

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

**Actuarial Valuation  
as of July 1, 2015**

**Produced by Cheiron**

**January 2016**

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January 19, 2016

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, 2015. 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 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 2016 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 our 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 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.

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



Elizabeth Wiley, FSA, FCA, EA  
Consulting Actuary

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015

**FOREWORD**

Cheiron has performed the actuarial valuation of the City of Annapolis Police and Fire Retirement Plan (Plan) as of July 1, 2015. 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** which may be disclosed in financial reporting.

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** develops the present value of accrued benefits information.

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 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, 2015**

**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 will continue to emerge over the coming years.

Over the last fiscal year, the assets returned 3.38%. However, due to the Plan's asset smoothing method, which recognizes only a portion of this loss, the return on the actuarial value of assets (AVA) was 6.92%. This return was smaller than the assumed rate of return of 7.5%, resulting in an actuarial loss on assets of \$0.91 million. There was a small gain on liability experience, which offset \$0.15 million of this loss.

The Cost-of-Living Adjustment (COLA) increases, which were changed to a flat 2% per year for all members in the 2014 valuation, were restored to their previous levels for those retired under the Old Plan or the Old Plan Revised. The 2014 valuation information contained in this report reflects that change. It will differ from the liability information shown in the 2014 report, because that report applied the 2% COLA to all benefits.

The contribution rate that is calculated in this valuation is based on a closed amortization period that currently stands at 29 years. The calculated contribution is now 21.17% 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.

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**

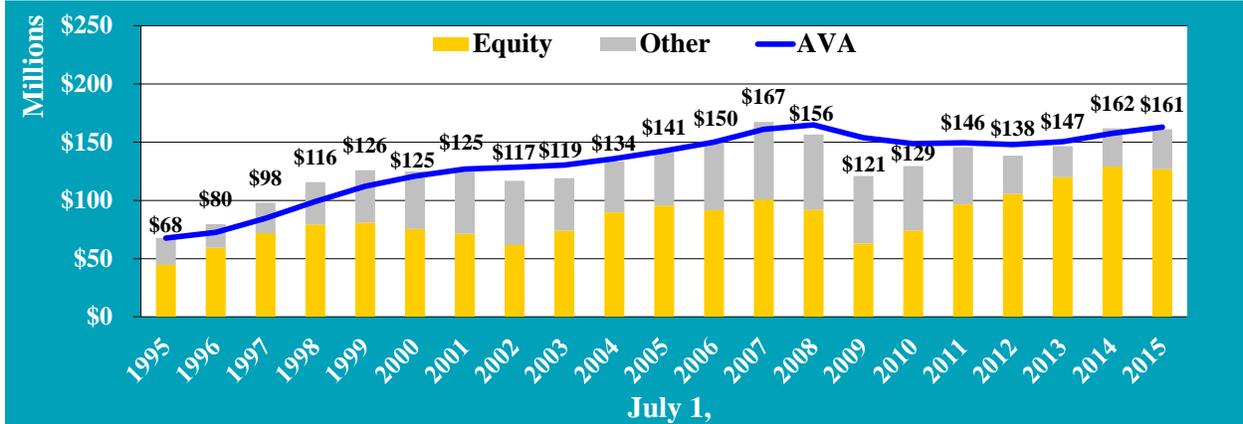
We believe it is important to take a step back from the latest results and view them in the context of the Plan's recent history. On the next pages, we present a series of charts displaying key factors in the last 20 years' valuations. After this historical review, we then present a few projection graphs, 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, 2015**

**SECTION I - SUMMARY**

Growth in Assets

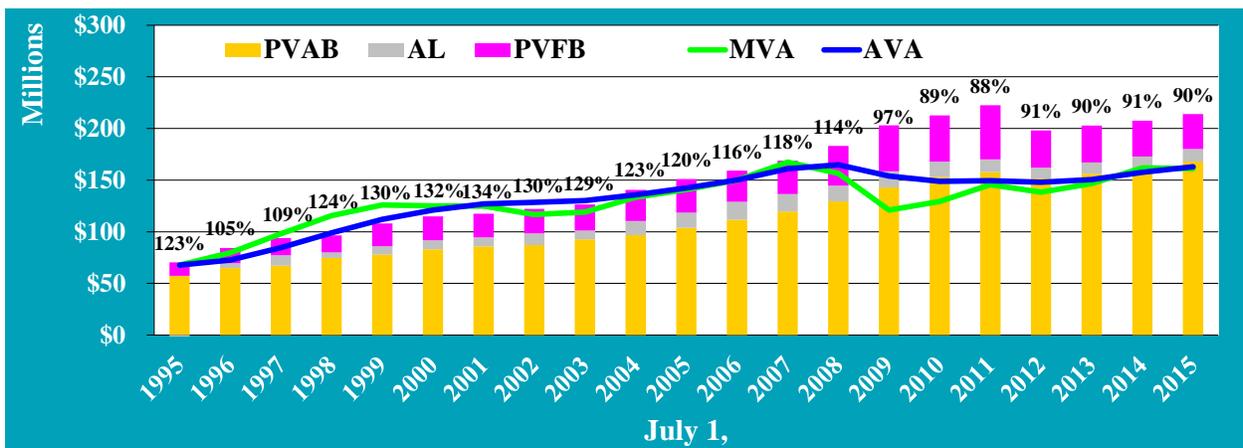
Over the period July 1, 1995 to June 30, 2015, the Plan's assets returned approximately 8.3% on a market value basis and 7.8% on an actuarial value basis, compared to a current valuation assumption of 7.50%.



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 for 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.

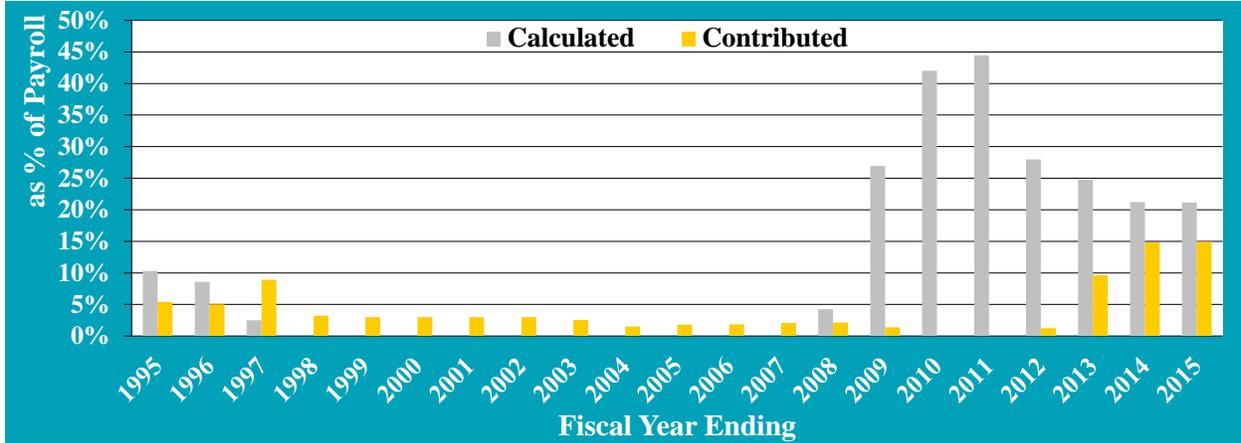


**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**SECTION I - SUMMARY**

Contribution Rates

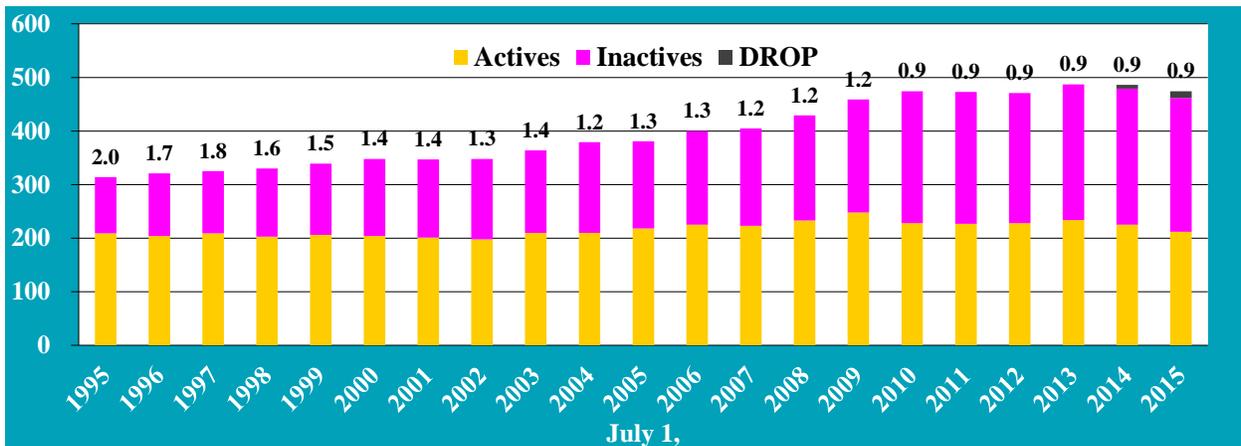
This graph shows the actuarially calculated City contribution rate, denominated as a percent of payroll, as well as the actual City contribution. From 1998 through 2007, the valuation developed a contribution rate of zero. The City continued to make contributions to the Plan in spite of the zero calculated 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 gap between the two is closing.



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 declined over the past two years.



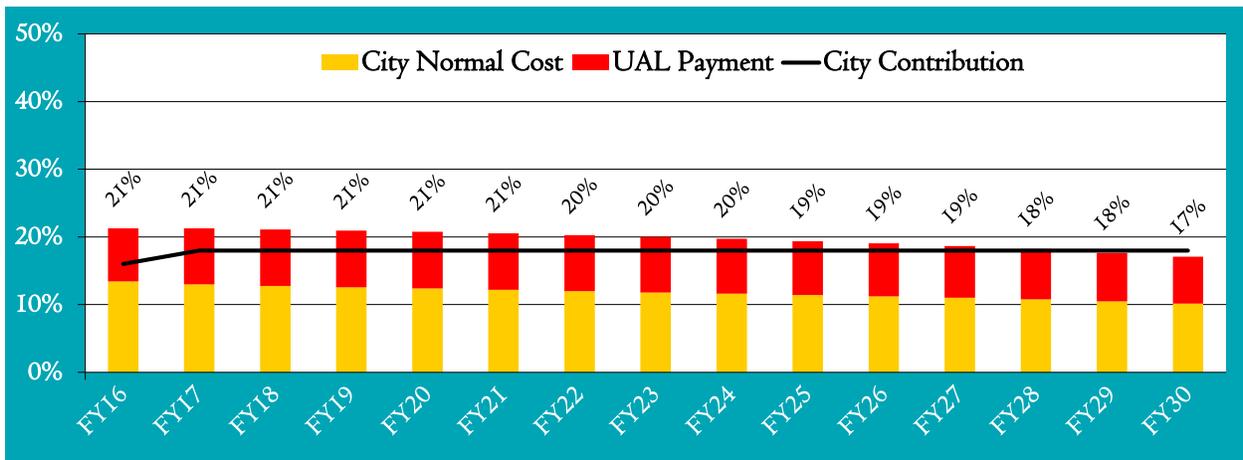
**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**SECTION I - SUMMARY**

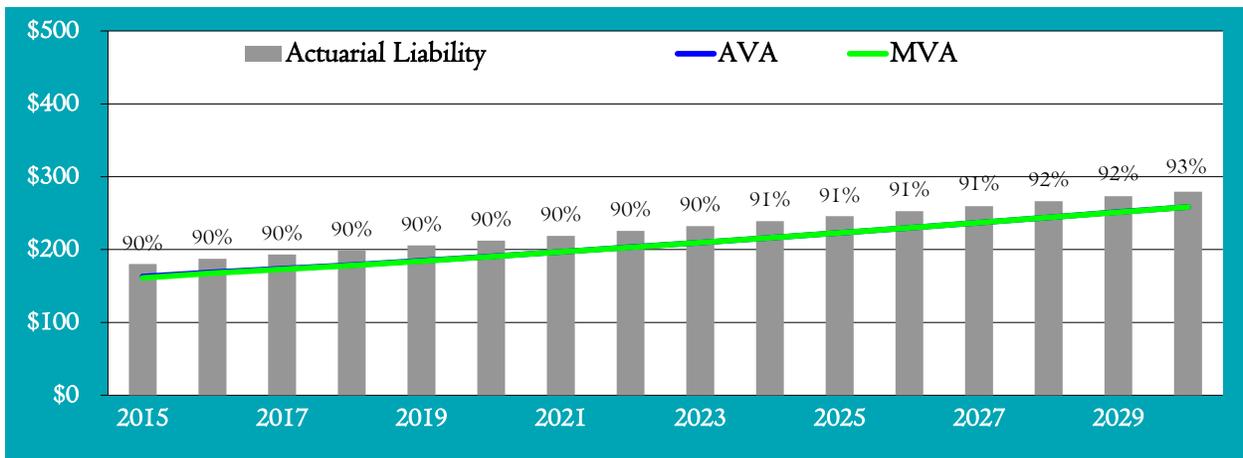
**Future Outlook**

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 16% in fiscal year 2016, increases its contribution percentage to 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 7.5% rate for those hired prior to June 30, 2012, increasing to 8.0% over the next year, and 8.0% for all future years for those hired after July 1, 2012. The first graph shows that the calculated contribution (which is equal to the sum of the yellow normal cost rate and the red unfunded rate) is not expected to decrease below the negotiated City contribution rate until FY 2030.



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 slowly from its current level of 90% up to 93% by 2030.

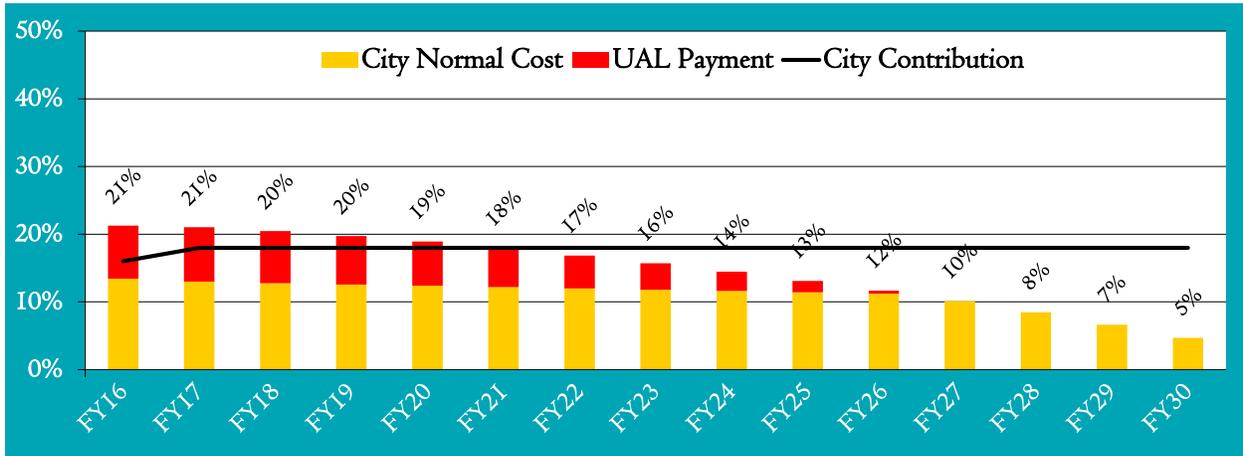


**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
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**SECTION I - SUMMARY**

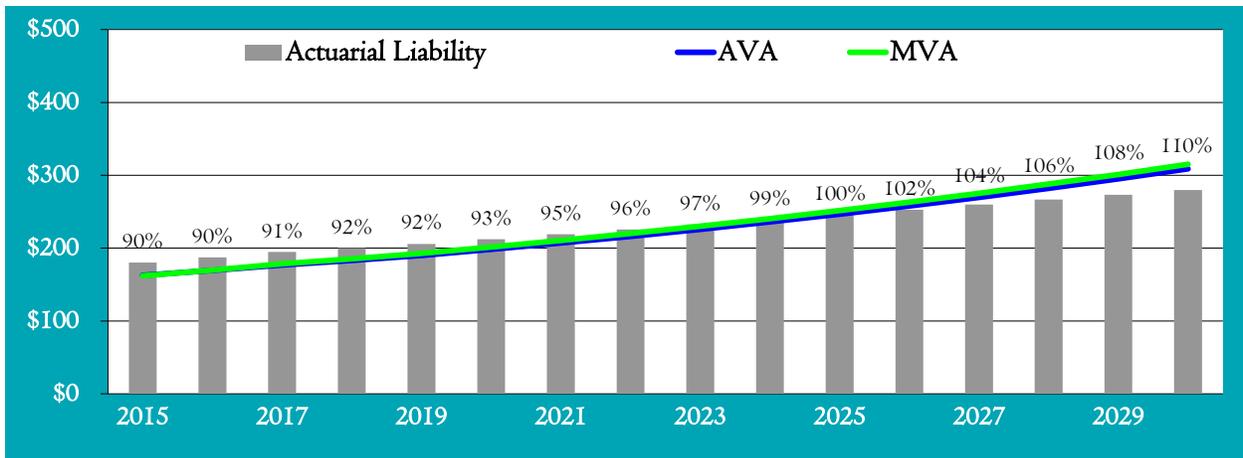
Projections with Asset Returns of 8.5%

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 2022 and continue downwards if the 8.5% persists.

The “Assets and Liabilities” chart shows that the funded ratio would steadily increase to 110% 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.



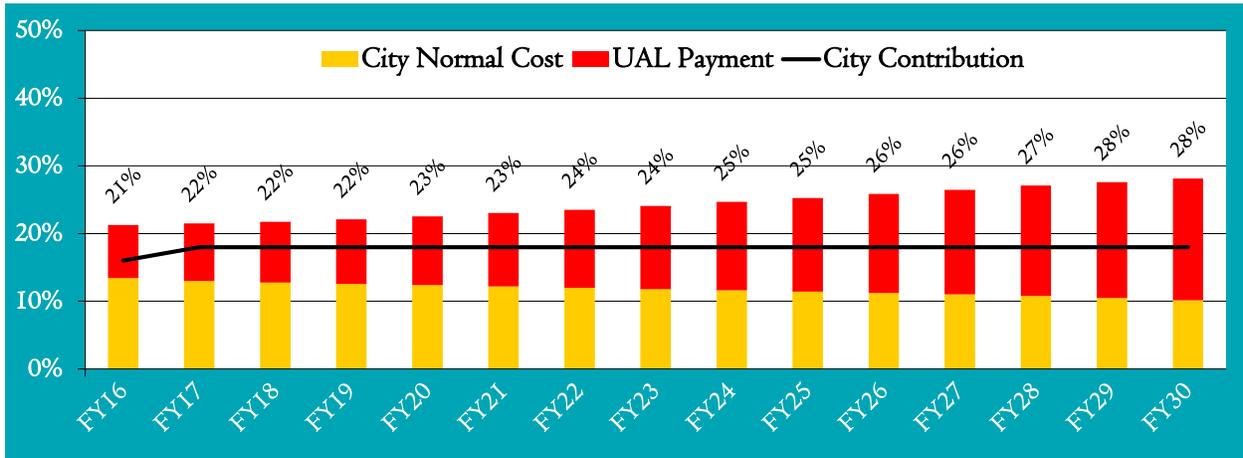
**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
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**SECTION I - SUMMARY**

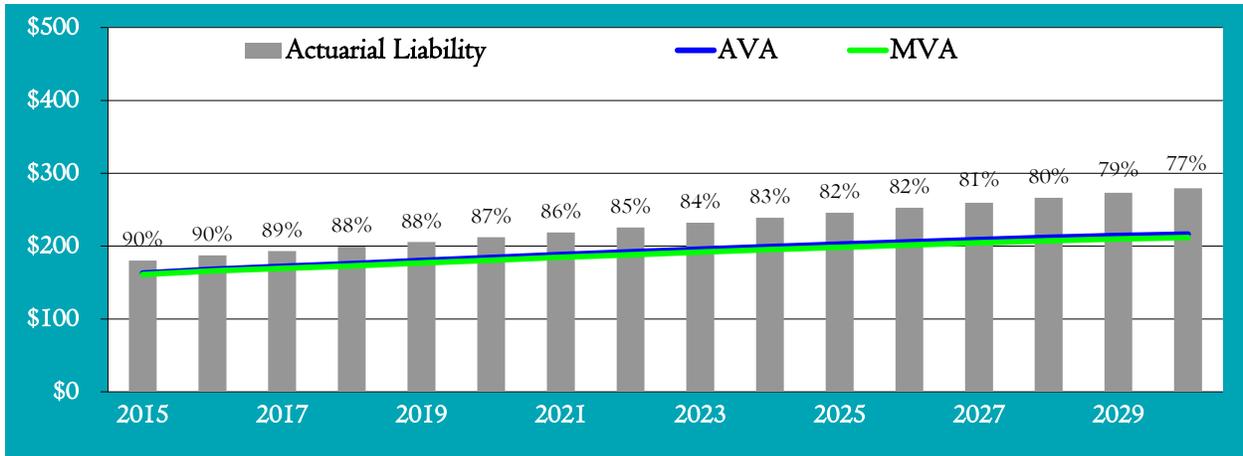
Projections with Asset Returns of 6.5%

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 the entire period shown. In fact, the gap between the calculated rate and 18% expands over the period.

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 drop off as investment losses continue to build, reaching 77% by the end of the period shown.



**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**SECTION I - SUMMARY**

<b>Table I-1 City of Annapolis Police and Fire Retirement Plan Summary of Principal Results</b>			
	<b>July 1 2014 *</b>	<b>July 1, 2015</b>	<b>% Change</b>
<b>Participant Counts</b>			
Active Members	225	212	(5.8%)
Inactive Members	31	27	(12.9%)
DROP Participants	7	12	71.4%
Terminated Vested Members	1	2	100.0%
Retired Members	147	145	(1.4%)
Disabled Members	46	47	2.2%
Beneficiaries	29	29	0.0%
<b>TOTAL</b>	<u>486</u>	<u>474</u>	(2.5%)
<b>Annual Projected Salary of Active Members</b>	\$ 16,529,127	\$ 16,430,406	(0.6%)
<b>Annual Projected Salary of Members in DROP</b>	\$ 726,133	\$ 1,240,993	70.9%
<b>Annual Benefits in Pay Status</b>			
Total Benefits	\$ 9,568,138	\$ 9,805,770	2.5%
Less Annuitized Amounts	533,890	442,911	(17.0%)
Net Payable from Plan Assets	<u>\$ 9,034,248</u>	<u>\$ 9,362,859</u>	3.6%
<b>Assets &amp; Liabilities</b>			
Total Actuarial Liability	\$ 172,901,706	\$ 180,158,394	4.2%
Actuarial Value of Assets	157,658,394	162,979,335	3.4%
Unfunded Actuarial Liability (Surplus)	<u>\$ 15,243,312</u>	<u>\$ 17,179,059</u>	12.7%
Funded Ratio using AVA	91%	90%	
Funded Ratio using MVA	94%	89%	
<b>Contribution Results as % of Payroll</b>			
City Normal Cost	14.28%	13.44%	
Amortization of Unfunded Actuarial Liability	6.96%	7.73%	
Actuarially Determined Contributions	<u>21.24%</u>	<u>21.17%</u>	

\* July 1, 2014 results have been restated to reflect the reversal of COLA changes for Old Plan and Old Plan Revised members.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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, 2014 and July 1, 2015;
- 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.

<b>Table II - 1</b>		
<b>Assets at Market Value</b>		
	<b>July 1, 2014</b>	<b>July 1, 2015</b>
Loomis Sayles Stock	\$ 22,786,868	\$ 23,028,776
Edgar LoMax	17,046,709	13,910,172
Allegis Realty	7,487,143	8,069,380
Lazard Corp Bond	23,045,102	16,799,572
Administrative Account	2,342,964	7,302,171
Cooke & Bieler	6,250,507	5,771,872
Loomis Sayles	10,044,374	7,743,247
Alternatives Gresham	37,095,286	38,422,738
Mutual Funds	35,103,760	40,119,802
<b>Total Assets</b>	<b>\$ 161,202,713</b>	<b>\$ 161,167,730</b>

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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, 2015 are presented below.

<b>Table II-2 Changes in Market Values</b>	
<b>Value of Assets from Prior Valuation - July 1, 2014</b>	\$ 161,876,091
Adjustment	(673,378)
<b>Current Value of Assets - July 1, 2014</b>	<u>\$ 161,202,713</u>
<b><u>Receipts</u></b>	
Member Contributions	\$ 1,220,879
Employer Contributions	2,451,163
Dividends, Interest and Gains (net of investment expense)	<u>5,363,857</u>
<b>Total Receipts</b>	<b>\$ 9,035,899</b>
<b><u>Disbursements</u></b>	
Benefit Payments	\$ (9,070,882)
Administrative Expenses	<u>0</u>
<b>Total Disbursements</b>	<b>\$ (9,070,882)</b>
<b><u>Net Change</u></b>	
Value of Assets at July 1, 2015	\$ 161,167,730
Return on Market Value of Assets	3.38%

Note: The asset information we received for purpose of preparing the 2014 valuation was different from the final July 1, 2014 assets. The adjustment included in this table reflects that difference.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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, 2015 valuation.

<b>Table II -3 Development of Actuarial Value of Assets</b>	
1. Actuarial Value of Assets at Beginning of Year	\$ 157,658,394
2. Contributions	3,672,042
3. Benefit Payments	(9,070,882)
4. Expected Investment Return (at 7.5%)	<u>11,625,583</u>
5. Expected Actuarial Value of Assets at End of Year: (1) + (2) + (3) + (4)	\$ 163,885,137
6. Market Value of Assets at End of Year	\$ 161,167,730
7. Recognized Gain (Loss) [33.3% of [(6) - (5)]]	(905,802)
8. Actuarial Value of Assets at End of Year: (5) + (7)	\$ 162,979,335
<b>Calculation of Asset Gain/(Loss) on Actuarial Value of Assets</b>	
1. Expected Actuarial Value of Assets as of July 1, 2015 (at 7.5%)	\$ 163,885,137
2. Actual Actuarial Value of Assets	162,979,335
3. Asset Gain/(Loss) During Plan Year as of July 1, 2015 [(2) - (1)]	\$ (905,802)

**Investment Performance**

The market value of assets returned 3.38% during the fiscal year ending in 2015, which is less than the assumed 7.5%.

The return on the actuarial value of assets was 6.92%. 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, 2015**

**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.

<b>Table II-4</b>				
<b>Projection of Plan's Benefit Payments</b>				
<b>Fiscal Year Ending,</b>	<b>Expected Benefit Payments*</b>		<b>Expected Contributions**</b>	
2016	\$	9,663,000	\$	4,153,000
2017		11,667,000		4,710,000
2018		12,291,000		4,875,000
2019		11,980,000		5,045,000
2020		12,525,000		5,222,000
2021		13,042,000		5,405,000
2022		13,620,000		5,594,000
2023		14,163,000		5,789,000
2024		14,695,000		5,992,000
2025		15,251,000		6,202,000

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

\*\* Contributions include City contributions at 16% for FY 2016, 18% for FY 17, and forward. 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.

CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015

**SECTION III - LIABILITIES**

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

- **Disclosure** of the Plan liabilities at July 1, 2014 and July 1, 2015, 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 fund all future benefits and expenses of the Plan, assuming participants continue to accrue benefits and there are no new entrants, and that all actuarial assumptions are met.
- **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 fund all 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. Note that this also assumes that all actuarial assumptions are met, including the asset earning 7.5% per year.

Note that none of the liability amounts disclosed in this report is appropriate for measuring a settlement of the plan's liabilities.

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, 2015**

**SECTION III - LIABILITIES**

<b>Table III - 1</b>		
<b>Liabilities/Net (Surplus) Unfunded</b>		
	<b>July 1, 2014</b>	<b>July 1, 2015</b>
<b><u>Present Value of Benefits</u></b>		
Active Participant Benefits	\$ 83,892,449	\$ 84,272,136
DROP Participant Benefits	6,577,186	11,320,306
Retiree and Inactive Benefits	117,106,081	118,426,588
<b>Present Value of Benefits (PVB)</b>	<b>\$ 207,575,716</b>	<b>\$ 214,019,030</b>
Market Value of Assets (MVA)	161,876,091	161,167,730
Future Member Contributions	11,689,613	11,528,873
Future City Contributions (at 14% in FY15; 16% in FY16)	22,278,735	24,914,458
<b>Total Resources</b>	<b>\$ 195,844,439</b>	<b>\$ 197,611,061</b>
<b>Net (Surplus)/Unfunded</b>	<b>\$ 11,731,277</b>	<b>\$ 16,407,969</b>
<b><u>Actuarial Liability</u></b>		
Present Value of Benefits (PVB)	\$ 207,575,716	\$ 214,019,030
Present Value of Future City Normal Costs (PVFNC)	22,984,397	22,331,763
Present Value of Future Member Contributions (PVFEEC)	11,689,613	11,528,873
<b>Actuarial Liability (AL=PVB-PVFNC-PVFEEC)</b>	<b>\$ 172,901,706</b>	<b>\$ 180,158,394</b>
Actuarial Value of Assets (AVA)	157,658,394	162,979,335
<b>Net (Surplus)/Unfunded (AL-AVA)</b>	<b>\$ 15,243,312</b>	<b>\$ 17,179,059</b>
<b><u>Present Value of Accrued Benefits</u></b>		
Present Value of Benefits (PVB)	\$ 207,575,716	\$ 214,019,030
Present Value of Future Benefit Accruals (PVFBA)	46,230,107	46,103,276
<b>Present Value of Accrued Benefits (PVAB=PVB-PVFBA)</b>	<b>\$ 161,345,609</b>	<b>\$ 167,915,754</b>
Market Value of Assets (MVA)	161,876,091	161,167,730
<b>Net (Surplus)/Unfunded (PVAB-MVA)</b>	<b>\$ (530,482)</b>	<b>\$ 6,748,024</b>

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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.

<b>Table III - 2</b>			
	<b>Present Value of Benefits</b>	<b>Actuarial Liability</b>	<b>Present Value of Accrued Benefits</b>
Liability at July 1, 2014	\$ 207,575,716	\$ 172,901,706	\$ 161,345,609
Liability at July 1, 2015	214,019,030	180,158,394	167,915,754
Liability Increase (Decrease)	6,443,314	7,256,688	6,570,145
Changes Due to:			
Actuarial (Gain)/Loss	NC	(115,069)	NC
Plan Change	0	0	0
Benefits Accumulated and Other Sources	6,443,314	7,371,757	6,570,145

NC = Not Calculated

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
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**SECTION III - LIABILITIES**

<b>Table III - 3 Plan Liabilities</b>	
1. Present Value of Benefits	
a. Active Members	\$ 84,272,136
b. Retired Members	118,184,615
c. Terminated Vested Members	159,278
d. DROP Participants	11,320,306
e. Inactive Members	82,695
<b>Total</b>	<b><u>\$ 214,019,030</u></b>
2. Present Value of Future City Normal Costs	22,331,763
3. Present Value of Future Member Contributions	<u>11,528,873</u>
4. Actuarial Liability [(1) - (2) - (3)]	\$ 180,158,394
5. Actuarial Value of Assets	<u>162,979,335</u>
6. Unfunded Actuarial Liability [(4) - (5)]	\$ 17,179,059

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
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**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. Starting with the 2014 valuation, the Plan uses a closed 30-year period 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.

<b>Table IV - 1</b>		
<b>Actuarially Determined Contribution</b>		
	<b>July 1, 2014</b>	<b>July 1, 2015</b>
City Normal Cost	14.28%	13.44%
Amortization of Unfunded Actuarial Liability	<u>6.96%</u>	<u>7.73%</u>
Actuarially Determined Contribution	21.24%	21.17%

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  
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**SECTION IV - CONTRIBUTIONS**

**Table IV - 2  
Calculation of City Contribution Rate**

	July 1, 2014	July 1, 2015
<b>1. Present Value of Benefits</b>	\$ 207,575,716	\$ 214,019,030
<b>2. Present Value of Future Contributions</b>	34,674,010	33,860,636
<b>3. Actuarial Liability (1) - (2)</b>	<u>\$ 172,901,706</u>	<u>\$ 180,158,394</u>
<b>4. Actuarial Value of Assets</b>	<u>157,658,394</u>	<u>162,979,335</u>
<b>5. Unfunded Actuarial Liability</b>	\$ 15,243,312	\$ 17,179,059
<b>6. City Contributions in Dollars</b>		
a. City Normal Cost	\$ 2,464,738	\$ 2,374,601
b. Amortization of Unfunded Actuarial Liability	<u>1,200,623</u>	<u>1,366,304</u>
c. Total Contribution, Not Less Than Zero	\$ 3,665,361	\$ 3,740,905
<b>7. Projected Payroll for Funding Purposes*</b>	\$ 17,255,260	\$ 17,671,399
<b>8. City Contribution as Percentage of Payroll</b>		
a. City Normal Cost	14.28%	13.44%
b. Amortization of Unfunded Actuarial Liability	<u>6.96%</u>	<u>7.73%</u>
c. Total Contribution, Not Less Than Zero	21.24%	21.17%

\* City contributions are to be made to the Plan on the payroll of all active and DROP members.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
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**SECTION V - ACCOUNTING STATEMENT INFORMATION**

Two types of liabilities are disclosed for accounting purposes.

In this section, we disclose the **ASC Topic 960 of the Financial Accounting Standards Board (FASB)** information.

**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 information for GASB 67 disclosures can be found in a separate report.

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.

The present value of accrued benefits (Topic No. 960) is 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.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
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**SECTION V - ACCOUNTING STATEMENT INFORMATION**

Table V - 1		
Accounting Statement Information - FASB Topic 960 Basis		
Accumulated Plan Benefits		
	July 1, 2014	July 1, 2015
1. Present Value of Benefits		
Accrued to Date		
a. Members Currently Receiving Payments	\$ 116,927,328	\$ 118,184,615
b. Terminated Vested Members	94,638	159,278
c. DROP Members	6,577,186	11,320,306
d. Inactive Members	84,116	82,695
e. Active Members	37,662,341	38,168,860
2. Total Present Value of Accrued Benefits [ 1(a) + 1(b) + 1(c) + 1(d) + 1(e) ]	\$ 161,345,609	\$ 167,915,754
3. Assets at Market Value	161,876,091	161,167,730
4. Unfunded Value of Benefits	\$ -	\$ 6,748,024
5. Ratio of Assets to Value of Benefits (3) / (2)	100.3%	96.0%

Table V - 2	
Statement of Changes in Accumulated Plan Benefits	
July 1, 2014 - July 1, 2015	
Accumulated Benefit	
Obligation (FASB Topic 960)	
<b>Actuarial Present Value of Accumulated Plan Benefits at July 1, 2014</b>	<b>\$ 161,345,609</b>
Increase (Decrease) Due to:	
Benefits Accumulated and Gains and Losses	3,880,264
Change in Plan	0
Interest Due to the Decrease in the Discount Period	11,760,763
Benefits Paid	(9,070,882)
Net Change	6,570,145
<b>Actuarial Present Value of Accumulated Plan Benefits at July 1, 2015</b>	<b>\$ 167,915,754</b>

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
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**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, 2015.

In this Appendix, we present a review of the current membership statistics. The table below 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.

<b>Table A - 1</b>		
<b>Active Member Statistics</b>		
	<b>7/1/2014</b>	<b>7/1/2015</b>
<b>Old Plan Revised</b>		
Currently Eligible to Retire	1	N/A
Not Currently Eligible to Retire	0	N/A
Average Pay	\$ 96,215	N/A
Average Age	64	N/A
Average Service	42	N/A
<b>New Plan Revised (Pre 2012 Hires)</b>		
Currently Eligible to Retire*	21	22
Not Currently Eligible to Retire	175	163
Average Projected Pay	\$ 76,642	\$ 80,823
Average Age	39	40
Average Service	11	12
<b>New Plan Revised (Post 2012 Hires)</b>		
Currently Eligible to Retire*	0	0
Not Currently Eligible to Retire	28	27
Average Projected Pay	\$ 50,397	\$ 54,746
Average Age	35	36
Average Service	1	2
<b>DROP Participants</b>		
Counts	7	12
Average Projected Pay	\$ 103,733	\$ 103,416
Average Age	50	52
Average Service	27	26
<b>Total Plan</b>		
Currently Eligible to Retire	22	22
Not Currently Eligible to Retire	203	190
Average Projected Pay	\$ 73,463	\$ 77,502
Average Age	39	40
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, 2015**

**APPENDIX A - MEMBERSHIP DATA AND PROFILE**

<b>Table A - 2</b>		
<b>Inactive Member Statistics</b>		
	<b>7/1/2014</b>	<b>7/1/2015</b>
<b>Service Retirement</b>		
Count	147	145
Total Annual Benefit	\$ 7,339,353	\$ 7,445,417
Annuitized Annual Benefit	294,625	213,047
Net Payable from Plan Assets	<u>\$ 7,044,728</u>	<u>\$ 7,232,370</u>
Average Age	63	63
<b>Disabilities</b>		
Count	46	47
Total Annual Benefit	\$ 1,645,994	\$ 1,752,733
Annuitized Annual Benefit	170,011	170,011
Net Payable from Plan Assets	<u>\$ 1,475,983</u>	<u>\$ 1,582,722</u>
Average Age	64	65
<b>Beneficiaries</b>		
Count	29	29
Total Annual Benefit	\$ 582,791	\$ 607,620
Annuitized Annual Benefit	69,254	59,853
Net Payable from Plan Assets	<u>\$ 513,537</u>	<u>\$ 547,767</u>
Average Age	67	68
<b>Total Plan</b>		
Count	222	221
Total Annual Benefit	\$ 9,568,138	\$ 9,805,770
Annuitized Annual Benefit	533,890	442,911
Net Payable from Plan Assets	<u>\$ 9,034,248</u>	<u>\$ 9,362,859</u>
Average Age	64	64
<b>Terminated Vested</b>		
Count	1	2
Average Age	50	44
<b>Inactives</b>		
Count	31	27
Return of Member Contributions	\$ 84,116	\$ 82,695

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**APPENDIX A - MEMBERSHIP DATA AND PROFILE**

**DATA RECONCILIATION FROM JULY 1, 2014 TO JULY 1, 2015**

	<b>Active</b>	<b>DROP</b>	<b>TV</b>	<b>Disabled</b>	<b>Retiree</b>	<b>Survivors</b>	<b>Inactives</b>	<b>Totals</b>
1. July 1, 2014 valuation	<b>225</b>	<b>7</b>	<b>1</b>	<b>46</b>	<b>147</b>	<b>29</b>	<b>31</b>	<b>486</b>
2. Additions								
a. New entrants	5							5
3. Reductions								
a. Paid Out	(9)						(4)	(13)
b. Deaths without beneficiary					(2)	(2)		(4)
4. Changes in status								
a. Terminated - vested	(1)		1					
b. Entered DROP status	(5)	5						
c. Retired	(2)				2			
d. Disabled	(1)			1				
e. Died with beneficiary					(2)	2		
f. Data corrections								
5. July 1, 2015 valuation	<b>212</b>	<b>12</b>	<b>2</b>	<b>47</b>	<b>145</b>	<b>29</b>	<b>27</b>	<b>474</b>

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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	1	0	0	0	0	0	0	0	0	0	0	1
25 to 29	0	8	9	1	0	0	0	0	0	0	0	18
30 to 34	0	8	36	2	0	0	0	0	0	0	0	46
35 to 39	2	5	19	15	10	2	0	0	0	0	0	53
41 to 44	1	3	9	10	13	1	0	0	0	0	0	37
45 to 49	0	8	7	2	10	7	1	1	0	0	0	36
50 to 54	0	0	6	1	1	4	4	0	0	0	0	16
55 to 59	0	0	2	1	0	0	1	0	0	0	0	4
60 to 64	0	0	1	0	0	0	0	0	0	0	0	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
<b>Total</b>	<b>4</b>	<b>32</b>	<b>89</b>	<b>32</b>	<b>34</b>	<b>14</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>212</b>

*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	50,021	0	0	0	0	0	0	0	0	0	0	50,021
25 to 29	0	56,621	69,458	84,747	0	0	0	0	0	0	0	64,602
30 to 34	0	55,765	71,208	78,440	0	0	0	0	0	0	0	68,837
35 to 39	54,115	60,439	70,570	82,893	93,643	91,076	0	0	0	0	0	77,608
41 to 44	52,702	56,408	72,611	81,276	92,228	123,554	0	0	0	0	0	81,370
45 to 49	0	60,237	70,647	77,265	90,546	104,911	94,367	85,772	0	0	0	81,970
50 to 54	0	0	102,182	77,507	114,550	91,838	93,620	0	0	0	0	96,686
55 to 59	0	0	98,351	77,507	0	0	81,662	0	0	0	0	88,968
60 to 64	0	0	73,334	0	0	0	0	0	0	0	0	73,334
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
<b>Total</b>	<b>52,738</b>	<b>57,888</b>	<b>73,715</b>	<b>81,479</b>	<b>92,806</b>	<b>100,531</b>	<b>91,752</b>	<b>85,772</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>77,502</b>

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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 Mortality Table, projected 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  
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**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):**

Years of Service	Annual Terminations Per 1,000 Members
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, 2015**

**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  
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**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 is.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
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**APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS**

**2. Economic Assumptions**

**Investment Return:**

7.5% compounded per annum, after investment expenses

**Cost-of-Living Benefit Increases:**

3.5% compounded per annum for Old Plan, 3.0% for Old Plan Revised, and 2.0% for New Plan Revised (based on assumed CPI increase of 3.5%).

**Across-the-Board Increase in City Salaries:**

3.5% compounded per annum

**Additional Salary Increases:**

<b>Salary Merit Scale Police</b>	
<b>Years of Service</b>	<b>Percent Increase</b>
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  
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**APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS**

<b>Salary Merit Scale Fire</b>	
<b>Years of Service</b>	<b>Percent Increase</b>
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. Rationale for Assumptions**

Assumptions were set as a result of an experience study performed in 2013. We believe these assumptions remain appropriate for this Plan.

**4. Changes Since Last Valuation**

The COLA assumptions for the Old Plan and Old Plan Revised were re-instated this year to 3.5% and 3.0%, respectively.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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. The period began at July 1, 2014 with 29 years left as of this valuation.

**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

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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:      7.5% of yearly earnings (increasing to 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.

**CITY OF ANNAPOLIS POLICE AND FIRE RETIREMENT PLAN  
ACTUARIAL VALUATION AS OF JULY 1, 2015**

**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.

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

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**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**

Old Plan: Retired and disabled members receive annual increases equal to the same percentage as any increase in the pay scale for members of the same rank and years of service who are on active duty.

Spouses receiving benefits will receive the same increase, subject to a cap of 3% per year.

Old Plan Revised: Same provisions as Old Plan but service and disabled retirees' increase is capped at 4% per year.

New Plan Revised: Each October 1, benefits are increased by the lesser of 3% or the increase in the cost-of-living index. The increase is applied only to benefits in pay status the preceding July 1.

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

**APPENDIX C - SUMMARY OF PLAN PROVISIONS**

**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 eight participants per year (four from Police and four from Fire) for a total DROP population of 24 at any given time.

**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 five 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.

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**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.

**15. Changes Since Last Valuation**

The cost-of-living increases, which were changed to a flat 2% per year for all members in the 2014 valuation, were restored to their previous levels for those retired under the Old Plan or the Old Plan Revised. The 2014 valuation information in this report reflects that change.