

**City of Annapolis Police and Fire
Retirement Plan**

**Actuarial Valuation
as of July 1, 2014**

Produced by [Cheiron](#)

March 2015

Table of Contents

Letter of Transmittal	i
Foreword.....	ii
Section I – Summary.....	1
Section II – Assets	8
Section III – Liabilities	12
Section IV – Contributions	16
Section V – Accounting Statement Information.....	18
Appendix A – Membership Data and Profile	22
Appendix B – Actuarial Assumptions and Methods.....	26
Appendix C – Summary of Plan Provisions	33

March 25, 2015

Board of Trustees
City of Annapolis Police and Fire Retirement Plan
Municipal Building
Annapolis, Maryland 21401

Dear Members of the Board:

At your request, we have conducted the annual actuarial valuation of the Police and Fire Retirement Plan (Plan) as of July 1, 2014. The results of the valuation are contained in this report. The purpose of the valuation is discussed in the foreword.

This report contains information on Plan assets, as well as analyses combining asset and liability performance and projections. The report also discloses employer contribution levels, as well as required disclosures under the Governmental Accounting Standards Board Statement No. 67.

In preparing our report, we relied, without audit, on information (some oral and some written) supplied by the City of Annapolis. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The results of this report are only applicable to the City contribution for Fiscal Year ending 2015 and 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.

To the best of my knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as a credentialed actuary, I 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. I am not an attorney, and our firm does not provide any legal services or advice.

This valuation was prepared for the Police and Fire Retirement Plan for the purposes described herein and for the use by the Plan auditor in completing an audit related to the matters herein. This valuation report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Sincerely,
Cheiron



Fiona E. Liston, FSA, EA
Principal Consulting Actuary



CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

FOREWORD

Cheiron has performed the actuarial valuation of the City of Annapolis Police and Fire Retirement Plan (Plan) as of July 1, 2014. The purpose of this report is to:

- 1) **Measure and disclose**, as of the valuation date, the financial condition of the Plan;
- 2) **Indicate trends** in the financial progress of the Plan;
- 3) Advise on the applicability of the **City contribution rate**; and
- 4) **Provide specific information** and documentation required by the Governmental Accounting Standards Board (GASB).

An actuarial valuation establishes and analyzes Plan assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the Plan's investment performance as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our findings and disclosing important trends experienced by the Plan in recent years.

Section II contains details on various asset measures, together with pertinent performance measurements.

Section III shows similar information on the Plan liabilities, measured for actuarial, accounting, and governmental reporting purposes.

Section IV develops the employer contribution rate determined using actuarial techniques and compares that to the amount currently being contributed.

Section V includes the required disclosures under GASB Statement No. 67.

The appendices to this report contain a summary of the Plan's membership at the valuation date, the actuarial methods and assumptions used in this valuation, and a summary of the major provisions of the Plan.

In preparing our report, we relied, without audit, on information (some oral and some written) supplied by the City of Annapolis. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The 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 are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the Plan will vary from our results.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION I
SUMMARY**

General Comments

Beginning in at least 1993 and through 2008, the Plan was over 100% funded. Throughout this period, steps were taken to reduce the Plan's overfunding. These steps included making a combined City and member contribution that totaled less than the 25% of payroll that represented the value of benefits accruing annually and making various benefit improvements. In the 2008-2009 plan year, the Plan lost a great deal of asset value in the market downturn. Steps have been taken since that time to increase both member and City contributions and to adjust the Plan provisions for those hired after July 1, 2012. The impact of these changes has begun to emerge over the past two valuations.

Over the last fiscal year, the assets returned 14.95%. However, due to the Plan's asset smoothing method, which recognizes only a portion of this gain and continues recognizing a portion of the 08-09 loss, the return on the actuarial value of assets (AVA) was 8.93%. This return was greater than the assumed rate of return of 7.5%, resulting in an actuarial gain on assets of \$2.11 million.

The contribution rate that is calculated in this valuation is based on a rolling 30-year amortization of the \$9.8 million unfunded liability. This rate is now 18.74% of payroll, net of the member contributions currently being made.

The City is currently ramping up its contribution rate 2% per year until reaching 18% in FY 17. Additionally, this valuation report reflects the change to a fixed 2% COLA for all members from provisions which varied by Plan. As a result, the projections in this valuation show the Plan funded ratio likely to improve for the first time since the 2008-2009 plan year. We would note that the change to a fixed 2% COLA is currently under litigation.

This valuation contains information under the new GASB Statement No. 67. Disclosures are based on the use of updated procedures to roll forward the 2013 valuation results. The calculation of Net Pension Liability in Section V is shown as disclosed for the plan year June 30, 2014, and we have also present a projection of the June 30, 2015 disclosure assuming all actuarial assumptions are met over the coming year.

The remainder of this section presents trend information showing the history of where the Plan's funding has been and projections of where it may be headed.

Trends

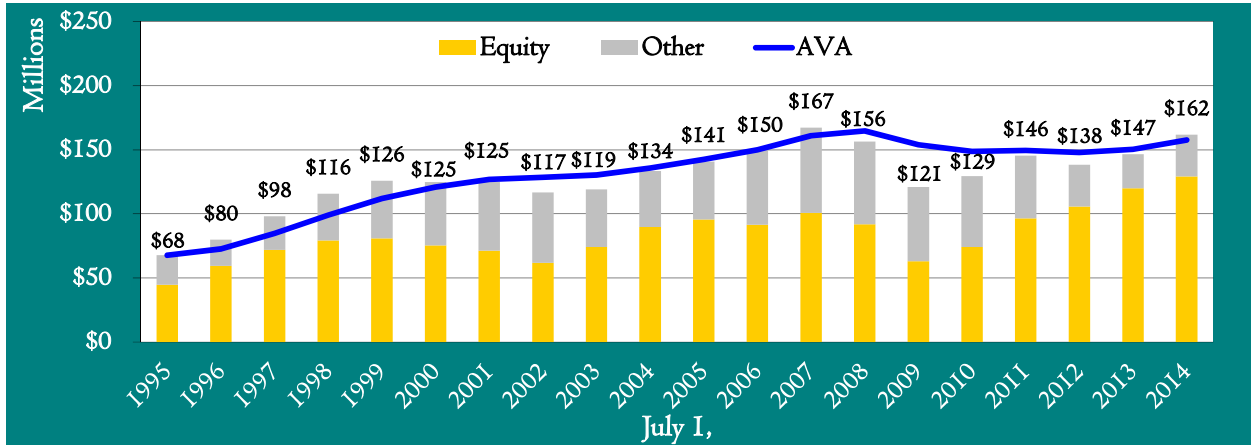
We believe it is important to take a step back from the latest results and view them in the context of the Plan's recent history. On the next pages, we present a series of charts displaying key factors in the last 20 years' valuations. After this historical review, we then present a few projection graphs, showing the possible condition of the Plan over the next 15 years under various scenarios of market returns.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION I
SUMMARY**

Growth in Assets

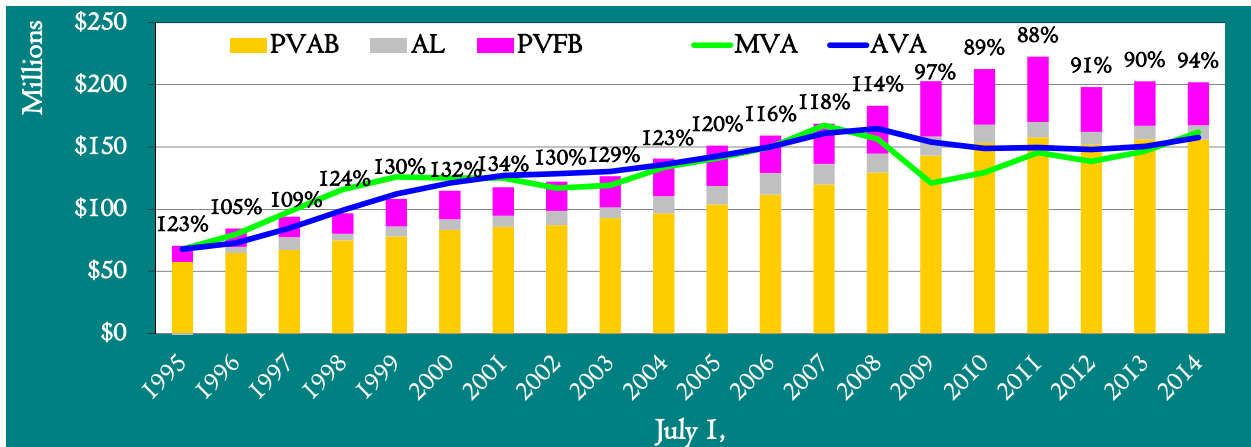
Over the period July 1, 1995 to June 30, 2014, the Plan’s assets returned approximately 8.5% on a market value basis and 7.9% on an actuarial value basis, compared to a current valuation assumption of 7.50%.



Assets and Liabilities

The three colored bars represent the three different measures of liability mentioned in this report. For funding purposes, the target amount is represented by the top of the gray bars the actuarial liability. We compare the actuarial value of assets to this measure of liability in developing the funded ratios. These are the percentages shown in the graph labels.

The amount represented by the top of the pink bars, the present value of benefits (PVB), is the amount needed to provide all benefits for the current participants and their beneficiaries. If the Plan had assets equal to the PVB, no additional contributions would, in theory, be needed for the current members if all assumptions were exactly met.

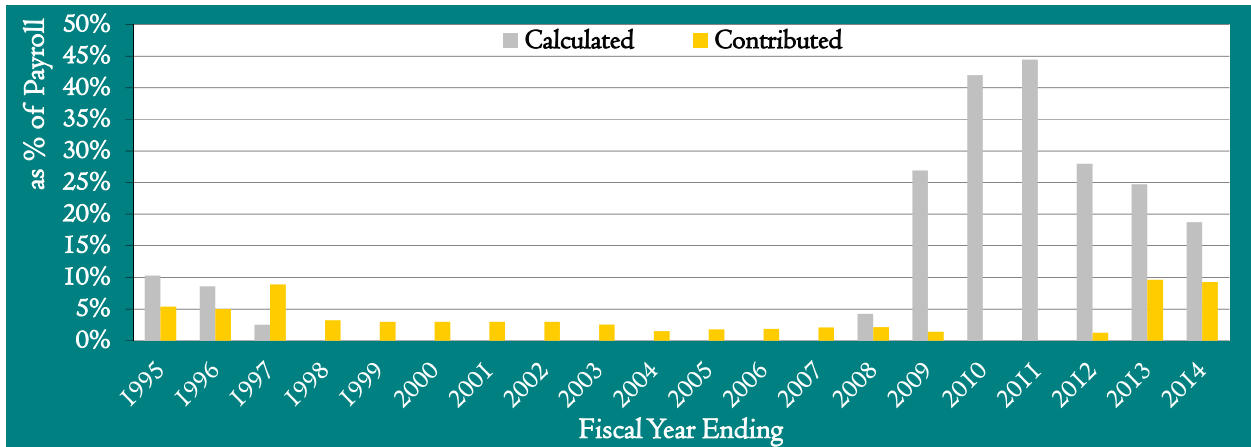


**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION I
SUMMARY**

Contribution Rates

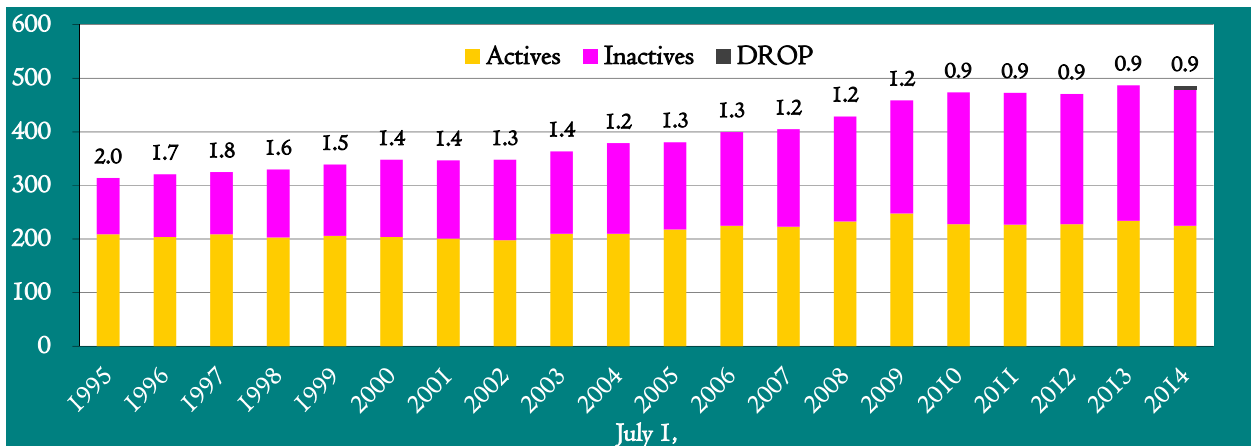
This graph shows the actuarially calculated City contribution rate, denominated as a percent of payroll, as well as the actual City contribution. From 1998 through 2007, the valuation developed a contribution rate of zero. The City continued to make contributions to the Plan in spite of the zero calculated amounts. Now that the surplus has been exhausted, the calculated rate has increased substantially, and steps have been taken on both the plan design and contribution fronts to address this. While the contributed rate remains lower than the calculated rate, the calculated rate this year is close to the ultimate 18% rate that will be effective beginning fiscal year 2017.



Participant Trends

The bars below show the number of participants in each category. The numbers, which appear above each bar, represent the number of active members to inactive members at each valuation date. As with most maturing funds, the Plan continues to show steady growth in the number of retired members.

The graph also shows that the number of actives covered by the Plan has remained fairly constant over the past five years after a period of growth immediately preceding the past five years.



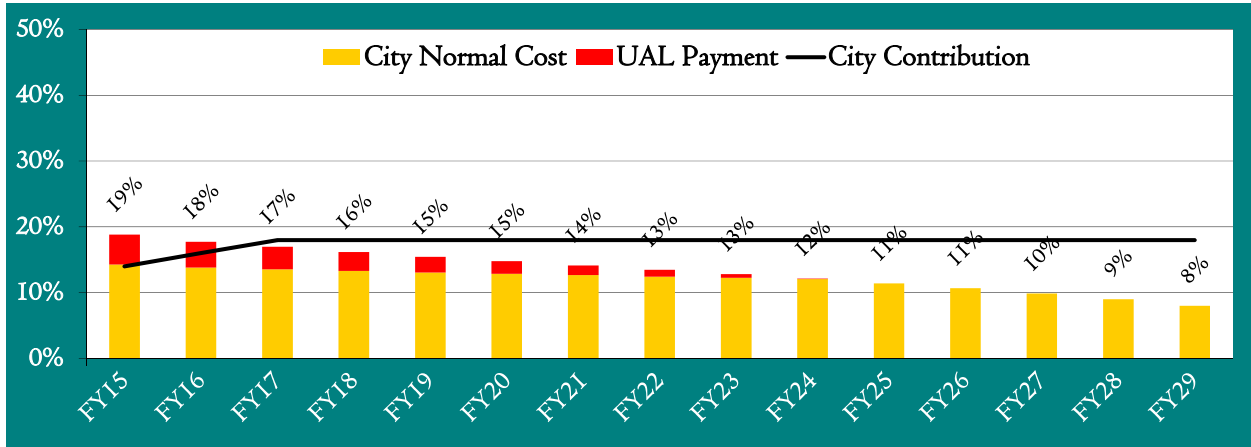
**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION I
SUMMARY**

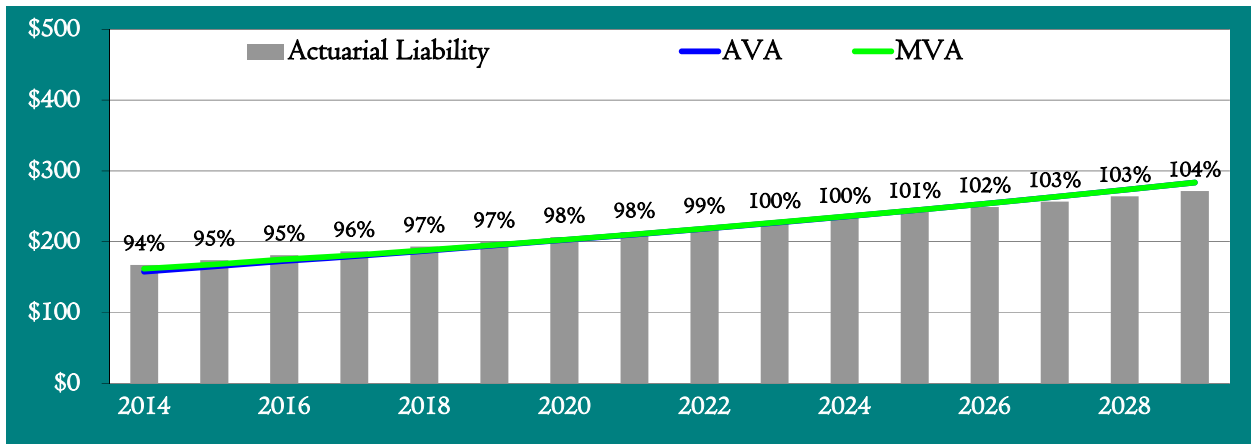
Future Outlook

Baseline Projections

These two graphs show the expected progress of the Plan’s funding over the next 15 years assuming the Plan’s assets earn exactly 7.5% per year on their market value and assuming all other assumptions are exactly met. The graphs further assume that the City contributes 14% in fiscal year 2015, increases its contribution percentage 2% per year until it reaches 18% in fiscal year 2017, and continues to contribute at 18% thereafter. It also assumes that member contributions increase in accordance with the current bargained rates, including a 7.0% rate for those hired prior to June 30, 2012, phasing up to 8.0% over the next two years, and 8.0% for all future years for those hired after July 1, 2012. The first graph shows that the calculated contribution amount using a 30-year amortization of the unfunded liability (which is equal to the sum of the yellow normal cost rate and the red unfunded rate) is expected to decrease below the negotiated City contribution rate by FY 2017.



The “Assets and Liabilities” graph shows the projected funding status over the next 15 years under the same scenario. The funding ratio is expected to increase steadily each year from its current level of 94% up to 104% by 2029. These projections include the change to a 2% COLA.

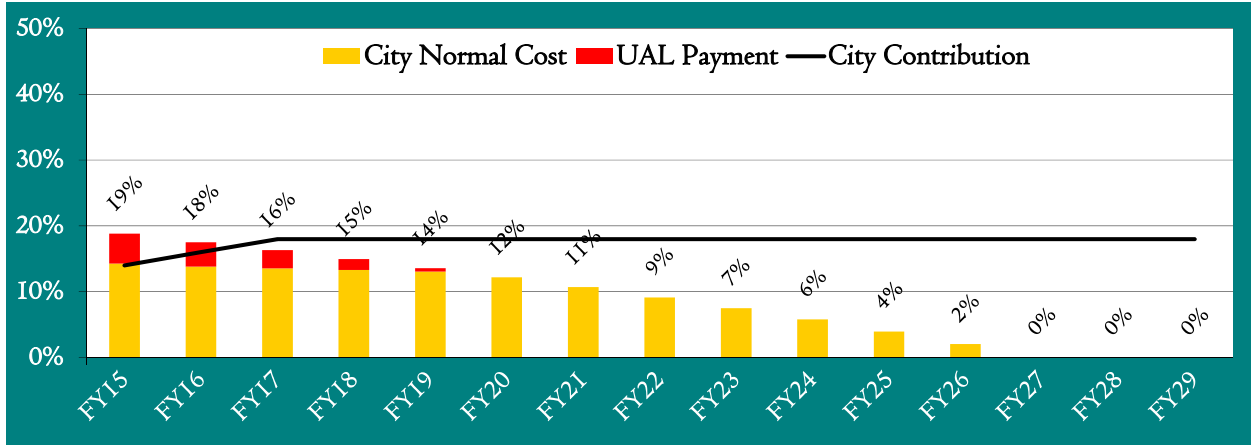


**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION I
SUMMARY**

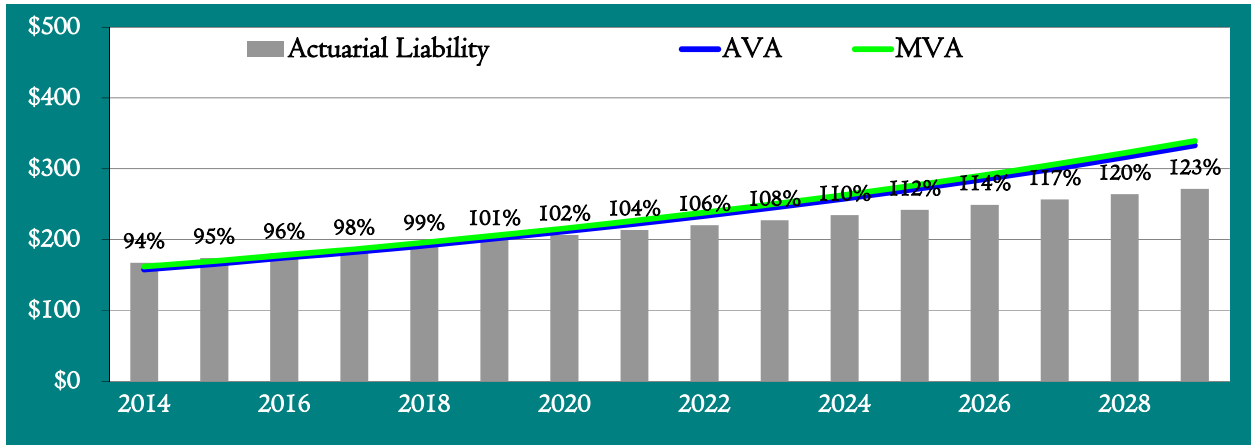
Projections with Asset Returns of 8.5%

In these graphs, we show what the anticipated contribution amount and funding status would be expected to look like over the next 15 years with returns of 8.5% per year, 1% higher than the valuation assumption. These two charts assume all other assumptions are exactly met, the same as in the baseline scenario.



The “Plan Funding” graph shows that the calculated contribution rate would drop below the negotiated City contribution rate by FY 2017 and continue down towards zero if the 8.5% return were to persist.

The “Assets and Liabilities” chart shows that the funded ratio will slowly increase in the short-term, as deferred investment losses are recognized in the actuarial value of assets, and then the current 94% funded ratio will quickly increase to 123% over the 15-year period. Of course this projection assumes the City and member rates would remain unchanged even as the Plan becomes well-funded.



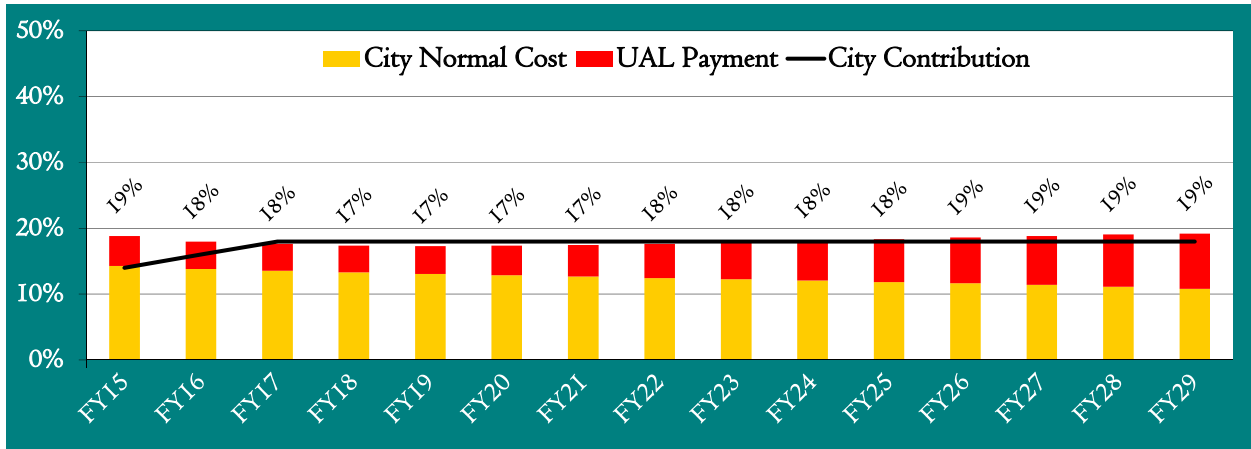
**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION I
SUMMARY**

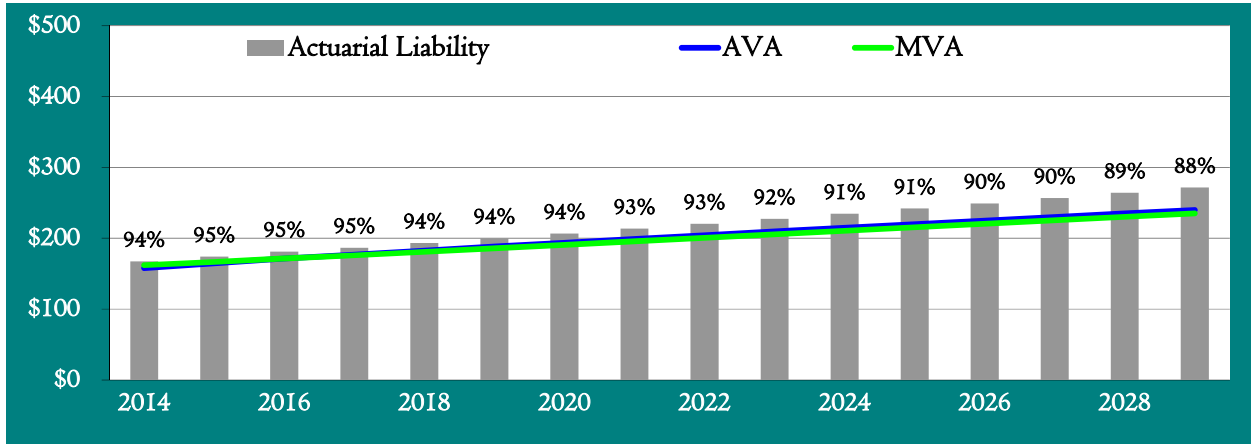
Projections with Asset Returns of 6.5%

While investment returns in excess of the assumed 7.5% can lead to funding improvement, here we show the impact of the Plan earning 1% less than the assumption. If the assets return only 6.5% per year, the negotiated City contribution rates remain below the calculated rate for most of the period shown.

Note that these projections assume all other assumptions are exactly met including the contribution assumptions detailed in the baseline scenario.



The “Assets and Liabilities” chart shows that the funded status of the Plan would remain around 94% for a few years before starting to drop off as investment losses continue to build, reaching 88% by the end of the period shown.



CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**SECTION I
SUMMARY**

Table I-1			
City of Annapolis Police and Fire Retirement Plan			
Summary of Principal Results			
	July 1, 2013	July 1, 2014	% Change
Participant Counts			
Active Members	234	225	(3.8%)
Inactive Members	32	31	(3.1%)
DROP Participants	0	7	
Terminated Vested Members	2	1	(50.0%)
Retired Members	144	147	2.1%
Disabled Members	46	46	0.0%
Beneficiaries	29	29	0.0%
TOTAL	487	486	(0.2%)
Annual Projected Salary of Active Members*	\$ 16,269,356	\$ 16,529,127	1.6%
Annual Projected Salary of Members in DROP*	\$ 0	\$ 726,133	
Annual Benefits in Pay Status			
Total Benefits	\$ 9,000,145	\$ 9,519,079	5.8%
Less Annuitized Amounts	556,353	533,890	(4.0%)
Net Payable from Plan Assets	\$ 8,443,792	\$ 8,985,189	6.4%
Assets & Liabilities			
Total Actuarial Liability	\$ 167,028,135	\$ 167,431,334	0.2%
Actuarial Value of Assets	150,460,512	157,658,394	4.8%
Unfunded Actuarial Liability (Surplus)	\$ 16,567,623	\$ 9,772,940	(41.0%)
Funded Ratio	90%	94%	
Contribution Results as % of Payroll			
City Normal Cost	16.89%	14.28%	
Amortization of Unfunded Actuarial Liability	8.02%	4.46%	
Actuarially Determined Contributions	24.91%	18.74%	

* Assumes one year of payroll projection.

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**SECTION II
ASSETS**

Pension plan assets play a key role in the financial operation of the Plan and in the decisions the Trustees 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, negotiated contributions, and the ultimate security of participants' benefits.

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

- **Disclosure** of the Plan assets at July 1, 2013 and July 1, 2014;
- Statement of the **changes** in market values during the year;
- Development of the **actuarial value of assets**;
- An assessment of **investment performance**; and
- A ten-year **projection** of contributions and benefit payments.

Disclosure

The market value of assets represents a “snap-shot” or “cash-out” value. This provides 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 suitable for long range planning.

Table II - 1		
Assets at Market Value		
	July 1, 2013	July 1, 2014
Loomis Sayles Stock	10,154,304	22,769,567
Edgar LoMax	14,988,099	17,022,321
Allegis Realty	6,820,676	7,487,143
Lazard Corp Bond	15,984,676	23,650,718
Administrative Account	3,308,573	2,342,964
Cooke & Bieler	9,327,505	6,339,283
Loomis Sayles	7,959,927	10,065,049
Alternatives Gresham	45,403,006	37,095,286
Mutual Funds	32,662,701	35,103,760
Total Assets	\$ 146,609,467	\$ 161,876,091

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**SECTION II
ASSETS**

Changes in Market Value

The components of asset change are as follows:

- Contributions
- Benefit payments
- Expenses
- Dividends and interest income
- Investment income (realized and unrealized)

The specific changes during the plan year ending July 1, 2014 are presented below.

Table II-2 Changes in Market Values	
Value of Assets - July 1, 2013	\$ 146,609,467
<u>Receipts</u>	
Member Contributions	\$ 1,138,427
Employer Contributions	1,535,001
Dividends, Interest and Gains (net of investment expense)	<u>21,457,721</u>
Total Receipts	\$ 24,131,149
<u>Disbursements</u>	
Benefit Payments	\$ (8,648,904)
Administrative Expenses	<u>(215,621)</u>
Total Disbursements	\$ (8,864,525)
<u>Net Change</u>	\$ 15,266,624
Value of Assets at July 1, 2014	\$ 161,876,091
Return on Market Value of Assets	14.95%

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION II
ASSETS**

Actuarial Value of Assets

The actuarial value of assets represents a “smoothed” value developed by the actuary to reduce, or eliminate, erratic results that could develop from short-term volatility in the market value of assets. For the Plan, the actuarial value has been calculated by adding one-third of the deviation of market value from expected actuarial value to the expected actuarial value. The expected actuarial value is the previous year’s actuarial asset value adjusted with contributions, benefit payments, and interest at 7.5%, the assumed rate of return. The following table illustrates the calculation of the actuarial value of assets for the July 1, 2014 valuation.

Table II -3 Development of Actuarial Value of Assets	
1. Actuarial Value of Assets at Beginning of Year	\$ 150,460,512
2. Contributions	2,673,428
3. Benefit Payments	(8,648,904)
4. Expected Investment Return (at 7.5%)	<u>11,064,509</u>
5. Expected Actuarial Value of Assets at End of Year: (1) + (2) + (3) + (4)	\$ 155,549,545
6. Market Value of Assets at End of Year	\$ 161,876,091
7. Recognized Gain (Loss) [33.3% of [(6) - (5)]]	2,108,849
8. Actuarial Value of Assets at End of Year: (5) + (7)	\$ 157,658,394
Calculation of Asset Gain/(Loss) on Actuarial Value of Assets	
1. Expected Actuarial Value of Assets as of July 1, 2014 (at 7.5%)	\$ 155,549,545
2. Actual Actuarial Value of Assets	157,658,394
3. Asset Gain/(Loss) During Plan Year as of July 1, 2014 [(2) - (1)]	\$ 2,108,849

Investment Performance

The market value of assets gained 14.95% during the fiscal year ending in 2014, which is more than the assumed 7.5%.

The return on the actuarial value of assets was 8.93%. Under the smoothing method, only 33 ⅓% of investment returns that differ from the assumed 7.5% is recognized. The remaining 66 ⅔% is left to be recognized in future years.

If the Plan experiences many years of good investment performance, the actuarial asset value will be less than the actual market value. This is a result of “storing” the gains. Conversely, in years of poor investment performance, such as the years ended June 30, 2001, June 30, 2002, and June 30, 2009, the actuarial value of assets may exceed the market value. Future years’ returns will need to exceed the assumed rate to offset the deferred losses.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION II
ASSETS**

Projection of Contributions and Benefits

The following table shows a ten-year projection of the Plan’s expected benefit payments and contributions. Benefits are projected in accordance with the actuarial assumptions used in the valuation.

Contributions are projected taking into account expected new entrants and include both employer and member contributions. Over the ten-year period shown, the benefit payments are expected to exceed contributions. This indicates that this is a mature fund. The projected shortfall will have to be paid from current assets and future investment earnings. The Trustees should take these cash flow needs into account when planning future investments.

Table II-4				
Projection of Plan's Benefit Payments				
Year Beginning July 1,	Expected Benefit Payments¹		Expected Contributions²	
2014	\$	9,332,000	\$	3,665,000
2015		9,676,000		4,238,000
2016		11,750,000		4,801,000
2017		11,179,000		4,969,000
2018		11,732,000		5,143,000
2019		12,246,000		5,323,000
2020		12,716,000		5,510,000
2021		13,235,000		5,703,000
2022		13,746,000		5,902,000
2023		14,254,000		6,109,000

¹ The payment stream reflects only the Plan-paid portion of expected benefits and not the portion annuitized in 1992.

² Contributions include City contributions at 14% plus 2% per year until it reaches 18% in FY 17 and member contributions for pre-2012 actives increasing at 0.5% per year until reaching 8%. Total covered payroll is assumed to increase 3.5% per year.

SECTION III LIABILITIES

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

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

Disclosure

This report discloses three types of liabilities. Each liability has a specific purpose depending on the nature of the liability and the people ultimately using the liability.

- **Present Value of Benefits:** Used for analyzing the financial outlook of the Plan, this represents the amount of money needed today to fully pay off all future benefits and expenses of the Plan, assuming participants continue to accrue benefits and there are no new entrants.
- **Actuarial Liability:** Used for funding calculations, this liability is calculated taking the present value of benefits above and subtracting the present value of future member contributions and future City normal Costs under an acceptable actuarial funding method. The method for this Plan is referred to as the **Entry Age Normal** funding method.
- **Present Value of Accrued Benefits:** Used for communicating the current level of liabilities, this liability represents the total amount of money needed today to fully pay off the current accrued obligations of the Plan, assuming no future accruals of benefits. These liabilities are also required by the Financial Accounting Standards Board (Topic No. 960) and are used in assessing whether the Plan can meet its current benefit commitments.

The following table discloses each of these liabilities for the current and immediately 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 liability**.

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**SECTION III
LIABILITIES**

Table III - 1		
Liabilities/Net (Surplus) Unfunded		
	July 1, 2013	July 1, 2014
<u>Present Value of Benefits</u>		
Active Participant Benefits	\$ 87,574,492	\$ 83,813,790
DROP Participant Benefits	0	6,577,186
Retiree and Inactive Benefits	115,249,984	111,714,368
Present Value of Benefits (PVB)	\$ 202,824,476	\$ 202,105,344
Market Value of Assets (MVA)	146,609,467	161,876,091
Future Member Contributions	9,620,521	11,689,613
Future City Contributions (at 10% in 13; 12% in 14)	15,532,952	19,096,059
Total Resources	\$ 171,762,940	\$ 192,661,763
Net (Surplus)/Unfunded	\$ 31,061,536	\$ 9,443,581
<u>Actuarial Liability</u>		
Present Value of Benefits (PVB)	\$ 202,824,476	\$ 202,105,344
Present Value of Future City Normal Costs (PVFNC)	\$ 26,175,820	\$ 22,984,397
Present Value of Future Member Contributions (PVFEEC)	9,620,521	11,689,613
Actuarial Liability (AL=PVB-PVFNC-PVFEEC)	\$ 167,028,135	\$ 167,431,334
Actuarial Value of Assets (AVA)	150,460,512	157,658,394
Net (Surplus)/Unfunded (AL-AVA)	\$ 16,567,623	\$ 9,772,940
<u>Present Value of Accrued Benefits</u>		
Present Value of Benefits (PVB)	\$ 202,824,476	\$ 202,105,344
Present Value of Future Benefit Accruals (PVFBA)	46,715,672	46,230,107
Present Value of Accrued Benefits (PVAB=PVB-PVFBA)	\$ 156,108,804	\$ 155,875,237
Market Value of Assets (MVA)	146,609,467	161,876,091
Net (Surplus)/Unfunded (PVAB-MVA)	\$ 9,499,337	\$ (6,000,854)

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**SECTION III
LIABILITIES**

Changes in Liabilities

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- Benefits accrued since last valuation
- 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
- New hires since the last valuation
- Plan amendments altering benefits
- A change in actuarial assumptions
- A change in the actuarial methods

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

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

In each valuation, we report on those elements of change, which are of particular significance, potentially affecting the long-term financial outlook of the Plan. Below we present key changes in liabilities since the last valuation.

Table III - 2			
	Present Value of Benefits	Actuarial Liability	Present Value of Accrued Benefits
Liability at July 1, 2013	\$ 202,824,476	\$ 167,028,135	\$ 156,108,804
Liability at July 1, 2014	202,105,344	167,431,334	155,875,237
Liability Increase (Decrease)	(719,132)	403,199	(233,567)
Changes Due to:			
Actuarial (Gain)/Loss	NC	3,563,286	NC
Plan Change	(12,570,508)	(10,681,818)	(10,058,340)
Benefits Accumulated and Other Sources	11,851,376	7,521,731	9,824,773

NC = Not Calculated

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**SECTION III
LIABILITIES**

**Table III - 3
Plan Liabilities**

1.	Present Value of Benefits	
	a. Active Members	\$ 83,813,790
	b. Retired Members	111,535,614
	c. Terminated Vested Members	94,638
	d. DROP Participants	6,577,186
	e. Inactive Members	84,116
	Total	\$ 202,105,344
2.	Present Value of Future City Normal Costs	22,984,397
3.	Present Value of Future Member Contributions	11,689,613
4.	Actuarial Liability [(1) - (2) - (3)]	\$ 167,431,334
5.	Actuarial Value of Assets	157,658,394
6.	Unfunded Actuarial Liability [(4) - (5)]	\$ 9,772,940

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**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. The goal of the actuarial process is to create a funding mechanism designed to produce a pattern of contributions that are both stable and predictable.

For this Plan, the funding mechanism is the **Entry Age Normal funding method**. Under this method, there are two components to the total contribution: (i) **a normal cost**, and (ii) **an amortization payment**. A normal cost is determined for each active member, and then this normal cost represents the cost to fund that portion of the total future obligations, which has been allocated to the current year based upon the actuarial cost method.

The amortization payment, on the other hand, is not calculated for individual participants, but calculated on the Plan as a whole. It represents an annual installment to fund the **unfunded actuarial liability (UAL)** for the Plan. The UAL represents the amount of additional funds that would have been accumulated by the valuation date, had all prior normal costs been made, and all actuarial assumptions been realized. Since the 2012 valuation, we have used an open 30-year period over which to amortize this UAL with annual installments.

In Appendix B, we describe this technical topic more fully.

The table below presents and compares the Plan’s actuarially determined contribution for this valuation and the prior one.

Table IV - 1		
Actuarially Determined Contribution		
	July 1, 2013	July 1, 2014
City Normal Cost	16.89%	14.28%
Amortization of Unfunded Actuarial Liability	<u>8.02%</u>	<u>4.46%</u>
Actuarially Determined Contribution	24.91%	18.74%

On the following page, we show a detailed calculation of the City’s actuarially determined contribution rate.

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**SECTION IV
CONTRIBUTIONS**

Table IV - 2		
Calculation of City Contribution Rate		
	July 1, 2013	July 1, 2014
1. Present Value of Benefits	\$ 202,824,476	\$ 202,105,344
2. Present Value of Future Contributions	35,796,341	34,674,010
3. Actuarial Liability (1) - (2)	<u>\$ 167,028,135</u>	<u>\$ 167,431,334</u>
4. Actuarial Value of Assets	150,460,512	157,658,394
5. Unfunded Actuarial Liability	<u>\$ 16,567,623</u>	<u>\$ 9,772,940</u>
6. City Contributions in Dollars		
a. City Normal Cost	\$ 2,747,244	\$ 2,464,738
b. Amortization of Unfunded Actuarial Liability	<u>1,304,931</u>	<u>769,755</u>
c. Total Contribution, Not Less Than Zero	<u>\$ 4,052,175</u>	<u>\$ 3,234,493</u>
7. Projected Payroll for Funding Purposes*	\$ 16,269,356	\$ 17,255,260
8. City Contribution as Percentage of Payroll		
a. City Normal Cost	16.89%	14.28%
b. Amortization of Unfunded Actuarial Liability	<u>8.02%</u>	<u>4.46%</u>
c. Total Contribution, Not Less Than Zero	<u>24.91%</u>	<u>18.74%</u>

* City contributions are to be made to the Plan on the payroll of all active and DROP members. The 2014 column includes the anticipated payroll for DROP participants.

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

SECTION V
ACCOUNTING STATEMENT INFORMATION

Two types of liabilities are disclosed for accounting purposes.

ASC Topic 960 of the Financial Accounting Standards Board (FASB) requires the Plan to disclose certain information regarding its funded status.

Statement No. 67 of the Governmental Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

The Topic No. 960 disclosures provide a quasi “snap-shot” view of how the Plan’s assets compare to its liability as of the valuation date. The liability is determined as if contributions stopped and the accrued benefit claims had to be satisfied. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the Plan were to terminate. The Topic No. 960 liability is compared to the market value of assets to determine the funding ratio.

Both the present value of accrued benefits (Topic No. 960) and the actuarial accrued liability (GASB-67) are determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.5% per annum.

This valuation contains information under the new GASB Statement No. 67. Disclosures are based on the use of updated procedures to roll forward the 2013 valuation results. The calculation of Net Pension Liability shows the amounts disclosed for the plan year June 30, 2014 as well as a projection of the anticipated June 30, 2015 disclosure if all actuarial assumptions are met over the coming year.

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V - 1		
Accounting Statement Information - FASB Topic 960 Basis		
Accumulated Plan Benefits		
	July 1, 2013	July 1, 2014
1. Present Value of Benefits		
Accrued to Date		
a. Members Currently Receiving Payments	\$ 114,863,260	\$ 111,535,614
b. Terminated Vested Members	292,499	94,638
c. DROP Members	0	6,577,186
d. Inactive Members	94,225	84,116
e. Active Members	<u>40,858,820</u>	<u>37,583,684</u>
2. Total Present Value of Accrued Benefits		
[1(a) + 1(b) + 1(c) + 1(d)]	\$ 156,108,804	\$ 155,875,237
3. Assets at Market Value	<u>146,609,467</u>	<u>161,876,091</u>
4. Unfunded Value of Benefits	\$ 9,499,337	\$ (6,000,854)
5. Ratio of Assets to Value of Benefits (3) / (2)	93.9%	103.8%

Table V - 2	
Statement of Changes in Accumulated Plan Benefits	
July 1, 2013 - July 1, 2014	
Accumulated Benefit	
Obligation (FASB Topic 960)	
Actuarial Present Value of Accumulated Plan Benefits at July 1, 2013	\$ 156,108,804
Increase (Decrease) Due to:	
Benefits Accumulated and Gains and Losses	7,089,851
Change in Plan	(10,058,340)
Interest Due to the Decrease in the Discount Period	11,383,826
Benefits Paid	<u>(8,648,904)</u>
Net Change	(233,567)
Actuarial Present Value of Accumulated Plan Benefits at July 1, 2014	\$ 155,875,237

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

**Table V - 3
GASB No. 67 Disclosures**

	FYE 2015	FYE 2014
<u>Total Pension Liability</u>		
Service cost	\$ 3,673,745	\$ 3,821,288
Interest (includes interest on service cost)	12,882,891	12,349,347
Changes of benefit terms	(10,681,818)	0
Differences between expected and actual experience	3,563,286	0
Changes of assumptions	0	0
Benefit payments, including refunds of member contributions	<u>(9,332,000)</u>	<u>(8,648,904)</u>
Net change in total pension liability	106,104	7,521,731
Total pension liability - beginning	<u>174,549,866</u>	<u>167,028,135</u>
Total pension liability - ending	<u>\$ 174,655,970</u>	<u>\$ 174,549,866</u>
<u>Plan fiduciary net position</u>		
Contributions - employer	\$ 2,455,000	\$ 1,535,001
Contributions - member	1,210,000	1,138,427
Net investment income	7,440,909	21,457,721
Benefit payments, including refunds of member contributions	(9,332,000)	(8,648,904)
Administrative expense	<u>(150,000)</u>	<u>(215,621)</u>
Net change in plan fiduciary net position	\$ 1,623,909	\$ 15,266,624
Plan fiduciary net position - beginning	<u>161,876,091</u>	<u>146,609,467</u>
Plan fiduciary net position - ending	<u>\$ 163,500,000</u>	<u>\$ 161,876,091</u>
Net pension liability - ending	<u>\$ 11,155,970</u>	<u>\$ 12,673,775</u>
Plan fiduciary net position as a percentage of the total pension liability	93.61%	92.74%
Covered employee payroll	\$ 17,255,260	\$ 16,269,356
Net pension liability as a percentage of covered employee payroll	64.65%	77.90%

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

**Table V - 3
GASB No. 67 Disclosures**

	FYE 2015	FYE 2014
<u>Total Pension Liability</u>		
Service cost	\$ 3,673,745	\$ 3,821,288
Interest (includes interest on service cost)	12,882,891	12,349,347
Changes of benefit terms	(10,681,818)	0
Differences between expected and actual experience	3,563,286	0
Changes of assumptions	0	0
Benefit payments, including refunds of member contributions	<u>(9,332,000)</u>	<u>(8,648,904)</u>
Net change in total pension liability	106,104	7,521,731
Total pension liability - beginning	<u>174,549,866</u>	<u>167,028,135</u>
Total pension liability - ending	<u>\$ 174,655,970</u>	<u>\$ 174,549,866</u>
<u>Plan fiduciary net position</u>		
Contributions - employer	\$ 2,455,000	\$ 1,535,001
Contributions - member	1,210,000	1,138,427
Net investment income	7,440,909	21,457,721
Benefit payments, including refunds of member contributions	(9,332,000)	(8,648,904)
Administrative expense	<u>(150,000)</u>	<u>(215,621)</u>
Net change in plan fiduciary net position	\$ 1,623,909	\$ 15,266,624
Plan fiduciary net position - beginning	<u>161,876,091</u>	<u>146,609,467</u>
Plan fiduciary net position - ending	<u>\$ 163,500,000</u>	<u>\$ 161,876,091</u>
Net pension liability - ending	<u>\$ 11,155,970</u>	<u>\$ 12,673,775</u>
Plan fiduciary net position as a percentage of the total pension liability	93.61%	92.74%
Covered employee payroll	\$ 17,255,260	\$ 16,269,356
Net pension liability as a percentage of covered employee payroll	64.65%	77.90%

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**APPENDIX A
MEMBERSHIP DATA AND PROFILE**

The Personnel Office of the City of Annapolis provided the actuary with all necessary membership data. Information on all participants was gathered as of July 1, 2014.

In this Appendix, we present a review of the current membership statistics. The table on page 20 summarizes the active membership count and payroll by status. The table on page 21 summarizes the inactive membership by status. The table on page 22 breaks down the status reconciliation of the participants. The table on page 23 shows the active membership distributions by age, salary, and service.

Table A - 1		
Active Member Statistics		
	7/1/2013	7/1/2014
Old Plan Revised		
Currently Eligible to Retire	1	1
Not Currently Eligible to Retire	0	0
Average Projected Pay	\$ 91,572	\$ 96,215
Average Age	63	64
Average Service	41	42
New Plan Revised		
Currently Eligible to Retire*	1	0
Not Currently Eligible to Retire	232	224
Average Projected Pay	\$ 69,433	\$ 73,361
Average Age	38	39
Average Service	10	10
DROP Participants		
Counts	N/A	7
Average Projected Pay	N/A	\$ 103,733
Average Age	N/A	50
Average Service	N/A	27
Total Plan		
Currently Eligible to Retire	2	8
Not Currently Eligible to Retire	232	224
Average Projected Pay	\$ 69,527	\$ 74,376
Average Age	38	39
Average Service	10	11

* Only shows those eligible for normal (unreduced) retirement.

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**APPENDIX A
MEMBERSHIP DATA AND PROFILE**

Table A - 2		
Inactive Member Statistics		
	7/1/2013	7/1/2014
Service Retirement		
Count	144	147
Total Annual Benefit	\$ 6,894,370	\$ 7,304,814
Annuitized Annual Benefit	<u>309,512</u>	<u>294,625</u>
Net Payable from Plan Assets	\$ 6,584,858	\$ 7,010,189
Average Age	62	63
Disabilities		
Count	46	46
Total Annual Benefit	\$ 1,553,582	\$ 1,635,531
Annuitized Annual Benefit	<u>170,011</u>	<u>170,011</u>
Net Payable from Plan Assets	\$ 1,383,571	\$ 1,465,520
Average Age	64	64
Beneficiaries		
Count	29	29
Total Annual Benefit	\$ 552,193	\$ 578,734
Annuitized Annual Benefit	<u>76,830</u>	<u>69,254</u>
Net Payable from Plan Assets	\$ 475,363	\$ 509,480
Average Age	67	67
Total Plan		
Count	219	222
Total Annual Benefit	\$ 9,000,145	\$ 9,519,079
Annuitized Annual Benefit	<u>556,353</u>	<u>533,890</u>
Net Payable from Plan Assets	\$ 8,443,792	\$ 8,985,189
Average Age	63	64
Terminated Vested		
Count	2	1
Average Age	52	50
Inactives		
Count	32	31
Return of Member Contributions	\$ 94,225	\$ 84,116

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**APPENDIX A
MEMBERSHIP DATA AND PROFILE**

DATA RECONCILIATION FROM JULY 1, 2013 TO JULY 1, 2014

	Active	DROP	TV	Disabled	Retiree	Survivors	Inactives	Totals
1. July 1, 2013 valuation	234	0	2	46	144	29	32	487
2. Additions								
a. New entrants	7			1		1	1	9
3. Reductions								
a. Paid Out	(6)						(2)	(6)
b. Deaths without beneficiary				(1)	(1)	(1)		(3)
4. Changes in status								
a. Terminated - vested								
b. Entered DROP status	(7)	7						
c. Retired	(3)		(1)		4			
d. Disabled								
e. Died with beneficiary								
f. Data corrections								
5. July 1, 2014 valuation	225	7	1	46	147	29	31	486

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**APPENDIX A
MEMBERSHIP DATA AND PROFILE**

Active Distribution by Age/Service

COUNTS BY AGE/SERVICE

Age	Service											Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	0	3	1	0	0	0	0	0	0	0	0	4
25 to 29	0	11	12	0	0	0	0	0	0	0	0	23
30 to 34	1	11	36	4	1	0	0	0	0	0	0	53
35 to 39	1	9	16	15	11	0	0	0	0	0	0	52
41 to 44	1	5	8	9	10	4	0	0	0	0	0	37
45 to 49	3	3	6	4	11	4	4	0	0	0	0	35
50 to 54	0	1	5	0	3	5	0	0	0	0	0	14
55 to 59	0	1	1	1	0	1	2	0	0	0	0	6
60 to 64	0	0	0	0	0	0	0	0	0	0	1	1
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	44	85	33	36	14	6	0	0	0	1	225

AVERAGE SALARY BY AGE/SERVICE

Age	Service											Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	0	51,243	67,562	0	0	0	0	0	0	0	0	55,323
25 to 29	0	53,939	67,303	0	0	0	0	0	0	0	0	60,912
30 to 34	47,444	53,633	66,777	72,363	85,211	0	0	0	0	0	0	64,454
35 to 39	44,133	58,825	68,965	80,296	90,995	0	0	0	0	0	0	74,661
41 to 44	44,133	58,531	68,976	78,250	92,328	107,780	0	0	0	0	0	79,655
45 to 49	56,739	57,504	65,554	73,147	91,619	93,714	97,370	0	0	0	0	80,022
50 to 54	0	63,043	88,380	0	103,613	83,075	0	0	0	0	0	87,940
55 to 59	0	119,530	71,184	75,235	0	91,600	87,742	0	0	0	0	88,839
60 to 64	0	0	0	0	0	0	0	0	0	0	96,215	96,215
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0
Total	50,988	57,141	68,716	77,757	92,447	93,782	94,161	0	0	0	96,215	73,463

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

A. Long-Term Assumptions Used to Determine Plan Costs and Liabilities

1. Demographic Assumptions

a. Mortality:

For non-disabled retirees: RP-2000 Group Annuity Mortality Table projected from 2011 to 2016 using Scale AA.

Annual Deaths Per 10,000 Members		
Age	Male	Female
20	3	2
25	4	2
30	4	3
35	8	4
40	10	7
45	14	10
50	20	15
55	33	26
60	62	49
65	119	95
70	206	163
75	353	270
80	612	443
85	1,069	752
90	1,798	1,297
95	2,648	1,926
100	3,428	2,363
105	3,979	2,931

100% of active deaths are assumed to be service-connected.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

For disabled retirees: RP-2000 Group Annuity Mortality Table projected from 2011 to 2016 using Scale AA, set forward five years.

Annual Deaths Per 10,000 Members		
Age	Male	Female
20	4	2
25	4	3
30	8	4
35	10	7
40	14	10
45	20	15
50	33	26
55	62	49
60	119	95
65	206	163
70	353	270
75	612	443
80	1,069	752
85	1,798	1,297
90	2,648	1,926
95	3,428	2,363
100	3,979	2,931
105	4,000	3,646

b. Termination of Employment (Prior to Normal Retirement Eligibility):

Annual Terminations Per 1,000 Members	
Years of Service	Terminations
1	100
2	50
3	30
4	30
5	30
6	30
7	30
8 - 24	10
25 or more	0

It is assumed that members who terminate before normal or early retirement age elect to receive a refund of contributions instead of vested benefits.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

c. Disability:

Annual Disabilities Per 10,000 Members	
Age	Male and Female
20	13
25	20
30	28
35	35
40	43
45	50
50	50
55	50
60	50

100% of disabilities are assumed to be service-connected.

d. Retirement:

Annual Retirements per 100 Police Members		
Years of Service	Hired before 7/1/2012	Hired on or after 7/1/2012
20	35	0
21	30	0
22	15	0
23	15	0
24	15	0
25	50	50
26	15	15
27	75	75
28	15	15
29	15	15
30	15	15
31	15	15
32	15	15
33	15	15
34	15	15
35	100	100

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

Annual Retirement per 100 Fire Members		
Years of Service	Hired before 7/1/2012	Hired on or after 7/1/2012
20	15	0
21	15	0
22	15	0
23	15	0
24	15	0
25	33	33
26	15	15
27	15	15
28	25	25
29	25	25
30	50	50
31	30	30
32	30	30
33	30	30
34	30	30
35	100	100

e. Family Composition:

For purposes of valuing the pre-retirement death benefit, an assumption concerning how many employees are married is needed. The assumption used in this valuation is that 100% of employees are married at death while active and that the female spouse is one year younger than the male spouse.

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

2. Economic Assumptions

Investment Return:

7.5% compounded per annum, after investment expenses

Cost-of-Living Benefit Increases:

2.0% compounded per annum

Across-the-Board Increase in City Salaries:

3.5% compounded per annum

Additional Salary Increases:

Salary Merit Scale Police	
Years of Service	Percent Increase
0	4.5%
1	4.5
2	3.5
3	3.5
4	2.5
5	2.5
6	1.5
7	1.5
8	1.5
9	1.5
10+	0.5

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

Salary Merit Scale	
Fire	
Years of Service	Percent Increase
0	6.5%
1	6.5
2	5.0
3	4.0
4	2.5
5	1.5
6+	0.5

Administrative Expenses:

None explicitly assumed

3. Changes Since Last Valuation

Cost-of-living benefit increase was changed to 2.0% compounded per annum for all Plans from 3.5% compounded per annum in Old Plan, 3.0% for Old Plan – Revised, and 2.5% for New Plan (based on assumed CPI increase of 3.5%).

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Funding Method

The funding method used for this valuation is the “Entry Age Normal funding method.” Under this method, the employer contribution has two components: the normal cost and the payment toward the unfunded actuarial liability.

The normal cost rate is determined for each active participant at entry age as a level percent of pay cost, which along with the member contributions will pay for projected benefits at retirement for that participant. This rate is determined by taking the value, as of age at entry into the Plan, of the member’s projected future benefits, reducing it by the value of future member contributions and dividing it by the value, also as of the member’s entry age, of his expected future salary.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability. The actuarial liability includes projections of future member pay increases and future service credits and should not be confused with the Accrued Benefits Liability.

The unfunded portion of the actuarial liability is being amortized over a closed 30-year period, as a level dollar amortization.

2. Actuarial Value of Assets

The Plan uses a method based on the principle that the difference between actual and expected investment returns should be subject to partial recognition to smooth out fluctuations in the total return achieved by the Plan from year-to-year.

Under this method, the actuarial value of the assets is one-third of the market value plus two-thirds of the expected value, where the expected value is last year’s actuarial value and subsequent cashflows into and out of the Plan, accumulated with interest at the valuation rate. This is equivalent to smoothing the difference between the experienced return and the assumed return.

3. Changes Since Last Valuation

None

APPENDIX C
SUMMARY OF PLAN PROVISIONS

1. Membership

The Plan covers employees of the Police and Fire Departments of the City of Annapolis. Employees are eligible from their date of hire.

There are three sub-plans. Membership in these is based in part on hire date and in part on voluntary election.

2. Member Contributions

Police and Fire hired before June 30, 2012: 7.0% of yearly earnings (increasing to 7.5% January 1, 2015 and 8.0% January 1, 2016)

Police and Fire hired after June 30, 2012: 8.0% of yearly earnings

Interest is credited at the rate of 5% per year to employee contributions.

3. Credited Service

All service as a member is credited. In addition, credit is allowed at the rate of one month for 22 days of accrued unused sick leave, to a maximum of 20 months.

4. Average Final Compensation

Compensation includes salary for regular scheduled hours only. Average final compensation is yearly earnings for the Old and Old Revised Plans, and the average over the high 36 consecutive months out of the prior 120 consecutive months (or shorter period of total service) for the New Revised Plan.

For EMT's compensation on or after July 1, 2004, pay differentials shall be phased-in over a three-year period as follows:

EMT-B: 0.66% July 1, 2004 to June 30, 2005; 1.33% July 1, 2005 to June 30, 2006; 2% July 1, 2006 to June 30, 2007.

EMT-I: 3.33% July 1, 2004 to June 30, 2005; 6.66% July 1, 2005 to June 30, 2006; 10% July 1, 2006 to June 30, 2007.

EMT-P: 5% July 1, 2004 to June 30, 2005; 10% July 1, 2005 to June 30, 2006; 15% July 1, 2006 to June 30, 2007.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

5. Normal Retirement

Eligibility

All Three Plans: 20 years of service if hired before July 1, 2012

New Plan Revised for those hired on or after July, 1 2012: 25 year of service

Benefit

Old Plan: 2% of yearly earnings for each year of service; maximum is 60% of yearly earnings.

Old Plan Revised: 2.25% of yearly earnings for each year of service; maximum is 70% of yearly earnings.

New Plan Revised: 2.25% of average final compensation for each year of service; maximum is 70% of average final compensation.

All Three Plans: The benefit payable at 20 years of service is 50% of average final compensation with additional service valued at 2.25% from 20 to 24 years, and 2.5% for service more than 24 years up to the maximum.

6. Service-Connected Disability

Eligibility

No age or service requirement

Benefit

66-2/3% of compensation as of the date of disability

7. Ordinary Disability

Eligibility

Ten years of service

Benefit

An amount determined under the normal retirement benefit formula, based on average final compensation and credited service as of disability date.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

8. Service-Connected Death

Eligibility

No age or service requirement

Benefit

Old Plan and

Old Plan Revised: Spouse receives a benefit of 50% of member's current salary until death or remarriage.

New Plan Revised: Spouse receives 50% of member's accrued benefit determined using salary and service earned to the member's date of death. Minimum benefit is 30% of member's current salary (40% if two or more dependent children are left).

9. Ordinary Death

Eligibility

Ten years of service

Benefit

Old Plan and

Old Plan Revised: Spouse receives 1% of compensation as of date of death for each year of service to a maximum of 30 years.

New Plan Revised: Spouse receives 50% of member's accrued benefit determined using salary and service earned to the member's date of death.

10. Vesting

Eligibility

Ten years of service, only applies to New Plan Revised.

Benefit

Normal retirement benefit based on average final compensation and service at date of termination. Benefit is payable in full at age 55.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

A member may withdraw his contributions at termination, in which case no deferred vested benefit is payable.

11. Withdrawal

Eligibility

Not eligible for other benefits

Benefit

Member contributions with interest

12. Form of Payment

The normal form of payment is a life annuity with a guarantee that at least the amount of member contributions will be paid to the retiree or beneficiaries.

A member who is entitled to a normal or early retirement benefit may elect an actuarially equivalent Joint and Survivor benefit.

Members of the Old Plan and the Old Plan Revised receive a 50% Joint and Survivor benefit as their normal form of payment.

Members may also elect to have a Level Income Option, which is designed to provide for a level payment over the member's lifetime from a combination of the Plan and Social Security.

13. Cost-of-Living Adjustment

Retired and disabled members receive annual increases equal to 2% per year effective each July 1.

Cost-of-living adjustments do not apply to deferred vested benefits prior to benefit commencement.

14. DROP Program

Eligibility

All active sworn Police and Fire personnel who are enrolled in the New Revised Police and Fire Retirement Plan are eligible for DROP participation upon attaining eligibility for normal service retirement. Entry to DROP is restricted to 8 participants per year (4 from Police and 4 from Fire) for a total DROP population of 24 at any given time.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

Benefit

The benefit scheduled to begin at normal retirement, plus accumulating interest, will be credited to a separate DROP account within the Plan, while the member continues to work for the three-year DROP period. Upon completion of the three-year period, DROP participation ends and participants must terminate employment. At that time, the participant will receive payment of the accumulated DROP account balance and begin receiving his or her monthly retirement benefit (in the same amount as determined at commencement of DROP participation, without any cost-of-living increases which may have been awarded to retirees during the DROP period). After the first year, DROP entry occurs only on January 1.

The DROP account will be credited with interest during any calendar year at the average rate of the Composite Corporate Bond Rate over the June-November time period in the previous calendar year. Interest is compounded monthly.

Contributions

During the DROP period, the City will continue to make employer contributions to the Plan on the basis of DROP participants' covered payroll. Any DROP participant who has not attained 5 or more years of additional service beyond his or her service requirement for retirement, will also continue to make member contributions throughout the DROP period.

Early Termination of DROP Participation

Except for death or disability, a member who elects to withdraw from participation in DROP prior to the end of the three-year period shall forfeit his or her DROP account balance. Such member can then apply for normal retirement and have a benefit calculated using service and average final compensation through the date of termination. The only way to terminate DROP participation other than through death or disability is to leave employment with the City.

Disability during DROP

The effective date of the disability will be treated as the end date of the DROP participation period. The member shall receive the disability benefits to which he or she would otherwise be entitled and shall forfeit the DROP account balance.

Death during DROP

Annuity benefits payable to a DROP participant's beneficiary will be due in accordance with the form of payment that was elected when the member entered DROP. In addition to any annuity benefit payable, the beneficiary shall receive the lump sum value of the DROP account balance.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN
ACTUARIAL VALUATION AS OF JULY 1, 2014**

**APPENDIX C
SUMMARY OF PLAN PROVISIONS**

15. Changes Since Last Valuation

Member contributions for Police and Fire hired before June 30, 2012 changed from 6.5% of yearly earnings to 7.0% of yearly earnings. The 7.0% increases to 7.5% of yearly earnings at January 1, 2015 and to 8.0% of yearly earnings at January 1, 2016.

Cost-of-living increases were changed from provisions which varied by Plan to a flat 2% per year.

Effective March 1, 2014, a DROP program was initiated.