million)



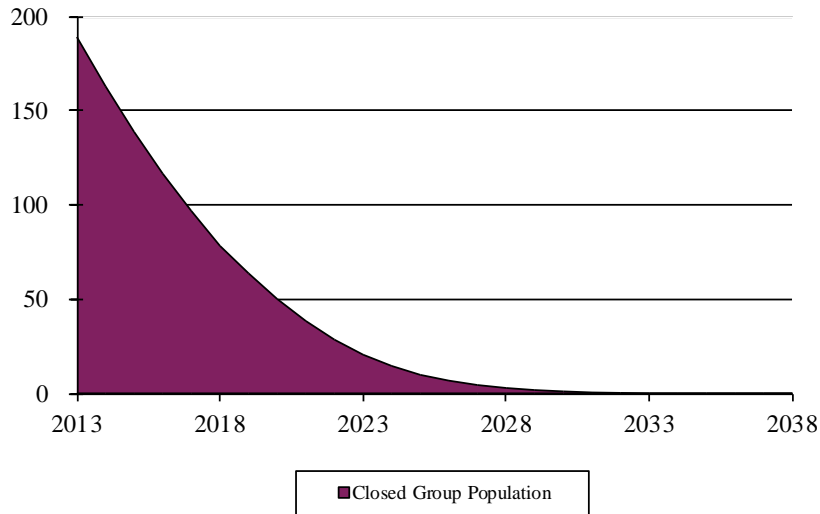
Actuarial Present Value of Expected Future Benefit Payments and Reserves (\$232 Million)



The actuarial balance sheet is located on page B-7.

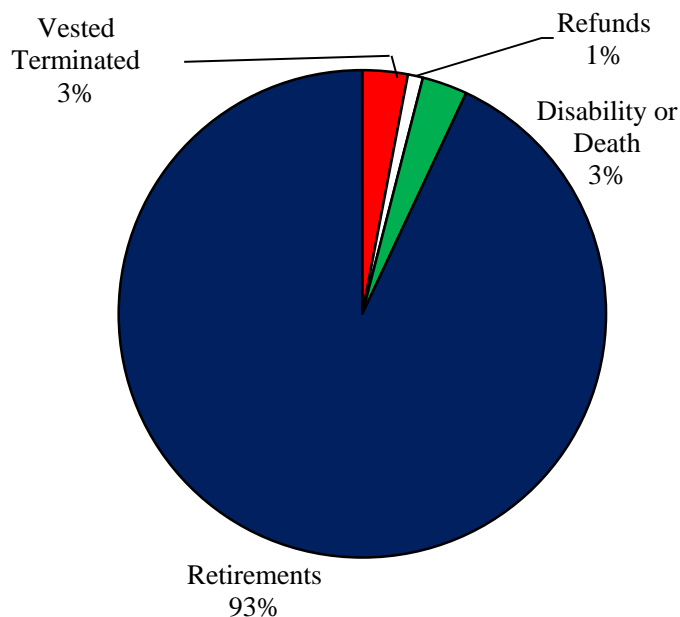
EXPECTED DEVELOPMENT OF PRESENT ACTIVE POPULATION SEPTEMBER 30, 2013

Closed Active Group Population Projection



The charts show the expected future development of the present population in simplified terms. The pension fund presently covers 189 active members. About 93% of the present population is expected to receive monthly retirement benefits by retiring directly from active service. The remaining 7% of the present population is expected to become eligible for vested terminated, refunds, disability, or death-in-service benefits. **Within 5 years, over half of the covered membership is expected to exit the Active Member Group.**

Expected Terminations from Active Employment For Current Active Members



COMMENTS

Plan Experience

The activities of the Pension Fund and its members generated an experience gain of \$1.62 million on an aggregate basis during the plan year ended September 30, 2013. The market value rate of return on plan assets this year was 11.8%. The funding value rate of return on assets used to determine the contribution requirements and funded ratio for this valuation was 9.6% versus 8.0% expected. The aggregate experience gain results in a lower dollar contribution. Please refer to pages C-5, C-6, C-7, C-13, D-3, D-4, and D-5 for additional experience information.

Plan Amendments

None.

Changes in Amortization Policy

Unfunded present value of future benefits was amortized using level dollar payments over a closed 8 year period beginning with the 2010 valuation. The remaining amortization period is 5 years for the fiscal year ending September 30, 2015. We recommend that the Board review the funding policy and consider adopting a written funding policy.

Changes in Assumptions

None. However, at the request of the Pension Advisory Committee we were asked to comment on the impact of reducing the current 8% investment return assumption from 8% to 7.5%. This would increase the City's contribution requirement for the fiscal year ending September 30, 2015 from \$9.06 million to \$11.91 million and decrease the funded ratio from 80.3% to 76.5%. With a closed plan, the trustees may at some point change the investment policy to increase fixed income. We recommend that the assumed rate of investment return be reviewed with input from the Fund's investment consultant.

The current mortality assumption is based on tables from 1994 and has no margin for mortality improvement. The Society of Actuaries has recently released updated 2014 mortality tables along with recommendations for reflecting future improvements. There have been significant improvements in mortality rates in the last 20 years. We recommend reviewing and updating the mortality assumptions before the 2014 valuation.

Looking Ahead

Currently the actuarial value of assets, which is used to determine the funded status and contribution rates for the plan, is less than the market value of assets by 5%, or \$9.1 million (see page C-6). Therefore, there are prior years' gains to be recognized in the 2014 report. Those gains will put downward pressure of about \$0.7 million next year on the contribution requirements in the absence of offsetting losses. The asset valuation method should be reviewed in conjunction with the funding policy. Changes to the rate of return assumption and/or mortality assumption will put upward pressure on the contributions.

CONCLUSION

Pension Fund contribution rates are expected to fluctuate from year to year as experience emerges and economic conditions change. The expectation inherent in the funding of a pension fund is that year to year fluctuations will tend to cancel over periods of 5 to 10 years and result in stable conditions over these periods.

Over time, the funded ratio of a pension fund is expected to converge to 100%, but the basic trend may be interrupted by events such as benefit increases or changes in actuarial cost methods and assumptions, or severe market downturns. Fund experience has been in line with this expectation until the last few years. Since the implementation of the aggregate actuarial cost method in 1998, the funded status has increased from 65.3% to 80.3%.

STATEMENT BY ENROLLED ACTUARY

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, of the 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.



Brad Lee Armstrong, ASA, MAAA, EA [11-5614]

February 6, 2014

Date

SECTION B

DETAILED VALUATION RESULTS

**CONTRIBUTIONS TO FINANCE BENEFITS OF THE PENSION FUND
FOR THE PLAN YEAR BEGINNING OCTOBER 1
TO BE CONTRIBUTED DURING THE FISCAL YEAR**

| | Contribution Development for Fiscal Year Ending September 30 | |
|--|---|---------------------|
| | 2015 | 2014 |
| Development of Normal Cost | | |
| a) Present value of future benefit payments | \$ 232,478,888 | \$ 229,543,929 |
| Present value of future member contributions | (2,198,143) | (\$2,624,420) |
| b) Actuarial value of assets | (186,759,639) | (175,349,449) |
| c) Unfunded present value of future benefit payments | 43,521,106 | 51,570,060 |
| d) Interest on item c) for one year | 3,481,688 | 4,125,605 |
| e) City contribution expected from prior valuation | (9,412,100) | (10,588,394) |
| f) Interest on item e) for 6 months | (376,484) | (423,536) |
| g) Total City present value of future normal cost | 37,214,210 | 44,683,735 |
| h) Closed level dollar amortization factor* | 4.15037009 | 4.80542321 |
| i) Item g) divided by item h) | 8,966,480 | 9,298,606 |
| Administrative Expenses | 95,886 | 113,494 |
| Total City Normal Cost and Administrative Expenses | | |
| Dollar Amount* | \$ 9,062,366 | \$ 9,412,100 |
| Percent of Payroll | 100.18% | 90.39% |

* Level dollar amortization with a period of 5 years for the FY ending 9/30/15 and 6 years for the FY ending 9/30/14.

FS 112.64 requires City contributions to be deposited not less frequently than quarterly. Member contributions, which are in addition to the City contributions, must be deposited not less frequently than monthly.

Procedures for determining dollar contribution amounts are shown on page B-2.

Comparative contribution amounts for prior fiscal years are shown on page B-6.

DETERMINING DOLLAR CONTRIBUTIONS

For any period of time, the percent-of-payroll contribution rate needs to be converted to dollar amounts. We recommend one of the following procedures.

Procedure 1. Contribute dollar amounts at the end of each payroll period that are equal to the City's percent-of-payroll contribution requirement multiplied by the *active member covered payroll* for the period. Adjustments should be made as necessary to exclude items of pay that are not compensation for Pension Fund benefits and to include non-payroll amounts that are compensation for Pension Fund benefits.

Procedure 2. Contribute the annual amounts of \$9,062,366 for City normal cost and administrative expenses during the fiscal year beginning October 1, 2014 on at least a quarterly schedule to comply with FS112.64. The above dollar amount is based on base salary for the next year and is assumed to be contributed, on average, halfway through the fiscal year. Alternatively, if a monthly schedule is followed, the average City contribution would be \$755,197 for fiscal year 2014-2015. If contributions are made on a later schedule, interest should be added at the rate of 0.64% (0.0064) for each month of delay.

Procedure 3. The City contributes an amount of \$8,720,265 for City normal cost and administrative expenses, paid as a lump sum on October 1, 2014. This amount represents 83.2% of payroll. Alternatively, beginning October 31, 2014, the City contributes amounts of \$755,197 for City normal cost and administrative expenses each month through December 31, 2014 with the remainder, \$6,651,996 paid as a lump sum on January 31, 2015.

The covered payroll is anticipated to decline sharply in the next few years since the active group is closed to new entrants. This has been addressed in part with the level dollar amortization in determining the employer rate. We recommend reviewing the percent of payroll funding policy and exploring requiring the City to contribute the full dollar amounts.

FUNDING PROGRESS INDICATORS

There is no single all-encompassing indicator that measures a pension fund's funding progress and current funded status.

Three reliable indicators of funding progress and funded status are described below and shown on page B-4.

Indicator (1) The actuarial present value of gains or losses realized in the operation of the Pension Fund - an experience indicator. Gains and losses are expected to cancel each other over a period of years (in the absence of double-digit inflation) and sizable year to year fluctuations are common. Further details on the derivation of the gain (loss) are shown on page B-5.

Indicator (2) The ratio of the actuarial value of assets to the present value of future benefits - a funding level indicator. The ratio is expected to converge to 100% as the active membership in the plan is eliminated, but the basic trend may be interrupted by certain events such as benefit improvements, changes in actuarial cost methods or changes in actuarial assumptions. The black line on page B-4 denotes where the change to the aggregate actuarial cost method in 1998 resulted in a decrease in the funded status of the fund. Information concerning the fund ratio both before and after this change in method are provided to allow the reader to draw more appropriate conclusions concerning the funded status trend of the plan.

Indicator (3) The ratio of the unfunded present value of future benefits to active member payroll - an inflation adjusted indicator. In a soundly financed pension fund, the amount of the unfunded present value of future benefits will be controlled and prevented from increasing in the absence of benefit improvements. However, in an inflationary environment it is seldom practical to impose this control on dollar amounts which are depreciating in value. The ratio is a relative index of condition where inflation is present in both items. The ratio is expected to decrease over time but the basic trend may be interrupted by certain events such as benefit improvements, changes in actuarial cost methods or changes in actuarial assumptions.

FUNDING PROGRESS INDICATORS - HISTORICAL COMPARISON
(\$ AMOUNTS IN MILLIONS)

| Valuation Date September 30 | Indicator (1) | | Indicator (2) | | | Indicator (3) | |
|--------------------------------|----------------|------------------------------|--|------------------|-------------------|-----------------------------|-----------------------|
| | Gain (Loss) | Actuarial Value of Assets | Present Value of Future Benefits (PVFB)* | Funded Ratio* | Unfunded PVFB* | Active Member Payroll | Percent of Payroll |
| 1995 (a) | 0.71 % | \$ 115.93 | \$ 136.64 | 84.8 % | \$ 20.71 | \$60.10 | 34.6 % |
| 1996 (a) | 3.73 | 133.66 | 155.93 | 85.7 | 22.27 | 61.94 | 36.0 |
| 1997 | 11.60 | 158.48 | 168.52 | 94.0 | 10.04 | 63.13 | 15.9 |
| 1998 (a)# | 8.95 | 183.32 | 280.84 | 65.3 | 97.52 | 63.46 | 153.7 |
| 1999 | 13.86 | 174.80 | 240.99 | 72.5 | 66.19 | 46.85 | 141.3 |
| 2000 | 24.04 | 169.89 | 210.24 | 80.8 | 40.35 | 35.34 | 114.2 |
| 2001 | 10.04 | 155.28 | 184.21 | 84.3 | 28.93 | 25.78 | 112.2 |
| 2002 | (6.16) | 157.44 | 191.14 | 82.4 | 33.70 | 26.07 | 129.3 |
| 2003 | (1.69) | 158.37 | 192.14 | 82.4 | 33.77 | 24.02 | 140.6 |
| 2004 (a) | (2.56) | 159.84 | 194.40 | 82.2 | 34.56 | 22.26 | 155.2 |
| 2005 (a) | 0.15 | 163.82 | 196.84 | 83.2 | 33.02 | 20.83 | 158.5 |
| 2006 | (2.12) | 168.45 | 200.89 | 83.9 | 32.44 | 19.63 | 165.3 |
| 2007 | 0.81 | 179.93 | 208.69 | 86.2 | 28.76 | 19.14 | 150.3 |
| 2008 | (11.81) | 176.36 | 214.26 | 82.3 | 37.90 | 18.36 | 206.4 |
| 2009 | (14.76) | 172.35 | 221.17 | 77.9 | 48.82 | 16.60 | 294.1 |
| 2010 (a) | (8.43) | 173.70 | 229.78 | 75.6 | 56.08 | 13.61 | 412.2 |
| 2011 | (10.09) | 168.61 | 229.27 | 73.5 | 60.66 | 12.72 | 476.7 |
| 2012 | 0.63 | 175.35 | 229.54 | 76.4 | 54.19 | 11.83 | 457.9 |
| 2013 | 1.62 | 186.76 | 232.48 | 80.3 | 45.72 | 10.49 | 436.0 |

(b) Before changes in benefit provisions and/or actuarial assumptions and/or actuarial cost methods (not applicable in 2013).

(a) After changes described in (b).

* Prior to the September 30, 1998 valuation, the entry-age normal cost method was used. The amounts shown are based on the actuarial accrued liability under that method. Beginning with the September 30, 1998 valuation, the aggregate method was used, which does not produce an unfunded accrued liability.

Includes the change to the aggregate actuarial cost method.

DERIVATION OF EXPERIENCE GAIN (LOSS)

| | Year Ended September 30 | |
|--|-------------------------|---------------|
| | 2013 | 2012 |
| Derivation of Experience Gain (Loss) | | |
| (1) UPVFB* at start of year | \$ 54,194,480 | \$ 60,660,870 |
| (2) Employer and Employee contributions | 10,755,602 | 10,282,377 |
| (3) Interest accrual | 3,905,334 | 4,441,575 |
| (4) Expected UPVFB before changes: | | |
| (1) - (2) + (3) | 47,344,212 | 54,820,068 |
| (5) Change from Voluntary Separation Plan | 0 | 0 |
| (6) Change from revised actuarial assumptions | 0 | 0 |
| (7) Expected UPVFB after changes: | | |
| (4) + (5) + (6) | 47,344,212 | 54,820,068 |
| (8) Actual UPVFB at end of year | 45,719,249 | 54,194,480 |
| (9) Gain (loss): (7) - (8) | 1,624,963 | 625,588 |
| (10) Gain (loss) as percent of present value of future benefits at start of year | 0.7% | 0.3% |

* *Unfunded Present Value of Future Benefits. This is the present value of future benefits less the actuarial value of assets.*

CITY CONTRIBUTIONS: HISTORICAL COMPARISON
(\$ AMOUNTS IN MILLIONS)

| Valuation Date September 30 | Applicable Fiscal Year | Computed % of Active Member Covered Payroll | Dollar Contribution | |
|-----------------------------------|------------------------------|---|---------------------|--------|
| | | | Projected | Actual |
| 1990 (a) | 90-91 | 10.12 % | \$4.79 | \$4.79 |
| 1991 | 91-92 | 10.51 | 5.15 | 5.15 |
| 1992 | 92-93 | 10.70 | 5.84 | 5.84 |
| 1993 | 93-94 | 10.72 | 6.15 | 6.15 |
| 1994 | 94-95 | 10.57 | 6.37 | 6.37 |
| 1995 (a) | 95-96 | 11.48 | 7.07 | 7.07 |
| 1996 (a) | 96-97 | 12.21 | 7.75 | 7.75 |
| 1997 | 97-98 | 10.97 | 7.10 | 7.10 |
| 1998 (a)# | 98-99 | 11.27 | 7.44 | 7.44 |
| 1999 | 99-00 | 10.14 | 4.75 | 4.75 |
| 2000 | 00-01 | 7.71 | 2.73 | 2.73 |
| 2001 | 01-02 | 8.63 | 2.22 | 2.22 |
| 2002 | 02-03 | 11.09 | 2.88 | 2.88 |
| 2003 | 03-04 | 13.06 | 3.12 | 3.12 |
| 2004 (a) | 04-05 | 15.42 | 3.42 | 3.42 |
| 2005 (a) | 05-06 | 19.72 | 4.12 | 4.12 |
| 2006 | 06-07 | 21.74 | 4.27 | 4.27 |
| 2007 | 07-08 | 20.31 | 3.85 | 3.85 |
| 2008 | 08-09 | 31.12 | 5.61 | 5.61 |
| 2008 | 09-10 | 53.44* | 6.63 | 9.29* |
| 2009 | 10-11 | 59.15 | 9.31 | 8.95& |
| 2010 (a) | 11-12 | 79.13 | 10.05 | 9.67& |
| 2011 | 12-13 | 92.58 | 10.59 | 10.19& |
| 2012 | 13-14 | 90.39 | 9.41 | |
| 2013 | 14-15 | 100.18 | 9.06 | |

(a) After changes in benefit provisions and/or actuarial assumptions and/or actuarial cost methods.

Includes the change to the aggregate actuarial cost method.

* Contributions for the fiscal year ended 9/30/10 include \$2,905,589 for the Voluntary Separation Program.

& The City's contributions are made in a lump sum on October 1 in accordance with Procedure 3 on page B-2 of the corresponding valuation report. The actual dollar contribution under this procedure was equivalent to the projected dollar contribution.

ACTUARIAL BALANCE SHEET

Present Resources and Expected Future Resources at September 30

| | <u>2013</u> | <u>2012</u> |
|--|----------------------|----------------------|
| A. Actuarial value of assets | | |
| 1. Net assets from plan financial statements (market value) | \$195,879,490 | \$180,090,447 |
| 2. Actuarial value adjustment | <u>(9,119,851)</u> | <u>(4,740,998)</u> |
| 3. Actuarial value of assets | 186,759,639 | 175,349,449 |
| B. Actuarial present value of expected future employer contributions | 43,521,106 | 51,570,060 |
| C. Actuarial present value of expected future member contributions | <u>2,198,143</u> | <u>2,624,420</u> |
| D. Total present and expected future resources | <u>\$232,478,888</u> | <u>\$229,543,929</u> |

Actuarial Present Value of Expected Future Benefit Payments and Reserves

| | | |
|--|----------------------|----------------------|
| A. To retired members and beneficiaries | \$161,965,094 | \$151,310,608 |
| B. To vested terminated members | 4,695,915 | 5,766,582 |
| C. To present active members | <u>65,817,879</u> | <u>72,466,739</u> |
| D. Total actuarial present value of expected future benefit payments | <u>\$232,478,888</u> | <u>\$229,543,929</u> |

**ACTUARIAL PRESENT VALUE OF FUTURE
BENEFIT PAYMENTS AND COMPENSATION**

| <u>Actuarial Present Value of Future Benefit Payments</u> | <u>September 30</u> | |
|---|---------------------|---------------|
| | <u>2013</u> | <u>2012</u> |
| For present active members | | |
| Service pensions | \$ 63,307,555 | \$ 69,475,037 |
| Pre-retirement survivor pensions | 1,233,145 | 1,361,462 |
| Termination benefits | | |
| Deferred service pensions | 1,228,019 | 1,574,407 |
| Refunds of member contributions | 49,160 | 55,833 |
| Total | 65,817,879 | 72,466,739 |
| For vested terminated members | | |
| Regular | 4,262,045 | 5,017,048 |
| LTD | 433,870 | 749,534 |
| Total | 4,695,915 | 5,766,582 |
| For pension recipients | | |
| Service retirees | 156,776,554 | 146,386,943 |
| Disabled retirees | 174,058 | 179,319 |
| Beneficiaries | 5,014,482 | 4,744,346 |
| Total | 161,965,094 | 151,310,608 |
| Total actuarial present value of future benefit payments | \$232,478,888 | \$229,543,929 |
| Actuarial present value of future compensation | \$ 45,043,920 | \$ 53,779,089 |

PROJECTION OF CITY CONTRIBUTIONS AS OF SEPTEMBER 30, 2013

| Valuation Date | Unfunded Present Value of Benefits | Contribution for Fiscal Year Beginning | Employer Contribution* |
|-------------------|--|--|---------------------------|
| 9/30/2009 | \$48,822,532 | 10/1/2010 | \$ 9,305,926 |
| 9/30/2010 | 52,599,035 | 10/1/2011 | 10,054,439 |
| 9/30/2011 | 57,651,377 | 10/1/2012 | 10,588,394 |
| 9/30/2012 | 51,570,060 | 10/1/2013 | 9,412,100 |
| 9/30/2013 | 43,521,106 | 10/1/2014 | 9,062,366 |
| 9/30/2014 | 34,946,904 | 10/1/2015 | 8,300,816 |
| 9/30/2015 | 23,533,346 | 10/1/2016 | 6,414,887 |
| 9/30/2016 | 15,127,619 | 10/1/2017 | 5,407,464 |
| 9/30/2017 | 9,799,120 | 10/1/2018 | 5,407,464 |
| 9/30/2018 | 5,090,852 | 10/1/2019 | |
| 9/30/2019 | 0 | | |

With an amortization period of 5 years or fewer, there can be a great deal of volatility in annual contribution requirements as actual experience unfolds.

* Based upon the Fund's current actuarial assumptions being met each of the next 10 years, recognition of scheduled investment gains (losses) known as of the valuation date, and includes administrative expenses of \$95,000 per year for projected years after the current valuation date.

SECTION C

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA SUBMITTED BY PENSION FUND

**SUMMARY OF BENEFIT PROVISIONS
CONSIDERED FOR ACTUARIAL VALUATION
(SEPTEMBER 30, 2013)**

Participation

All persons regularly employed by the City, for more than 20 hours a week and more than 5 months a year except:

- i) Police Officers
- ii) Firefighters
- iii) Employees of the Orlando Utilities Commission
- iv) Employees of the Greater Orlando Aviation Authority
- v) Prior members who have elected to transfer to the Defined Contribution Plan

This plan closed to new hires effective October 1, 1998.

Final Average Earnings

One-third (1/3) of the member's basic salary or wages for the 3 highest years during the last 10 years of credited service. Lump sum payments for unused accumulated leave time paid at termination/retirement are excluded for pension purposes.

Service (Normal) Retirement

Eligibility. Members are eligible to retire with 25 or more years of service or at age 65 or older with 5 or more years of credited service.

Pension Amount. Two and one-half percent (2.5%) of final average earnings multiplied by credited service, to a maximum pension of 75% of final average earnings. The normal form of pension is payable for life. Optional forms are available on an actuarial equivalent basis.

Service (Early) Retirement

Eligibility. Age 55 or older with 10 or more years of credited service.

Pension Amount. Two and one-half percent (2.5%) of final average earnings multiplied by credited service, to a maximum pension of 75% of final average earnings, reduced by 1/6 of 1% of the preceding amount for each month retirement precedes age 65.

**SUMMARY OF BENEFIT PROVISIONS
CONSIDERED FOR ACTUARIAL VALUATION
(SEPTEMBER 30, 2013)**

Vested Termination of Employment

Eligibility. Termination of employment with 5 or more years of credited service (2 or more years if an elected or appointed official prior to December 12, 1988).

Pension Amount. Computed in same manner as a normal or early service retirement pension, based on pension fund benefit provisions, final average earnings and credited service at time of termination.

Forfeiture. Terminated member may request refund of employee contributions with interest and forfeit entitlement to the deferred pension.

Disability Retirement

Benefits are funded and provided through a self-insured long-term disability plan. Vested termination of employment benefits are available to qualifying individuals.

Post-Retirement Survivor Benefits

Any excess of member contributions, with interest to date of retirement, over aggregate amount of pension paid is paid to beneficiary in a lump sum.

Other optional forms of payment are available on an actuarial equivalent basis.

Pre-Retirement Survivor Benefits

Eligibility Condition 1. Death after attaining age 40 with 10 or more years of credited service prior to termination of employment.

Eligibility Condition 2. Death after attaining 25 or more years of credited service prior to termination of employment.

Pension Amount under Condition 1. Fifty percent (50%) of the deceased member's actuarially reduced accrued normal service retirement pension will be paid to the surviving spouse if the marriage was of at least 1 year's duration at time of death.

**SUMMARY OF BENEFIT PROVISIONS
CONSIDERED FOR ACTUARIAL VALUATION
(SEPTEMBER 30, 2013)**

Pension Amount under Condition 2. One Hundred Percent (100%) of the deceased member's actuarially reduced accrued normal service retirement pension will be paid to the surviving spouse.

Conversion to the DC Retirement Plan. In the event of the death of a member with 10 or more years of service, as of October, 1, 1998, or of a member who was hired before October 1, 1998 and died prior to October 1, 2001, the present value of his accrued benefit in the DB Plan may be transferred to the DC Plan by the member's designated beneficiary, or executor or administrator of the member's estate, provided such election is made within 6 months of the date of death.

Cost-of-Living Adjustment (COLA)

The monthly amount of pension shall be increased annually by 2% of the monthly amount paid during the prior year. Increases occur on the anniversary of the member's pension commencement date. Increases begin at the later of:

- (a) one full year of retirement; or
- (b) the earlier of:
 - (1) the attainment of age 64 or
 - (2) the completion of 4 full years of retirement.

Such cost-of-living adjustments shall apply in like manner to benefits payable to surviving spouses and to surviving pension beneficiaries.

Cost-of-living adjustments are payable to employees that retired on or after October 1, 1998. Terminated vested members are not eligible for the COLA.

**SUMMARY OF BENEFIT PROVISIONS
CONSIDERED FOR ACTUARIAL VALUATION
(SEPTEMBER 30, 2013)**

Transfers to Defined Contribution Plan

Effective October 1, 1998, members may elect to transfer to the DC Retirement Plan with the present value of their accrued benefit as of the date of transfer. Transferred participants revoke their rights to benefits under this plan. The window for transferring is unlimited except for members with less than 10 years of service as of October 1, 1998, who may only elect to transfer prior to October 1, 2001. In all cases, the amount of the transfer is calculated using actuarial equivalence factors which are cost neutral to the Fund.

Member Contributions

Member contributions: 4.88%.

City Contributions

Amounts determined actuarially in accordance with Chapter 112, Florida Statutes.

Changes Since Prior Valuation

None.

ACCOUNTING INFORMATION SUBMITTED FOR VALUATION

Statements of Change in Plan Net Assets

| | Year Ended September 30 | |
|--|-------------------------|---------------|
| | 2013 | 2012 |
| Additions: | | |
| a. City Contributions | \$ 10,188,687 | \$ 9,674,888 |
| b. Member Contributions: | | |
| Basic | 559,069 | 606,011 |
| Buybacks | 7,846 | 1,478 |
| c. Total Contributions | 10,755,602 | 10,282,377 |
| Investment Income | | |
| d. Interest and Dividends | 1,282,577 | 1,643,142 |
| e. Realized Appreciation in Fair Value of Assets | 4,173,337 | 2,530,607 |
| f. Unrealized Appreciation in Fair Value of Assets | 15,976,192 | 22,018,210 |
| g. Securities Lending Income | 55,714 | 55,249 |
| h. Management & Custodian Fees | (483,725) | (442,108) |
| i. Securities Lending Expense | (17,347) | (11,967) |
| j. Net Investment Income | 20,986,748 | 25,793,133 |
| k. Total Additions | 31,742,350 | 36,075,510 |
| Deductions: | | |
| l. Benefits | 14,882,284 | 14,107,569 |
| m. Refunds of Contributions | 73,333 | - |
| n. Administrative Expenses | 107,737 | 125,857 |
| o. Other Expenses | - | - |
| p. Total Deductions | 15,063,354 | 14,233,426 |
| Net Increase (Decrease) before Transfers | 16,678,996 | 21,842,084 |
| Transfers to Defined Contribution Plan | 889,953 | 1,503,285 |
| Net Increase (Decrease) | 15,789,043 | 20,338,799 |
| Net Position - Restricted for Pension Benefits: | | |
| Beginning of Year (From Preliminary Statements) | 180,090,447 | 159,751,648 |
| Adjustments After Preliminary Statements Submitted | - | - |
| Beginning of Year (Audited Balance) | 180,090,447 | 159,751,648 |
| End of Year | \$195,879,490 | \$180,090,447 |

Summary of Assets – Market Value

| | 2013 | 2012 |
|--|----------------------|----------------------|
| Cash & Equivalents | \$ 200,394 | \$ 151,065 |
| Accounts Payable | (132,718) | (127,232) |
| Fixed Income | 64,647,513 | 64,379,287 |
| Global | 20,514,431 | 19,969,033 |
| Equity | 91,830,871 | 78,045,826 |
| Hedge Funds | 9,142,467 | 8,157,774 |
| Real Estate | 9,350,350 | 8,816,795 |
| Miscellaneous | 326,182 | 697,899 |
| Preliminary Net Assets * | \$195,879,490 | \$180,090,447 |
| Adjustments After Preliminary Statements Submitted | - | - |
| Net Position | \$195,879,490 | \$180,090,447 |

* Includes internal holding account, accounts receivable and accounts payable.

DERIVATION OF ACTUARIAL VALUE OF ASSETS

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---------------|---------------|--------------------|--------------|--------------|--------------|
| A. Actuarial Value Beginning of Year | \$173,699,838 | \$168,612,802 | \$175,349,449 | | | |
| B. Market Value End of Year | 159,751,648 | 180,090,447 | 195,879,490 | | | |
| C. Market Value Beginning of Year | 161,310,955 | 159,751,648 | 180,090,447 | | | |
| D. Non-Investment Net Cash Flow# | (5,182,726) | (5,454,334) | (5,197,705) | | | |
| E. Investment Income# | | | | | | |
| E1. Market Total: (B) - (C) - (D) | 3,623,419 | 25,793,133 | 20,986,748 | | | |
| E2. Amount for Immediate Recognition: 8% x (A) + 4% x (D) | 13,688,678 | 13,270,851 | 13,820,048 | | | |
| E3. Amount for Phased-In Recognition: (E1)-(E2) | (10,065,259) | 12,522,282 | 7,166,700 | | | |
| F. Phased-In Recognition Investment Income | | | | | | |
| F1. Current Year: 0.25 x (E3) | (2,516,315) | 3,130,571 | 1,791,675 | | | |
| F2. First Prior Year | 381,918 | (2,516,315) | 3,130,571 | \$ 1,791,675 | | |
| F3. Second Prior Year | (2,076,045) | 381,918 | (2,516,315) | 3,130,571 | \$ 1,791,675 | |
| F4. Third Prior Year | (9,382,546) | (2,076,044) | 381,916 | (2,516,314) | 3,130,569 | \$ 1,791,675 |
| F5. Total Recognized Investment Gain | (13,592,988) | (1,079,870) | 2,787,847 | 2,405,932 | 4,922,244 | 1,791,675 |
| G. Corridor Adjustment | 15% | 15% | 15% | | | |
| Upper Bound | 183,714,395 | 207,104,014 | 225,261,414 | | | |
| Lower Bound | 135,788,901 | 153,076,880 | 166,497,567 | | | |
| Adjustment to Actuarial Value to Keep within Corridor | - | - | - | | | |
| H. Actuarial Value End of Year: | | | | | | |
| = (A) + (D) + (E2) + (F5) | 168,612,802 | 175,349,449 | 186,759,639 | | | |
| I. Difference between Market & Actuarial Value | (8,861,154) | 4,740,998 | 9,119,851 | | | |
| J. Actuarial Value Rate of Return# | 0.1% | 7.3% | 9.6% | | | |
| K. Market Value Rate of Return# | 2.3% | 16.4% | 11.8% | | | |
| L. Ratio of Actuarial Value to Market Value | 105.5% | 97.4% | 95.3% | | | |

Net of investment expenses.

The Actuarial Value of Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, the Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, the Actuarial Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for 3 consecutive years, it will become equal to Market Value. The Actuarial Value of Assets is limited to a corridor of 85% to 115% of the Market Value of Assets.

**RETIRED MEMBER AND BENEFICIARY DATA
HISTORICAL SCHEDULE**

| Year Ended September 30 | Added | | Removed | | Net Increase | | End of Year | | Expected Removals | |
|----------------------------|-------|---------------------|---------|--------------------|--------------|--------------------|-------------|--------------------|-------------------|--------------------|
| | No. | Annual Pensions# | No. | Annual Pensions | No. | Annual Pensions | No. | Annual Pensions | No. | Annual Pensions |
| 1989 | 35 | \$ 317,395 | 9 | \$ 35,463 | 26 | \$ 281,932 | 428 | \$ 2,103,844 | 16 | \$ 60,697 |
| 1990 | 53 | 495,822 | 23 | 71,228 | 30 | 424,594 | 458 | 2,528,438 | 18 | 70,384 |
| 1991 | 40 | 467,799 | 17 * | 76,095 | 23 | 391,704 | 481 | 2,920,142 | 18 | 80,687 |
| 1992 | 34 | 385,328 | 23 | 119,301 | 11 | 266,027 | 492 | 3,186,169 | 17 | 77,894 |
| 1993 | 30 | 366,388 | 22 | 121,000 | 8 | 245,388 | 500 | 3,431,557 | 20 | 98,817 |
| 1994 | 29 | 381,860 | 25 | 126,455 | 4 | 255,405 | 504 | 3,686,962 | 21 | 106,130 |
| 1995 | 50 | 576,610 | 19 | 81,457 | 31 | 495,153 | 535 | 4,182,115 | 21 | 114,290 |
| 1996 | 58 | 607,001 | 21 | 114,699 | 37 | 492,302 | 572 | 4,674,417 | 18 | 108,300 |
| 1997 | 60 | 895,218 | 20 | 101,014 | 40 | 794,204 | 612 | 5,468,621 | 16 | 99,537 |
| 1998 | 52 | 572,384 | 24 | 150,915 | 28 | 421,469 | 640 | 5,890,090 | 18 | 113,791 |
| 1999 | 56 | 817,332 | 29 | 186,939 | 27 | 630,393 | 667 | 6,520,483 | 18 | 124,157 |
| 2000 | 49 | 741,278 | 22 | 200,172 | 27 | 541,106 | 694 | 7,061,589 | 19 | 135,322 |
| 2001 | 30 | 444,366 | 37 | 303,929 | (7) | 140,437 | 687 | 7,202,026 | 20 | 154,928 |
| 2002 | 35 | 422,596 | 43 | 359,586 | (8) | 63,010 | 679 | 7,265,036 | 22 | 157,532 |
| 2003 | 37 | 613,424 | 22 | 183,284 | 15 | 430,140 | 694 | 7,695,176 | 22 | 166,102 |
| 2004 | 33 | 700,639 | 20 | 145,788 | 13 | 554,851 | 707 | 8,250,027 | 23 | 179,495 |
| 2005 | 34 | 694,063 | 30 | 177,622 | 4 | 516,441 | 711 | 8,766,468 | 24 | 195,270 |
| 2006 | 37 | 782,529 | 28 | 193,285 | 9 | 589,244 | 720 | 9,355,712 | 23 | 186,073 |
| 2007 | 40 | 931,788 | 24 | 199,077 | 16 | 732,712 | 736 | 10,088,424 | 23 | 201,845 |
| 2008 | 32 | 848,106 | 31 | 230,877 | 1 | 617,229 | 737 | 10,705,653 | 24 | 218,624 |
| 2009 | 61 | 1,411,570 | 30 | 208,663 | 31 | 1,202,907 | 768 | 11,908,560 | 26 | 255,238 |
| 2010 | 62 | 1,998,620 | 37 | 296,313 | 25 | 1,702,307 | 793 | 13,610,868 | 25 | 253,964 |
| 2011 | 23 | 616,376 | 35 | 396,432 | (12) | 219,944 | 781 | 13,830,812 | 26 | 277,153 |
| 2012 | 30 | 760,460 | 33 | 334,976 | (3) | 425,484 | 778 | 14,256,296 | 26 | 285,102 |
| 2013 | 46 | 1,423,948 | 22 | 368,676 | 24 | 1,055,272 | 802 | 15,311,568 | 26 | 299,524 |

* A person receiving a benefit from the long-term disability plan was moved to the vested terminated group.

Includes cost-of-living adjustments for existing retirees.

AGE AND SERVICE RETIRED MEMBERS

| Valuation Date September 30 | | All Retired Members | | | New Retired Members During Prior Year | | | |
|-----------------------------------|-----|---------------------|-------------------|-------------------|---------------------------------------|-------------------|-----------|-------------------|
| | | Average | | | Average | | | |
| | | Attained Age | Retirement Age | Annual Pension | Number | Retirement Age | Service | Annual Pension |
| 1999 | 583 | 68.6 | 59.7 yrs. | \$10,498 | 45 | 58.5 yrs. | 18.9 yrs. | \$16,210 |
| 2000 | 601 | 69.0 | 59.8 | 10,804 | 38 | 59.1 | 19.0 | 14,988 |
| 2001 | 586 | 69.5 | 59.7 | 11,232 | 15 | 58.3 | 22.9 | 21,106 |
| 2002 | 589 | 69.9 | 59.1 | 11,531 | 24 | 61.5 | 19.3 | 12,707 |
| 2003 | 601 | 70.0 | 58.8 | 11,985 | 32 | 57.6 | 18.8 | 17,557 |
| 2004 | 622 | 70.2 | 58.6 | 12,527 | 29 | 57.1 | 16.9 | 21,665 |
| 2005 | 626 | 70.3 | 58.4 | 13,257 | 29 | 57.3 | 18.5 | 22,773 |
| 2006 | 638 | 70.3 | 59.2 | 13,934 | 33 | 58.8 | 20.5 | 21,503 |
| 2007 | 652 | 70.3 | 59.0 | 14,723 | 40 | 55.5 | 17.9 | 24,604 |
| 2008 | 654 | 70.5 | 58.8 | 15,603 | 32 | 59.9 | 17.4 | 23,001 |
| 2009 | 686 | 70.1 | 58.8 | 16,624 | 61 | 60.2 | 15.6 | 21,503 |
| 2010 | 715 | 69.7 | 58.6 | 18,324 | 59 | 58.9 | 22.1 | 31,524 |
| 2011 | 702 | 70.0 | 58.5 | 18,934 | 16 | 57.1 | 17.8 | 22,576 |
| 2012 | 700 | 70.1 | 58.4 | 19,534 | 24 | 57.5 | 16.8 | 22,385 |
| 2013 | 720 | 70.3 | 58.4 | 20,393 | 38 | 60.0 | 17.6 | 26,462 |

RETIRED MEMBERS AND BENEFICIARIES

Historical Comparison

| Valuation Date September 30 | % Incr. in Annual Pensions | No. of Active Per Retired | Annual Pensions as % of Active Member Payroll | Average Annual Pensions |
|-----------------------------------|----------------------------------|------------------------------|---|----------------------------|
| 1999 | 10.7 % | 2.2 | 13.9 % | \$ 9,776 |
| 2000 | 8.3 | 1.4 | 20.0 | 10,175 |
| 2001 | 2.0 | 1.0 | 27.9 | 10,483 |
| 2002 | 2.9 | 0.9 | 27.9 | 10,700 |
| 2003 | 5.6 | 0.8 | 33.8 | 11,460 |
| 2004 | 7.2 | 0.7 | 37.1 | 11,669 |
| 2005 | 6.3 | 0.6 | 40.9 | 12,330 |
| 2006 | 6.7 | 0.6 | 47.7 | 12,994 |
| 2007 | 7.8 | 0.5 | 52.7 | 13,707 |
| 2008 | 6.1 | 0.5 | 58.3 | 14,526 |
| 2009 | 11.2 | 0.4 | 71.7 | 15,506 |
| 2010 | 14.3 | 0.3 | 100.0 | 17,164 |
| 2011 | 1.6 | 0.3 | 108.7 | 17,709 |
| 2012 | 3.1 | 0.3 | 120.5 | 18,324 |
| 2013 | 7.4 | 0.2 | 146.0 | 19,092 |

**RETIRED MEMBER AND BENEFICIARY DATA
AS OF SEPTEMBER 30, 2013
BY TYPE OF BENEFITS BEING PAID**

| Type of Benefits Being Paid | No. | Annual Benefits | Average | Actuarial Present Value of Pensions |
|-------------------------------------|------------|----------------------------|-----------------|--|
| Straight Life | 488 | \$ 9,204,010 | \$18,861 | \$ 93,678,557 |
| 10-Year Certain and Life Thereafter | 11 | 258,792 | 23,527 | 2,537,037 |
| 100% Contingent Annuitant | 86 | 1,999,046 | 23,245 | 25,385,521 |
| 66-2/3% Contingent Annuitant | 62 | 1,533,406 | 24,732 | 18,631,777 |
| 50% Contingent Annuitant | 73 | 1,687,893 | 23,122 | 16,717,720 |
| Survivor Beneficiaries | 76 | 595,220 | 7,832 | 4,709,442 |
| Death-in-Service Survivors | 6 | 33,201 | 5,534 | 305,040 |
| Total Benefits Being Paid | 802 | \$15,311,568 | \$19,092 | \$161,965,094 |

**RETIRED MEMBER AND BENEFICIARY DATA
AS OF SEPTEMBER 30, 2013
BY ATTAINED AGE**

| <u>Attained Age</u> | <u>No.</u> | <u>Annual Benefits</u> | <u>Average</u> |
|-------------------------|------------|----------------------------|-----------------|
| Under 40 | 2 | \$ 80,999 | \$ 40,500 |
| 40 - 44 | 2 | 27,509 | 13,755 |
| 45 - 49 | 6 | 189,996 | 31,666 |
| 50 - 54 | 29 | 1,092,196 | 37,662 |
| 55 - 59 | 78 | 2,401,254 | 30,785 |
| 60 - 64 | 106 | 3,168,010 | 29,887 |
| 65 - 69 | 159 | 3,094,628 | 19,463 |
| 70 - 74 | 150 | 2,376,223 | 15,841 |
| 75 - 79 | 102 | 1,487,578 | 14,584 |
| 80 - 84 | 93 | 874,552 | 9,404 |
| 85 - 89 | 51 | 390,268 | 7,652 |
| Over 90 | 24 | 128,355 | 5,348 |
| Totals | 802 | \$15,311,568 | \$19,092 |

VESTED TERMINATED MEMBER DATA*
AS OF SEPTEMBER 30, 2013
BY ATTAINED AGE

| Attained Age | No. | Estimated Annual Benefits |
|-------------------------|------------|--|
| 35 - 39 | 1 | \$ 10,520 |
| 40 - 44 | 2 | 11,445 |
| 45 - 49 | 12 | 111,420 |
| 50 - 54 | 23 | 148,406 |
| 55 - 59 | 29 | 175,770 |
| 60 - 64 | 29 | 204,483 |
| Totals | 96 | \$662,044 |

** Includes Regular and LTD Vested Terminated members.*

ACTIVE AND VESTED TERMINATED MEMBERS INCLUDED IN VALUATION

| Valuation Date | Active Members | Vested Term. Members | Active Member Payroll | Age | Average Service | Pay |
|-------------------|-------------------|----------------------------|-----------------------------|------|--------------------|----------|
| 9/30/89 | 1,658 | 73 | \$36,294,629 | 40.9 | 7.7 | \$21,891 |
| 9/30/90 * | 2,110 | 85 | 47,295,950 | 40.1 | 6.6 | 22,415 |
| 9/30/91 | 2,119 | 92 | 47,668,439 | 40.7 | 7.0 | 22,496 |
| 9/30/92 | 2,205 | 111 | 53,128,978 | 41.0 | 7.3 | 24,095 |
| 9/30/93 | 2,206 | 132 | 55,889,939 | 41.5 | 7.7 | 25,335 |
| 9/30/94 | 2,213 | 134 | 58,718,175 | 42.2 | 8.2 | 26,533 |
| 9/30/95 | 2,197 | 160 | 60,103,118 | 42.4 | 8.6 | 27,357 |
| 9/30/96 | 2,201 | 170 | 61,939,225 | 42.9 | 9.0 | 28,141 |
| 9/30/97 | 2,121 | 201 | 63,131,058 | 43.3 | 9.3 | 29,765 |
| 9/30/98 | 2,068 | 208 | 63,457,210 | 43.8 | 9.9 | 30,685 |
| 9/30/99 # | 1,449 | 207 | 46,853,029 | 44.6 | 11.0 | 32,335 |
| 9/30/00 | 998 | 175 | 35,343,262 | 45.9 | 12.0 | 35,414 |
| 9/30/01 | 665 | 159 | 25,777,150 | 47.4 | 13.9 | 38,763 |
| 9/30/02 | 619 | 172 | 26,065,429 | 48.1 | 14.8 | 42,109 |
| 9/30/03 | 543 | 178 | 24,015,995 | 48.9 | 15.9 | 44,228 |
| 9/30/04 | 499 | 174 | 22,264,155 | 49.5 | 16.6 | 44,618 |
| 9/30/05 & | 455 | 168 | 21,459,676 | 50.0 | 17.4 | 47,164 |
| 9/30/06 | 421 | 159 | 19,626,410 | 50.8 | 18.2 | 46,619 |
| 9/30/07 | 389 | 148 | 19,140,901 | 51.5 | 18.8 | 49,205 |
| 9/30/08 | 359 | 142 | 18,358,988 | 52.1 | 19.5 | 51,139 |
| 9/30/09 | 312 | 131 | 16,600,574 | 52.2 | 20.1 | 53,207 |
| 9/30/10 | 256 | 124 | 13,606,449 | 52.0 | 20.7 | 53,150 |
| 9/30/11 | 234 | 119 | 12,723,853 | 52.9 | 21.6 | 54,375 |
| 9/30/12 | 217 | 111 | 11,833,293 | 53.8 | 22.3 | 54,531 |
| 9/30/13 | 189 | 96 | 10,486,831 | 54.2 | 23.1 | 55,486 |

* Change in participation requirements.

On October 1, 1998 the plan was closed to new hires and members were allowed to transfer to a new DC plan.

& The pay reported in conjunction with the valuation included 27 pay periods.

NUMBERS ADDED TO AND REMOVED FROM ACTIVE PARTICIPATION

| Year Ended | Number Added During Year | | Terminations During Year | | | | | | | | Active Members End of Year |
|----------------------|--------------------------|-----|--------------------------|-----|------------------|---|-------------------|-----|-----|-----|----------------------------|
| | | | Retirement | | Death-in-Service | | Other Withdrawals | | | | |
| | A | E | | | | | A | E | A | A | |
| 9/30/89 | 280 | 161 | 35 | 29 | 1 | 6 | 3 | 122 | 125 | 132 | 1,658 |
| 9/30/90 | 606 | 154 | 43 | 26 | 0 | 7 | 16 | 95 | 111 | 146 | 2,110 |
| 9/30/91 | 181 | 172 | 32 | 23 | 1 | 5 | 7 | 132 | 139 | 253 | 2,119 |
| 9/30/92 | 258 | 172 | 28 | 23 | 1 | 6 | 14 | 129 | 143 | 223 | 2,205 |
| 9/30/93 | 158 | 157 | 22 | 28 | 3 | 6 | 22 | 110 | 132 | 223 | 2,206 |
| 9/30/94 | 176 | 169 | 21 | 26 | 8 | 6 | 10 | 130 | 140 | 205 | 2,213 |
| 9/30/95 | 164 | 180 | 41 | 29 | 6 | 6 | 17 | 116 | 133 | 196 | 2,197 |
| 9/30/96 | 161 | 157 | 34 | 27 | 2 | 2 | 19 | 102 | 121 | 146 | 2,201 |
| 9/30/97 | 144 | 186 | 53 | 38 | 1 | 2 | 73 | 97 | 170 | 146 | 2,121 |
| 9/30/98 | 126 | 174 | 33 | 34 | 5 | 2 | 71 | 70 | 141 | 138 | 2,068 |
| 9/30/99 | 5 | 0 | 111 | 38 | 1 | 2 | 349 | 163 | 512 | 127 | 1,449 |
| 9/30/00 | 3 | 0 | 72 | 27 | 1 | 2 | 310 | 71 | 381 | 72 | 998 |
| 9/30/01 | 4 | 0 | 58 | 25 | 0 | 2 | 218 | 61 | 279 | 43 | 665 |
| 9/30/02 | 4 | 0 | 18 | 25 | 0 | 2 | 22 | 10 | 32 | 43 | 619 |
| 9/30/03 | 0 | 0 | 30 | 19 | 0 | 1 | 32 | 14 | 46 | 20 | 543 |
| 9/30/04 | 5 | 0 | 28 | 19 | 0 | 1 | 16 | 5 | 21 | 16 | 499 |
| 9/30/05 | 1 | 0 | 30 | 18 | 1 | 1 | 11 | 3 | 14 | 15 | 455 |
| 9/30/06 | 0 | 0 | 23 | 21 | 1 | 1 | 7 | 3 | 10 | 14 | 421 |
| 9/30/07 | 0 | 0 | 27 | 22 | 0 | 0 | 4 | 1 | 5 | 11 | 389 |
| 9/30/08 | 0 | 0 | 26 | 21 | 1 | 1 | 0 | 3 | 3 | 10 | 359 |
| 9/30/09 | 1 | 0 | 43 | 22 | 0 | 1 | 4 | 1 | 5 | 9 | 312 |
| 9/30/10 | 3 | 0 | 53 | 18 | 1 | 1 | 5 | 0 | 5 | 7 | 256 |
| 9/30/11 | 0 | 0 | 13 | 18 | 0 | 1 | 9 | 0 | 9 | 4 | 234 |
| 9/30/12 | 1 | 0 | 14 | 22 | 0 | 1 | 4 | 0 | 4 | 3 | 217 |
| 9/30/13 | 0 | 0 | 24 | 23 | 0 | 1 | 4 | 0 | 4 | 3 | 189 |
| Subtotals | | | | | | | | | | | |
| 2009-2013 | 5 | 0 | 147 | 103 | 1 | 5 | 26 | 1 | 27 | 26 | |
| 2004-2013 | 11 | 0 | 281 | 204 | 4 | 9 | 64 | 16 | 80 | 92 | |
| Expected for 9-30-14 | | | | | | | | | | | |
| | | | | 23 | | 1 | | | | 2 | |

A represents actual number.

E represents expected number.

Transfers to the DC plan are included as Retirements, Vested Withdrawals, or Other Withdrawals, based upon eligibility for retirement at time of transfer.

**ACTIVE MEMBERS AS OF SEPTEMBER 30, 2013
BY ATTAINED AGE AND YEARS OF SERVICE**

| Attained Age | Years of Service to Valuation Date | | | | | | No. | Totals | |
|-----------------|------------------------------------|-----|----------|-----------|-----------|-----------|-----------|------------|-----------------------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | | 30 Plus | Active Member Payroll |
| 35-39 | | | | 1 | | | | 1 | \$ 45,111 |
| 40-44 | | | | 8 | 4 | | | 12 | 616,438 |
| 45-49 | | | | 9 | 17 | 8 | 1 | 35 | 1,771,037 |
| 50-54 | | | | 9 | 25 | 20 | 1 | 55 | 3,153,021 |
| 55-59 | | | | 11 | 12 | 19 | 3 | 45 | 2,553,208 |
| 60 | | | | 3 | 1 | | 1 | 5 | 318,823 |
| 61 | | | | 2 | 1 | 6 | 3 | 12 | 819,034 |
| 62 | | | | 2 | 2 | | | 4 | 172,159 |
| 63 | | | | 1 | | 2 | 1 | 4 | 259,844 |
| 64 | | | 1 | 2 | 1 | 1 | | 5 | 207,304 |
| 65 | | | | | | 1 | | 1 | 47,052 |
| 66 | | | | 3 | | 2 | | 5 | 202,912 |
| 67 | | | | | 1 | | | 1 | 66,704 |
| 69 | | | | 1 | | | 2 | 3 | 214,242 |
| 70 | | | | | 1 | | | 1 | 39,942 |
| Totals | | | 1 | 52 | 65 | 59 | 12 | 189 | \$10,486,831 |

Group Averages:

Age: 54.2 years
Service: 23.1 years
Annual Pay: \$55,486

**RECONCILIATION OF MEMBERSHIP [PARTICIPANTS]
FOR THE PLAN YEAR ENDED SEPTEMBER 30, 2013**

| | Active Members | Vested Terminated Members | | Pension Recipients | |
|--------------------------------------|-------------------|---------------------------|-----------|--------------------|----------------------|
| | | Regular | LTD | All Retirees | All Beneficiaries |
| No. at Start of Year | 217 | 88 | 23 | 693 | 85 |
| Increase (Decrease) From | | | | | |
| Service Retirement | | | | | |
| - electing monthly lifetime payments | (24) | (10) | | 24 | |
| - electing DC transfer | (3) | | | | |
| Long-term Disability | | | 2 | | |
| Deaths | | | | | |
| - with beneficiary | | | (7) | (10) | 8 |
| - without beneficiary | | | | (10) | (2) |
| Other Pension Terminations | | | | | |
| Vested Terminations | | | | | |
| - electing monthly lifetime payments | (1) | 1 | | 10 | |
| - electing DC transfer | | | (1) | | |
| Other Terminations | | | | | |
| Rehires/Reclassifications | | | | 13 | (9) |
| No. at End of Year | 189 | 79 | 17 | 720 | 82 |

SECTION D

ACTUARIAL COST METHOD, ACTUARIAL
ASSUMPTIONS AND DEFINITIONS OF TECHNICAL
TERMS

ACTUARIAL COST METHOD

The actuarial cost method is a procedure for allocating the actuarial present value of pension benefits to time periods. The method used for your valuation is known as the aggregate actuarial cost method, and has the following characteristics:

- The present value of future benefits is reduced by the actuarial value of assets and the present value of future member contributions. This unfunded amount is projected to the applicable fiscal year with interest less the intervening City contribution expected from the prior valuation. This projected unfunded amount is financed as a level dollar amount over a period of years remaining until the fiscal year ending September 30, 2019.
- The actuarial value of assets used for funding purposes is derived as follows: prior year actuarial value of assets are increased by actual member and City contributions and expected investment income and decreased by actual refunds, benefit payments and administrative expenses. To this amount is 25% of the difference between expected and actual investment income for each of the previous four years. The actuarial value of assets is limited to no less than 85% and no more than 115% of the market value of assets.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

Funding objective contribution requirements and actuarial present values are calculated by applying estimates of future Fund activities (actuarial assumptions) to the benefit provisions and member data of the Fund, using the actuarial cost method described on page D-1.

The principal areas of risk which require estimates of future Fund activities are:

- (i) Rates of inflation impacting assets of the Fund
- (ii) Long-term rates of real investment return to be generated by the assets of the Fund
- (iii) Rates of salary increase to members
- (iv) Rates of mortality among active members, retired members and beneficiaries, and vested terminated members
- (v) Rates of withdrawal of active members
- (vi) Rates of disability among active members
- (vii) Rates of retirement due to age and service

In making a valuation, the monetary effect of each activity is calculated for as long as a present covered person survives - - - a period of time which can be as long as a century.

Actual activities of the Fund will not coincide exactly with estimated activities due to the nature of the activities. Each valuation provides a complete recalculation of estimated future activities and takes into account the effect of differences between estimated and actual activities to date. The result is a continual series of adjustments (usually small) to the computed contribution amount. From time to time one or more of the estimates are modified to reflect experience trends (but not random or temporary year-to-year fluctuations).

The actuarial assumptions regarding the INFLATION rate, REAL INVESTMENT RETURN rate, and SALARY INCREASE rates were adopted effective September 30, 2005. These estimates are used, in combination with the other estimates, to (i) determine the present value of amounts expected to be paid in the future and (ii) establish contribution amounts which are expected to remain relatively level during the amortization period.

Rates of Investment Return. 8.0% per annum, compounded annually, net of investment expenses.

Rates of Price Inflation. This is the rate at which growth in the supply of money and credit is estimated to exceed growth in the supply of goods and services. It may be thought of as the rate of depreciation of the purchasing power of the dollar. There are a number of indices for measuring the inflation rate. Recent rates of inflation, as measured by the Consumers Price Index, have been:

| | Year Ended September 30 | | | | | Average | |
|--------|-------------------------|------|------|------|--------|---------|--------|
| | 2013 | 2012 | 2011 | 2010 | 2009 | 3-Year | 5-Year |
| Actual | 1.2% | 2.0% | 3.9% | 1.1% | (1.3)% | 2.4% | 1.4% |

No specific price inflation assumption is used in this valuation.

Rates of Real Investment Return over Prices. This is the rate of return produced by investing a pool of assets in an inflation-free environment. The assumed real rate of return is approximately 4.0% over wages, which would correspond to an assumed real rate of return of 4.5% to 5.0% over prices. Recent rates of real investment return on the actuarial value of assets have been:

| | Year Ended September 30 | | | | | Average | |
|-------------------------|-------------------------|------------|------------|------------|--------------|------------|------------|
| | 2013 | 2012 | 2011 | 2010 | 2009 | 3-Year | 5-Year |
| Gross Rate of Return | 9.9 % | 7.6 % | 0.4 % | 3.3 % | 1.4 % | 5.9 % | 4.5 % |
| Less Invest. Expenses | <u>0.3</u> | <u>0.3</u> | <u>0.3</u> | <u>0.3</u> | <u>0.3</u> | <u>0.3</u> | <u>0.3</u> |
| Net Rate of Return | 9.6 | 7.3 | 0.1 | 3.0 | 1.1 | 5.6 | 4.2 |
| Less Inflation Rate | <u>1.2</u> | <u>2.0</u> | <u>3.9</u> | <u>1.1</u> | <u>(1.3)</u> | <u>2.4</u> | <u>1.4</u> |
| Net Real Rate of Return | 8.4 | 5.3 | (3.8) | 1.9 | 2.4 | 3.2 | 2.8 |

The total investment return rate was computed using the approximate formula $i = I$ divided by $1/2 (A + B - I)$, where I is actual realized investment income plus market value adjustments, A is the beginning of year asset value, and B is the end of year asset value.

The preceding investment return rates reflect the particular characteristics of this Fund and the method of determining the actuarial value of assets. They should not be used to measure an investment advisor's performance or for comparison with other pension funds.

Rates of Salary Increase. Employee salaries are estimated to increase between the date of hire and date of retirement. Salary increases occur in recognition of (i) individual merit and seniority, (ii) inflation-related depreciation of the purchasing power of salaries, and (iii) competition from other employers for personnel. A schedule of long-term rates of increase in individual salaries used for the valuation follows for sample ages:

| Attributable to: | for Sample Ages | | | |
|-------------------|-----------------|------------|------------|------------|
| | 30 | 40 | 50 | 60 |
| Merit & Seniority | 2.6 % | 0.9 % | 0.3 % | 0.3 % |
| Other Sources | <u>4.0</u> | <u>4.0</u> | <u>4.0</u> | <u>4.0</u> |
| Total | 6.6 % | 4.9 % | 4.3 % | 4.3 % |

Lump sum payments for unused leave time are not included in the calculation of final average earnings.

Recent rates of salary change experience, as measured by average reported pay, have been:

| | Year Ended September 30 | | | | | Average | | |
|----------------------------------|-------------------------|-------|-------|-------|-------|---------|--------|---------|
| | 2013 | 2012 | 2011 | 2010 | 2009 | 3-Year | 5-Year | 10-Year |
| Rate of Average Salary Increase: | | | | | | | | |
| Actual (1) | 3.4 % | 0.3 % | 1.8 % | 2.5 % | 4.5 % | 1.8 % | 2.5 % | 3.8 % |
| Assumed | 4.3 | 4.3 | 4.4 | 4.4 | 4.4 | 4.3 | 4.4 | 5.5 |

(1) Excluding terminations and new entrants.

Recent comparisons of the net rate of investment return to the rate of actual increase in salaries have been:

| | Year Ended September 30 | | | | | Average | |
|---------------------------------|-------------------------|-------|-------|-------|-------|---------|--------|
| | 2013 | 2012 | 2011 | 2010 | 2009 | 3-Year | 5-Year |
| Net Rate of Investment Return* | 9.6 % | 7.3 % | 0.1 % | 3.0 % | 1.1 % | 5.6 % | 4.2 % |
| Rate of Average Salary Increase | 3.4 | 0.3 | 1.8 | 2.5 | 4.5 | 1.8 | 2.5 |
| Difference: | | | | | | | |
| Actual | 6.2 | 7.0 | (1.7) | 0.5 | (3.4) | 3.8 | 1.6 |
| Target | 4.0 % | 4.0 % | 4.0 % | 4.0 % | 4.0 % | 4.0 % | 4.0 % |

* Net of investment expenses.

Rates of Mortality. The 1994 Group Annuity Mortality Table (GA94) set back 0 years for men and women, effective with the September 30, 2005 valuation. Sample values follow:

| Sample Ages | GA94 Table | | | | | |
|-------------|-------------------------------|----------|-------------------------|----------|--------------------------------|-------|
| | Value of \$1 Monthly For Life | | Percent Dying Next Year | | Future Life Expectancy (Years) | |
| | Men | Women | Men | Women | Men | Women |
| 50 | \$134.63 | \$140.32 | 0.25790% | 0.14280% | 30.69 | 34.89 |
| 55 | 127.16 | 134.40 | 0.44250% | 0.22940% | 26.15 | 30.17 |
| 60 | 117.78 | 126.60 | 0.79760% | 0.44390% | 21.83 | 25.59 |
| 65 | 106.80 | 117.13 | 1.45350% | 0.86360% | 17.84 | 21.28 |
| 70 | 94.73 | 106.11 | 2.37300% | 1.37300% | 14.29 | 17.30 |
| 75 | 81.36 | 92.79 | 3.72110% | 2.26860% | 11.12 | 13.60 |
| 80 | 67.17 | 77.98 | 6.20270% | 3.93960% | 8.37 | 10.31 |

These rates are used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. The values shown above do not include the effect of any cost-of-living adjustments. No margin for future mortality improvements is included in these tables.

Rates of Withdrawal from Active Membership. These rates represent the probabilities of members leaving employment for reasons other than death or disability and prior to their becoming eligible to retire.

| Sample Ages | Rates of Withdrawal Within Next Year |
|------------------------|---|
| 25 | 5.00% |
| 30 | 4.00% |
| 35 | 3.50% |
| 40 | 3.00% |
| 45 | 2.50% |
| 50 | 2.50% |
| 55 | 2.50% |
| 60 | 2.50% |

These rates were first used for the September 30, 2010 valuation.

Rates of Disability. These rates represent the probabilities of active members becoming disabled.

| Sample Ages | Rates of Disability Within Next Year |
|------------------------|---|
| 25 | 0.04% |
| 30 | 0.04% |
| 35 | 0.12% |
| 40 | 0.22% |
| 45 | 0.42% |
| 50 | 0.72% |
| 55 | 1.12% |
| 60 | 1.66% |

These rates were first used for the September 30, 2005 valuation.

Rates of Retirement. These rates represent the probabilities of eligible members retiring.

| Rates of Retirement Within Next Year | | | | |
|---|----------------------------|------------------------|------------------------|---------------|
| Years of Service | Service Based Rates | Retirement Ages | Age Based Rates | |
| | | | Early | Normal |
| 25 | 25% | 55 | 10% | |
| 26 | 20% | 56 | 7% | |
| 27 | 20% | 57 | 7% | |
| 28 | 20% | 58 | 7% | |
| 29 | 20% | 59 | 7% | |
| 30 | 30% | 60 | 7% | |
| 31 | 30% | 61 | 7% | |
| 32 | 30% | 62 | 10% | |
| 33 | 30% | 63 | 10% | |
| 34 | 30% | 64 | 10% | |
| 35 | 100% | 65 | | 20% |
| | | 66 | | 20% |
| | | 67 | | 20% |
| | | 68 | | 20% |
| | | 69 | | 20% |
| | | 70 | | 100% |

These rates were first used for the September 30, 2010 valuation.

Expenses. Administrative expenses are included as an additional employer contribution to provide for reimbursement of these expenses. Investment expenses are offset against gross investment income. This is unchanged from previous valuations.

Active Member Group Size. The valuation was based on a closed active member group size.

Transfers to the DC Plan. Rates of Retirement and Rates of Withdrawal include members transferring to the DC Plan.

Marital Status. Eighty percent of active members who meet the age and service requirements for pre-retirement surviving benefits are estimated to be married. Female spouses are assumed to be 3 years younger than the male participant. Male spouses are assumed to be 3 years older than the female participant. This is unchanged from previous valuations.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS
SEPTEMBER 30, 2013

| | |
|---------------------------------|--|
| Pay Increase Timing: | Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date. |
| Decrement Timing: | Decrements of all types are assumed to occur mid-year. |
| Eligibility Testing: | 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. |
| Decrement Relativity: | Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects. |
| Decrement Operation: | Disability does not operate during retirement eligibility. |
| Adjustments: | None. |
| Service Credit Accruals: | It is assumed that members accrue one year of service credit per year. |
| Normal Form of Benefit: | A straight life benefit is the normal form of benefit. |
| Benefit Service: | Exact Fractional service is used to determine the amount of benefit payable. |
| City Contributions: | Beginning with the 2010 valuation, dollar contributions are developed using closed level dollar amortization. |

DEFINITIONS OF TECHNICAL TERMS

Accrued Service - Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability - The difference between the actuarial present value of future benefits payments and the actuarial present value of future normal costs. Also referred to as “accrued liability” or “past service liability”.

Actuarial Assumptions - Estimates of expected future experience with respect to rates of mortality, disability, withdrawal, retirement, rate or rates of investment income, inflation and salary increases. Decrement estimates (rates of mortality, disability, withdrawal and retirement) are generally based on past experience, often modified for projected changes in conditions. Fiscal estimates (investment income and salary increases) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method - A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future benefit payments” between future normal cost and actuarial accrued liabilities. Sometimes referred to as the “actuarial valuation cost method”.

Actuarial Equivalent - A single amount or series of amounts which is of equal actuarial present value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Present Value - The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment. Also referred to as “present value”.

Actuarial Value of Assets - The value of assets derived by spreading capital value changes (unrealized and realized gains and losses) in equal dollar installments over four years. This treatment removes the timing of investment activities from the valuation process.

Amortization - Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying it off with a lump sum payment.

Experience Gain (Loss) - The difference between actual experience costs and anticipated actuarial costs -- during the period between two actuarial valuation dates.

Normal Cost - The actuarial cost allocated to the current year by the actuarial cost method. Sometimes referred to as “current service cost”.

SECTION E

THE PRESENT VALUE OF FUTURE BENEFIT PAYMENTS AND CERTAIN OTHER DISCLOSURES REQUIRED BY STATEMENTS NO. 25 AND NO. 27 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

This information is presented in draft form for review by the City's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the City's financial statements.

PRESENT VALUE OF FUTURE BENEFIT PAYMENTS

The present value of future benefit payments is the discounted value of benefits likely to be paid to participants based on the assumptions found in Section D of this report. Allocation of the unfunded actuarial present value of projected benefits over future service was based on the aggregate actuarial cost method. Assumptions, including projected pay increases, were the same as used to determine the Fund's dollar annual required contribution between the valuation date and assumed exit age.

The preceding methods comply with the financial reporting standards established by the Governmental Accounting Standards Board.

The aggregate actuarial accrued liability was determined as part of an actuarial valuation of the plan as of September 30, 2013. Significant actuarial assumptions used in determining the aggregate actuarial accrued liability include (a) a rate of return on the investment of present and future assets of 8.0% per year compounded annually, (b) projected salary increases of 4.0% per year compounded annually, attributable to inflation and other sources, (c) additional projected salary increases of 4.0% to 0.3% per year attributable to seniority/merit, and (d) the assumption that benefits will increase after retirement according to the COLA provisions.

As of September 30, 2013, the unfunded present value of future benefit payments was determined as follows:

Present Value of Future Benefit Payments

| | |
|---|-----------------------------|
| Active members (189 vested, 0 non-vested) | \$ 65,817,879 |
| Retired members and beneficiaries receiving benefits (802 recipients) | 161,965,094 |
| Vested terminated members not yet receiving benefits (96 deferred) | <u>4,695,915</u> |
| Total Present Value of Future Benefit Payments | 232,478,888 |
| Actuarial Value of Assets (market value was \$195,879,490) | <u>186,759,639</u> |
| Unfunded Present Value of Future Benefit Payments | <u><u>\$ 45,719,249</u></u> |

During the year ended September 30, 2013 the Plan experienced a net change of the present value of future benefit payments of \$2,934,959. There were no changes in actuarial assumptions or benefit provisions.

DETERMINATION OF ACTUARIAL VALUE OF ASSETS (1)

| <u>Original Period</u> | | | | | | <u>Remaining Amount to be Allocated</u> | |
|--|---------------------------------------|-----------------------|------------------------|-----------------------|-----------------------|---|---------------------|
| <u>FY</u> | <u>Amount to be Allocated (2)</u> | <u>2009-10</u> | <u>2010-11</u> | <u>2011-12</u> | <u>2012-13</u> | <u>Per Year</u> | <u>Total</u> |
| <u>At 9/30/04 After Reamortization:</u> | | | | | | | |
| 06/07 | \$ 10,051,677 | \$ 2,512,920 | | | | | |
| 07/08 | (38,721,858) | (9,382,544) | \$ (9,382,546) | | | | |
| 08/09 | (11,471,042) | (2,076,045) | (2,076,045) | \$ (2,076,044) | | | |
| 09/10 | 1,527,670 | 381,918 | 381,918 | 381,918 | \$ 381,916 | | |
| 10/11 | (10,065,259) | | (2,516,315) | (2,516,315) | (2,516,315) | \$ (2,516,314) | \$ (2,516,314) |
| 11/12 | 12,522,282 | | | 3,130,571 | 3,130,571 | 3,130,571 | 6,261,140 |
| 12/13 | 7,166,700 | | | | 1,791,675 | 1,791,675 | 5,375,025 |
| TOTAL | | <u>\$ (8,563,751)</u> | <u>\$ (13,592,988)</u> | <u>\$ (1,079,870)</u> | <u>2,787,847</u> | | <u>\$ 9,119,851</u> |
| Net contribution per year (3) | | 9,914,591 | 8,505,952 | 7,816,517 | 8,622,343 | | |
| Beginning actuarial value | | <u>172,348,998</u> | <u>173,699,838</u> | <u>168,612,802</u> | <u>175,349,449</u> | | |
| Ending actuarial value | | <u>\$ 173,699,838</u> | <u>\$ 168,612,802</u> | <u>\$ 175,349,449</u> | <u>\$ 186,759,639</u> | | |

(1) General Employees' Pension Plan includes Component Units' employees.

(2) Represents the difference between assumed and actual investment income to be smoothed over the present and three future periods, (1/4) each year.

(3) Represents net change in actuarial value from non-investment cash flow and assumed investment income.

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS

(Dollar amounts are in millions)

Based on Aggregate Cost Method

| Actuarial Valuation Date September 30 | Actuarial Value of Assets (a) | Present Value of Future Benefits (PVFB) (b) | Unfunded PVFB (b)-(a) | Funded Ratio (a)/(b) | Active Member Covered Payroll (c) | UPVFB as a Percentage of Active Member Covered Payroll ((b-a)/c) |
|--|--|--|--|---------------------------------------|--|---|
| 2003 | \$158.37 | \$192.14 | \$33.77 | 82.4 % | \$24.02 | 140.6 % |
| 2004 * | 159.84 | 194.40 | 34.56 | 82.2 | 22.26 | 155.2 |
| 2005 * | 163.82 | 196.84 | 33.02 | 83.2 | 20.83 | 158.5 |
| 2006 | 168.45 | 200.89 | 32.44 | 83.9 | 19.63 | 165.3 |
| 2007 | 179.93 | 208.69 | 28.76 | 86.2 | 19.14 | 150.3 |
| 2008 | 176.36 | 214.26 | 37.90 | 82.3 | 18.36 | 206.4 |
| 2009 | 172.35 | 221.17 | 48.82 | 77.9 | 16.60 | 294.1 |
| 2010 * | 173.70 | 229.78 | 56.08 | 75.6 | 13.61 | 412.2 |
| 2011 | 168.61 | 229.27 | 60.66 | 73.5 | 12.72 | 476.7 |
| 2012 | 175.35 | 229.54 | 54.19 | 76.4 | 11.83 | 457.9 |
| 2013 | 186.76 | 232.48 | 45.72 | 80.3 | 10.49 | 436.0 |

Based on Entry Age Normal Cost Method

| Actuarial Valuation Date September 30 | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b)-(a) | Funded Ratio (a)/(b) | Active Member Covered Payroll (c) | Unfunded AAL as a Percentage of Active Member Covered Payroll ((b-a)/c) |
|--|--|--|---------------------------------------|---------------------------------------|--|--|
| 2003 | \$ 158.37 | \$ 167.04 | \$ 8.67 | 94.8 % | \$ 24.02 | 36.1 % |
| 2004 * | 159.84 | 171.47 | 11.63 | 93.2 | 22.26 | 52.2 |
| 2005 * | 163.82 | 179.50 | 15.68 | 91.3 | 20.83 | 75.3 |
| 2006 | 168.45 | 185.47 | 17.02 | 90.8 | 19.63 | 86.7 |
| 2007 | 179.93 | 194.11 | 14.18 | 92.7 | 19.14 | 74.1 |
| 2008 | 176.36 | 200.85 | 24.49 | 87.8 | 18.36 | 133.4 |
| 2009 | 172.35 | 209.54 | 37.19 | 82.3 | 16.60 | 224.0 |
| 2010 * | 173.70 | 219.82 | 46.12 | 79.0 | 13.61 | 339.0 |
| 2011 | 168.61 | 220.72 | 52.11 | 76.4 | 12.72 | 409.7 |
| 2012 | 175.35 | 222.12 | 46.77 | 78.9 | 11.83 | 395.4 |
| 2013 | 186.76 | 226.27 | 39.51 | 82.5 | 10.49 | 376.6 |

* After changes in benefits and/or actuarial assumptions and/or actuarial cost methods.

CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

The City's funding policy provides for periodic employer contributions at actuarially determined dollar amounts that are designed to accumulate sufficient assets to pay benefits when due. Effective October 1, 1998, the contributions are determined using the aggregate actuarial cost method. Prior to this, the normal cost and actuarial liability were determined using the entry age actuarial cost method.

During the year ended September 30, 2013 contributions totaling \$10,755,602 -- \$10,188,687 employer and \$566,915 employee -- were made in accordance with contribution requirements determined by an actuarial valuation of the Fund as of September 30, 2011. Employer contributions represented 92.58% of September 30, 2011 projected payroll.

Schedule of Employer Contributions

| Fiscal Year 10/1 - 9/30 | Valuation Date 9/30 | % of Payroll | Annual Required Contribution | Percentage Contributed |
|-------------------------------|---------------------------|-----------------|------------------------------------|---------------------------|
| 2003-04 | 2003 | 13.06 % | 3,123,144 | 100.0 % |
| 2004-05 | 2004 | 15.42 | 3,421,203 | 100.0 |
| 2005-06 | 2005 | 19.72 | 4,123,327 | 100.0 |
| 2006-07 | 2006 | 21.74 | 4,273,029 | 100.0 |
| 2007-08 | 2007 | 20.31 | 3,845,482 | 100.0 |
| 2008-09 | 2008 | 31.12 | 5,610,990 | 100.0 |
| 2009-10 | 2008 | 53.44 | 9,285,893 | 100.0 * |
| 2010-11 | 2009 | 56.92 | 8,954,631 | 100.0 # |
| 2011-12 | 2010 | 76.14 | 9,674,888 | 100.0 # |
| 2012-13 | 2011 | 92.58 | 10,188,687 | 100.0 # |
| 2013-14 | 2012 | 90.39 | 9,412,100 | |
| 2014-15 | 2013 | 100.2 | 9,062,366 | |

* Contributions for the fiscal year ended 9/30/10 include \$2,905,589 for the Voluntary Separation Program.

The City's contributions were made in a lump sum on October 1 in accordance with Procedure 3 on page B-2 of the applicable valuation reports.

This information is presented in draft form for review by the City's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the City's financial statements.

**GENERAL EMPLOYEES' DEFINED BENEFIT PENSION FUND
SOLVENCY TEST**

| Valuation Date | <u>Present Value of Future Benefits For</u> | | | Actuarial Value of Assets | <u>Portion of Present Values Covered by Reported Assets</u> | | |
|-------------------|---|---|--|---------------------------------|---|-------|---------|
| | (1) | (2) | (3) | | (1) | (2) | (3) |
| | <u>Active Member Contributions</u> | <u>Retirees and Beneficiaries</u> | <u>Active and Inactive Members (Employer Financed Portion)</u> | | | | |
| 9/30/2000 | \$ 9,356,932 | \$ 67,836,187 | \$ 133,045,405 | \$ 169,890,225 | 100 % | 100 % | 69.67 % |
| 9/30/2001 | 7,929,536 | 69,186,259 | 107,096,555 | 155,283,810 | 100 | 100 | 72.99 |
| 9/30/2002 | 8,665,985 | 69,301,328 | 113,175,688 | 157,437,031 | 100 | 100 | 70.22 |
| 9/30/2003 | 8,805,811 | 74,343,426 | 108,986,137 | 158,371,400 | 100 | 100 | 69.02 |
| 9/30/2004 | 8,958,362 | 80,402,348 | 105,043,094 | 159,835,973 | 100 | 100 | 67.09 |
| 9/30/2005 (a) | 9,177,225 | 87,768,222 | 99,889,571 | 163,818,363 | 100 | 100 | 66.95 |
| 9/30/2006 | 9,340,861 | 94,213,477 | 97,336,870 | 168,447,554 | 100 | 100 | 66.67 |
| 9/30/2007 | 9,411,309 | 102,952,924 | 96,321,741 | 179,926,736 | 100 | 100 | 70.14 |
| 9/30/2009 | 8,832,690 | 124,093,416 | 88,245,425 | 172,348,998 | 100 | 100 | 44.67 |
| 9/30/2010 (a) | 7,701,747 | 144,763,685 | 77,309,648 | 173,699,838 | 100 | 100 | 27.47 |
| 9/30/2011 | 7,774,127 | 147,179,038 | 74,320,507 | 168,612,802 | 100 | 100 | 18.38 |
| 9/30/2012 | 7,756,847 | 151,310,608 | 70,476,474 | 175,349,449 | 100 | 100 | 23.10 |
| 9/30/2013 | 7,169,512 | 161,965,094 | 63,344,283 | 186,759,639 | 100 | 100 | 27.82 |

(a) After changes in benefits and/or actuarial assumptions and/or actuarial cost methods.

SECTION F

**PRESENT VALUE OF ACCRUED BENEFITS UNDER
VALUATION ASSUMPTIONS AND UNDER FRS
ASSUMED INVESTMENT RATE OF RETURN**

PRESENT VALUE OF ACCRUED BENEFITS

| | <u>September 30, 2013</u> | <u>September 30, 2012</u> |
|---|---------------------------|---------------------------|
| Actuarial Present Value of Accrued Benefits (calculated in accordance with FASB Statement No. 35) | | |
| (i) Vested accrued benefits | | |
| Retired members and beneficiaries | \$ 161,965,094 | \$ 151,310,608 |
| Terminated members | \$4,695,915 | \$5,766,582 |
| Active members (includes non-forfeitable accum. member contributions) | 49,265,051 | 53,465,977 |
| Total | \$ 215,926,060 | \$ 210,543,167 |
| (ii) Non-vested accrued benefits | 0 | 0 |
| (iii) Total actuarial p.v. of accrued benefits | \$ 215,926,060 | \$ 210,543,167 |
| (iv) Actuarial p.v. of accrued benefits at begin. of year | \$ 210,543,167 | \$ 207,197,559 |
| (v) Changes attributable to: | | |
| Amendments | \$ 0 | \$ 0 |
| Assumption change | 0 | 0 |
| Operation of decrements | 20,265,177 | 17,453,177 |
| Benefit payments | (14,882,284) | (14,107,569) |
| Other | 0 | 0 |
| (vi) Net change | 5,382,893 | 3,345,608 |
| (vii) Actuarial p.v. of accr. benefits at end of year | \$ 215,926,060 | \$ 210,543,167 |
| Actuarial Present Value of Accrued Benefits Using FRS Interest Rate | | |
| (i) Vested | \$ 220,771,584 | \$ 215,640,983 |
| (ii) Non-Vested | 0 | 0 |
| (iii) Total | 220,771,584 | 215,640,983 |
| (iv) Market Value of Assets (MVA) | 195,879,490 | 180,090,447 |
| (v) Funded Ratio Using FRS Interest Rate and MVA | 88.72% | 83.51% |