# Maryland Transit Administration Pension Plan

## Actuarial Valuation as of July 1, 2014

**Produced by Cheiron**

**October 2014**

Classic Values, Innovative Advice

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**LETTER OF CERTIFICATION**

October 6, 2014

Maryland Transit Administration
Maryland Transit Administration Pension Plan
6 St. Paul Street, 8th Floor
Baltimore, MD 21202

Dear Maryland Transit Administration:

At your request, we have conducted an actuarial valuation of the Maryland Transit Administration Pension Plan as of July 1, 2014. This report contains information on the Plan's assets and liabilities. This report also discloses employer contribution levels and required disclosures under the Governmental Accounting Standards Board Statement No. 27. Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of the Maryland Transit Administration (MTA) Pension Plan. This report is for the use of MTA and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

Cheiron's report was prepared solely for MTA for the purposes described herein, except that the plan auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. It is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Sincerely,
Cheiron

Janet H. Cranna, FSA, FCA, EA, MAAA
Principal Consulting Actuary

Elizabeth Wiley, FSA, FCA, EA, MAAA
Associate Actuary

## FOREWORD

Cheiron has performed the actuarial valuation of the Maryland Transit Administration (MTA) Pension Plan as of July 1, 2014. The valuation is organized as follows:

- In Section I, the **Executive Summary,** we describe the purpose of an actuarial valuation, summarize the key results found in this valuation, and disclose important trends.

- The **Main Body** of the report presents details on the Plan's

  - Section II - Assets
  - Section III - Liabilities
  - Section IV- Contributions
  - Section V – Financial Statement Information

- In the **Appendices,** we conclude our report with detailed information describing plan membership (Appendix A), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent plan provisions (Appendix C), and a glossary of key actuarial terms (Appendix D).

The interest rate was decreased from 7.70% to 7.65% for the July 1, 2014 actuarial valuation. The rate will be lowered 0.05% for each subsequent actuarial valuation until reaching 7.55%. The interest rate is intended to be consistent with the rate used by the Maryland State Retirement and Pension System.

The other actuarial assumptions reflect our understanding of the likely future experience of the Plan, and the assumptions as a whole represent our best estimate for the future experience of the Plan. The results of this report rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

In preparing our report, we relied on information, some oral and some written, supplied by the MTA staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency, both within this year's data and compared to the data provided for the previous valuation, in accordance with Actuarial Standard of Practice No. 23.

**SECTION I**
**EXECUTIVE SUMMARY**

The primary purpose of the actuarial valuation, and this resulting report, is to measure, describe, and identify the following as of the valuation date:

- The financial condition of the Plan,
- Past and expected trends in the financial progress of the Plan,
- MTA's employer contribution for fiscal year 2015; and,
- Information as may be required for financial statements.

In the balance of this Executive Summary we present: (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key financial results, (C) an examination of the historical trends, and (D) the projected financial outlook for the Plan.

## A. Valuation Basis

This valuation determines the employer contributions for fiscal year 2015.

The Plan's funding policy is to contribute an amount equal to the sum of:

- The normal cost under the entry age normal cost method; and,
- Amortization of the unfunded actuarial liability.

The amortization payment is determined by amortizing the liability for each change in the unfunded actuarial liability, which occurs after 2002, as a level dollar amount over 25 years and amortizing the unfunded actuarial liability existing at 6/30/2002 at a level dollar amount over the remaining years of an initial 17-year period.

This valuation was prepared based on the plan provisions shown in Appendix C. There were several changes in the plan provisions since the prior valuation. These changes are described in Appendix C.

Experience studies are performed every three to five years. This valuation was performed on the basis of the economic and demographic assumptions and methods that were determined in the Actuarial Experience Study as of June 30, 2011, except for the interest rate. The interest rate is intended to be consistent with the rate used by the Maryland State Retirement and Pension System. A summary of the assumptions and methods is shown in Appendix B.

**SECTION I**
**EXECUTIVE SUMMARY**

## B. Key Findings of this Valuation

The key results of the July 1, 2014 actuarial valuation are as follows:

- The actuarially determined employer contribution increased from $39,748,933 as of July 1, 2013 to $40,807,270 as of July 1, 2014.
- The Plan's funded ratio, the ratio of actuarial assets over actuarial liability, increased from 42.6% last year to 44.6% as of July 1, 2014.
- The unfunded actuarial liability (UAL) is the excess of the Plan's actuarial liability over the actuarial value of assets. The Plan experienced a very slight increase in the UAL from $284,364,050 as of July 1, 2013 to $285,255,131 as of July 1, 2014.
- During the fiscal year ended June 30, 2014, the return on Plan assets was 7.34% on a market value basis (as compared to the 7.70% assumption for the fiscal year ended June 30, 2014). This resulted in a market value loss on investments of $1,081,243.
- The actuarial value of assets recognizes 20% of the difference between the expected actuarial value of assets and the actual market value of assets. This method smoothes the asset gains and losses, and returned 5.69%. This resulted in an actuarial value of assets loss of $4,692,253.
- The Plan experienced a timing loss of $652,346 since a portion of the contributions for fiscal year 2014 were made after the assumed payment date of September 1, 2013.
- The Plan experienced a loss on the actuarial liability of $5,197,011. Combining the liability loss, the actuarial value of assets loss, and the timing loss, the Plan experienced a total loss of $10,541,610.
- Plan amendments since the prior valuation of July 1, 2013 increased the actuarial liability by $1,437,364.
- The investment return assumption was decreased from 7.70% to 7.65%. This increased the actuarial liability by $2,530,438.

# SECTION I
# EXECUTIVE SUMMARY

Below we present Table I-1 which summarizes all the key results of the valuation with respect to membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.

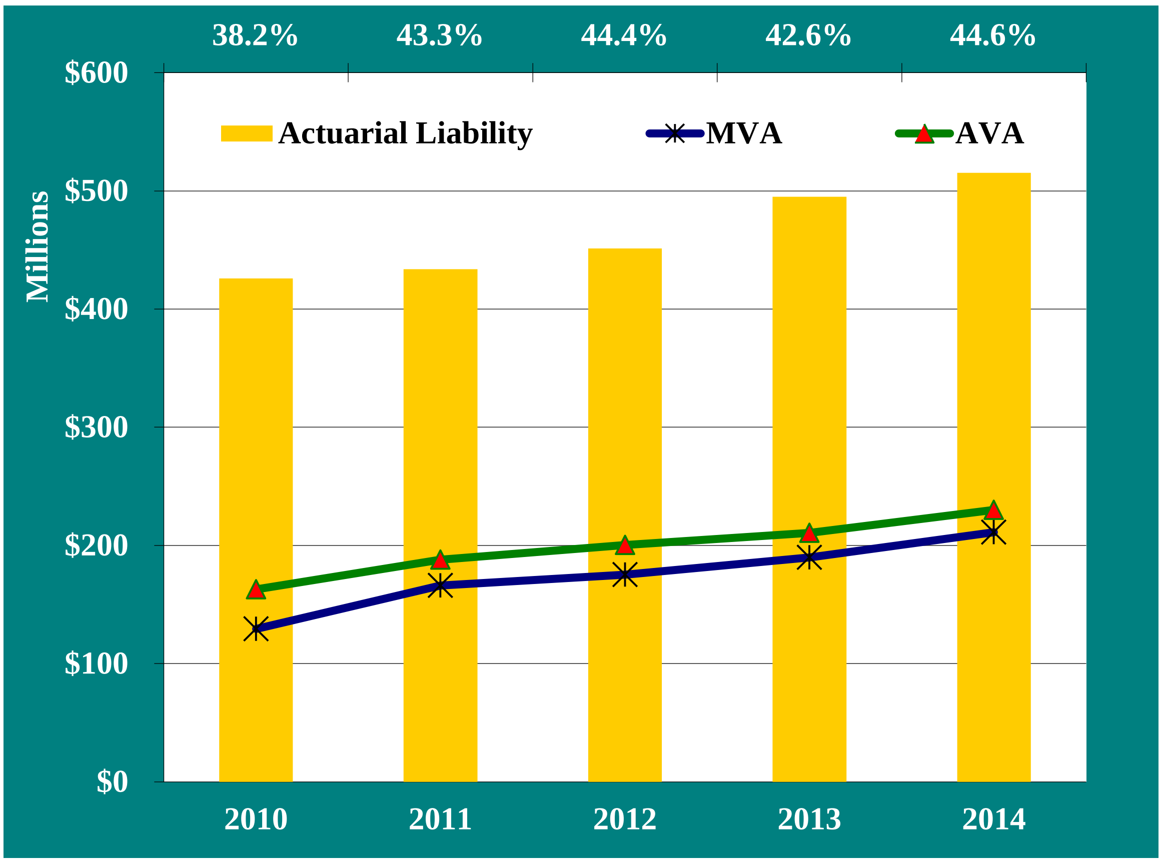
**TABLE I-1**
**Summary of Principal Plan Results**

| | July 1, 2013 | July 1, 2014 | % Change |
|---|---|---|---|
| **Participant Counts** | | | |
| Active Participants | 2,750 | 2,639 | -4.04% |
| Participants Receiving a Benefit | 1,624 | 1,669 | 2.77% |
| Terminated Vested Participants | 495 | 480 | -3.03% |
| **Total** | **4,869** | **4,788** | **-1.66%** |
| Annual Pay of Active Members | $ 137,596,326 | $ 135,544,813 | -1.49% |
| **Assets and Liabilities** | | | |
| Actuarial Liability (AL) | $ 495,100,701 | $ 515,327,523 | 4.09% |
| Actuarial Value of Assets (AVA) | 210,736,651 | 230,072,392 | 9.18% |
| Unfunded Actuarial Liability (UAL) | $ 284,364,050 | $ 285,255,131 | 0.31% |
| Funded Ratio | 42.6% | 44.6% | 2.08% |
| **Contributions** | **Fiscal Year 2014** | **Fiscal Year 2015** | |
| Employer Normal Cost | $ 6,363,455 | $ 6,261,544 | -1.60% |
| Amortization | 33,385,478 | 34,545,726 | 3.48% |
| Total Employer Contribution | $ 39,748,933 | $ 40,807,270 | 2.66% |
| Assumed payment date | September 1, 2013 | September 1, 2014 | |

## C. Historical Trends

Despite the fact that for most retirement plans the greatest attention is given to the current valuation results and in particular the size of the current unfunded actuarial liability and the employer contribution, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

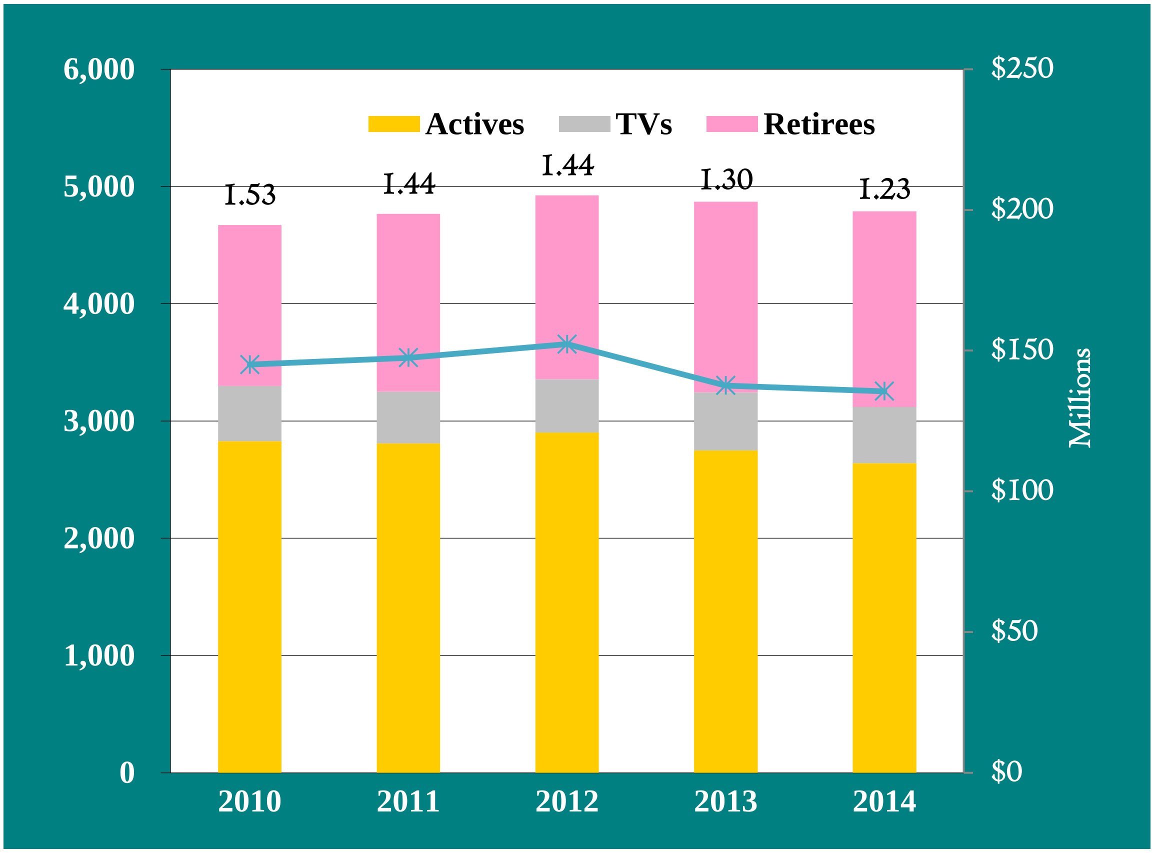
**Assets and Liabilities**




The above chart compares the market value of assets (MVA) and actuarial value of assets (AVA) to the actuarial liabilities. The percentage shown at the top of each bar is the ratio of the actuarial value of assets to the actuarial liability (the funded ratio). The funded ratio has improved from 38.2% in 2010 to 44.6% as of July 1, 2014.

# SECTION I
# EXECUTIVE SUMMARY

## Participant Trends

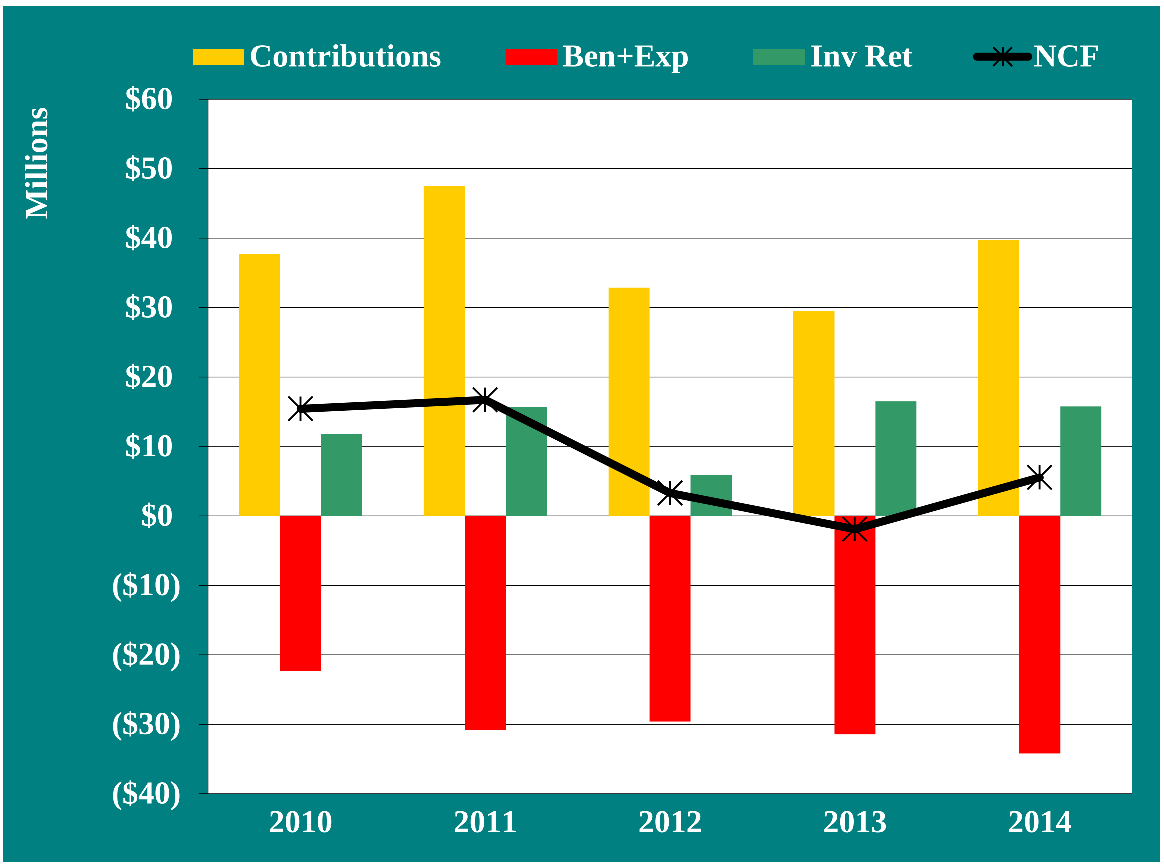



This chart provides a measure for the maturity in the Plan by comparing the ratio of active members to inactive members (retirees and deferred vested participants). These ratios are given at the top of each bar. The active-to-inactive ratio has decreased over the five-year period. The blue line represents the active payroll for each year and is read with the right axis. The active payroll has declined in the last two years, but has been relatively stable over the period since 2010.

## SECTION I
## EXECUTIVE SUMMARY

### Cash Flows

The chart below shows the Plan's cash flow (contributions, including receivables, less benefit payments). The yellow and red bars represent the components of the cash flow without reflecting investment returns which the black line is the net cash flow for the Plan, excluding investment returns. This is a critical measure, as it reflects the ability to have funds available to meet benefit payments without having to make difficult investment decisions, especially during volatile markets. The green bars represent the actual investment return of the Plan.




The Plan's net cash flow (NCF), excluding investment returns, has decreased significantly over the past five years, and was negative for the first time in 2013. A negative cash flow magnifies the losses during a market decline by hindering the Plan in its ability to absorb market fluctuations, so the impact of market fluctuations can be more severe.

**SECTION I**
**EXECUTIVE SUMMARY**

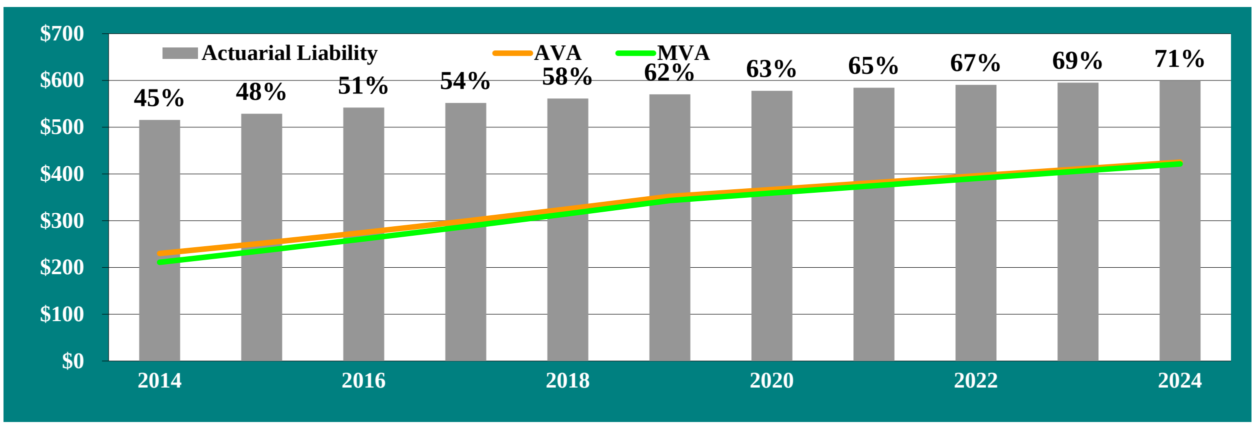
# D. Future Expected Financial Trends

The analysis of projected financial trends is perhaps the most important component of this valuation. In this Section, we present our assessment of the implications of the July 1, 2014 valuation results in terms of benefit security (assets over liabilities).

## Baseline Projections

All the projections in this section are based on the current interest rate assumption of 7.65%, phased down to 7.55% over the next two years. The projections assume no increase in the cost of living adjustment or benefit cap.

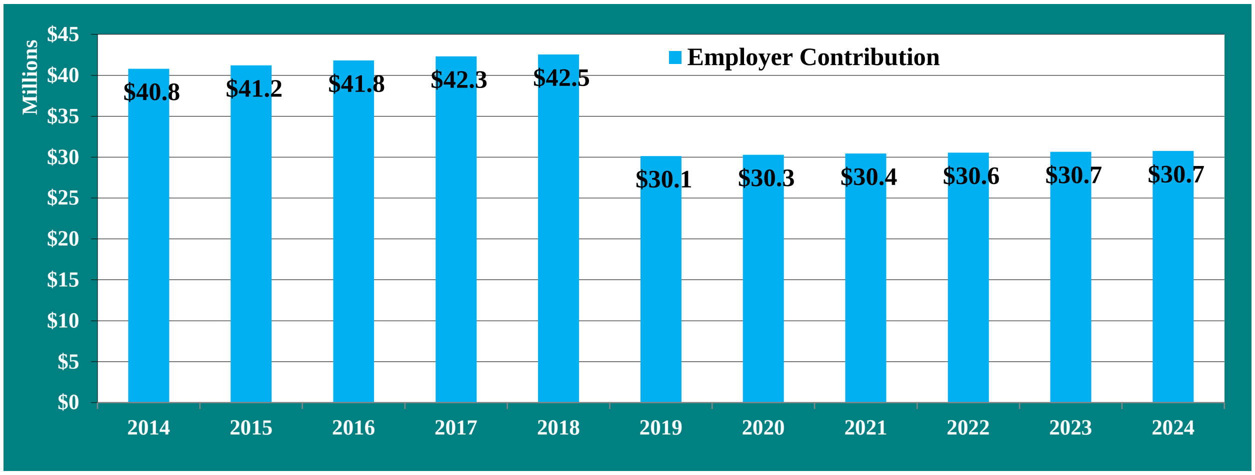
The following graph shows the projection of assets and liabilities assuming that assets will earn the assumed investment return (7.65%, phasing down to 7.55% over the next two years) each year during the projection period, and that MTA contributes the recommended actuarial contribution each year.




The graph shows that the projected funded ratio increases over the next 10 years to 71%.

## SECTION I
## EXECUTIVE SUMMARY

The following graph shows the expected employer contributions based on the investment return assumption described above.

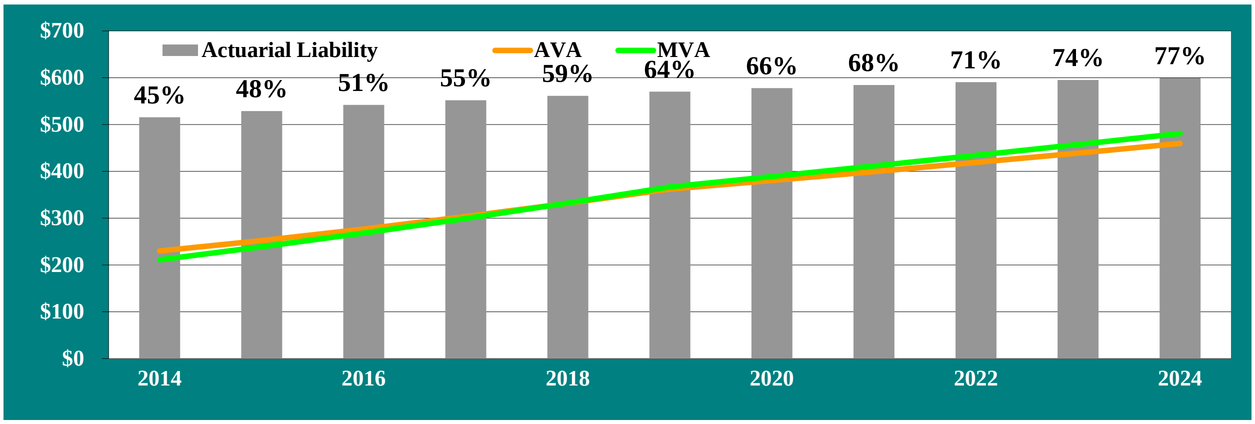


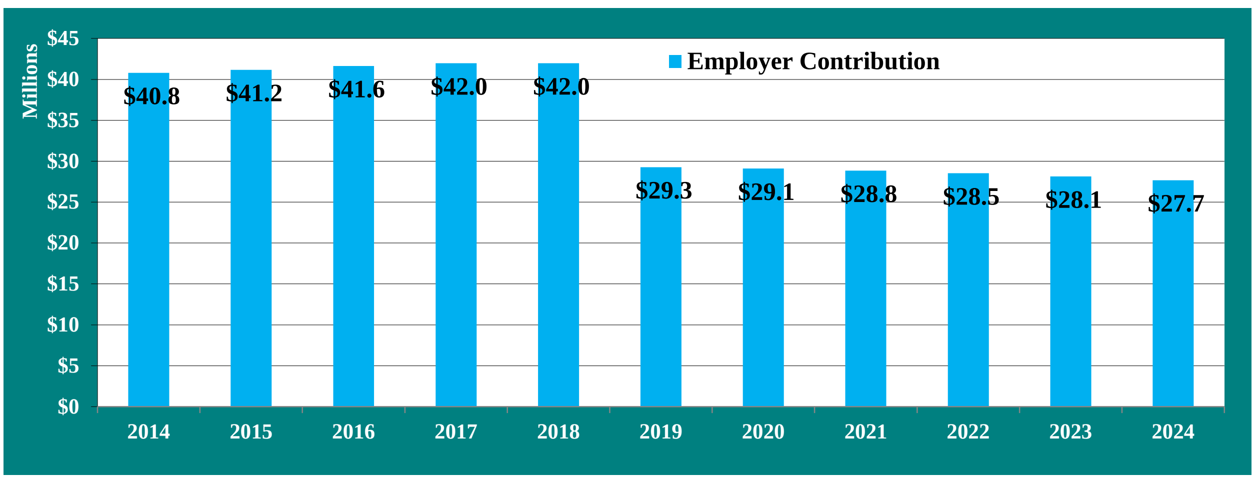

The key driver of the contribution pattern above is the scheduled payment of the existing amortization bases (shown in detail in Section III). The first base that is scheduled to expire currently holds a balance of more than $54 million, and an annual payment of $12.6 million. The drop in cost when this base expires is very noticeable in 2019.

## SECTION I
## EXECUTIVE SUMMARY

**<u>Projections with Asset Returns of 9.15% (phasing down to 9.05%)</u>**

Relatively minor changes in market returns can have significant effects on the Plan's status. These two charts below show what the next 10 years would look like with a 9.15% annual return in fiscal 2015, phased down to 9.05% over two years (i.e., 1.5% greater than the assumed rate of return). Under this scenario, the funded ratio increases to 77% in 2024 and expected employer contributions are lower.

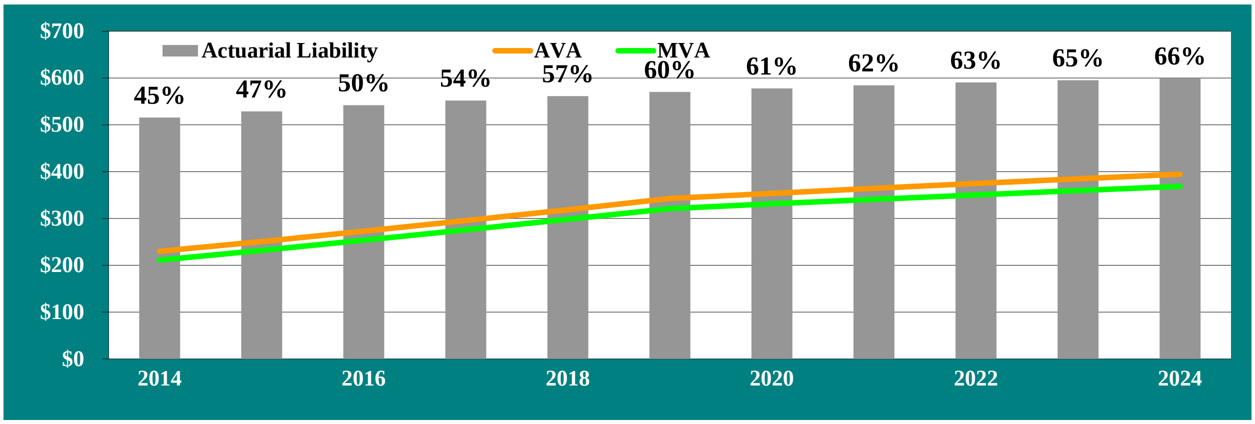


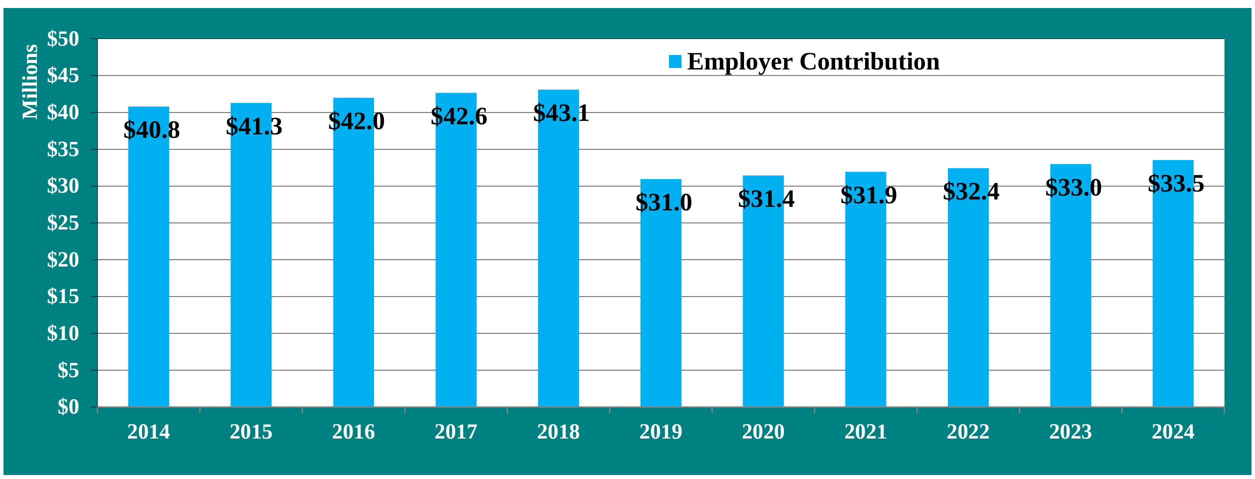



## SECTION I
## EXECUTIVE SUMMARY

**Projections with Asset Returns of 6.15% (phasing down to 6.05%)**

To further demonstrate how the future funding of this Plan will be driven by investment earnings, we show the anticipated Plan funding projections if the invested assets earn 6.15% for fiscal 2015, phased down to 6.05% over two years, (i.e., 1.5% less than the assumed rate of return). Under this scenario, the funded ratio increases to 66% after ten years and expected employer contributions are higher.



# SECTION II
# ASSETS

Plan assets play a key role in the financial operation of the Plan and in the decisions, the Maryland Transit Administration may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, employer contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets as of July 1, 2013 and July 1, 2014;
- Statement of the **changes** in market values during the year;
- Development of the **actuarial value of assets**; and,
- An assessment of **investment performance.**

**SECTION II**
**ASSETS**

## Disclosure

There are two types of asset values disclosed in the valuation, the market value of assets and the actuarial value of assets. The market value represents "snap-shot" or "cash-out" values that provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for long-range planning as actuarial values of assets, which reflect smoothing of annual investment returns.

Table II-1 below discloses and compares the market value as of July 1, 2013 and July 1, 2014.

**TABLE II-1**
**Statement of Assets at Market Value**
**July 1,**

| **Assets** | **2013** | **2014** |
|---|---|---|
| Cash and Short-Term Investments | $ 981,974 | $ 985,427 |
| Receivable Contributions | 0 | 10,230,176 |
| Other Receivables | 2,556,418 | 2,639,956 |
| Investments | 188,974,711 | 200,087,776 |
| Payables | (2,556,418) | (2,639,956) |
| **Market Value of Assets** | **$ 189,956,685** | **$ 211,303,379** |

**SECTION II**
**ASSETS**

## Changes in Market Value

The components of asset change are:

- Employer contributions
- Benefit payments
- Administrative expenses
- Investment income, net of investment expenses (realized and unrealized)

Table II-2 below shows the components of change between the market value of assets as of July 1, 2013, and July 1, 2014.

**TABLE II-2**
**Changes in Market Values**

| | | | | |
|---|---|---|---|---|
| **Value of Assets – July 1, 2013** | | | **$** | **189,956,685** |
| | | | | |
| **Additions** | | | | |
| Contributions: | | | | |
| Employer Contributions | $ | 29,518,757 | | |
| Employer Contributions Receivable | | 10,230,176 | | |
| Member Contributions | | 0 | | |
| | | | | |
| Investment Income: | $ | 15,782,609 | | |
| | | | | |
| **Total Additions** | | | **$** | **55,531,542** |
| | | | | |
| **Deductions** | | | | |
| Benefit Payments | $ | (32,598,217) | | |
| Administrative Expenses | | (1,586,631) | | |
| | | | | |
| **Total Deductions** | | | **$** | **(34,184,848)** |
| | | | | |
| **Value of Assets – July 1, 2014** | | | **$** | **211,303,379** |

**SECTION II**
**ASSETS**

## Actuarial Value of Assets (AVA)

The actuarial value of assets represents a "smoothed" value developed by the actuary to reduce the volatile results which could develop due to short-term fluctuations in the market value of assets. For this Plan, the actuarial value of assets is equal to the expected actuarial value of assets, plus one-fifth of the difference between the actual market value and the expected actuarial value of assets. The following table shows the development of the actuarial asset value.

**TABLE II-3**
**Development of Actuarial Value of Assets**
**as of July 1, 2014**

| | | |
|---|---|---|
| 1. Market Value of Assets as of July 1, 2013 | $ | 189,956,685 |
| 2. Actuarial Value of Assets as of July 1, 2013 | | 210,736,651 |
| 3. Employer Contributions | | 29,518,757 |
| 4. Employer Contributions Receivable | | 10,230,176 |
| 5. Employee Contributions | | 0 |
| 6. Benefit Payments | | (32,598,217) |
| 7. Expected Return (7.70%) on AVA | | 16,877,278 |
| 8. Expected Actuarial Value of Assets as of July 1, 2014 (2) + (3) + (4) + (5) + (6) + (7) | $ | 234,764,645 |
| 9. Market Value of Assets as of July 1, 2014 | $ | 211,303,379 |
| 10. Gain/(Loss) (9) - (8) | $ | (23,461,266) |
| 11. Actuarial Value of Assets as of July 1, 2014 (8) + (10) / 5 | $ | 230,072,392 |
| 12. Actuarial Value of Assets as of July 1, 2014 | $ | 230,072,392 |
| --- as a percent of Market Value | | 108.9% |

**SECTION II**
**ASSETS**

## Investment Performance

The following table calculates the investment related gain/loss for the plan year on both a market value and an actuarial value basis. The market value gain/loss is an appropriate measure for comparing the actual asset performance to the long-term 7.70% assumption for the period July 1, 2013 to June 30, 2014.

**TABLE II-4**
**Asset Gain/(Loss)**

| | Market Value | Actuarial Value |
|---|---|---|
| **July 1, 2013 value** | **$ 189,956,685** | **$ 210,736,651** |
| Employer Contributions | 29,518,757 | 29,518,757 |
| Employer Contributions Receivable | 10,230,176 | 10,230,176 |
| Employee Contributions | 0 | 0 |
| Benefit Payments | (32,598,217) | (32,598,217) |
| Expected Investment Earnings (7.70%) | 15,277,221 | 16,877,278 |
| Expected Value June 30, 2013 | **$ 212,384,622** | **$ 234,764,645** |
| Investment Gain / (Loss) | (1,081,243) | (4,692,253) |
| **July 1, 2014 value** | **$ 211,303,379** | **$ 230,072,392** |
| Return | 7.34% | 5.69% |

## SECTION II
## ASSETS

The following table shows the historical annual asset returns on a market value and actuarial basis over the last 5 years. This compares to the assumed annual asset return of 7.70% for the fiscal year ended June 30, 2014, and 7.75% for periods prior to June 30, 2013.

**TABLE II-5**
**Historical Asset Returns**

| Fiscal Year | Return on Market Value | Return on Actuarial Value |
|---|---|---|
| 2010 | 10.70% | 2.65% |
| 2011 | 13.70% | 4.70% |
| 2012 | 3.40% | 4.60% |
| 2013 | 8.80% | 5.64% |
| 2014 | 7.34% | 5.69% |
| Average | 8.73% | 4.65% |

# SECTION III
# LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- **Disclosure** of Plan liabilities at July 1, 2013 and July 1, 2014;
- Statement of **changes** in these liabilities during the year.

## Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present value of future benefits:** Used for measuring all future Plan obligations, represents the amount of money needed today to fully pay off all benefits of the Plan both earned as of the valuation date and those to be earned in the future by current plan participants, under the current Plan provisions.

- **Actuarial liability:** Used for funding calculations and GASB disclosures, this liability is calculated taking the present value of future benefits and subtracting the present value of future normal costs under an acceptable actuarial funding method. The method used for this Plan is called the **entry age normal** (EAN) funding method.

- **Unfunded actuarial liability:** The excess of the actuarial liability over the actuarial value of assets.

Table III-1 below discloses each of these liabilities for the current and prior valuations. With respect to each disclosure, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus** or an **unfunded actuarial liability**.

**TABLE III-1**
**Liabilities/Net (Surplus)/Unfunded**

| | July 1, 2013 | July 1, 2014 |
|---|---|---|
| **Present Value of Future Benefits** | | |
| Active Participant Benefits | $ 266,073,012 | $ 272,118,015 |
| Retiree and Inactive Benefits | 275,633,933 | 290,132,494 |
| **Present Value of Future Benefits (PVB)** | **$ 541,706,945** | **$ 562,250,509** |
| **Actuarial Liability** | | |
| Present Value of Future Benefits (PVB) | $ 541,706,945 | $ 562,250,509 |
| Present Value of Future Normal Costs (PVFNC) | 46,606,244 | 46,922,986 |
| **Actuarial Liability (AL = PVB – PVFNC)** | **$ 495,100,701** | **$ 515,327,523** |
| Actuarial Value of Assets (AVA) | 210,736,651 | 230,072,392 |
| **Net (Surplus)/Unfunded (AL – AVA)** | **$ 284,364,050** | **$ 285,255,131** |

**SECTION III**
**LIABILITIES**

## Changes in Liabilities

The actuarial liability is expected to change at each valuation. The components of that change can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in Plan assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

**TABLE III-2**
**Changes in Actuarial Liability**

| | | |
|---|---|---|
| Actuarial Liability at July 1, 2013 | $ | 495,100,701 |
| Actuarial Liability at July 1, 2014 | $ | 515,327,523 |
| Liability Increase (Decrease) | | 20,226,822 |
| | | |
| Change due to: | | |
| Plan Amendment | $ | 1,437,364 |
| Assumption Change | | 2,530,438 |
| Accrual of Benefits & Expenses | | 6,285,266 |
| Member Contributions | | 0 |
| Actual Benefits Payments | | (32,598,217) |
| Interest | | 37,374,960 |
| Actuarial (Gain)/Loss | | 5,197,011 |

## SECTION III
## LIABILITIES

### TABLE III-3
### Development of Actuarial Gain / (Loss)

| | | |
|---|---|---|
| 1. Unfunded Actuarial Liability at Start of Year (not less than zero) | $ | 284,364,050 |
| 2. Employer Normal Cost at Start of Year | | 6,285,266 |
| 3. Interest on 1. and 2. to End of Year | | 22,379,997 |
| 4. Expected Employer Contributions for Prior Year | | 39,748,933 |
| 5. Interest on 4. to End of Year | | 2,534,661 |
| 6. Change in Unfunded Actuarial Liability Due to Changes in Actuarial Methods | | 0 |
| 7. Change in Unfunded Actuarial Liability Due to Changes in Assumptions | | 2,530,438 |
| 8. Change in Unfunded Actuarial Liability Due to Changes in Plan Design | | 1,437,364 |
| 9. Expected Unfunded Actuarial Liability at End of Year [1. + 2. + 3. – 4. – 5. + 6. + 7. + 8.] | $ | 274,713,521 |
| 10. Actual Unfunded Actuarial Liability at End of Year (not less than zero) | | 285,255,131 |
| 11. Actuarial Gain / (Loss) [9. – 10.] | $ | (10,541,610) |

## SECTION IV
## CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the Plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

For this Plan, the actuarial funding method used to determine the normal cost and the unfunded actuarial liability is the **entry age normal (EAN)** cost method. There are two primary components to the total contribution: the **normal cost (NC)**, and the **unfunded actuarial liability** (UAL) amortization payment. The unfunded actuarial liability is the difference between the EAN actuarial liability and the actuarial value of assets. The liability for each change in UAL after 2002 is amortized as a level dollar amount over 25 years and the total UAL as of 6/30/2002 is being amortized as a level dollar amount over the remaining years of a 17 year period that began on 6/30/2002. The amortization payment for the UAL is determined assuming payment as of September 1 of each year and the NC amount, which is determined as of July 1, is adjusted to represent the appropriate value assuming the contribution is paid as of September 1.

The tables below present the employer contributions for the Plan for this valuation.

**TABLE IV-1**
**Development of Employer Contribution Amount**

| | | July 1, 2014 | % of pay |
|---|---|---|---|
| 1. Normal Cost as of September 1, 2014 | | | |
| a. Entry Age Normal Cost | $ | 6,185,086 | |
| b. Interest to September 1 | | 76,458 | |
| c. Total Normal Cost (a) + (b) | $ | 6,261,544 | 4.62% |
| 2. Amortization of Unfunded Liability | | | |
| a. Actuarial Liability | $ | 515,327,523 | |
| b. Actuarial Value of Assets | | 230,072,392 | |
| c. Unfunded Liability (a) – (b) | $ | 285,255,131 | |
| d. Amortization of Unfunded Liability | | 34,545,726 | 25.49% |
| 3. Annual Required Contribution (1c) + (2d) | $ | 40,807,270 | 30.11% |

## SECTION IV
## CONTRIBUTIONS

**TABLE IV-II**
**Development of Amortization Payment**
**For Fiscal Year 2015**

| Type of Base | Date Established | Initial Amount | Initial Amortization Years | 7/1/2014 Outstanding Balance | Remaining Amortization Years | 9/1/2014 Amortization Amount |
|---|---|---|---|---|---|---|
| **CHARGES** | | | | | | |
| 1. Initial Balance | 6/30/2002 | $ 124,187,444 | 17 | $ 54,001,705 | 5 | $ 12,602,133 |
| 2. Plan Amendments | 6/30/2002 | 14,399,897 | 25 | 10,608,104 | 13 | 1,237,999 |
| 3. Experience Loss | 6/30/2002 | 6,345,365 | 25 | 4,674,497 | 13 | 545,528 |
| 4. Method Change | 6/30/2002 | (2,078,078) | 25 | (1,530,875) | 13 | (178,658) |
| 5. Plan Amendments | 6/30/2003 | 4,360,440 | 25 | 3,351,213 | 14 | 374,537 |
| 6. Experience Loss | 6/30/2003 | 4,538,537 | 25 | 3,488,088 | 14 | 389,834 |
| 7. Plan Amendments | 6/30/2004 | 4,418,159 | 25 | 3,526,032 | 15 | 379,161 |
| 8. Experience Loss | 6/30/2004 | 17,337,872 | 25 | 13,836,961 | 15 | 1,487,917 |
| 9. Experience Gain | 6/30/2005 | (458,689) | 25 | (378,615) | 16 | (39,331) |
| 10. Plan Amendments | 6/30/2006 | 23,569,806 | 25 | 20,052,768 | 17 | 2,019,376 |
| 11. Experience Loss | 6/30/2006 | 10,757,586 | 25 | 9,152,358 | 17 | 921,671 |
| 12. Assumption Changes | 6/30/2007 | 8,008,848 | 25 | 7,001,870 | 18 | 685,631 |
| 13. Plan Amendments | 6/30/2007 | 762,523 | 25 | 666,649 | 18 | 65,279 |
| 14. Experience Loss | 6/30/2007 | 7,007,396 | 25 | 6,126,332 | 18 | 599,898 |
| 15. Experience Gain | 6/30/2008 | (235,799) | 25 | (211,384) | 19 | (20,181) |
| 16. Experience Loss | 6/30/2009 | 11,377,550 | 25 | 10,434,072 | 20 | 973,527 |
| 17. Plan Amendments | 6/30/2010 | 83,039,793 | 25 | 77,741,827 | 21 | 7,103,637 |
| 18. Experience Gain | 6/30/2010 | (5,618,484) | 25 | (5,260,023) | 21 | (480,633) |
| 19. Method Change | 6/30/2011 | (9,372,548) | 25 | (8,940,930) | 22 | (801,588) |
| 20. Experience Gain | 6/30/2011 | (13,418,790) | 25 | (12,800,839) | 22 | (1,147,644) |
| 21. Assumption Changes | 6/30/2011 | 15,465,597 | 25 | 14,753,387 | 22 | 1,322,697 |
| 22. Experience Loss | 6/30/2012 | 16,238,515 | 25 | 15,758,206 | 23 | 1,388,490 |
| 23. Experience Loss | 6/30/2013 | 13,697,669 | 25 | 13,501,930 | 24 | 1,170,981 |
| 24. Assumption Changes | 6/30/2013 | 2,292,023 | 25 | 2,259,270 | 24 | 195,940 |
| 25. Plan Amendments | 6/30/2013 | 29,352,563 | 25 | 28,933,116 | 24 | 2,509,281 |
| 26. Experience Loss | 6/30/2014 | 10,541,610 | 25 | 10,541,610 | 25 | 901,082 |
| 27. Assumption Changes | 6/30/2014 | 2,530,438 | 25 | 2,530,438 | 25 | 216,298 |
| 28. Plan Amendments | 6/30/2014 | 1,437,364 | 25 | 1,437,364 | 25 | 122,864 |
| | | | | $ 285,255,131 | | $ 34,545,726 |

# SECTION V
# FINANCIAL STATEMENT INFORMATION

Statement Nos. 25 and 27 of the Governmental Accounting Standards Board (GASB) established standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

The GASB adopted Statement Nos. 67 and 68 which replace GASB Statement Nos. 25 and 27. GASB 67 is effective for the fiscal year ending June 30, 2014 and GASB 68 is effective for the fiscal year ending June 30, 2015.

The assumptions and methods used in preparing the GASB 27 information are the same assumptions and methods that were used to determine the Plan's funding requirements for fiscal year 2015; however, the assumptions and methods used to determine the GASB 67 information differs with respect to the following:

- GASB 67 information is based on the entry age normal level percent of pay method whereas GASB 27 information is based on the entry age normal level dollar method;
- GASB 67 information assumes an annual cost of living adjustment of 2.5% per year whereas GASB 27 assumes no additional cost of living adjustments; and,
- GASB 67 information assumes the benefit cap will increase 2.0% per year whereas the GASB 27 information assumes no future increase in the benefit cap.

The information for GASB 67 will be provided in a separate report.

While GASB 25 is no longer applicable for this Plan, the requirements of GASB 27 remain in effect for employer(s) who contribute(s) to this Plan, therefore, in accordance with GASB 27, we have prepared the following disclosures:

*Schedule of Funding Progress*

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the Plan is funded and how this status has changed over the past several years.

The GASB 27 Actuarial Accrued Liability is the same as the Actuarial Liability calculated for funding purposes. The GASB 27 liability is compared to the actuarial value of assets to determine the funded ratio.

*Schedule of Employer Contributions*

The schedule of employer contributions shows whether the employer has made contributions that are consistent with an actuarial method of funding the benefits to be provided consistent with the parameters established by GASB 27.

We have also provided a *Note to Required Supplementary Information* for the financial statements.

# SECTION V
# FINANCIAL STATEMENT INFORMATION

**TABLE V-1**
**Schedule of Funding Progress**

| Valuation Date July 1, | Actuarial Value of Assets | Actuarial Accrued Liability | Funded Ratio | Unfunded AAL (UAAL) | Covered Payroll | UAAL as a Percentage of Covered Payroll |
|---|---|---|---|---|---|---|
| 2014 | $230,072,392 | $515,327,523 | 44.6% | $285,255,131 | $135,544,813 | 210.5% |
| 2013 | $210,736,651 | $495,100,701 | 42.6% | $284,364,050 | $137,596,326 | 206.7% |
| 2012 | $200,259,694 | $451,288,292 | 44.4% | $251,028,598 | $152,276,494 | 164.9% |
| 2011 | $187,917,728 | $433,637,216 | 43.3% | $245,719,488 | $147,474,199 | 166.6% |
| 2010 | $162,755,825 | $426,040,805 | 38.2% | $263,284,980 | $145,028,614 | 181.5% |
| 2009 | $143,319,538 | $337,667,125 | 42.4% | $194,347,587 | $151,559,520 | 128.2% |

**TABLE V-2**
**Schedule of Employer Contributions**

| Year Ending June 30, | Annual Required Contribution | Actual Contribution | Percentage Contributed |
|---|---|---|---|
| 2015 | $40,807,270 | To Be Determined | To Be Determined |
| 2014 | $39,748,933 | $39,748,933 | 100.0% |
| 2013 | $34,582,249 | $29,518,757 | 85.4% |
| 2012 | $32,859,285 | $32,859,285 | 100.0% |
| 2011 | $33,928,274 | $47,528,274 | 140.1% |
| 2010 | $26,151,368 | $37,760,833 | 144.4% |

## SECTION V
## FINANCIAL STATEMENT INFORMATION

### TABLE V-3
### Note to Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.

| | |
|---|---|
| Valuation date | July 1, 2014 |
| Actuarial cost method | Entry Age Normal, Level Dollar |
| Amortization method | Level Dollar |
| Remaining amortization period | 12.1 years weighted average, closed period |
| Asset valuation method | 5-Year open period smoothing (Actual Market Value vs. Expected Actuarial Value) |
| Actuarial assumptions: | |
| Investment rate of return | 7.65% |
| Projected salary increases* | 3.50%-9.50% |
| * includes inflation at | 3.5% |
| Cost of living adjustments | None assumed |

## APPENDIX A
## MEMBERSHIP INFORMATION

The data for this valuation was provided by the MTA staff as of July 1, 2014. Cheiron did not audit any of the data; however, it was reviewed to ensure that it complies with generally accepted actuarial standards.

**Active Member Data as of July 1, 2014**

| | Local 1300 - Operators | | Local 1300 - Maintenance | | Local 2 | | Police | | Management | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7/1/2013 | 7/1/2014 | 7/1/2013 | 7/1/2014 | 7/1/2013 | 7/1/2014 | 7/1/2013 | 7/1/2014 | 7/1/2013 | 7/1/2014 | 7/1/2013 | 7/1/2014 |
| Count | 1,592 | 1,523 | 719 | 705 | 161 | 145 | 61 | 55 | 217 | 211 | 2,750 | 2,639 |
| Average Current Age | 45.60 | 46.34 | 49.77 | 50.51 | 47.39 | 48.80 | 39.92 | 40.40 | 52.17 | 52.35 | 47.19 | 47.95 |
| Average Service | 11.47 | 12.21 | 14.69 | 15.30 | 8.93 | 10.24 | 3.95 | 4.38 | 20.83 | 21.41 | 12.74 | 13.50 |
| Average Valuation Pay | $49,452 | $50,716 | $55,205 | $54,958 | $25,264 | $28,887 | $19,726 | $23,672 | $64,086 | $66,672 | $50,035 | $51,362 |

## APPENDIX A
## MEMBERSHIP INFORMATION

### AGE / SERVICE DISTRIBUTION OF ACTIVE PARTICIPANTS
### AS OF JULY 1, 2014

| | Service | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Age** | 0 | 1 | 2 | 3 | 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 and up | Total |
| Under 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 to 24 | 3 | 6 | 15 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 25 to 29 | 9 | 11 | 31 | 47 | 25 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 170 |
| 30 to 34 | 6 | 6 | 32 | 20 | 23 | 109 | 22 | 0 | 0 | 0 | 0 | 0 | 218 |
| 35 to 39 | 3 | 8 | 30 | 25 | 12 | 79 | 69 | 11 | 0 | 0 | 0 | 0 | 237 |
| 40 to 44 | 5 | 4 | 17 | 28 | 11 | 79 | 91 | 59 | 3 | 0 | 0 | 0 | 297 |
| 45 to 49 | 5 | 11 | 20 | 33 | 18 | 84 | 113 | 74 | 45 | 19 | 3 | 0 | 425 |
| 50 to 54 | 3 | 11 | 26 | 14 | 15 | 87 | 102 | 85 | 74 | 63 | 17 | 0 | 497 |
| 55 to 59 | 3 | 3 | 13 | 13 | 10 | 61 | 69 | 53 | 63 | 53 | 68 | 8 | 417 |
| 60 to 64 | 0 | 3 | 7 | 6 | 4 | 33 | 30 | 37 | 34 | 32 | 31 | 50 | 267 |
| 65 to 69 | 0 | 1 | 2 | 0 | 2 | 5 | 6 | 3 | 8 | 6 | 4 | 22 | 59 |
| 70 and up | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 4 | 3 | 3 | 9 | 23 |
| Total | 37 | 64 | 193 | 191 | 121 | 584 | 504 | 323 | 231 | 176 | 126 | 89 | 2,639 |

Average Age = 48.0 Average Service = 13.5

## APPENDIX A
## MEMBERSHIP INFORMATION

### AGE DISTRIBUTION OF INACTIVE PARTICIPANTS
### PENSIONERS AND BENEFICIARIES
### CURRENTLY RECEIVING BENEFITS
### AS OF JULY 1, 2014

| | Retirees | | Disabled | | Beneficiaries | | QDROs | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | Count | Mo. Benefit | Count | Mo. Benefit | Count | Mo. Benefit | Count | Mo. Benefit | Count | Mo. Benefit |
| Under 35 | 0 | $ 0 | 0 | $ 0 | 4 | $ 3,435 | 0 | $ 0 | 4 | $ 3,435 |
| 35-39 | 0 | 0 | 6 | 2,687 | 4 | 3,880 | 0 | 0 | 10 | 6,567 |
| 40-44 | 0 | 0 | 13 | 5,880 | 2 | 1,591 | 0 | 0 | 15 | 7,471 |
| 45-49 | 1 | 408 | 20 | 13,121 | 3 | 3,587 | 0 | 0 | 24 | 17,116 |
| 50-54 | 3 | 5,631 | 41 | 37,862 | 5 | 3,887 | 0 | 0 | 49 | 47,380 |
| 55-59 | 53 | 113,424 | 67 | 58,136 | 5 | 7,460 | 2 | 2,067 | 127 | 179,020 |
| 60-64 | 137 | 305,719 | 85 | 101,333 | 16 | 15,472 | 5 | 3,460 | 243 | 422,524 |
| 65-69 | 317 | 594,698 | 78 | 93,987 | 26 | 30,947 | 5 | 3,915 | 426 | 719,632 |
| 70-74 | 276 | 499,903 | 58 | 61,008 | 32 | 30,234 | 2 | 1,290 | 368 | 591,145 |
| 75-79 | 167 | 303,376 | 27 | 22,382 | 15 | 15,751 | 1 | 308 | 210 | 341,509 |
| 80-84 | 92 | 140,314 | 10 | 9,841 | 17 | 11,050 | 0 | 0 | 119 | 161,205 |
| 85-89 | 43 | 51,842 | 3 | 2,932 | 3 | 1,905 | 0 | 0 | 49 | 56,679 |
| 90-94 | 14 | 14,602 | 3 | 1,578 | 3 | 1,880 | 0 | 0 | 20 | 18,060 |
| 95 & Over | 4 | 3,262 | 1 | 277 | 0 | 0 | 0 | 0 | 5 | 3,539 |
| Total | 1,107 | $ 2,033,179 | 412 | $ 411,024 | 135 | $ 131,079 | 15 | $ 11,040 | 1,669 | $ 2,575,282 |

## APPENDIX A
## MEMBERSHIP INFORMATION

### AGE DISTRIBUTION OF INACTIVE DEFERRED VESTED AND SURVIVING ENTITLED TO FUTURE BENEFITS AS OF JULY 1, 2014

| Age | Number | Monthly Benefit Payable at Normal Retirement Date |
|---|---|---|
| Under 35 | 14 | $ 7,181 |
| 35-39 | 19 | 10,842 |
| 40-44 | 43 | 23,966 |
| 45-49 | 67 | 42,399 |
| 50-54 | 101 | 66,999 |
| 55-59 | 119 | 75,577 |
| 60-64 | 93 | 46,411 |
| 65-69 | 16 | 8,896 |
| 70-74 | 7 | 1,308 |
| 75 & over | 1 | 606 |
| Total | 480 | $ 284,185 |

## APPENDIX A
## MEMBERSHIP INFORMATION

### MEMBERSHIP STATUS RECONCILIATION

| | Actives | Vesteds | Disabled | Retired | QDROs | Beneficiaries | Total |
|---|---|---|---|---|---|---|---|
| **1. Number as of July 1, 2013** | **2,750** | **495** | **404** | **1,076** | **15** | **129** | **4,869** |
| 2. Additions | | | | | | | |
| a. New entrants | 32 | | | | | | 32 |
| b. Rehires | 11 | (8) | | | | | 3 |
| Total | 43 | (8) | | | | | 35 |
| 3. Changes in status | | | | | | | |
| a. Retirements | (50) | (26) | | 76 | 2 | | 2 |
| b. Disabilities | (12) | (7) | 19 | | | | |
| c. Terminated Vested | (30) | 30 | | | | | |
| d. Non-Vested Terminations, Death without Beneficiary, Lump Sums | (62) | (4) | (10) | (35) | (2) | | (113) |
| e. Death with Beneficiary | | | (2) | (10) | | 12 | |
| f. Transfer Unions | | | | | | | |
| g. Beneficiary Death | | | | | | (7) | |
| g. Transfer Funds | (1) | (1) | | | | | (2) |
| h. Data Changes | 1 | 1 | 1 | | | 1 | 4 |
| Total | (154) | (7) | 8 | 31 | 0 | 6 | (116) |
| **4. Number as of July 1, 2014** | **2,639** | **480** | **412** | **1,107** | **15** | **135** | **4,788** |

## APPENDIX B
## STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the actuarial valuation as of July 1, 2014 are:

### A. Actuarial Assumptions

**1. Interest Rate:**

7.65%, net of investment and administrative expenses.

**2. Inflation:**

Inflation as measured by the Consumer Price Index (CPI) will increase at the rate of 3.50% per year.

**3. Cost-of-Living Adjustments:**

None assumed.

**4. Salary Increase Rate:**

Salaries are assumed to increase by 3.50% per year due to inflation, plus the following service based percentages due to merit and longevity:

| Service | Management | Maintenance/Operators | All Others |
|---|---|---|---|
| 0-5 | 0.50% | 6.00% | 4.00% |
| 6-20 | 0.50% | 0.25% | 4.00% |
| 21-29 | 0.50% | 0.25% | 0.50% |
| 30+ | 0.50% | 0.00% | 0.50% |

**5. Mortality:**

Rates of mortality for Plan members are specified by the Retired Pensioners (RP) 2000 tables, as published by the Society of Actuaries, for males (two-year setback) and females. The RP 2000 Disabled Retiree Mortality table is used for disabled members, with a five-year setback for females.

No explicit provision has been made for future mortality improvement; however, based on the most recent experience study, the number of expected deaths was 103% of the actual number of deaths during the years 2006 through 2011.

## APPENDIX B
## STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

### 6. Retirement Rates:

Retirement is assumed to occur among eligible members in accordance with the table below:

| Age | Management | Maintenance | All Others |
|---|---|---|---|
| 52 | 5.00% | 1.00% | 15.00% |
| 53 | 5.00% | 1.00% | 6.00% |
| 54 | 2.00% | 1.00% | 6.00% |
| 55 | 10.00% | 1.00% | 6.00% |
| 56 | 2.00% | 1.00% | 6.00% |
| 57 | 6.00% | 1.00% | 6.00% |
| 58 | 6.00% | 1.00% | 6.00% |
| 59 | 6.00% | 5.00% | 6.00% |
| 60 | 15.00% | 5.00% | 8.00% |
| 61 | 15.00% | 5.00% | 15.00% |
| 62 | 40.00% | 20.00% | 30.00% |
| 63 | 40.00% | 10.00% | 20.00% |
| 64 | 40.00% | 15.00% | 15.00% |
| 65 | 25.00% | 15.00% | 30.00% |
| 66 | 10.00% | 15.00% | 20.00% |
| 67 | 10.00% | 15.00% | 20.00% |
| 68 | 10.00% | 25.00% | 20.00% |
| 69 | 10.00% | 25.00% | 20.00% |
| 70 | 100.00% | 100.00% | 100.00% |

### 7. Disability Rates:

Rates of disability vary based on the age of the member. Representative rates are shown below:

| Age | Rate |
|---|---|
| 20 | 0.19% |
| 30 | 0.27% |
| 40 | 0.46% |
| 50 | 1.22% |
| 60 | 1.98% |

## APPENDIX B
## STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

**8. Termination Rates:**

Rates of termination vary based on the service of the member. Representative rates are shown below.

| Service | Management | Maintenance | Operators | All Others |
|---|---|---|---|---|
| 0 | 22.0% | 1.5% | 20.0% | 25.0% |
| 1 | 17.6% | 1.5% | 10.0% | 20.0% |
| 2 | 14.1% | 1.0% | 7.0% | 15.0% |
| 3 | 11.3% | 1.0% | 7.0% | 7.0% |
| 5 | 7.2% | 0.5% | 5.0% | 6.0% |
| 10 | 2.7% | 0.5% | 2.0% | 6.0% |
| 15 | 2.7% | 0.0% | 1.5% | 2.0% |
| 20 | 2.7% | 0.0% | 1.0% | 0.0% |
| 25+ | 0.0% | 0.0% | 0.0% | 0.0% |

**9. Family Composition:**

Eighty-five percent of Plan members are assumed to be married. Male spouses are assumed to be three years older than their wives.

**10. Other Assumptions:**

An additional 0.4 years of service is assumed for all members to account for sick leave conversion and prior military time.

An additional pay load is assumed to account for expected overtime. For Local 1300 members, the amount is assumed to be 15% of their salary, and for all others the load is 10% of salary. No overtime pay is assumed for Management members.

Part-time members are assumed to accrue one-half year of service credit each year.

A 1% load is applied for retirees that have elected a joint and survivor option that includes a pop-up provision.

**11. Participant Data:**

Benefits were estimated for those deferred vested members for whom benefits were not reported based upon historical information we had on file.

For Local 2, the valuation data provided for retirees did not include the COLAs for 2012, 2013, and 2014 that were granted based on the Collective Bargaining Agreement ratified on September 10, 2014. We assumed a COLA of 1.58% effective August 1, 2012 (paid retroactive to August 1, 2012), a COLA of 1.75% effective August 1, 2013 (paid retroactive to August 1, 2013), and a COLA of 2.04% effective August 1, 2014 for those retirees and beneficiaries who were on the pension payroll for at least 13 months.

**APPENDIX B**
**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

### 12. Change in Assumptions since Last Valuation:

The investment return was decreased from 7.70% to 7.65% for the July 1, 2014 actuarial valuation. The rate will be lowered 0.05% for each subsequent actuarial valuation until reaching 7.55%. The rate of return is intended to be consistent with the rate used by the Maryland State Retirement and Pension System.

**APPENDIX B**
**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

## B. Actuarial Methods

### 1. Actuarial Value of Assets:

The asset valuation method is a smoothed market value method. The actuarial value of assets equals the expected actuarial value of assets, plus one-fifth of the difference between the actual market value of assets and the expected actuarial value of assets.

### 2. Actuarial Cost Method:

Annual contributions to the Maryland Transit Administration Pension Plan are computed under the level dollar entry age normal actuarial cost method. Under this cost method, the normal cost is calculated as the amount necessary to fund members' benefits as a level dollar amount over their projected working lives.

At each valuation date, the actuarial liability (AL) is equal to the difference between the liability for the members' total projected benefit and the present value of future normal cost contributions.

The excess, if any, of the actuarial liability over the actuarial value of assets is known as the unfunded actuarial liability. If the actuarial value of assets exceeds the actuarial liability, the Plan has an actuarial surplus.

### 3. Amortization of Unfunded Actuarial Liability/Surplus

The liability for each change in UAL is amortized as a level dollar amount according to the amortization table below:

| Type of Change | Amortization Period |
|---|---|
| Balance as of 6/30/02 | 5 years remaining |
| Actuarial Gain/Loss | 25 years |
| Cost-of-Living-Adjustment | 25 years |
| Assumption or Method Change | 25 years |
| Plan Change | 25 years |

### 4. Changes in Actuarial Methods Since Last Valuation

None.

# APPENDIX C
# SUMMARY OF PLAN PROVISIONS

**A. Effective Date:**

January 8, 1950.

**B. Eligibility:**

Eligible employees become participants in the Plan immediately upon employment.

Eligible employees include:

Any employee who is a member of The Amalgamated Transit Union, Local 1300, or the Office & Professional Employees International Union, Local No. 2, who is not included in the Maryland State Retirement and Pension System.

Any employee who is a member of the Police Local Union No. 1859, who is not included in the Law Enforcement Officers' Pension System (LEOPS) offered by the Maryland State Retirement and Pension System.

Any Management employee who transferred from any of the bargaining units above. For purposes of this Plan, management employees are classified as Local 1300 employees.

**C. Compensation:**

Remuneration received as an MTA employee including overtime if eligible.

**D. Average Compensation**

Average Compensation is determined as the average of the member's Compensation for the three years over the last ten years of service that produces the highest average.

**D. Credited Service**

Credited Service includes service with MTA, plus one month of service for every 20 days of unused sick leave. Part-time employees credited service at the rate of one month for each 173 hours of work.

**E. Service Retirement:**

| | |
|---|---|
| Eligibility: | Members are eligible for Normal Retirement at age 65 with 5 years of service, or at age 52 with 30 years of service. Early Retirement (reduced benefit) eligibility is at age 55 with age plus years of service equal to at least 85. |
| Benefit Amount: | Benefit is determined as the minimum of: |

**APPENDIX C**
**SUMMARY OF PLAN PROVISIONS**

- $80 per month times years of service ($85 for Local 1300 and Local 2 for retirements on or after July 1, 2012 and $90 for Local 1300 and Local 2 for retirements on or after July 1, 2013)
- 1.7% of Average Compensation (effective July 1, 2008) times year of service

Not less than $625 per month at age 65 with 25 years of service for Management, Local 2 and Local 1300 and $450 per month for Local 1859.

The benefit is offset by a fixed amount for a group of former Allamerica Financial Program members.

Management members are also entitled to Minimum Alternate Benefits, if they are greater than the Plan benefit.

If the member's early retirement age is greater than or equal to age 60, the reduction for early retirement is 4/12% for each month preceding age 65. If the member's early retirement age is less than age 60, the reduction for early retirement is 5/12% for each month preceding age 65.

Benefit Form: The Service Retirement Benefit will be paid monthly beginning at retirement and for the life of the member. Optional benefit forms are also available, as described below. If the member selects a Joint and Survivor Option, in the event of the member's death a percentage of the benefit will continue for the life of the member's beneficiary.

## F. Disability Retirement:

Eligibility: Members are eligible for Disability Retirement benefits at any age if they are, in the opinion of the State Medical Director, disabled after five years of Credited Service (seven years of Credited Service for Local 2 members hired on or after September 10, 2014).

Benefit Amount: The Disability Retirement Benefit payable to members is equal to the accrued Retirement benefit, not less than the amounts in the table below.

| Years of Service | Minimum Monthly Benefit |
|---|---|
| 5 | $200 |
| 10 | $360 |
| 20 | $720 |

Benefit Form: The Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement and for the life of the member.

**APPENDIX C**
**SUMMARY OF PLAN PROVISIONS**

## G. Pre-Retirement Death:

Eligibility: Eligibility for normal or early retirement.

Benefit Amount: The spouse will receive an allowance of 75% (50% for Police Local Union No. 1859) of the normal or early retirement benefit the member would have received; if, he had retired on the day before his death and elected a 75% (50% for Police Local Union No. 1859) joint and survivor benefit.

Benefit Form: The benefit described above is payable as a life annuity to the surviving spouse.

## H. Deferred Vested Benefit:

Eligibility: A member is eligible for a Deferred Vested Benefit upon termination of employment after earning five years of Credited Service (7 years of Credited Service for Local 1300 members hired on or after May 18, 2013, and Local 2 members hired on or after September 10, 2014).

Benefit Amount: The Deferred Vested Benefit is computed in the same manner as the Normal Retirement Benefit, but it is based on Credited Service, Average Compensation, and the benefit formula on the date of termination.

Benefit Form: The Deferred Vested Benefit will be paid monthly beginning at age 65, and for the life of the member.

## I. Optional Benefit Forms:

Prior to retirement, a member may elect to convert his retirement allowance into a benefit of equivalent actuarial value in accordance with one of the optional forms described below:

- 50%, 75%, or 100% Joint and Survivor annuity, with or without pop-up feature.
- 10-year certain and life annuity.
- Partial lump sum of 5%, 10%, or 15% of accrued benefit, plus a 50%, 75%, or 100% joint and survivor annuity. (Local 1300 only).

## J. Employee Contributions:

Members do not contribute to the Plan.

**APPENDIX C**
**SUMMARY OF PLAN PROVISIONS**

## K. Cost of Living Adjustments (COLA)

Pensions of retirees and beneficiaries, excluding members who retire from deferred vested status, who have been receiving payments for at least 13 months shall be granted a COLA on each of the following dates: 8/1/2008, 8/1/2009, 8/1/2010, 8/1/2011, 8/1/2012 (Local 1300 and Local 2 only), 8/1/2013 (Local 1300 and Local 2 only), and 8/1/2014 (Local 2 only). The percentage increase is equal to the increase in the Consumer Price Index (CPI-U, U.S. City Average, 1967=100) for the preceding fiscal year (July 1 to June 30), subject to a maximum increase of 3% annually.

## L. Changes in Plan Provisions since Prior Valuation

There have been several changes in Plan Provisions since the prior valuation as of July 1, 2013 for Local 2:

- Participants hired on or after September 10, 2014 will need seven years of Credited Service in order to be vested. (Previously five years).
- The maximum monthly benefit was increased from $80 to $85 for retirements on or after July 1, 2012 and $90 for retirements on or after July 1, 2013.
- Cost of living increases for retirees and beneficiaries were provided effective August 1, 2012 (paid retroactively), August 1, 2013 (paid retroactively), and August 1, 2014.

## APPENDIX D
## GLOSSARY

1. **Actuarial Assumptions**

   Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. **Actuarial Cost Method**

   A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a Normal Cost and an Actuarial Liability.

3. **Actuarial Gain (Loss)**

   The difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

4. **Actuarial Liability**

   The portion of the Actuarial Present Value of Projected Benefits which will not be paid by future Normal Costs. It represents the value of the past Normal Costs with interest to the valuation date.

5. **Actuarial Present Value (Present Value)**

   The value as of a given date of a future amount or series of payments. The Actuarial Present Value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. **Actuarial Valuation**

   The determination, as of a specified date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

## APPENDIX D
## GLOSSARY

**7. Actuarial Value of Assets**

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

**8. Actuarially Equivalent**

Of equal Actuarial Present Value, determined as of a given date, with each value based on the same set of actuarial assumptions.

**9. Amortization Payment**

The portion of the pension plan contribution which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

**10. Entry Age Normal Actuarial Cost Method**

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis between entry age and assumed exit ages.

**11. Funded Ratio**

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

**12. Normal Cost**

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

**13. Projected Benefits**

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of Actuarial Assumptions, taking into account such items as increases in future compensation and service credits.

**14. Unfunded Actuarial Liability**

The excess of the Actuarial Liability over the Actuarial Value of Assets.