# City of Atlanta General Employees' Pension Fund

**Revised Actuarial Valuation and Review as of July 1, 2014**

Copyright © 2015 by The Segal Group, Inc. All rights reserved.

Segal Consulting
2018 Powers Ferry Road, Suite 850 Atlanta, GA 30339
T 678.306.3100 www.segalco.com

*June 9, 2015*

*Board Members*
*City of Atlanta General Employees' Pension Fund*
*Atlanta, Georgia*

*Dear Board Members:*

*We are pleased to submit this revised Actuarial Valuation and Review as of July 1, 2014. The report has been revised to reflect a change in funding method to the Traditional Entry Age Normal Cost Method as requested by the Board on May 6, 2015. In addition, the asset allocation methodology was modified to reflect the proration of administrative expenses. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2016 and analyzes the preceding year's experience.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Pension Fund. The census information on which our calculations were based was prepared by the GEMGroup and the financial information was provided by the Plan's auditors (KPMG, LLP). That assistance is gratefully acknowledged.*

*The measurements shown in this actuarial valuation may not be applicable for other purposes. 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); and changes in plan provisions or applicable law.*

*The actuarial calculations were directed under the supervision of Jeanette R. Cooper, FSA, FCA, MAAA, Enrolled Actuary. Ms. Cooper is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of her knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in her opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.*

***We hereby certify that the City of Atlanta General Employees' Pension Fund for the General Employees of the City has been funded in conformity with the minimum funding standards specified in Code Section 47-20-10 of the Official Code of Georgia Annotated known as the Public Pension Funds Standards Law. This certification covers the 2014 fiscal year of the Plan.***

*We look forward to reviewing this report at your next meeting and to answering any questions.*

*Sincerely,*

*Segal Consulting, a Member of The Segal Group, Inc.*

*By:*

| | |
|---|---|
| *Eric J. Atwater, FSA, FCA, MAAA, EA* | Jeanette R. Cooper<br>*Jeanette R. Cooper, FSA, FCA, MAAA, EA* |
| *Vice President and Consulting Actuary* | *Vice President and Consulting Actuary* |

## SECTION 1

### VALUATION SUMMARY



## SECTION 2

### VALUATION RESULTS



## SECTION 3

### SUPPLEMENTAL INFORMATION



## SECTION 4

### REPORTING INFORMATION

## Purpose

This report has been prepared by Segal Consulting to present a valuation of the City of Atlanta General Employees' Pension Fund as of July 1, 2014. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Pension Fund, as administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of July 1, 2014, provided by the GEMGroup;
- The assets of the Plan as of June 30, 2014, provided by the Plan Auditors (KPMG, LLP);
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

## Executive Summary

The following key findings were the result of this actuarial valuation:

1. The July 1, 2014 valuation is used to determine the recommended contribution for the fiscal year period July 1, 2015 to June 30, 2016 (FY 2016). The recommended contribution is adjusted for interest to the middle of the fiscal period and meets the amount required to satisfy the minimum funding standards under Georgia law by virtue of Code Section 47-20-10. Georgia Code Section 47-20-10(b) also allows a Plan to be in compliance if the sponsor makes contributions equal to the Annual Required Contribution (ARC) under Governmental Accounting Standards Board (GASB) Statement No. 25. Note that the term ARC has been replaced by Actuarially Determined Contributions (ADEC) under the new GASB standards.
2. The plan receives employee contributions of 12% or 13% of base salary (8% for employees hired after October 31, 2011), and the City contributes an amount to make up the difference between the employee contributions and the recommended contribution amount. The recommended contribution amount is composed of the employer’s normal cost and a payment to amortize the Unfunded Actuarial Accrued Liability (UAAL) over 26 years. The recommended contribution is actuarially determined as a level percentage of payroll and will increase 3.5% annually if all assumptions are met.

3. This valuation has been revised to reflect the change in funding method from the Ultimate Entry Age Normal Cost Method to the Traditional Entry Age Normal Cost Method approved by the Board at the May 6, 2015 meeting. The Board and City adopted the new funding method to be consistent with GASB 67/68 requirements. The change in funding method immediately lowers the UAAL by about $69.6 million, increases the funded status by about 1.8% and increases the annual recommended contribution about $6.7 million primarily due to higher normal cost. Note, that the higher funded percentage is strictly due to the method change as the total promise (i.e., present value of benefits) is unchanged.
4. The City's recommended contribution for FY '16 is $54.2 million, or 36.8% of projected payroll. This amount is an increase of about $6.3 million from the prior valuation's cost and is primarily attributable to the change in funding method (see Section 2, Chart 15 for details).
5. The plan's Unfunded Actuarial Accrued Liability (UAAL) decreased by about $93.5 million from approximately $908.6 million to about $815.1 million (see Section 3, Exhibit G for details). Total plan contributions during the fiscal period July 1, 2013 to June 30, 2014 were not sufficient to cover the normal cost plus interest on the UAAL. Therefore, the UAAL increased by about $14.8 million due to the normal cost and interest being greater than the contributions and about $1.7 million due to non-investment losses. The UAAL decreased about $40.4 million due to investment performance better than assumed and about $69.6 million due to the change in funding method.
6. The funded ratio for this plan, based on the actuarial value of assets, increased from 51.2% to 55.5% as of July 1, 2014. On a market value basis, the funded percentage has increased from 54.4% to 62.5% over the same period. The last ten years of funding progress are shown in Exhibit III of Section 4.
7. The market value of assets earned 18.14% over the period July 1, 2013 through June 30, 2014. To minimize the impact of market fluctuations on the City's required contributions, the Plan uses an asset valuation method that recognizes 20% of each year's net market value gain or loss. Based on this methodology, the Plan's actuarial value of assets earned 11.84% on an annualized basis, compared with the valuation assumption of 7.5%, generating an investment gain of about $40.4 million.
8. The actuarial valuation report as of July 1, 2014 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the Plan, while increases will decrease the actuarial cost of the Plan. For example, a 10% change in

the current year's actuarial value of assets would produce about a $6.5 million change in the recommended contribution level.

9. As indicated in Section 2, Subsection B of this report, the total unrecognized investment gain as of June 30, 2014 is $128.8 million. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment gains derived from future experience. This implies that earning the assumed rate of investment return of 7.50% per year (net of expenses) on a **market value** basis will result in investment gains on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed 7.50% rate and all other actuarial assumptions are met, the contribution requirements would decrease in each of the next few years.

10. Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 are effective for fiscal years beginning after June 15, 2013 and June 15, 2014, respectively. GASB 67 and 68 information is not included in this report. Segal provided the GASB 67 disclosures for the period ending June 30, 2014 to the City's auditors under separate cover on October 30, 2014. The required disclosures under GASB 68 will be provided under separate cover around October 2015. The disclosures for GASB Statement No. 27, however, are included in Section 4 of this report, and exhibits that were previously required for GASB 25 are included as well, for informational purposes.

11. There have been no changes in actuarial assumptions or plan provisions since the last valuation. However, the funding method was changed to the Traditional Entry Age Normal Cost Method with this valuation.

## Summary of Key Valuation Results

| Fiscal Year | | 2015/2016 | 2014/2015 |
|---|---|---|---|
| **Contributions for fiscal year beginning July 1:** | | | |
| 1. | Normal cost | $18,782,492 | $7,838,781 |
| 2. | Expected employee contributions | 16,621,593 | 15,897,061 |
| 3. | Payment to amortize unfunded liability | 48,379,770 | 52,759,424 |
| **4.** | **Total City recommended annual contribution, adjusted for timing (1-2+3)*** | **$54,235,740** | **$47,969,283** |
| 5. | Projected payroll** | 147,480,903 | 137,725,989 |
| 6. | City contribution as a percentage of projected payroll (4/5) | 36.8% | 34.8% |
| **GASB 25/27 for fiscal year beginning July 1:** | | | |
| 7. | Annual City required contributions at beginning of year | $50,540,669 | $44,701,144 |
| 8. | Actual City contributions | -- | 42,145,000 |
| **Plan Year** | | **2014** | **2013** |
| **Funding elements for plan year beginning July 1:** | | | |
| 9. | Actuarial value of assets | $1,016,486,156 | $954,964,648 |
| 10. | Market value of assets | 1,145,333,000 | 1,014,429,000 |
| 11. | Actuarial accrued liability | 1,831,581,285 | 1,863,532,248 |
| 12. | Unfunded actuarial accrued liability (11 – 9) | 815,095,129 | 908,567,600 |
| 13. | Funded ratio - Actuarial basis (9/11) | 55.5% | 51.2% |
| 14. | Funded ratio - Market basis (10/11) | 62.5% | 54.4% |
| **Demographic data for plan year beginning July 1:** | | | |
| 15. | Number of retired participants and beneficiaries | 3,805 | 3,790 |
| 16. | Number of terminated vested participants*** | 182 | 129 |
| 17. | Number of active participants | 3,243 | 3,171 |
| 18. | Covered payroll | $142,493,626 | $133,068,588 |
| 19. | Average payroll | 43,939 | 41,964 |

**As of valuation date; adjusted for timing*
*** Projected payroll for FY '16 based on covered payroll as of July 1, 2014 increased by 3.5% to approximate budgeted payroll including filled vacancies.*
**** Includes 71 and 22 terminated participants with contributions remaining in the Plan as of July 1, 2014 and July 1, 2013, respectively.*

## A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, vested terminated participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

*A historical perspective of how the participant population has changed over the past ten valuations can be seen in this chart.*

**CHART 1**

**Participant Population: 2004 – 2014**

| Year Ended | Active Participants | Vested Terminated Participants* | Retired Participants and Beneficiaries | Ratio of Non-Actives to Actives |
|---|---|---|---|---|
| **December 31**: | | | | |
| 2004 | 3,528 | - - | 3,031 | 0.86 |
| 2005 | 3,319 | - - | 3,083 | 0.93 |
| 2006 | 3,511 | 201 | 3,235 | 0.98 |
| 2007** | 4,261 | 92 | 3,308 | 0.80 |
| 2008 | 3,414 | 116 | 3,504 | 1.06 |
| **June 30**: | | | | |
| 2010 | 3,261 | 129 | 3,605 | 1.15 |
| 2011 | 3,093 | 124 | 3,765 | 1.26 |
| 2012 | 3,159 | 85 | 3,826 | 1.24 |
| 2013 | 3,171 | 129 | 3,790 | 1.24 |
| 2014 | 3,243 | 182 | 3,805 | 1.23 |

**Excludes participants receiving Workers' Compensation benefits and includes terminated participants due a refund of employee contributions.*
***Excludes 511 new active participants who transferred from the defined contribution plan.*

**Active Participants**
Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 3,243 active participants with an average age of 47.4, average years of service of 12.4 years and average payroll of $43,939. The 3,171 active participants in the prior valuation had an average age of 47.3, average service of 12.5 years and average payroll of $41,964.

**Inactive Participants**
In this year's valuation, there were 111 participants with a vested right to a deferred or immediate vested benefit.

In addition, there were 71 participants entitled to a return of their employee contributions.

*These graphs show a distribution of active participants by age and by years of service.*

**CHART 2**

**Distribution of Active Participants by Age as of June 30, 2014**

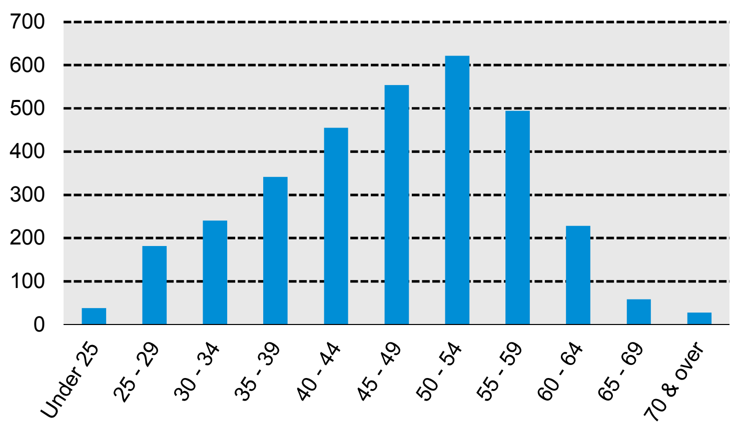
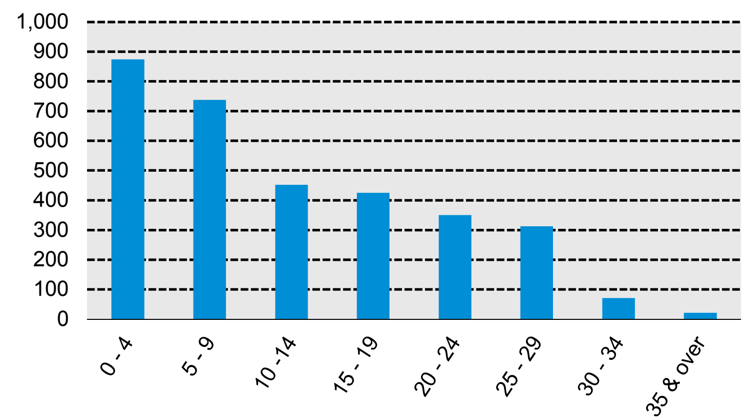



**CHART 3**

**Distribution of Active Participants by Years of Service as of June 30, 2014**



**Retired Participants and Beneficiaries**
As of June 30, 2014, 3,054 retired participants and 751 beneficiaries were receiving total monthly benefits of $8,911,899. For comparison, in the previous valuation, there were 3,051 retired participants and 739 beneficiaries receiving monthly benefits of $8,689,156.

*These graphs show a distribution of the current retired participants and beneficiaries based on their monthly amount and age, by type of pension.*

**CHART 4**

**Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of June 30, 2014**

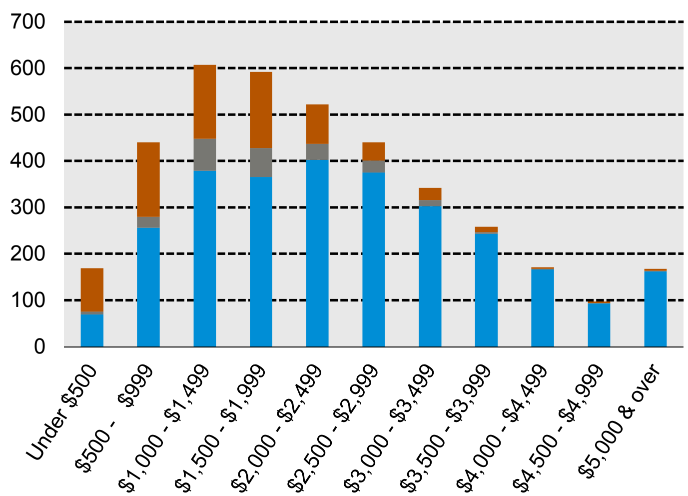
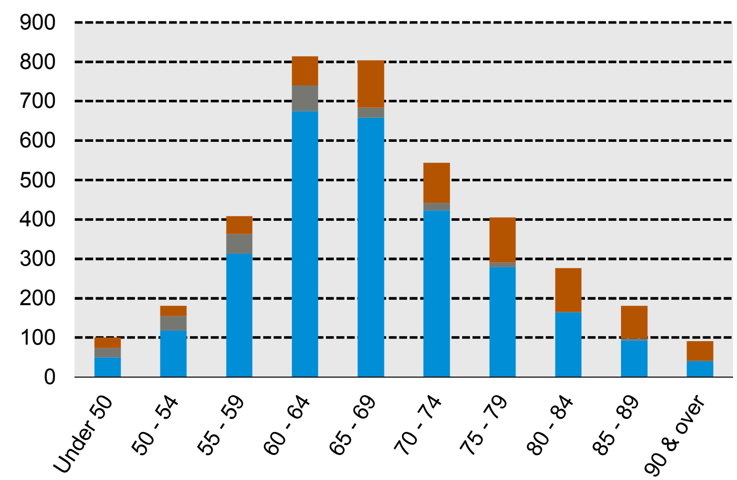



**CHART 5**

**Distribution of Retired Participants and Beneficiaries by Type and by Age as of June 30, 2014**




Beneficiary
Disability
Service

### B. FINANCIAL INFORMATION

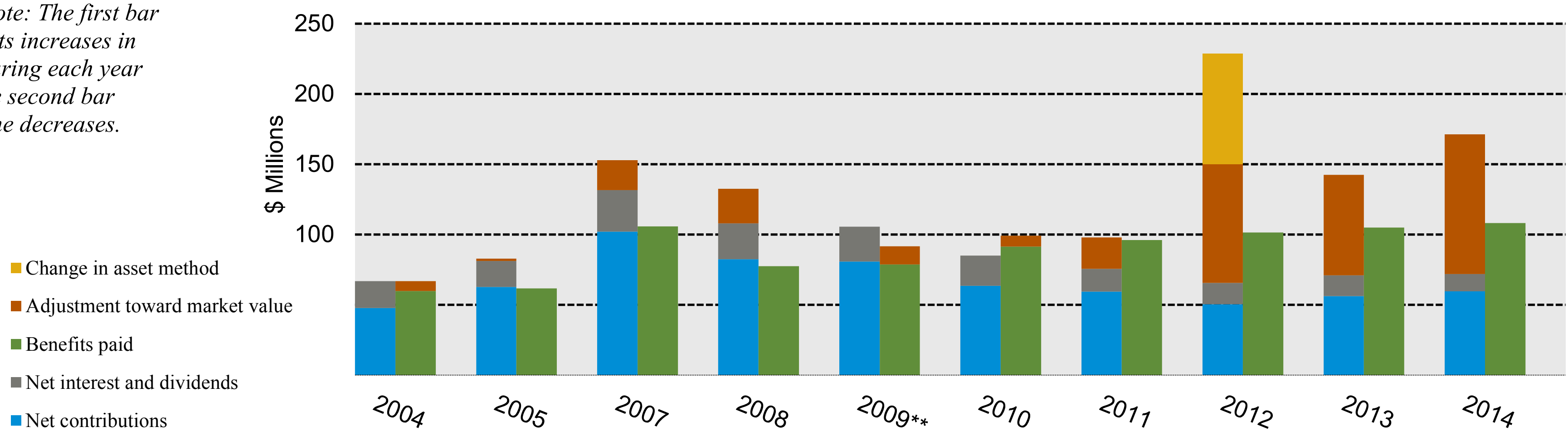
Retirement plan funding anticipates that, over the long term, both net contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

*The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.*

**CHART 6**

**Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2004 – 2005 and June 30, 2007* - 2014**




** The Plan Year changed from January 1 to July 1, effective July 1, 2007.*

*** Adjustment toward market value excludes asset corrections provided by the auditor.*

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The actuarial value of assets was reset to equal the market value of assets as of July 1, 2012 with future gains and losses after that date amortized on a straight-line basis over five years.

*The chart shows the determination of the actuarial value of assets as of the valuation date.*

**CHART 7**

**Determination of Actuarial Value of Assets for Year Ended June 30, 2014**

| | | | |
|---|---|---|---|
| 1. Market value of assets, June 30, 2014 | | | $1,145,333,000 |
| | Original | Unrecognized | |
| 2. Calculation of unrecognized return | Amount* | Return** | |
| (a) Year ended June 30, 2014 | $105,310,725 | $84,248,580 | |
| (b) Year ended June 30, 2013 | 74,330,440 | 44,598,264 | |
| (c) Total unrecognized return | | | 128,846,844 |
| 3. Preliminary actuarial value: (1) - (2c) | | | 1,016,486,156 |
| 4. Adjustment to be within 20% corridor | | | 0 |
| 5. Final actuarial value of assets as of June 30, 2014: (3) + (4) | | | $1,016,486,156 |
| 6. Actuarial value as a percentage of market value: (5) ÷ (1) | | | 88.8% |
| 7. Amount deferred for future recognition: (1) - (5) | | | $128,846,844 |

**Total return minus expected return on a market value*

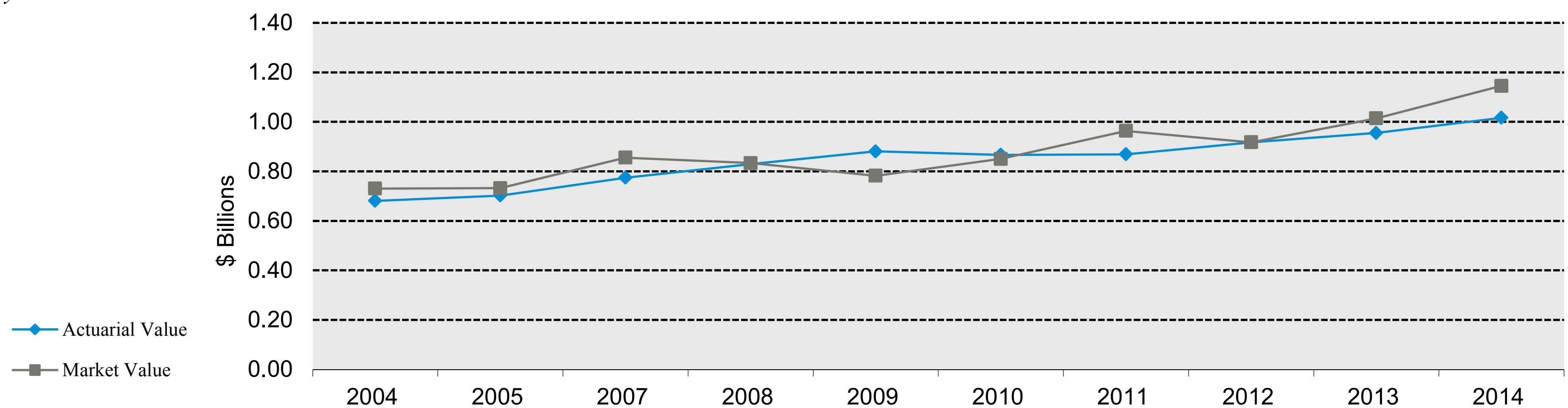
***Recognition at 20% per year over five years*

Both the actuarial value and market value of assets are representations of the General Employees of the City of Atlanta's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the General Employees of the City of Atlanta's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

*This chart shows the change in the actuarial value of assets versus the market value over the past ten years.*

**CHART 8**

**Actuarial Value of Assets vs. Market Value of Assets as of December 31, 2004 – 2005 and June 30, 2007* – 2014**






* *The Plan Year was changed from January 1 to July 1, effective July 1, 2007.*

## C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain is $38,668,163, including a gain of $40,388,059 from investments and a loss of $1,719,896 from all other sources. The net experience variation from individual sources other than investments was 0.1% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

*This chart provides a summary of the actuarial experience during the past year.*

**CHART 9**

**Actuarial Experience for Year Ended June 30, 2014**

| | |
|---|---|
| 1. Net gain from investments* | $40,388,059 |
| 2. Net loss from other experience | -1,719,896 |
| 3. Net experience gain: (1) + (2) | $38,668,163 |

** Details in Chart 10*

**Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the General Employees of the City of Atlanta's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.50%. The actual rate of return on an actuarial basis for the 2013-2014 plan year was 11.84%.

Since the actual return for the year was greater than the assumed return, the Fund experienced an actuarial gain during the year ended June 30, 2014 with regard to its investments.

*This chart shows the gain due to investment experience.*

**CHART 10**

**Actuarial Value Investment Experience for Year Ended June 30, 2014**

| | | |
|---|---|---|
| 1. | Actual return | $110,185,508 |
| 2. | Average value of assets | 930,632,648 |
| 3. | Actual rate of return: (1) ÷ (2) | 11.84% |
| 4. | Assumed rate of return | 7.50% |
| 5. | Expected return: (2) x (4) | $69,797,449 |
| 6. | Actuarial gain: (1) – (5) | $40,388,059 |

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last ten years, including five-year and ten-year averages.

As justified in the last completed experience study, we have maintained the assumed rate of return of 7.50%.

**CHART 11**

**Investment Return – Actuarial Value vs. Market Value: for Years Ended December 31, 2004 – 2005 and June 30, 2007[1] - 2014**

| | Net Interest and Dividend Income | | Recognition of Capital Appreciation | | Change in Asset Method | | Actuarial Value Investment Return | | Market Value Investment Return | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Year Ended** | **Amount** | **Percent** | **Amount** | **Percent** | **Amount** | **Percent** | **Amount** | **Percent** | **Amount** | **Percent** |
| **December 31:** | | | | | | | | | | |
| 2004 | $19,066,970 | 2.82% | -$7,065,273 | -1.05% | - - | - - | $12,001,697 | 1.78% | $68,415,406 | 10.24% |
| 2005 | 18,348,787 | 2.69 | 1,635,590 | 0.24 | - - | - - | 19,984,377 | 2.93 | 654,115 | 0.09 |
| **June 30:** | | | | | | | | | | |
| 2007[2] | 29,605,185 | 2.82 | 21,244,208 | 2.02 | - - | - - | 50,849,393 | 4.78 | 101,463,275 | 9.06 |
| 2008[3] | 25,652,519 | 3.30 | 24,473,398 | 3.15 | - - | - - | 50,125,917 | 6.45 | -27,014,531 | -3.15 |
| 2009[4] | 24,709,202 | 2.85 | -12,896,345 | -1.49 | - - | - - | 11,812,857 | 1.36 | -90,617,329 | -10.39 |
| 2010 | 21,704,665 | 2.50 | -7,858,669 | -0.90 | - - | - - | 13,845,996 | 1.60 | 96,241,481 | 12.53 |
| 2011 | 16,335,000 | 1.93 | 22,344,811 | 2.63 | - - | - - | 38,679,811 | 4.56 | 149,657,731 | 17.98 |
| 2012[5] | 15,091,000 | 1.79 | 5,948,393 | 0.70 | $78,643,853 | 9.33% | 21,039,393 | 2.49 | 4,967,000 | 0.53 |
| 2013 | 14,901,000 | 1.67 | 71,410,648 | 7.99 | - - | - - | 86,311,648 | 9.66 | 145,776,000 | 16.32 |
| 2014 | 4,964,000 | 0.53 | 105,221,508 | 11.31 | - - | - - | 110,185,508 | 11.84 | 179,568,000 | 18.14 |
| Total | $190,378,328 | | $224,458,269 | | $78,643,853 | | $414,836,597 | | $629,111,148 | |
| | | | | | | | Five-year average return | 6.16% | | 13.03% |
| | | | | | | | Ten-year average return | 4.92% | | 7.28% |

*Note: Each year's yield is weighted by the average asset value in that year.*

*[1] The Plan Year was changed from January 1 to July 1, effective July 1, 2007.*

*[2] The amounts for the year ended June 30, 2007 represent the 18-month period from January 1, 2006 through June 30, 2007. The percentages have been annualized.*

*[3] There was a $25,350,000 correction to the market value at July 1, 2007, per Auditors.*

*[4] There was a $37,444,215 correction to the market value at July 1, 2008, per Auditors.*

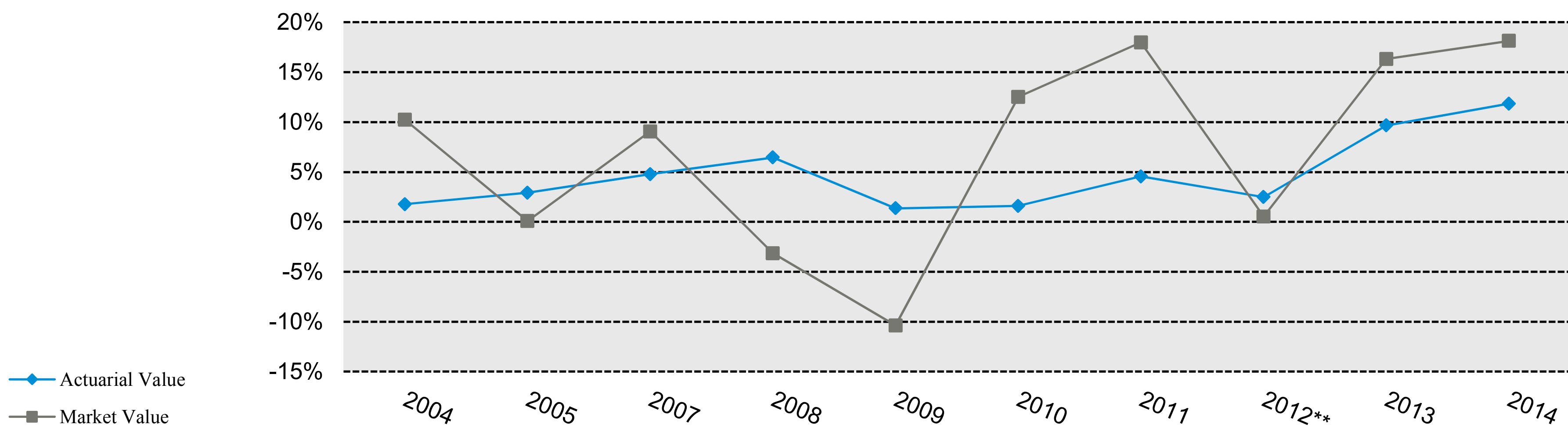
*[5] Actuarial value investment return does not include impact of asset method change.*

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

*This chart illustrates how this leveling effect has actually worked over the years 2004 - 2014.*

**CHART 12**

**Market and Actuarial Rates of Return for Years Ended December 31, 2003 – 2005 and June 30, 2007* - 2014**




**The Plan Year was changed from January 1, to July 1, effective July 1, 2007.*
***Actuarial value rate of return before method change.*

**Other Experience**
There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and

  salary increases different than assumed.

The net loss from this other experience for the year ended June 30, 2014 amounted to $1,719,896, which is 0.1% of the actuarial accrued liability.

*The chart compares this valuation's recommended contribution with the prior valuation.*

### D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 36.8% of payroll.

The recommended contribution is based on a closed level percentage of payroll 30-year amortization of the unfunded actuarial accrued liability as adopted by the City beginning with the July 1, 2010 valuation. As of July 1, 2014, there are 26 years remaining on this schedule.

The contribution requirements for FY 2016 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

**CHART 13**

**Recommended Contribution**

| | | Fiscal Year Ending June 30 | |
|---|---|---|---|
| | | **2016** | **2015** |
| | | **Amount** | **Amount** |
| 1. | Total normal cost | $18,782,492 | $7,838,781 |
| 2. | Expected employee contributions | -16,621,593 | -15,897,061 |
| 3. | Employer normal cost: (1) + (2) | $2,160,899 | -$8,058,280 |
| 4. | Actuarial accrued liability | 1,831,581,285 | 1,863,532,248 |
| 5. | Actuarial value of assets | 1,016,486,156 | 954,964,648 |
| 6. | Unfunded actuarial accrued liability: (4) - (5) | $815,095,129 | $908,567,600 |
| 7. | Payment on unfunded actuarial accrued liability | 48,379,770 | 52,759,424 |
| 8. | **Total recommended contribution: (3) + (7), adjusted for timing*** | **$54,235,740** | **$47,969,283** |
| 9. | Projected payroll | $147,480,903 | $137,725,989 |
| 10. | Total recommended contribution as a percentage of projected payroll: (8)/(9) | 36.8% | 34.8% |

**Recommended contributions are assumed to be paid at the middle of every year.*

**Reconciliation of Recommended Contribution**
The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

*The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.*

**CHART 14**

**Reconciliation of Recommended Contribution for Fiscal Year 2015 to 2016**

| | |
|---|---|
| **Recommended Contribution for Fiscal Year 2015** | **$47,969,283** |
| Effect of change in funding method | 6,701,982 |
| Effect of investment gain | -2,572,486 |
| Effect of expected change in amortization payment due to payroll growth | 1,981,585 |
| Effect of non-investment loss | 109,548 |
| Net effect of other changes | 45,828 |
| **Total change** | $6,266,457 |
| **Recommended Contribution for Fiscal Year 2016** | **$54,235,740** |

**E. INFORMATION REQUIRED BY THE GASB**

This section provides historical information required by GASB Statements 25 and 27. This information has been replaced with information required under GASB Statement 67 and 68.

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to the GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of the GASB reporting requirements. Chart15 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares theactuarial value of assets to the actuarial accrued liabilities of the Plan as calculated under the GASB Standards. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

## F. STATE MINIMUM REQUIREMENTS

Under Georgia minimum funding requirements, this liability may be amortized as a percent of payroll, rather than a fixed dollar amount. In general, with fixed dollar amortization, actual experience close to the assumptions will result in a total contribution requirement (the normal cost plus the payment on the unfunded actuarial liability) that decreases over time as a percentage of payroll. With percentage of payroll amortization, given expected experience, the total contribution requirement should remain level as a percentage of payroll.

Prior to the 2005 valuation, the Plan had adopted the policy of amortizing the unfunded actuarial liability as a level percentage of payroll over a closed 40-year period from January 1, 1979. At January 1, 2005, the amortization was reset to a closed 20-year period. Effective July 1, 2008, the amortization period was changed to an open 30-year period and effective July 1, 2010, the amortization period was changed to a closed 30-year period. The contributions determined under this method continue to meet the Georgia minimum funding requirements by virtue of Georgia Code Section 47-20-10(b). Georgia Code Section 47-20-10(b) allows a plan to be in compliance if the sponsor makes contributions equal to the Annual Required Contribution (ARC) under Governmental Accounting Standards Board (GASB) Statement No.25.

## EXHIBIT A
### Table of Plan Coverage

| Category | Year Ended June 30 2014 | Year Ended June 30 2013 | Change From Prior Year |
|---|---|---|---|
| **Active participants in valuation:** | | | |
| Number | 3,243 | 3,171 | 2.3% |
| Average age | 47.4 | 47.3 | N/A |
| Average years of service | 12.4 | 12.5 | N/A |
| Total payroll | $142,493,626 | $133,068,588 | 7.1% |
| Average payroll | 43,939 | 41,964 | 4.7% |
| Account balances | 115,516,505 | 106,888,071 | 8.1% |
| Total active vested participants | 2,321 | 2,400 | -3.3% |
| **Vested terminated participants** | 111 | 107 | 3.7% |
| **Retired participants:** | | | |
| Number in pay status | 2,813 | 2,818 | -0.2% |
| Average age | 67.8 | 67.3 | N/A |
| Average monthly benefit | $2,616 | $2,563 | 2.1% |
| **Disabled participants:** | | | |
| Number in pay status | 241 | 233 | 3.4% |
| Average age | 61.0 | 61.0 | N/A |
| Average monthly benefit | $1,804 | $1,759 | 2.6% |
| **Beneficiaries in pay status:** | | | |
| Number in pay status | 751 | 739 | 1.6% |
| Average age | 74.1 | 73.0 | N/A |
| Average monthly benefit | $1,489 | $1,429 | 4.2% |
| **Terminated participants with contributions remaining in the Plan** | 71 | 22 | 222.7% |

**EXHIBIT B**

**Participants in Active Service as of June 30, 2014**
**By Age, Years of Service, and Average Payroll**

| | | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Age** | **Total** | **0-4** | **5-9** | **10-14** | **15 - 19** | **20 - 24** | **25 - 29** | **30 - 34** | **35 - 39** | **40 & over** |
| Under 25 | 38 | 38 | - - | - - | - - | - - | - - | - - | - - | - - |
| | $31,576 | $31,576 | - - | - - | - - | - - | - - | - - | - - | - - |
| 25 - 29 | 182 | 149 | 32 | 1 | - - | - - | - - | - - | - - | - - |
| | 34,660 | 34,506 | $35,481 | $31,389 | - - | - - | - - | - - | - - | - - |
| 30 - 34 | 241 | 121 | 99 | 21 | - - | - - | - - | - - | - - | - - |
| | 38,670 | 37,623 | 40,371 | 36,677 | - - | - - | - - | - - | - - | - - |
| 35 - 39 | 342 | 125 | 133 | 56 | 28 | - - | - - | - - | - - | - - |
| | 40,506 | 36,659 | 43,223 | 42,314 | $41,160 | - - | - - | - - | - - | - - |
| 40 - 44 | 455 | 132 | 127 | 74 | 85 | 37 | - - | - - | - - | - - |
| | 42,350 | 36,472 | 41,501 | 43,085 | 49,699 | $47,887 | - - | - - | - - | - - |
| 45 - 49 | 554 | 126 | 122 | 79 | 101 | 78 | 47 | 1 | - - | - - |
| | 44,067 | 36,878 | 41,583 | 42,724 | 47,754 | 51,729 | $51,413 | $43,567 | - - | - - |
| 50 - 54 | 622 | 87 | 96 | 87 | 94 | 113 | 123 | 22 | - - | - - |
| | 46,571 | 37,365 | 41,458 | 44,715 | 49,679 | 50,434 | 51,879 | 49,820 | - - | - - |
| 55 - 59 | 494 | 64 | 74 | 76 | 74 | 77 | 103 | 23 | 3 | - - |
| | 48,956 | 37,896 | 42,653 | 45,122 | 51,151 | 52,022 | 55,288 | 64,233 | $70,141 | - - |
| 60 - 64 | 228 | 28 | 41 | 43 | 31 | 27 | 29 | 19 | 6 | 4 |
| | 47,016 | 38,978 | 42,503 | 42,751 | 48,281 | 46,974 | 54,505 | 61,440 | 60,771 | $42,451 |
| 65 - 69 | 59 | 2 | 12 | 9 | 8 | 13 | 7 | 4 | 4 | - - |
| | 50,920 | 44,783 | 41,946 | 48,859 | 53,453 | 58,599 | 51,826 | 51,630 | 53,225 | - - |
| 70 & over | 28 | 2 | 2 | 6 | 4 | 5 | 3 | 2 | 1 | 3 |
| | 44,841 | 40,697 | 35,603 | 49,578 | 48,263 | 41,727 | 42,007 | 54,226 | 61,777 | 35,853 |
| Total | 3,243 | 874 | 738 | 452 | 425 | 350 | 312 | 71 | 14 | 7 |
| | $43,939 | $36,471 | $41,569 | $43,428 | $48,876 | $50,715 | $53,082 | $57,736 | $60,695 | $39,623 |

## EXHIBIT C
### Reconciliation of Participant Data

| | Active Participants | Vested Former Participants[1] | Disableds | Retired Participants | Beneficiaries | Total |
|---|---|---|---|---|---|---|
| Number as of July 1, 2013 | 3,171 | 107 | 233 | 2,818 | 739 | 7,068 |
| New participants[2] | 300 | N/A | N/A | N/A | N/A | 300 |
| Terminations – with vested rights | -16 | 16 | 0 | 0 | 0 | 0 |
| Terminations – without vested rights | -5 | N/A | N/A | N/A | N/A | -5 |
| Retirements | -84 | -1 | N/A | 85 | N/A | 0 |
| New disabilities | -13 | -4 | 17 | N/A | N/A | 0 |
| Return to work | 5 | -5 | 0 | 0 | N/A | 0 |
| Died | -3 | 0 | -11 | -89 | -33 | -136 |
| New beneficiaries | 0 | 0 | 0 | 0 | 44 | 44 |
| Lump sum payoffs | -112 | -3 | 0 | 0 | 0 | -115 |
| Rehire | 0 | 0 | N/A | 0 | N/A | 0 |
| Certain period expired | N/A | N/A | 0 | 0 | -1 | -1 |
| Data adjustments[3] | 0 | 1 | 2 | -1 | 2 | 4 |
| Number as of July 1, 2014 | 3,243 | 111 | 241 | 2,813 | 751 | 7,159 |

[1] *Excludes terminated participants with contributions remaining in the plan.*

[2] *122 of the 300 new active participants included in the data for the first time this year have over 1 year of credit service.*

[3] *The following data adjustments were made per the TPA:*
*1 annuitant listed as healthy retiree last year was changed to disabled retiree this year*
*1 annuitant listed as disabled retiree last year was changed to healthy retiree this year*
*1 healthy retiree and 2 disabled retirees were included for the first time with this valuation*
*2 retirees were miscoded last year and changed to beneficiary this year*
*1 terminated vested participant was verified as non-participant and therefore removed from data this year; 2 terminated vested participants were included as new participants in this year's data*

## EXHIBIT D

### Summary Statement of Income and Expenses on an Actuarial Value Basis

| | Year Ended June 30, 2014 | | Year Ended June 30, 2013 | |
|---|---|---|---|---|
| **Net assets at actuarial value at the beginning of the year** | | $954,964,648 | | $917,486,000 |
| **Contribution income:** | | | | |
| Employer contributions | $42,145,000 | | $38,694,000 | |
| Employee contributions | 17,366,000 | | 17,322,000 | |
| Net contribution income | | 59,511,000 | | 56,016,000 |
| **Investment income:** | | | | |
| Interest, dividends and other income | $17,632,000 | | $18,708,000 | |
| Recognition of capital appreciation | 105,221,508 | | 71,410,648 | |
| Less investment and administrative fees | -12,668,000 | | -3,807,000 | |
| Net investment income | | 110,185,508 | | 86,311,648 |
| **Total income available for benefits** | | $169,696,508 | | $142,327,648 |
| **Less benefit payments** | | -$108,175,000 | | -$104,849,000 |
| **Change in reserve for future benefits** | | $61,521,508 | | $37,478,648 |
| **Net assets at actuarial value at the end of the year** | | $1,016,486,156 | | $954,964,648 |

## EXHIBIT E

### Summary Statement of Income and Expenses on a Market Value Basis

| | Year Ended June 30, 2014 | | Year Ended June 30, 2013 | |
|---|---|---|---|---|
| **Net assets at market value at the beginning of the year** | | $1,014,429,000 | | $917,486,000 |
| **Contribution income:** | | | | |
| Employer contributions | $42,145,000 | | $38,694,000 | |
| Employee contributions | 17,366,000 | | 17,322,000 | |
| Net contribution income | | 59,511,000 | | 56,016,000 |
| **Investment income:** | | | | |
| Interest, dividends and other income | $17,632,000 | | $18,708,000 | |
| Asset appreciation | 174,604,000 | | 130,875,000 | |
| Less investment and administrative fees | -12,668,000 | | -3,807,000 | |
| Net investment income | | 179,568,000 | | 145,776,000 |
| **Total income available for benefits** | | $239,079,000 | | $201,792,000 |
| **Less benefit payments:** | | -$108,175,000 | | -$104,849,000 |
| **Change in reserve for future benefits** | | $130,904,000 | | $96,943,000 |
| **Net assets at market value at the end of the year** | | $1,145,333,000 | | $1,014,429,000 |

**EXHIBIT F**

**Development of the Fund Through June 30, 2014**

| Year Ended | Employer Contributions | Employee Contributions | Net Investment Return[1] | Benefit Payments | Actuarial Value of Assets at End of Year |
|---|---|---|---|---|---|
| **December 31:** | | | | | |
| 2004 | $37,051,528 | $10,670,811 | $12,001,697 | $59,738,630 | $681,144,675 |
| 2005 | 51,785,164 | 10,893,857 | 19,984,377 | 61,630,251 | 702,177,822 |
| **June 30:** | | | | | |
| 2007[2] | 84,672,851 | 17,284,877 | 50,849,394 | 105,632,578 | 749,352,366[3] |
| 2008 | 70,334,827 | 12,003,484 | 50,125,917 | 77,432,362 | 829,734,232[4] |
| 2009 | 69,990,896 | 10,745,574 | 11,812,857 | 78,718,820 | 881,008,954 |
| 2010 | 51,761,766 | 11,616,599 | 13,845,996 | 91,327,372 | 866,905,943 |
| 2011 | 46,078,000 | 13,230,000 | 38,679,811 | 96,095,000 | 868,798,754 |
| 2012 | 35,237,000 | 15,142,000 | 99,683,246[5] | 101,375,000 | 917,486,000 |
| 2013 | 38,694,000 | 17,322,000 | 86,311,648 | 104,849,000 | 954,964,648 |
| 2014 | 42,145,000 | 17,366,000 | 110,185,508 | 108,175,000 | 1,016,486,156 |

[1] *Net of investment fees and administrative expenses*

[2] *The Plan Year was changed from January 1 to July 1, 2007. Therefore, the amounts as of June 30, 2007 represent the 18-month period from January 1, 2006 through June 30, 2007.*

[3] *Before Auditor correction of $25,350,000*

[4] *Before Auditor correction of $37,444,215*

[5] *Includes effect of asset method change of $78,643,853*

## EXHIBIT G

### Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2014

| | | |
|---|---|---|
| 1. Unfunded actuarial accrued liability at beginning of year | | $908,567,600 |
| 2. Normal cost at beginning of year | | 7,838,781 |
| 3. Total contributions | | -59,511,000 |
| 4. Interest | | |
| (a) For whole year on (1) + (2) | $68,730,479 | |
| (b) For half year on (3) | -2,231,663 | |
| (c) Total interest | | 66,498,816 |
| 5. Expected unfunded actuarial accrued liability | | $923,394,197 |
| 6. Changes due to: | | |
| (a) Experience gain | -$38,668,163 | |
| (b) Funding method | -69,630,905 | |
| (c) Total change | | -108,299,068 |
| 7. Unfunded actuarial accrued liability at end of year [(5) + (9)] | | $815,095,129 |

## EXHIBIT H
## Supplemental Information – Actuarial Present Value of Accumulated Plan Benefits

The actuarial present value of accumulated plan benefits is shown below as of July 1, 2014 and as of July 1, 2013.

| | Benefit Information Date | |
|---|---|---|
| | **July 1, 2014** | **July 1, 2013** |
| Actuarial present value of vested accumulated plan benefits: | | |
| Participants currently receiving payments | $1,275,082,587 | $1,258,434,176 |
| Other vested benefits | 285,916,798 | 264,365,258 |
| Total vested benefits (PVVB) | $1,560,999,385 | $1,522,799,434 |
| Actuarial present value of non-vested accumulated plan benefits | 57,406,593 | 55,192,082 |
| Total actuarial present value of accumulated plan benefits (PVAB) | $1,618,405,978 | $1,577,991,516 |
| Actuarial Value of Assets (AVA) | $1,016,486,156 | $954,964,648 |
| Market Value of Assets (MVA) | $1,145,333,000 | 1,014,429,000 |
| Funded Ratios (PVVB): | | |
| AVA as a percentage of present value of vested accumulated benefits | 65.1% | 62.7% |
| MVA as a percentage of present value of vested accumulated benefits | 73.4% | 66.6% |
| Funded Ratios: (PVAB): | | |
| AVA as a percentage of present value of accumulated benefits | 62.8% | 60.5% |
| MVA as a percentage of present value of accumulated benefits | 70.8% | 64.3% |

*The amounts stated as vested benefits include employee contribution accounts, which are considered 100% vested.*

**EXHIBIT H (continued)**

**Supplemental Information – Actuarial Present Value of Accumulated Plan Benefits**

The factors that affected the change in the actuarial present value of accumulated plan benefits from the preceding to the current benefit information date are as follows:

| Factors | Change in Actuarial Present Value of Accumulated Plan Benefits |
|---|---|
| Benefits accumulated, net experience gain or loss, changes in data | $34,296,661 |
| Benefits paid | -108,175,000 |
| Interest | 114,292,801 |
| Total | $40,414,462 |

**EXHIBIT H (continued)**

**Supplemental Information – Balance Sheet as of July 1, 2014**

| | |
|---|---|
| Present Value of Benefits | |
| 1) Present value of retired employees' benefits* | $1,275,082,587 |
| 2) Present value of active employees' benefits | 677,449,722 |
| 3) Present value of terminated vested benefits** | 9,595,687 |
| Total Present Value of Benefits | $1,962,127,996 |
| | |
| Assets (Current and Future) | |
| 1) Assets on hand (actuarial value) | $1,016,486,156 |
| 2) Present value of future employee contributions | 120,442,703 |
| 3) Present value of future city contributions | 825,199,137 |
| Total Assets | $1,962,127,996 |

**3,805 retired members (including 751beneficiaries in pay status) with an average monthly benefit of $2,342*
***Includes balances for terminated participants with employee contribution remaining in the Plan.*

**EXHIBIT I**

**Asset Allocation as of June 30, 2014**

| | General Employees | School Board | Total |
|---|---|---|---|
| **1. Market value of assets as of July 1, 2013** | **$1,014,429,000** | **$115,509,000** | **$1,129,938,000** |
| 2. Employer contributions | 42,145,000 | 48,000,000 | 90,145,000 |
| 3. Employee contributions | 17,366,000 | 1,554,000 | 18,920,000 |
| 4. Total contributions: (2) + (3) | $59,511,000 | $49,554,000 | $109,065,000 |
| 5. Benefit payments and refunds | -$108,175,000 | -$56,063,000 | -$164,238,000 |
| 6. Administrative expenses: allocated on (1) | -8,813,000 | -1,003,000 | -9,816,000 |
| 7. Total benefits payment and expenses: (5) + (6) | -$116,988,000 | -$57,066,000 | -$174,054,000 |
| 8. Net cash flow: (4) + (7) | -$57,477,000 | -$7,512,000 | -$64,989,000 |
| 9. Average invested assets: (1) + [.5 x (8)] | 985,691,000 | 111,753,000 | 1,097,444,000 |
| 10. Net investment return: allocated on (9) | 188,381,000 | 21,358,000 | 209,739,000 |
| **11. Market value of assets as of July 1, 2014: (1) + (8) + (10)** | **$1,145,333,000** | **$129,355,000** | **$1,274,688,000** |

## EXHIBIT J
### Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

**Assumptions or Actuarial Assumptions:** The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

**Normal Cost:** The amount of contributions required to fund the benefit allocated to the current year of service.

**Actuarial Accrued Liability For Actives:** The value of all projected benefit payments for current members less the portion that will be paid by future normal costs.

**Actuarial Accrued Liability For Pensioners:** The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

**Unfunded Actuarial Accrued Liability:** The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

**Amortization of the Unfunded Actuarial Accrued Liability:** Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

**Investment Return:** The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

**EXHIBIT I**

**Summary of Actuarial Valuation Results**

| | | | |
|---|---|---|---|
| The valuation was made with respect to the following data supplied to us: | | | |
| 1. | Retired participants as of the valuation date (including 751 beneficiaries) | | 3,805 |
| 2. | Participants inactive during year ended June 30, 2014 with vested rights | | 111 |
| 3. | Participants active during the year ended June 30, 2014 | | 3,243 |
| | Fully vested | 1,670 | |
| | Partially vested | 651 | |
| | Not vested | 922 | |
| 4. | Terminated participants with contributions remaining in the plan | | 71 |

| | | | |
|---|---|---|---|
| The actuarial factors as of the valuation date are as follows: | | | |
| 1. | Total normal cost | | $18,782,492 |
| 2. | Actuarial accrued liability | | 1,831,581,285 |
| | Retired participants and beneficiaries | $1,275,082,587 | |
| | Inactive participants with vested rights* | 9,595,687 | |
| | Active participants | 546,903,011 | |
| 3. | Actuarial value of assets ($1,145,333,000 at market value) | | 1,016,486,156 |
| 4. | Unfunded actuarial accrued liability | | $815,095,129 |

**Includes terminated participants with contributions remaining in the Plan.*

**EXHIBIT I (continued)**

**Summary of Actuarial Valuation Results**

The determination of the recommended contribution is as follows:

| | | |
|---|---|---|
| 1. | Total normal cost | $18,782,492 |
| 2. | Expected employee contributions | -16,621,593 |
| 3. | Employer normal cost: (1) + (2) | $2,160,899 |
| 4. | Payment on unfunded actuarial accrued liability | 48,379,770 |
| **5.** | **Total recommended contribution, adjusted for timing** | **$54,235,740** |
| 6. | Projected payroll | $147,480,903 |
| 7. | Total projected City contribution as a percentage of projected payroll: (5) ÷ (6) | 36.8% |

**EXHIBIT II**

**Schedule of City Contributions**

| Plan Year Ended June 30 | Actuarially Determined Contributions | Actual Contributions | Percentage Contributed |
|---|---|---|---|
| 2008 | $69,078,182 | $70,334,827 | 101.8% |
| 2009 | 69,990,896 | 69,990,896 | 100.0% |
| 2010 | 51,699,072 | 51,761,766 | 100.0% |
| 2011 | 46,067,793 | 46,078,000 | 100.0% |
| 2012 | 35,237,651 | 35,237,000 | 100.0% |
| 2013 | 38,807,960 | 38,694,000 | 99.7% |
| 2014 | 44,701,444 | 42,145,000 | 94.3% |

**EXHIBIT III**

**Schedule of Funding Progress**

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (UAAL) (b) - (a) | Funded Ratio (a) / (b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll[1] [(b) - (a)] / (c) |
|---|---|---|---|---|---|---|
| 01/01/2005 | $681,144,675 | $1,143,675,808 | $462,531,133 | 59.56% | $157,664,615 | 293.36% |
| 01/01/2006[2] | 702,177,822 | 1,335,974,342 | 633,796,520 | 52.56% | 152,407,546 | 415.86% |
| 07/01/2007 | 749,352,366 | 1,436,277,829 | 686,925,463 | 52.17% | 155,184,963 | 442.65% |
| 07/01/2008 | 829,734,232 | 1,483,733,265 | 653,999,033 | 55.92% | 179,981,706 | 363.37% |
| 07/01/2009 | 881,008,954 | 1,481,562,790 | 600,553,836 | 59.46% | 150,312,278 | 399.54% |
| 07/01/2010[2] | 866,905,943 | 1,614,267,020 | 747,361,077 | 53.70% | 142,596,506 | 524.11% |
| 07/01/2011 | 868,798,754 | 1,697,082,722 | 828,283,968 | 51.19% | 135,636,375 | 610.67% |
| 07/01/2012 | 917,486,000[3] | 1,798,404,471 | 880,918,471 | 51.02% | 139,107,388 | 633.27% |
| 07/01/2013 | 954,964,648 | 1,863,532,248 | 908,567,600 | 51.24% | 133,068,588 | 682.78% |
| 07/01/2014 | 1,016,486,156 | 1,831,581,285 | 815,095,129 | 55.50% | 142,493,626 | 572.02% |

[1] *Not less than zero*
[2] *Includes new plan provisions*
[3] *Includes asset method change*

## EXHIBIT IV

### Supplementary Information Required by the GASB

| | |
|---|---|
| **Valuation date** | July 1, 2014 |
| **Actuarial cost method** | Entry Age Normal Cost Method |
| **Amortization method** | Level percent of payroll |
| **Remaining amortization period** | 26 years remaining as of July 1, 2014 |
| **Asset valuation method** | Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value. |
| **Actuarial assumptions**: | |
| Investment rate of return | 7.50% |
| Projected salary increases | 3.50% (plus age-related salary scale) |
| Cost of living adjustments | 3.00% |
| **Plan membership:** | |
| Retired participants and beneficiaries receiving benefits | 3,805 |
| Terminated participants entitled to, but not yet receiving benefits* | 182 |
| Active participants | 3,243 |
| Total | 7,230 |

**Includes 71 terminated participants with contributions remaining in the Plan.*

## EXHIBIT V
### Actuarial Assumptions and Actuarial Cost Method

**Mortality Rates:**

*Healthy*: RP-2000 Combined Healthy Mortality Table

*Disabled:* RP-2000 Disabled Retiree Mortality Table

These mortality tables were determined to contain provision appropriate to reasonably reflect future mortality improvement, based on a 7½ year review of mortality experience for the 2003-2011 period. The mortality assumptions will be assessed again at the time of the next review, and further adjustment or expected improvements in life expectancy will be made if warranted.

**Mortality and Disability Rates before Retirement:**

| | Rate (%) | | | |
|---|---|---|---|---|
| | Mortality | | Ordinary Disability | |
| Age | Male | Female | Male | Female |
| 20 | 0.03 | 0.02 | 0.00 | 0.00 |
| 25 | 0.04 | 0.02 | 0.00 | 0.00 |
| 30 | 0.04 | 0.03 | 0.00 | 0.00 |
| 35 | 0.08 | 0.05 | 0.12 | 0.11 |
| 40 | 0.11 | 0.07 | 0.17 | 0.17 |
| 45 | 0.15 | 0.11 | 0.27 | 0.25 |
| 50 | 0.21 | 0.17 | 0.46 | 0.40 |
| 55 | 0.36 | 0.27 | 0.80 | 0.67 |
| 60 | 0.67 | 0.51 | 1.19 | 0.82 |

* *Occupational disability rates are 10% of the ordinary disability rates.*

**Termination Rates before Retirement:**

| Years of Service | Rate (%) |
|---|---|
| Less than 1 | 25.00 |
| 1 | 22.00 |
| 2 | 12.00 |
| 3 | 11.00 |
| 4 | 10.00 |
| 5 | 9.00 |
| 6 | 7.00 |
| 7 | 7.00 |
| 8 | 6.50 |
| 9 | 5.50 |
| 10 | 5.00 |
| 11 | 4.50 |
| 12 | 4.00 |
| 13 | 3.50 |
| 14 | 3.00 |
| 15 or more | 2.50 |

**Retirement Rates:**

| Less than 30 Years of Service | | 30 or More Years of Service | |
|---|---|---|---|
| **Age** | **Rate** | **Age** | **Rate** |
| 50-52 | 2.0% | 50-52 | 30.0% |
| 53-54 | 3.0 | 53-54 | 35.0 |
| 55 | 5.0 | 55 | 35.0 |
| 56 | 6.0 | 56 | 35.0 |
| 57 | 6.0 | 57 | 40.0 |
| 58-59 | 7.0 | 58-59 | 40.0 |
| 60 | 20.0 | 60 | 40.0 |
| 61-64 | 15.0 | 61-64 | 27.0 |
| 65-66 | 25.0 | 65-66 | 25.0 |
| 67-68 | 15.0 | 67-68 | 25.0 |
| 69 | 25.0 | 69 | 25.0 |
| 70 | 100.0 | 70 | 100.0 |

**Retirement Age for Vested Inactive Participants:** Age 60

**Unknown Data for Participants:** There were no records with missing service amounts or dates of hire.

**Percent Married:** 75%

**Age of Spouse:** Females are assumed to be 3 years younger than their male spouses.

**Net Investment Return:** 7.50%; the investment return rate is assumed to be net of investment and administrative expenses.

| | |
|---|---|
| **Salary Increases:** | |

| Age | Rate (%) |
|---|---|
| Under 30 | 7.25 |
| 30 - 39 | 5.25 |
| 40 - 49 | 4.25 |
| 50 - 59 | 3.75 |
| 60 & over | 3.50 |

*Above rates include 2.75% inflation and 0.75% productivity.*

| | |
|---|---|
| **Vacation Pay Adjustment:** | Retirement benefits are increased by 4% to reflect vacation pay. |
| **Cost of Living Adjustment:** | 3.00%, compounded annually for hires before November 1, 2011<br>1.00%, compounded annually for hires after October 31, 2011 |
| **Actuarial Value of Assets:** | Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value. |
| **Actuarial Cost Method:** | Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary. |
| **Changes in Assumptions:** | There has been no changes in actuarial assumptions since the last valuation. |
| **Changes in Cost Method:** | The actuarial cost method was changed from the Ultimate Entry Age Normal Cost Method to the Traditional Entry Age Normal Cost Method. |

**EXHIBIT VI**

**Summary of Plan Provisions**

This exhibit summarizes the major provisions of the General Employees of the City of Atlanta included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

| | |
|---|---|
| **Plan Year:** | July 1 through June 30 |
| **Normal Pension:** | |
| ***Eligibility*** | |
| *Hired before July 1, 2010* | Age 65 or Age 60 after completing 5 years of service. |
| *Hired between July 1, 2010 and October 31, 2011* | Age 65 or Age 60 after completing 10 years of service. |
| *Hired after October 31, 2011* | Age 65 or Age 62 after completing 15 years of service |
| ***Monthly Amount*** | |
| *Hired before July 1, 2010* | 2.5% of average monthly salary for each year of credited service. |
| *Hired between July 1, 2010 and October 31, 2011* | 2.0% of average monthly salary for each year of credited service. |
| *Hired after October 31, 2011* | 1.0% of average monthly salary for each year of credited service. |
| | This amount cannot be less than $12 per month for each year of service, capped at 80% of average monthly salary. |
| ***Average Monthly Salary*** | |
| *Hired before November 1, 2011* | Average of the highest consecutive 36 months of salary |
| *Hired after October 31, 2011* | Average of the highest consecutive 120 months of salary |

**Normal Pension (continued)**

***Normal Form of Payment***

| | |
|---|---|
| *Hired prior to November 1, 2011* | 75% Joint-and-Survivor (no reduction in benefit for providing survivor coverage) |
| *Hired after October 31, 2011* | Single life annuity |

**Early Pension:**

***Service Requirement***

| | |
|---|---|
| *Hired before July 1, 2010* | 5 years of credited service |
| *Hired between July 1, 2010 and June 30, 2010* | 10 years of credited service |
| *Hired after October 31, 2011* | Age 52 and 15 years of credited service |

***Monthly Amount***

| | |
|---|---|
| *Hired before November 1, 2011* | Normal pension monthly amount reduced by ½ of 1% per month for the first 60 months and by ¼ of 1% per month for the remaining months by which age at retirement is less than 60. More favorable early retirement adjustments may apply to participants in prior plans. Unreduced early retirement is available with 30 years of credited service. |
| *Hired after October 31, 2011* | Normal pension monthly amount reduced by ½ of 1% per month before age 62. |

**Disability:**

| | |
|---|---|
| *Service Requirement* | 5 years credited service for non-job-related disability. None for job related disability. |
| *Monthly Amount* | Normal pension based on service accrued and final average salary at disability, payable immediately; cannot be less than 50% of average monthly salary. This amount is payable until attainment of normal retirement age at which time the benefit is recalculated to include years while disabled as years of service. |

**Vesting Schedule:**

An employee who terminates employment may receive a percentage of the accrued benefit payable at normal retirement as determined below:

| Completed Years of Service (hired before July 1, 2010) | Completed Years of Service (hired after June 30, 2010) | Percentage Vested* |
|---|---|---|
| Less than 5 | Less than 10 | 0% |
| 5 | 10 | 25 |
| 6 | 11 | 30 |
| 7 | 12 | 35 |
| 8 | 13 | 40 |
| 9 | 14 | 45 |
| 10 or more | 15 or more | 100 |

*A participant is always 100% vested in their contributions to the Plan.

**Termination:**

A participant terminating employment may elect a refund of their own contributions with interest. A refund will cause the forfeiture of any other vested accrued benefit from the Plan.

**Death Benefits:**

If a participant dies prior to attainment of eligibility for retirement, a lump sum of contributions with interest is payable to a beneficiary or estate.

If an active participant who is eligible to retire, or a retired participant, dies, 75% of the accrued pension benefit is payable to the beneficiary. Eligible beneficiaries are the spouse or unmarried children under 18.

**Credited Service:**

Service is credited for employment as a general employee of the City of Atlanta. Additional credit is granted for accumulated sick leave if hired prior to November 1, 2011 and for other prior service as specified in the plan.

**Participation:** All employees of the City of Atlanta, excluding temporary employees, firefighters, police officers, and employees hired after 2001 in job grades 19 and above.

**Employee Contributions:**

| | % of Base Salary | |
|---|---|---|
| Employee | Hired before October 31, 2011* | Hired after October 31, 2011* |
| Unmarried employees without beneficiaries | 12% | 8% |
| Unmarried employees with beneficiaries | 13% | 8% |
| Married employees | 13% | 8% |

**Excludes employees hired prior to January 1, 1984.*

**Interest on Employee Contributions:** Employee contributions earn 5% interest each year.

**Cost-of-Living Provision:** Benefits are adjusted annually on January 1 of each year based on the change in the Consumer Price Index from November 1 through October 31 of the preceding year.

*Hired before November 1, 2011* Such annual adjustment cannot exceed 3%.

*Hired after October 31, 2011* Such annual adjustment cannot exceed 1%.

**Changes in Plan Provisions:** There have been no changes in plan provisions since the last valuation.

8200941v1/02398.033