Anne Arundel County
Retirement and Pension System

Comprehensive Annual Financial Report
Pension Trust Funds of Anne Arundel County, Maryland
For the Year Ended December 31, 2014

Prepared by:
The Anne Arundel County Office of Finance
44 Calvert Street
Annapolis MD 21401

Anne Arundel County Retirement and Pension System
Comprehensive Annual Financial Report
For the Year Ended December 31, 2014

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Introductory Section

ANNE ARUNDEL COUNTY
MARYLAND

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Dear Board of Trustees and Members of the
Anne Arundel County Retirement and Pension System

I am pleased to present to you the Anne Arundel County Retirement and Pension System (the "System") Comprehensive Annual Financial Report, for the year ended December 31, 2014. This financial report is a historical perspective of benefits, services, and fiscal activities of the System. The purpose of this report is to provide you, the plan participants and other interested parties, with sufficient information to evaluate the performance of the System during the plan year.

Plan History

County employees participate in four single-employer defined benefit pension plans. The County plans were established under authority created by County Charter and legislation. In December 1996, the County passed legislation creating the Anne Arundel County Retirement and Pension System, a corporation that is an agency in the executive branch of County government, effective February 1, 1997. At that date, all net assets of pension trust funds were transferred to the System. In 2004 the Board of Trustees of the System adopted a formal statement of funding objectives, policy, and strategy. The Statement of Investment Policy and Objectives was designed to clearly communicate the directives of the Trustees of the System to all interested parties. This investment policy applies to the funds of the System on an aggregate basis. The Policy Statement sets forth how each fund manager shall be governed and details specific investment guidelines relating to each of the fund managers.

Major Initiatives

In 2012 an Experience and Assumption Study was conducted by the actuary to review the experience of the Plans during 2007 to 2011. The findings and related assumptions were adopted by the Board effective with the Valuations of January 1, 2013.

Each year the Board reviews the investment asset allocation and prospective returns for the various classes to attempt to construct a portfolio that will produce the desired rate of return. The resulting re-balancing of the portfolio generally requires moving funds among managers and either elimination of current manager or the hiring of new investment managers. In 2014 Private Markets exposure continued to be increased, as well as Absolute Return Fixed Income.

Funding Status

The overall funded ratios for the Employees' Retirement Plan, the Police Service Retirement Plan, the Fire Service Retirement Plan, and the Detention Officers' and Deputy Sheriffs' Retirement Plan at December 31, 2014 increased to 74.6%, 78.5%, 86.4% and 72.3%, respectively.

Investment Performance

The average investment returns for the Employees' Retirement Plan, the Police Service Retirement Plan, the Fire Service Retirement Plan, and the Detention Officers' and Deputy Sheriffs' Retirement Plan on a market value basis for the year ended December 31, 2014 were 5.0%, 4.7%, 4.8% and 4.7%, respectively. On an actuarial basis, the average investment returns for the Employees' Retirement Plan, the Police Service Retirement Plan, the Fire Service Retirement Plan, and the Detention Officers' and Deputy Sheriffs' Retirement Plan were 8.8%, 8.4%, 8.5%, and 8.2%, respectively. The actuarial value of assets is calculated by spreading the market value investment gains or losses in excess of (or below) the assumed rate of return over a five year period. The asset smoothing method was changed with the 2011 valuation.

System Organization and Management

The Board of Trustees is responsible for reviewing the investment program; approving policies, objectives, and guidelines; and reviewing the financial performance of the System in relation to expectations. The Board also appoints the investment committee to make specific recommendations as to asset allocation and investment strategies. The Investment Committee works with an investment consultant (currently New England Pension Consultants) to establish strategies and conduct searches for appropriate investment managers. The Board has final approval for all manager selections and policy changes.

The Board also selects the custodian bank that administers the Plans (currently State Street Bank & Trust), the actuary (Bolton Partners PC), and the independent auditors (CliftonLarsonAllen LLP). The Secretary of the Board of Trustees is responsible for daily administrative decisions and the Anne Arundel County Office of Personnel and Office of Finance carry out these administrative actions, including transmittal of contributions and funding the payment of benefits and other administrative expenses. Additional details regarding investment professionals who provide services to the System are included in the Investment Section later in this report.

Financial Management

The financial statements and supplemental information and schedules included in this report are the responsibility of System management and have been prepared in accordance with accounting principles generally accepted in the United States of America for governmental accounting and reporting as pronounced and adopted by the Governmental Accounting Standards Board. I urge you to read the Management Discussion and Analysis, Basic Financial Statements, and Notes to the Basic Financial Statements to better understand the results of the System during 2014.

Independent Audit

The System is audited annually. For the year ended December 31, 2014, CliftonLarsonAllen LLP, an independent firm of Certified Public Accountants, conducted the audit. Refer to Independent Auditors' Report for the audit opinion.

Internal Accounting Control

Management is responsible for maintaining a system of adequate internal controls designed to provide reasonable assurance that transactions are executed in accordance with management's general or specific authorization, and are recorded as needed to maintain accountability for assets and to permit preparation of the combining financial statements. We believe the internal controls in effect during the year ended December 31, 2014, adequately safeguard the assets and provide reasonable assurance regarding the proper recording of financial transactions.

Acknowledgments

Staff in Anne Arundel County's Office of Finance prepared this financial report of the System. It is intended to provide complete and reliable information as a basis for making management decisions, determining compliance with legal provisions, and as a means of determining responsible stewardship for the assets contributed by the members and their employers. This report is being sent to the Board of Trustees and other interested parties.

Sincerely,

Julie Mussog

Julie Mussog
Controller

Anne Arundel County Retirement and Pension System

Organizational Chart

Board of Trustees

John R. Hammond, Chairman of the Board

Andrea Rhodes
Howard V. Brown
Jay Cuccia
Julie Mussog
Kathleen Sulick, CPA
Jennifer L. Gilbert-Duran
Jim Thomas
Jay C. Middleton
Alan Hyatt
LeRoy Wilkison

County Attorney
Nancy Duden

Investment Committee

Julie Mussog
John R. Hammond
LeRoy Wilkison

Pension Administrator

Andrea Rhodes

Audit Committee

Kathleen Sulick, CPA
Julie Mussog
LeRoy Wilkison

Investment Advisor

New England
Pension Consultants

Investment Managers

Various (List provided
on pages 46-48)

External Auditor

CliftonLarsonAllenLLP

Actuary

Bolton Partners, Inc.

Employee Benefits and Support Services

Office of Personnel
John Peterson

Financial Reporting

Office of Finance
Janet Morgan

Custodian Bank

State Street Bank

Pension Analysts (2)

Cheryl Wyngarden
Lynn Daitch

Management Aide

Darby Lemerise

Pension Accounting

Kathy Redlin

Personnel Assistant

Kellie Reilly
Joanna Winchester

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Financial Section

CliftonLarsonAllen LLP
www.CLAconnect.com

Independent Auditors' Report

The Board of Trustees
Anne Arundel County Retirement and Pension System
Annapolis, Maryland

Report on the Financial Statements

We have audited the accompanying financial statements of Anne Arundel County Retirement and Pension System (the System), a pension trust fund of Anne Arundel County, Maryland, which comprise the combining statement of fiduciary net position as of December 31, 2014 and the related combining statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, as listed in the table of contents. The prior year summarized comparative information has been derived from the System's 2013 financial statements and, in our report dated June 4, 2014; we expressed an unmodified opinion on those financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of December 31, 2014, and the respective changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedules of changes in net pension liability and related ratios by plan, employer contributions and related ratios by plan, investment returns, and notes to required supplementary information, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the System's financial statements. The supplementary schedules, including the schedules of administrative expenses, investment expenses, and payments to consultants, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the financial statements.

The supplementary schedules, as listed in the table of contents, are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary schedules, including the schedules of administrative expenses, investment expenses, and payments to consultants, as listed in the table of contents, are fairly stated, in all material respects, in relation to the financial statements as a whole.

The information in the introductory, investment, actuarial and statistical sections, as listed in the table of contents, have not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 9, 2015 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland
June 9, 2015

Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

The Board of Trustees
Anne Arundel County Retirement and Pension System
Annapolis, Maryland

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Anne Arundel County Retirement and Pension System (the System), a pension trust fund of Anne Arundel County, Maryland, which comprise the combining statement of fiduciary net position as of December 31, 2014 and the related combining statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated June 9, 2015.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A *deficiency in internal* control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the System's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the System's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland
June 9, 2015

To introduce readers of the financial report of the Anne Arundel County Retirement and Pension System (the System), we, as Management, are pleased to provide this discussion and analysis of financial activities for the year ended December 31, 2014. Please read it in conjunction with the rest of the report, which consists of the basic financial statements, including the notes thereto, required supplementary information (RSI), and supplementary schedules. Comparable combined amounts from the year ended December 31, 2013 have been provided herein to enhance comparability.

The System has the fiduciary responsibility to administer four single-employer defined benefit pension plans for certain County employees: the Employees' Retirement Plan, the Police Service Retirement Plan, the Fire Service Retirement Plan and the Detention Officers' and Deputy Sheriffs' Retirement Plan.

Financial Highlights

Total Plan net position increased $50.8 million in calendar year 2014 bringing net position to $1.67 billion. Contributions increased 6.1% to $77.0 million versus $72.6 million in 2013. Of this total, employer contributions of $65.3 million were 5.5% higher than the 2013 total of $61.8 million. Participant contributions increased by $1.0 million to $11.7 million. The 2014 time weighted total rate of return of 4.7% compares to a gain of 10.9% for 2013. Investment returns, as in prior years, drive the overall health of the System.

The System paid $103.2 million in benefits in 2014, compared with $90.9 million paid in 2013 an increase of 3.5%. The 2014 Cost of Living Adjustment (COLA) for beneficiaries ranged from 0.9% for retirees since 1997 and 1.5% for most retired prior to 1997 and the number of benefit recipients increased 5.1% to 3,018.

Employees' Retirement Plan – In 2014 net position increased $17.8 million to $584.2 million or 3.1%. Benefit payments of $39.0 million outpaced contributions of $29.1 by $9.9 million and various administrative expenses were $502,007.

Police Service Retirement Plan – In 2014 net position increased $14.0 million to $480.4 million or 3.0%. The Plan's benefit payments of $29.5 million were $7.7 million greater than contributions of $21.8 million. Various administrative expenses were $406,090.

Fire Service Retirement Plan – In 2014 net position increased by $12.4 million to $490.1 million or 2.6% increase. Contributions of $18.7 million lagged the benefit payments of $28.9 million. Various administrative expenses were $409,916.

Detention Officers' and Deputy Sheriffs' Retirement Plan. – In 2014 net position increased by $6.5 million to $111.4 million or 6.2%. Contributions were $7.4 million compared with benefit payments of $5.8 million, allowing for a proportionately greater increase in net position relative to the other Plans. Various administrative expenses were $91,235.

Overview of the Basic Financial Statements

In this financial report, the basic financial statements consist of the Combining Statement of Plan Net Position and the Combining Statement of Changes in Plan Net Position with accompanying Notes. The financial statements present information in separate columns for each of the four single-employer defined benefit pension plans as of and for the year ended December 31, 2014 with combined comparative information as of and for the year ended December 31, 2013. The Combined Statement of Plan Net Position presents the financial position of the Plans. The financial position is comprised of assets, primarily consisting of investments; less liabilities, which are amounts owed to settle investment transactions, accounts payable, and securities lending obligations. The difference between assets and liabilities is net position, which represents the amount of resources available to pay future benefits to retirees and their beneficiaries.

Investments net of cash consist of domestic and foreign debt obligations, domestic and foreign equities, real estate, insurance company contracts, absolute return funds, and private markets. The System has a securities lending program to enhance its investment return. The assets and liabilities arising from the program are closely matched, netting to no additional material Plan liability. In accordance with generally accepted accounting principles, the liability for future benefit payments is not reported in these financial statements. Refer to footnote 4 for the Schedule of Funding Progress, which presents an estimate of the actuarial accrued liability.

The Combining Statement of Changes in Plan Net Position presents the additions to and deductions from the four Plans' net position during the year. Each Plan receives contributions from participants and the County, as well as income or losses from investments and related activity. The primary deductions are the payment of benefits, which are the Plans' primary objective. Deductions also include refunds to members who leave the Plans as well as administrative expenses. Administrative expenses are allocated monthly to each Plan based on its relative percentage of the total investments.

Notes to the Basic Financial Statements

The Notes to the Basic Financial Statements are an integral part of the statements. These notes provide background and more detail about the information in the financial statements. Among other matters, the notes describe the System's purpose and its membership; the significant accounting policies used to prepare the basic financial statements; the nature of the four Plans, including the membership and benefit provisions and contribution requirements; the System's investment authority and policies; how investments and related documentation are safeguarded; and selected details about various investment activity and balances.

Required Supplementary Information

The RSI section provides actuarially determined information about the Plans. The section has been substantially revised for the 2014 reporting period to comply with the Statement 67, *Financial Reporting for Pension Plans* from the Government Accounting Standards (GASB) Board. The new statement replaces GASB 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans.* Additionally, GASB 67 replaces the requirements under statement 50, *Pension Disclosures.* The changes focus on the measurement of the liabilities. GASB 25 subtracts the Actuarial Value of Assets from the Actuarial Liability to determine the Unfunded Actuarial Accrued Liability. GASB 67 subtracts the Fiduciary Net Position from the Total Pension Liability to determine the New Pension Liability (NPL). Another key change is that GASB 25 allows for the smoothing of assets whereas GASB 67 uses their fair value as of the measurement date. The RSI section now displays changes for each Plan's Net Pension Liability (NPL) and related rations, contributions related to payrolls by Plan, and money-weighted investment returns for the System.

Summary and Analysis of Financial Information

The following Condensed Statement of Plan Net Position and Changes in Plan Net Position presents financial information, with dollar amounts in millions for the System comparing 2014 and 2013.

Condensed Combined Statement of Fiduciary Net Position
As of December 31, 2014 and 2013 (in millions)

	2014	2013	Change in Dollars	Percentage change
Assets				
Cash and short-term investments	$ 56.2	$ 82.3	$ (26.10)	(31.7%)
Securities lending collateral	78.0	52.9	25.1	47.4%
Receivables	9.7	11.5	(1.80)	(15.7%)
Investments at fair value and deposits	1,612.8	1,541.2	71.6	4.6%
Total assets	1,756.7	1,687.9	68.8	4.1%
Liabilities				
Investments settlements and other	12.6	19.7	(7.1)	(36.0%)
Securities lending obligations	78.0	52.9	25.1	47.4%
Total liabilities	90.6	72.6	18.0	24.8%
Net position restricted for pension benefits	**$ 1,666.1**	**$ 1,615.3**	**$ 50.8**	**3.1%**

Condensed Combined Statement of Changes in Fiduciary Net Position
As of December 31, 2014 and 2013 (in millions)

	2014	2013	Change in Dollars	Percentage change
Additions				
Employer contributions	$ 65.3	$ 61.9	$ 3.4	5.5 %
Participant contributions	11.7	10.7	1.0	9.3 %
Investment income	78.4	145.9	(67.5)	(46.3%)
Total additions	155.4	218.5	(63.1)	(28.9%)
Deductions				
Benefit payments and refunds	103.2	90.9	12.3	13.5%
Administrative expenses	1.4	1.6	(0.2)	(12.5%)
Total deductions	104.6	92.5	12.1	13.1%
Net increase	50.8	126.0	(75.2)	(59.7%)
Net position restricted for pension benefits				
Beginning of year	1,615.3	1,489.3	126.0	8.5%
End of year	**$ 1,666.1**	**$ 1,615.3**	**$ 50.8**	**3.1%**

Comparative investment returns are displayed by investment type in the following table. The table also shows each category's relative percent of the System's investment portfolio.

Investment Type	2014 Percent of Investments	2013 Percent of Investments	2014 Annual Investment Return	2013 Annual Investment Return
Cash and temporary investments	3.4%	5.1%	0.1%	0.1%
Domestic equity	27.3%	25.1%	10.3%	32.5%
International equity pools	21.3%	27.1%	-6.5%	12.9%
Domestic fixed income	14.7%	14.6%	3.0%	0.8%
Global assets and pools	16.1%	15.3%	7.0%	-2.3%
Opportunistic	2.1%	1.5%	8.8%	30.3%
Private markets	5.2%	4.6%	9.8%	13.5%
Real estate investment pools	5.2%	4.9%	12.7%	11.8%
Stable value pooled investments	1.6%	1.7%	5.8%	6.0%
Absolute Return fixed income	3.0%	0.0%	n/a	n/a
Funds being Liquidated	0.1%	0.1%	n/a	n/a
	100.0%	100.0%	4.7%	10.2%

The System's funding objective is to meet long-term benefit obligations through contributions and investment income. The funding ratio, which is the actuarial value of assets divided by the actuarial accrued liability, is an estimate of how well the System is meeting that objective. A higher funded ratio indicates that the Plan is better funded. As of December 31, 2014 and 2013 the funded ratios for the System were 78.7% and 78.2%, respectively. Additionally, Plan fiduciary net position as a percentage of the total pension liability as of December 31, 2014 was 73.14%. Plan fiduciary net position as a percentage of the total pension liability as of December 31, 2013 is not available as the Plan adopted *Governmental Accounting Standards Board (GASB) Statement No. 67 – Financial Reporting for Pension Plans* for the reporting period ended December 31, 2014, which requires this new computation (see Note 1 to the Basic Financial Statements).

The System paid \$103.2 million in retirement benefits and refunds to 3,018 participants and beneficiaries during 2014, compared to \$90.9 million in 2013 to 2,872 persons. This reflects an average of \$34,185 per person in 2014, compared to an average of \$31,661 in 2013.

The System received \$11.7 million in monthly contributions from 3,883 active participants during 2014. In 2013, \$10.8 million was received from 3,714 active participants. The employer contributions were \$65.3 million in 2014, compared to \$61.9 million in 2013. Employer contributions for the calendar year are based on the appropriate June fiscal year's actuarial recommended contribution, which is divided by 12 and provided to the respective Plans on a monthly basis. The County contributed 100 percent of the 2014 annual required contribution (ARC) for all Plans and has contributed the ARC recommended by the actuary for every year. Administrative costs for 2014 were approximately \$1.4 million for 7,320 participants or an average cost of \$192 per person. The approximately \$1.6 million for 2013 administrative costs includes reclassifications of certain management fees. The 2013 average for 7,039 participants was \$230 per person.

Overall Analysis of Financial Position

The System has experienced increasing market valuations since 2008. The Actuarial Value of Assets has also begun a favorable increase. The System has reduced its long-term investment assumption from 8% to 7.5% which, as a more conservative approach, puts pressure on reducing the Net Pension Liability. Management believes the System is structured to support continued asset growth and stable funding for the future.

Requests for information

The System's Comprehensive Annual Financial Report is available at Anne Arundel County's web page www.aacounty.org/Personnel/Pension/FAQPension.cfm. If you have questions concerning this report or need additional financial information, please contact the Office of Personnel, 2660 Riva Road, Annapolis, Maryland, 21401.

Anne Arundel County Retirement and Pension System

Combining Statement of Fiduciary Net Position

December 31, 2014 (with December 31, 2013 Combined Comparative Totals)

	Employees' Retirement Plan	*Police Service Retirement Plan*	*Fire Service Retirement Plan*	*Detention Officers' and Deputy Sheriffs' Retirement Plan*	*2014 Combined Total*	*2013 Combined Total*
ASSETS						
Investments at market value:						
Cash and temporary investments	$ 19,710,563	$ 16,205,593	$ 16,527,545	$ 3,752,457	$ 56,196,158	$ 82,319,243
U. S. Government obligations	2,288,867	1,882,347	1,922,032	435,963	6,529,209	11,627,857
Corporate obligations	31,181,028	25,643,042	26,183,661	5,939,088	88,946,819	138,593,007
Fixed income mutual funds	29,575,103	24,322,341	24,835,116	5,633,205	84,365,765	86,416,264
International fixed income mutual funds	23,044,877	18,951,933	19,351,487	4,389,385	65,737,682	67,688,295
Global asset pools	94,416,571	77,647,476	79,284,476	17,983,638	269,332,161	248,118,011
Domestic equity	159,536,989	131,202,016	133,968,078	30,387,202	455,094,285	406,799,085
International equity pools	124,650,856	102,511,924	104,673,128	23,742,398	355,578,306	373,055,079
Private markets	42,977,942	35,344,735	36,089,889	8,186,060	122,598,626	98,803,528
Portable Alpha	342,569	281,726	287,666	65,250	977,211	1,746,181
Real estate investment pools	30,506,665	25,088,451	25,617,378	5,810,641	87,023,135	80,022,951
Absolute return fixed income	17,599,933	14,474,052	14,779,201	3,352,280	50,205,466	-
Aetna insurance pooled fixed income	9,183,216	7,552,207	7,711,426	1,749,138	26,195,987	28,116,467
Total investments	585,015,179	481,107,843	491,231,083	111,426,705	1,668,780,810	1,623,305,968
Collateral from securities lending transactions:	27,357,161	22,498,323	22,972,643	5,210,751	78,038,878	52,847,194
Receivables						
Employer contributions	2,078,648	1,567,117	1,282,398	517,927	5,446,090	5,442,369
Participant contributions	400,902	235,024	217,444	99,346	952,716	867,132
Accrued interest and dividends	513,586	422,371	431,268	97,826	1,465,051	1,840,316
Investment sales proceeds	640,872	527,048	538,160	122,068	1,828,148	3,392,898
Total receivables	3,634,008	2,751,560	2,469,270	837,166	9,692,005	11,542,715
Deposits on hand	14,931	158,803	67,074	-	240,808	239,087
Total assets	616,021,279	506,516,529	516,740,070	117,474,623	1,756,752,501	1,687,934,964
LIABILITIES						
Accounts payable	662,981	545,230	557,212	126,279	1,891,702	2,055,453
Investment commitments payable	3,742,420	3,077,738	3,142,625	712,823	10,675,606	17,711,989
Obligation for collateral received under securities lending transactions	27,357,161	22,498,323	22,972,643	5,210,751	78,038,878	52,847,194
Total liabilities	31,762,562	26,121,291	26,672,480	6,049,853	90,606,186	72,614,636
Net position restricted for pensions	**$ 584,258,717**	**$ 480,395,238**	**$ 490,067,590**	**$ 111,424,770**	**$ 1,666,146,315**	**$ 1,615,320,328**

Accompanying notes to the basic financial statements are an integral part of this statement.

Anne Arundel County Retirement and Pension System
Combining Statement of Changes in Fiduciary Net Position
For the Year Ended December 31, 2014 (with December 31, 2013 Combined Comparative Totals)

	Employees' Retirement Plan	*Police Service Retirement Plan*	*Fire Service Retirement Plan*	*Detention Officers' and Dep. Sheriffs' Retirement Plan*	*2014 Combined Total*	*2013 Combined Comparative Total*
ADDITIONS						
Contributions						
Employer	$ 24,451,074	$ 18,869,736	$ 15,898,956	$ 6,110,988	$ 65,330,754	$ 61,860,144
Participants	4,662,147	2,949,789	2,778,355	1,297,641	11,687,932	10,760,880
Total contributions	29,113,221	21,819,525	18,677,311	7,408,629	77,018,686	72,621,024
Investment income						
Net appreciation in market value of investments	11,789,177	9,748,246	10,002,067	2,161,079	33,700,569	113,940,340
Interest income	9,303,894	6,522,839	6,968,785	1,491,105	24,286,623	17,525,814
Dividend income	10,735,947	8,835,046	9,047,612	2,031,277	30,649,882	24,247,825
Income from investment activities	31,829,018	25,106,131	26,018,464	5,683,461	88,637,074	155,713,979
Less investment expense	3,644,460	3,002,875	3,034,732	673,143	10,355,210	9,971,201
Net income from investing activities	28,184,558	22,103,256	22,983,732	5,010,318	78,281,864	145,742,778
Securities lending activities:						
Securities lending income	54,012	44,466	45,574	10,179	154,231	233,178
Securities lending expenses:						
Borrower rebates	1,109	913	936	210	3,168	17,662
Management fees	15,885	13,077	13,403	2,993	45,358	64,687
Total securities lending expenses	16,994	13,990	14,339	3,203	48,526	82,349
Net income from securities lending	37,018	30,476	31,235	6,976	105,705	150,829
Total Investment Income	28,221,576	22,133,732	23,014,967	5,017,294	78,387,569	145,893,607
Total additions	57,334,797	43,953,257	41,692,278	12,425,923	155,406,255	218,514,631
DEDUCTIONS						
Benefit payments	39,008,750	29,507,128	28,842,723	5,812,419	103,171,020	90,931,770
Administrative expenses	502,007	406,090	409,916	91,235	1,409,248	1,604,203
Total deductions	39,510,757	29,913,218	29,252,639	5,903,654	104,580,268	92,535,973
Net increases	17,824,040	14,040,039	12,439,639	6,522,269	50,825,987	125,978,658
Net position, January 1	**566,434,677**	**466,355,199**	**477,627,951**	**104,902,501**	**1,615,320,328**	**1,489,341,670**
Net position December 31	**$ 584,258,717**	**$ 480,395,238**	**$ 490,067,590**	**$ 111,424,770**	**$ 1,666,146,315**	**$ 1,615,320,328**

Accompanying notes to the basic financial statements are an integral part of this statement.

1 Summary of Significant Accounting Policies

The Anne Arundel County Retirement and Pension System (System) administers four defined benefit pension plans – the Employees' Retirement Plan, the Police Service Retirement Plan, the Fire Service Retirement Plan, and the Detention Officers' and Deputy Sheriffs' Retirement Plan (the Plans). Although the assets of the Plans are commingled for investment purposes, each Plan's assets may be used only for the payment of benefits to the members of that Plan, in accordance with its terms. The System was established as an Agency in the Executive branch of Anne Arundel County, Maryland (the County) and has the powers and privileges of a corporation to the extent permitted by law. The System is reported as Pension Trust Funds in the County's Comprehensive Annual Financial Report. The Board of Trustees is comprised of representatives from the Executive branch of the County, participating employee groups, and two from outside County government.

A *Basis of Presentation* - The accounts of the System are organized on the basis of separate pension trust funds for each Plan, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, net position, additions, and deductions. Pension trust funds are accounted for and reported in this manner because capital maintenance is critical.

B *Basis of Accounting* - The basic financial statements were prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. The County's contribution to each Plan is recognized when due and the County has made a formal commitment to provide the contribution. Benefits and refunds are recognized when due and payable in accordance with the terms of each Plan. Certain 2013 amounts have been reclassified in conformity with the 2014 presentation. These reclassifications had no effect on plan net position or changes therein.

The accounting and reporting policies conform to accounting principles generally accepted in the United States of America as applicable to government organizations. The preparation of financial statements in conformity with these principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

C *Investments* - Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar instruments reflected at fair value. The fair value of real estate investments is based on periodic independent appraisals. Investments that do not have an established market, such as private markets, are reported at estimated fair values. The fair value of private markets are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. There are no investments with parties or in entities related to the County. Fixed income securities are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

D *Administrative Expenses* - The administrative expenses of the System are charged to the respective Plans on the basis of its percentage ownership in the System's net position. Expenses are paid either by the County or from a separate cash account held by the custodian. Because of the commingled nature of funds, payments may be from either investment earnings or contributions. The total administrative expenses incurred during the year ended December 31, 2014 were $1,409,248 of which approximately $535,305 was initially paid through the County's Accounts Payable department and subsequently reimbursed to the County by the System. The System is administered by employees within the County's Office of Personnel and Office of Finance. Some administrative costs are allocated to the Pension Trust Fund; however certain administrative costs are paid by the County's General Fund.

E *Income Taxes* - The System qualifies under Section 401(a) of the Internal Revenue Code (IRC) and is exempt from income taxation as allowed by Section 501(a) of the IRC.

F *Comparative Financial Information* - The financial statements include prior year combined comparative information for the System, but not at the individual Plan level, which is required by generally accepted accounting principles. Accordingly, these financial statements should be read in conjunction with the System's audited financial report from 2013, from which the combined prior year amounts were derived.

G *New Pronouncements – Governmental Accounting Standards Board (GASB) Statement No. 67 – Financial Reporting for Pension Plans,* became effective for pension plan financial statements for fiscal years beginning after June 15, 2013. The objective of this Statement is to improve financial reporting by state and local governmental pension plans. This Statement replaces the requirements of Statements No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans,* and No. 50, *Pension Disclosures,* as they relate to pension plans that are administered through trusts or equivalent arrangements that meet certain criteria. The System has implemented the effects of this Statement for the reporting period ending December 31, 2014.

2 General Description of the System

A *Covered Membership* - Membership in each plan consisted of the following as of December 31, 2014, based on the January 1, 2015 actuarial valuation:

	Employees' Retirement Plan	Police Service Retirement Plan	Fire Service Retirement Plan	Detention Officers' and Deputy Sheriffs' Plan	Total
Retirees and beneficiaries receiving payments	1,623	655	517	223	3,018
Terminated Plan members entitled to but not yet receiving payments	269	-	-	8	277
Deferred Retirement Option (DROP)	-	55	87	-	142
Active Plan members	2,207	638	693	345	3,883
Total	4,099	1,348	1,297	576	7,320

B *Plan Description, Contribution Information and Vesting* - The following description of the System provides only general information. Participants should refer to the most recent Summary Plan Description booklets for a more complete description of the respective Plan's provisions.

Employees' Retirement Plan

Plan Description: The Employees' Retirement Plan is a single-employer defined benefit pension plan that covers all full-time general employees of the County who are not included in any other pension plan, as well as employees of Anne Arundel Economic Development Corporation. The Plan provides retirement, disability, and death benefits to Plan members and their beneficiaries pursuant to two separate benefit structures: Tier I and Tier II. Cost-of-living adjustments (COLAs) are also provided pursuant to County legislation.

Contributions: Contribution rates for participants are established through County legislation. Employees who elect to be in Tier I are required to contribute 4 percent of their annual covered salary. Tier II employees are not required nor permitted to make contributions. The County provided monthly contributions to the Plan based on the actuarially determined contribution for 2014 of $24,426,165, as determined by the Plan's consulting actuary.

Cliff Vesting: Participants will be fully vested after their fifth year of service. Termination prior to the fifth year will result in the return of all employee contributions, if applicable, plus 4.25 percent interest per annum with no additional benefits available.

Police Service Retirement Plan

Plan Description: The Police Service Retirement Plan is a single-employer defined benefit pension plan that covers the following classes of workers: Police Officer, Police Sergeant, Police Lieutenant, Police Captain, Police Major, Deputy Police Chief, and (by election) the Chief of Police. The Plan provides retirement, disability, and death benefits to Plan members and their beneficiaries. COLA's are also provided pursuant to County legislation.

Contributions: Contribution rates for participants are established through County legislation. Plan participants are required to contribute 7.25 percent of their annual covered salary. The County provided monthly contributions to the Plan based on the actuarially determined contribution for 2014 of $18,869,731, as determined by the Plan's consulting actuary.

Normal Retirement: Participants hired on or after February 25, 2002 will be fully vested on the earlier of their attainment of age 50 and completion of their fifth year of service, or their completion of 20 years of service. Participants hired before February 25, 2002 will be fully vested on the earlier of their attainment of age 50 or completion of 20 years of service. Termination prior to attainment of Normal Retirement will result in the return of all employee contributions, if applicable, plus 3 percent interest per annum with no additional benefits available.

Fire Service Retirement Plan

Plan Description: The Fire Service Retirement Plan is a single-employer defined benefit pension plan that covers the following classes of workers: Fire Fighter II, Fire Fighter III, Fire Fighter Cardiac Rescue Technician, Fire Fighter/Emergency Medical Technician-Paramedic, Fire Lieutenant, Fire Captain, Fire Battalion Chief, Fire Division Chief, Fire Deputy Chief, and (by election) the Fire Administrator. The Plan provides retirement, disability, and death benefits to plan members and their beneficiaries. COLA's are also provided pursuant to County legislation.

Contributions: Contribution rates for participants are established through County legislation. Plan participants are required to contribute 7.25 percent of their annual covered salary. The County provided monthly contributions to the Plan based on the actuarially determined contribution for 2014 of $15,898,958, as determined by the Plan's consulting actuary.

Normal Retirement: Participants who retire on or after July 1, 2002 will be fully vested on the earlier of their attainment of age 50 and completion of their fifth year of service, or their completion of 20 years of service. Participants who retired prior to July 1, 2002 will be fully vested on the earlier of their attainment of age 50 and completion of 5 years of service. Termination prior to attainment of Normal Retirement will result in the return of all employee contributions, if applicable, plus 3 percent interest per annum with no additional benefits available.

Detention Officers' and Deputy Sheriffs' Retirement Plan

Plan Description: The Detention Officers' and Deputy Sheriffs' Retirement Plan is a single-employer defined benefit pension plan that covers the following classes of workers: Detention Officer I, Detention Officer II, Detention Officer III, Correctional Program Specialist I, Correctional Program Specialist II, Criminal Justice Program Supervisor, Security Administrator, Correctional Facility Administrator, Assistant Correctional Facility Administrator, Deputy Sheriff I, Deputy Sheriff II, Deputy Sheriff III, Deputy Sheriff IV, and (by election) the Superintendent of Detention Facilities. The plan provides retirement, disability, and death benefits to Plan members and their beneficiaries. COLA's are also provided pursuant to County legislation.

Contributions: Contribution rates for participants are established through County legislation. Plan participants are required to contribute 6.75 percent of their annual covered salary. The County provided monthly contributions to the Plan based on the actuarially determined contribution for 2014 of $6,110,988, as determined by the Plan's consulting actuary.

Cliff Vesting: Participants will be fully vested on the attainment of age 50 and completion of their fifth year of service. Termination prior to attainment of Normal Retirement will result in the return of all employee contributions, if applicable, plus 4.25 percent interest per annum with no additional benefits available.

C Legislative Changes

Bill No. 58-07 eliminated the income earnings cap in the Fire Service Retirement Plan; the Police Service Retirement Plan; and the Detention Officers' and Deputy Sheriffs' Retirement Plan. In addition, the contribution percentage for Category I participants of the Police Service Retirement Plan was reduced from 6% to 5%.

Bill No. 74-09 allowed a 3.0% increase for non-represented employees covered by the Employee, Police, and Fire Plans to be applied to the calculation of fiscal year 2010 average basic pay. For represented members of the Fire Plan the calculation will be based on 5.0%. The bill further clarifies limits for entry into the DROP and reduces the guaranteed effective annual interest rate from 8.0% to 4.25% for those entering on or after July 1, 2009.

Bill No. 78-09 provided for an assumed increase of 4.0% for fiscal year 2010 for Detention Officer and Detention Corporal members of the Detention Officers' & Sheriffs Plan in determining the final average basic pay.

Bill No. 6-10 provided a disability benefit for those participants who have a total and permanent disability as a result of qualified military service that interrupted employment with the County (credited in-plan military service). The disability benefit is calculated as the greater of the member's accrued pension benefit, 20% or 25% of the member's final average salary depending on the plan, or 66 2/3% of the member's final average salary less the monthly amount of any disability payments from the military or U.S. Government.

Bill No. 40-10 changed the annual yield on DROP accounts for members of the Fire DROP after July 1, 2010 to 4.25%. This bill also increased the pension contribution for members of the Fire Service Plan from 5% to 7.25%, except for those members in the classification of Battalion Chief, Division Chief, Deputy Chief, or Fire Chief.

Bill No. 41-10 increased the pension contribution for Police Officers, Police Officers First Class, Police Corporals and Police Sergeants from 5% to 7.25%; increased the pension contribution for Detention Officers, Detention Corporals and Detention Sergeants to 6.75%; and provided a "pop-up" option for the Detention Officers' and Deputy Sheriffs' Plan.

Bill No. 30-12 increased the pension contribution for non-represented employees in Fire and Police Plans to 7.25% and Detention Officers' Plan to 6.75%.

Bill No. 67-12 increased contributions for Police Lieutenants for consistency.

Bill No. 98-12 amended the definition of Final Average Basic Pay used in the determination of the retirement benefit. Final Average Basic Pay now means the average of the three highest annual basic pays consisting of the participant's annual basic pay on the participant's date of termination and *any* prior annual basic pay on the anniversary date of the date of termination. If a participant's rate of pay was reduced because of an involuntary transfer based on performance or disciplinary grounds, the Final Average Basic Pay will be the average of the three highest annual basic pays as of the date of termination and the last four anniversary dates as of the date of termination.

Bill No. 51-13 limits the ability or the Personnel Officer to recover certain overpayments. In the absence of fraud by a participant, the Personnel Officer or their agents or assigns may not recover an overpayment based on the erroneous past benefit determination caused by a failure to properly apply the Reduction in benefits upon reemployment under § 5-1-203 if the participant made a material change in position, including accepting, resigning or retiring from employment, in reasonable reliance upon an intentional or negligent misrepresentation of the amount of the participant's benefit made to the participant by the personnel officer or an employee or other agent of the personnel officer.

Bill No. 64-13 provides for a sixth year of the Deferred Retirement Option Program (DROP) for members of the Police Service Retirement Plan and certain members of the Fire Service Retirement Plan including Battalion Chiefs, Division Chiefs, Deputy Chiefs and the Fire Chief. No additional interest is earned or credited on the DROP balance during the sixth year of participation in the DROP. The initial term of a DROP participant period continues to be three years. There are no changes to DROP for participants who are employees represented by the International Association of Firefighters Local 1563. The DROP participation period may be extended by no more than two additional one year terms and the DROP participation period may be extended by no more than three additional one year terms for all other participants.

Bill No. 97-13 amends the vesting requirements and eligibility for normal retirement for participants in the Employees' Retirement Plan and some participants in the Detention Officers' and Deputy Sheriffs' Retirement Plan. In addition to changing the vesting and normal retirement requirements, this bill changes when a participant in these plans can receive credit for pre-plan military service credit, purchase service credit and/or become eligible for a non-service connected disability pension.

A participant in the Employees' Retirement Plan hired on or after July 1, 2015 vests in the benefits of the Plan upon completion of actual plan service plus transferred service under § 5-1-302 totaling 10 years. Normal retirement for a participant hired on or after July 1, 2015 is the participant's 60th birthday and completion of actual plan service plus transferred service under §5-1-302 totaling 10 years or the completion of 30 years of credited service.

Category II participants in the Detention Officers' and Deputy Sheriffs' Retirement Plan hired on or after July 1, 2015 vests in the benefits of the plan upon completion of actual plan service plus transferred service totaling 10 years. Normal retirement for participants hired on or after July 1, 2015 is the participant's 50th birthday and the completion of actual plan service plus transferred service under §5-1-302 totaling 10 years.

Bill No. 02-14 amends provisions related to the calculation of death benefits, locating persons entitled to benefits, and other general provisions to comply with IRS plan qualification rules.

3 Deferred Retirement Option Program (DROP)

The Police Service and Fire Service Retirement Plans each offer DROP plans. These programs permit a Plan member to be credited for benefit payments into an individual account within the Plan while continuing to provide services to the employer and to be paid a salary. The terms for both the Police and Fire Service Plans allow accumulation of pension after 20 years of County service. DROP period must be between 3 and 5 years. Members may remain in DROP for a 6thyear, but no interest shall be credited to the DROP account in the 6th year. The lump sum values held by the System pursuant to the DROP programs are $12,497,836 for the Police Service Plan and $21,781,988 for the Fire Service Plan.

4 Net Pension Liability of the System By Plan

The components of the net pension liability and assumptions for each Plan at December 31, 2014 are displayed below:

	Employees' Retirement Plan	Police Service Retirement Plan	Fire Service Retirement Plan	Detention Officers' and Deputy Sheriffs' Retirement Plan
Total pension liability	$ 798,349,049	$ 621,869,655	$ 574,747,595	$ 155,156,334
Plan fiduciary net position *	(583,936,390)	(479,987,860)	(489,766,897)	(111,368,056)
Plan net pension liability	$ 214,412,659	$ 141,881,795	$ 84,980,698	$ 43,788,278
Plan fiduciary net position as a percentage of the total pension liability	73.14%	77.18%	85.21%	71.78%

* Differences in value from Statement of Changes in Fiduciary Net Position are the result of estimates provided to the actuary prior to completion of financials. Management deems the variances to be immaterial.

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of December 31, 2014 using the following summarized actuarial assumptions, applied to all periods in the measurement. An experience and assumption study was conducted in 2012 for the period 2007 to 2011. Full descriptions of the actuarial assumptions are available in the January 1, 2014 valuation reports.

Inflation	3.00%	3.00%	3.00%	3.00%
Salary increases	Rates vary by participant age for each Plan.			
Investment rate of return	7.5%, net of pension plan investment expense, including inflation for each Plan.			
Mortality Scale	RP-2000 Blue Collar Mortality tables with generational project by Scale AA for each Plan			
Set forward for post-disability mortality.	9 years	5 years	5 years	5 years

Discount Rate: The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, the lower the estimated liability will be. For purposes of estimating the liabilities (future and accrued) in this report, an assumption was selected based on the expected long-term rate of return on plan investments. Using a lower discount rate assumption, such as a rate based on long-term bond yields, could substantially increase the estimated present value of future and accrued liabilities.

Sensitivity of the net pension liability to changes in the discount rate. The following schedule presents the net pension liability, calculated using the discount rate of 7.5%, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.5%) or 1 percentage point higher (8.5%) that the current rate.

	Employees' Retirement Plan	Police Service Retirement Plan	Fire Service Retirement Plan	Detention Officers' and Deputy Sheriffs' Retirement Plan
1% Decrease to 6.5%	$ 307,453,508	$ 222,661,078	$ 159,603,267	$ 63,454,334
Current Discount Rate 7.5%	$ 214,412,659	$ 141,881,795	$ 84,980,698	$ 43,788,278
1% Increase to 8.5%	$ 135,941,210	$ 75,944,659	$ 24,122,270	$ 24,473,098

Long Term Expected Returns. For investment purposes the four Plans which comprise the System are managed on a co-mingled basis. Therefore, the long-term expected rates of investment return are the same for each Plan. The long-term (30 year) expected rate of return on pension System investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by using an optimizer program that relies on the arithmetic return inputs, the standard deviation forecast (risk) for each asset class, and the correlations among them. The result is a 30-year nominal, geometric, net-of-fee return forecast for the pension assets. The 30-year real rate of return is calculated by netting the inflation assumption out of the nominal forecast. The nominal and real rates of return forecasts for each major asset class included in the pension System's target asset allocation of December 31, 2014 (seethe discussion of the System's investment policy) are summarized in the following table:

Asset Class	30-Year Geometric Forecast (Nominal Returns)	30-Year Geometric Forecast (Real Returns)
Cash	3.75%	0.50%
U.S. Treasuries	4.00%	0.75%
IG Corp Credit	5.25%	2.00%
Mortgage Backed Securities	4.25%	1.00%
Bank Loans	6.25%	3.00%
Core Fixed Income	4.46%	1.21%
High-Yield Bonds	6.00%	2.75%
Absolute Return Fixed Income	4.83%	1.58%
Emerging Market Debt (External)	7.00%	3.75%
Emerging Market Debt (Local Currency)	7.25%	4.00%
Large Cap Equity	7.75%	4.50%
Small/Mid Cap Equity	8.00%	4.75%
International Equities (Unhedged)	8.25%	5.00%
Emerging Int'l Equities	8.49%	5.24%
Private Equity	9.75%	6.50%
Private Debt	8.25%	5.00%
Real Estate	6.50%	3.25%
Hedge Funds	5.75%	2.50%
Hedge Funds (Macro)	6.75%	3.50%
Risk Parity	6.67%	3.42%

Note: NEPC's 30-year geometric inflation assumption is 3.25%.

5 Risks and Uncertainties

The System may invest in various types of investment securities. Investment securities are exposed to various risks, such as interest rate, market, and credit risk. Due to the level of risk associated with certain investment securities, it is possible that changes in the values of investment securities may occur in the near term and that such changes could materially affect the amounts reported in the Statement of Fiduciary Net Position.

6 Investments

A *General Investment Policy* -The System operates under the "Prudent Person" rule used herein, meaning that in investing, the governing authorities of the systems, funds and plans, shall exercise the judgment and care under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of investments entrusted to it, not in regard to speculation, but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. Investments are made in full accordance with any and all applicable Maryland statutes, as well as any other applicable legislation or regulation, state, federal or otherwise. The roles and responsibilities of the Board of Trustees, the Investment Committee, the Investment Consultant, the Investment Managers and the Custodian are clearly defined. The Board has established a diversified portfolio to meet the System's return requirements. The table below summarizes the target asset allocation

Asset Class	Market Target (%)	Minimum Exposure (%)	Maximum Exposure (%)
Domestic Equity	23	13	33
International Equity	15	7	25
Emerging Market Equity	7	0	12
Domestic Fixed Income	15	5	25
Emerging Market Debt	5	0	10
Private Markets	9	0	17
Opportunistic Investments	3	0	8
Real Estate	5	0	10
Global Asset Allocation (GAA)	16	11	21
Cash	2	0	10

B *Investments Authorized* - The System is authorized to invest in U.S. Government securities, insurance company general accounts, commercial paper, money market mutual funds, corporate bonds, common and international stocks, limited partnerships, absolute return funds, private equity, mortgage participation's and real estate. State statutes do not prohibit the System from participating in securities lending transactions. (See Note 7 to the basic financial statements for additional information concerning the System's security lending transactions.)

C *Custodial Credit Risk, Deposits* - Custodial credit risk for deposits is the risk that the System will not be able to recover its deposits, in the event of the failure of a depository financial institution or will not be able to recover collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System, and are held by either a counterparty or the counterparty's trust department or agent but not in the System's name. As of December 31, 2014 there were no investments that met this criteria.

D *Concentration Risk* - Concentration risk is the risk of loss to the System attributed to the magnitude of the System's investment in a single issuer. As of December 31, 2014 there was no exposure to a single issuer greater than 5.0% of the plan net position excluding investment pools. The System's Investment Policy Statement sets maximum concentration limits by asset type and style.

E. *Rate of Return* – For the year ended December 31, 2014, the annual money-weighted rate of return on pension system investments, net of System expenses, was 4.5%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

F *Interest Rate Risk* - Interest rate risk is the risk that changes in interest rates will adversely affect the value of an investment. The fair value of fixed income (debt) securities is affected by increases and declines in interest rates. These investments may also have embedded call features allowing the issuer to redeem part or all of the issue prior to maturity at a pre-set price. In addition, debt issues may have interest rates that vary according to a pre-determined external index (such as the London Inter-Bank Offered Rate) or a pre-determined step-up in the interest rate at a pre-determined date(s). The IPS sets limits on floating rates for mortgage backed securities and establishes limits on the average duration of some investment types.

The following table uses the *Segmented Time Distribution* method to display the System's debt holdings by maturity term and investment type. Some issues within the categories agencies/instrumentalities, corporate bonds, collateralized mortgage obligations, and other asset-backed securities have variable rate features. The total fair value of these securities was $8,163,858 as of December 31, 2014.

		Investment Maturities (in Years)			
Investment Type	**Fair Value**	**Less than 1 year**	**1 to 5**	**6 to 10**	**over 10**
U.S. Treasuries	$ 6,529,209	$ -	$ 79,377	$ 825,209	$ 5,624,623
Agency/Instrumentalities	13,113,443	-	318,251	-	12,795,192
Corporate Bonds	59,276,433	437,188	12,012,431	39,049,329	7,777,485
Bond Mutual Funds	150,103,447	-	150,103,447	-	-
Collateralized Mrtg Obligations	4,894,971	-	-	609,297	4,285,674
Other Asset-Backed Securities	3,840,195	-	198,989	72,969	3,568,237
Foreign and Yankee Bonds	7,821,777	302,080	1,428,547	3,791,516	2,299,634
Totals	$ 245,579,475	$ 739,268	$ 164,141,042	$ 44,348,320	$ 36,350,845

The segmented time distribution table includes issues with call features and assumes that these issues will be held to maturity. The total fair market value of callable securities totals $48,099,698 with call dates ranging from January 1, 2015, for continuously callable issues, to December 15, 2044. Stated call prices are generally at par. The callable holdings include issues with floating interest rates which have a market value of $7,765,477.

G *Credit Risk* - Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the System. Debt securities are rated by Nationally Recognized Statistical Rating Organizations to provide purchasers with an opinion of the capability and willingness of a borrower to re-pay its debt. The following table displays the System's debt holdings and quality ratings from Standard & Poor's and Moody's with the highest rating in each asset type listed first. Calculations are based on $321,447,067 of fixed income excluding U.S. Treasuries. The Investment Policy Statement provides guidelines to all fixed income managers related to allowable quality ratings.

Investment Type	S&P	Moody's	%
Agency/Instrumentalities	AA	Aaa	3.98
"	NR	NR	0.10
Collateralized Mort. Oblig.	AAA	Aaa	0.16
"	A	Aa	0.10
"	A	A	0.05
"	N/A	Aaa	0.09
"	BBB	Baa	0.07
"	BBB	B	0.06
"	BBB	NR	0.06
"	B	Aa	0.03
"	B	B	0.05
"	B	NR	0.01
"	CCC	A	0.02
"	CCC	Baa	0.02
"	CCC	Caa	0.05
"	CCC	Ca	0.11
"	CCC	NR	0.06
"	CC	Caa	0.11
"	CC	C	0.11
"	D	Ca	0.05
Other Asset-backed	AA	A	0.02
Obligations	AA	Baa	0.07
"	AA	NR	0.04
"	A	A	0.02
"	A	Baa	0.03
"	A	Ba	0.02
"	A	NR	0.02
"	BBB	A	0.03
"	BBB	B	0.04
"	CCC	Caa	0.72
"	D	Caa	0.08
"	D	C	0.06
"	NR	Aaa	0.07
"	NR	Aa	0.02
Other Asset-backed	NR	Ba	0.02
Obligations (con't)	NR	C	0.05
"	NR	NR	0.22
Yankee & Foreign Gov	A	A	0.36
Issued Debt	AA	Aa	0.10
"	BBB	A	0.28
"	BBB	Baa	0.87
"	BB	Baa	0.06
"	BB	Ba	0.22
"	B	B	0.28
"	B	Caa	0.08
"	NR	Baa	0.15
"	NR	NR	0.02
Corporate Bonds	AA	Aa	0.09
"	AA	A	0.20
"	AA	Baa	0.05
"	A	A	0.87
"	A	Baa	0.94
"	A	NR	0.02
"	BBB	A	0.20
"	BBB	Baa	1.75
"	BBB	Ba	0.22
"	BB	Baa	0.22
"	BB	Ba	2.86
"	BB	B	2.13
"	B	Ba	0.42
"	B	B	6.36
"	B	Caa	1.24
"	CCC	B	0.87
"	NR	NR	0.01
Guaranteed Invest Contracts	NR	NR	8.14
Mutual Funds	NR	NR	46.69
Short Term Investment Pools	NR	NR	17.48
			100.00

H *Foreign Currency Risk* - The investment policy recognizes the value of global diversification. A maximum of 46% in international/global exposure is allowed. The System retains six managers for global and international equity and fixed income exposure. These managers may also purchase or sell currency on a spot basis and may enter into forward exchange contracts on currency provided that the use of such contracts is designed to dampen portfolio volatility or to facilitate the settlement of securities transactions.

There is potential risk with exposure to foreign currency relating to potential unfavorable fluctuation of exchange rates compared with the U.S. Dollar. The System's direct exposure to foreign currency was zero as of December 31, 2014. International/global equities and fixed income assets totaled $690,648,149 in fair market value, managed in pooled funds as of December 31, 2014.

7 Securities Lending

The Board of Trustees authorizes the System to lend securities held by the custodian, State Street Bank and Trust Company, to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. The System's custodian lends securities, of the type on loan at year-end, for collateral in the form of cash or other securities of 102 percent for domestic securities and 105 percent for international. Cash collateral received by the System with respect to these transactions is invested at the direction of the Board of Trustees in the State Street Bank and Trust Company Quality Funds for Short-Term Investment (STIF), a pooled investment vehicle. Government Accounting Standards Board Statement No. 31 requires disclosure of certain information in connection with the STIF investments which is provided below.

The fair value of the investments held by the STIF is based upon valuation provided by a recognized pricing service. Because the STIF does not meet the requirements of Rule 2a-7 of the Investment Company Act of 1940, State Street Bank and Trust Company has valued the STIF investments at fair value for reporting purposes. The STIF is not registered with the Securities and Exchange Commission. State Street Bank and Trust Company, and consequently the investment vehicle it sponsors (including the STIF) are subject to the oversight of the Federal Reserve Board and the Massachusetts Commissioner of Banks. The fair value of the System's position in the STIF is not the same as the value of the STIF shares. There was no involuntary participation in an external investment pool by the System for the year ended December 31, 2014. No income from one STIF was assigned to another STIF by State Street Bank and Trust Company during the year ended December 31, 2014.

At year-end, the System had no credit risk exposure to borrowers because the amount of collateral held by the System was greater than the value of securities on loan. The market value of invested cash collateral held as of December 31, 2014 was $78,038,878. There were no securities held as collateral. The market value of securities on loan for the System as of December 31, 2014 was $75,597,918.

The System did not impose any restrictions during the year on the amount of the loans that the custodian made on its behalf. Moreover, there were no losses during the year resulting from a default of the borrowers or custodian.

All security loans can be terminated on demand by either the System or the borrower, although the average term of the loans is generally one week. Cash collateral received was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in the STIF, a pooled investment vehicle. As of December 31, 2014, the STIF had an average duration of 33 days and a weighted average maturity of 83 days. The System's ownership of the STIF was $78,038,878 which was equal to the cash collateral on deposit. The relationship between the maturities of the STIF and the System's loans is affected by the maturities of the security loans made by other entities that use the agent's pool, which the System cannot determine. Because the loans were terminable at will, their duration did not generally match the duration of the investments made with cash collateral. The System cannot pledge or sell collateral securities received unless the borrower defaults.

8 Financial Instruments With Off-Balance Sheet Risk

Mortgage-Backed Securities - A mortgage-backed security depends on the underlying pool of mortgage loans to provide the cash flow to make principal and interest payments on the security. A decline in interest rates can result in prepayments, which reduce the fair value of the security. If homeowners pay on mortgages longer than anticipated, the cash flows are greater and the return on investment would be higher than anticipated. A collateralized mortgage obligation (CMO) is a mortgage-backed security that is comprised of classes or tranches of bonds. Each class is structured to achieve a specific level of cash flow based on the prepayment assumptions assigned to the underlying mortgage pool.

The System invests in mortgage-backed securities to enhance fixed income returns. Mortgage-backed securities are subject to credit risk, the risk that the borrowers will be unable to meet their obligations. These securities are also subject to prepayment risk, which is the risk that a payment will be made in excess of the regularly scheduled principal payment. Prepayment risk is comprised of two risks: call risk, (the risk that prepayments will occur when interest rates have declined), and extension risk, (the risk that prepayments will not be made when interest rates have increased.) As of December 31, 2014, the fair value of government mortgage-backed securities was $13,113,443, asset-backed securities was $3,840,195, and CMO's was $4,894,971. These are included in the corporate obligations total on the Statement of Net Plan Position.

9 Exposure to Derivatives

Derivative instruments are securities that derive value from another asset and are in the form of a contract between two or more parties. Common derivatives are futures contracts, forwards contracts, options, and swaps. The System has no direct exposure to derivative securities. There are, however, mutual funds, commingled funds, and other investment vehicles in which the System has a percentage ownership that have exposure to futures, currency forward contracts, commodity forward contracts, and total return swap contracts. These funds enter into derivative contracts as part of their investment strategies to mitigate risk and volatility.

A derivative policy statement is included in the Investment Policy Statement (IPS). Prohibited instruments include options, commodities, uncovered options or futures, uncovered short positions, short selling, and use of financial leverage. The derivative exposure as of December 31, 2014 within the mutual funds, commingled funds, and other investment vehicles is comprised of allowable instruments based on the IPS.

10 Contingencies

Certain legal proceedings are pending against the System arising from its normal activities that, based on the facts presently available and the advice of legal counsel, management believes will not have a material adverse effect on the System's financial condition upon settlement.

11 Commitments

The System has committed to fund various private equity investments totaling $205 million at December 31, 2014, of which approximately $92.6 million remains unfunded. The expected funding dates for these commitments extend through 2019.

12 Subsequent Events

The system evaluated subsequent events through June 9, 2015, the date the financial statements were available to be issued. Events or transactions occurring after December 31, 2014, but prior to June 9, 2015 that provided additional evidence about conditions that existed at December 31, 2014, have been recognized in the financial statements for the year ended December 31, 2014. Events or transactions that provided evidence about conditions that did not exist at December 31, 2014, but arose before the financial statements were available to be issued have not been recognized in the financial statements for the year ended December 31, 2014.

Anne Arundel County Retirement and Pension System
Required Supplementary Information
Schedule of Changes in the Net Pension Liability and Related Ratios by Plan
For the Year Ended December 31

	Employees' Retirement Plan	Police Service Retirement Plan	Fire Service Retirement Plan	Officers' and Deputy Sheriffs' Retirement Plan
Total pension liability				
Service cost	14,159,089	10,950,610	9,183,945	4,602,193
Interest	53,352,604	41,479,596	38,948,945	10,301,018
Changes of benefit items	-	-	-	-
Differences between expected & actual return	16,407,918	12,800,507	3,678,563	2,321,848
Changes of assumptions	22,567,389	18,331,256	18,027,710	3,493,736
Benefit payments, including contribution refunds	(39,011,986)	(29,507,190)	(28,823,048)	(5,818,722)
Net change in pension liability	67,475,014	54,054,779	41,016,115	14,900,073
Total pension liability - beginning	730,874,035	567,814,876	533,731,432	140,256,261
Total pension liability - ending (a)	$ 798,349,049	$ 621,869,655	$ 574,747,547	$ 155,156,334
Plan fiduciary net position				
Contributions - employer	24,451,074	18,869,736	15,898,956	6,110,988
Contributions - participants	4,662,147	2,949,789	2,778,355	1,297,641
Net investment income	28,451,206	21,812,782	22,687,926	4,943,781
Benefit payments, including contribution refunds	(39,011,986)	(29,507,190)	(28,823,048)	(5,818,722)
Administrative expense	(518,541)	(417,781)	(423,131)	(96,047)
Other	-	-	-	-
Net change in plan fiduciary net position	18,033,900	13,707,336	12,119,058	6,437,641
Plan fiduciary net position - beginning	565,902,490	466,280,524	477,647,839	104,930,415
Plan fiduciary net position - ending (b)	$ 583,936,390	$ 479,987,860	$ 489,766,897	$ 111,368,056
Plan net pension liability - ending (a) - (b)	$ 214,412,659	$ 141,881,795	$ 84,980,650	$ 43,788,278
Plan fiduciary net position as a percentage of the total pension liability	73.14%	77.18%	85.21%	71.78%
Covered-employee payroll	$127,481,000	$55,345,000	$58,250,000	$21,367,000
Plan's net pension liability as a percentage of covered employee payroll	168.19%	256.36%	145.89%	204.93%

Notes to schedule:

1. This schedule is presented to illustrate the requirement to show information for 10 years. However, until 10-year trend is compiled, pension plans should present information for those years for which the data is available.
2. There are no benefit changes reflected in the current schedule.
3. For FY 2014 the expected rate of investment return was reduced from 8.0% to 7.5% and other assumptions were changed to reflect the results of the 2012 experience study.

Schedule of Investment Returns

Fiscal Year Ended	Annual money-weighted rate of return, net of investment expenses
2014	4.5%

NOTE: Money-weighted results for the required 10-year timeframe will be added as available.

SOURCE: New England Pension Consultants, LLC

Anne Arundel County Retirement and Pension System

Required Supplementary Information

Schedule of Employer's Contributions - Employees' Retirement Plan

For the Last Ten Years Ended December 31

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014* (in thous.)
Actuarially determined contribution	$ 10,013,619	$ 10,755,168	$ 11,778,948	$ 12,906,750	$ 15,246,258	$ 17,284,082	$ 18,186,400	$ 19,823,814	$ 22,361,662	$ 24,426
Contributions in relation to the actuarially determined contribution	10,015,144	10,755,168	11,778,948	12,906,750	15,246,252	17,284,080	18,186,402	19,823,814	22,361,658	24,451
Contribution deficiency (excess)	$ (1,525)	$ -	$ -	$ -	$ 6	$ 2	$ (2)	$ -	$ 4	$ (25)
Covered-employee payroll	$ 107,290,189	$ 116,709,102	$ 117,222,681	$ 124,803,488	$ 126,030,706	$ 123,498,129	$ 120,415,534	$ 116,024,717	$ 115,809,426	$ 127,481
Contributions as a percentage of covered-employee payroll	9.33%	9.22%	10.05%	10.34%	12.10%	14.00%	15.10%	17.09%	19.31%	19.18%

Notes to Schedule

Valuation Date:	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015

Actuarially determined contribution rates are calculated as of January 1 for the upcoming fiscal year beginning July 1 of the same year.

For 2014, "Covered-employee payroll" is the payroll of employees that are provided with pension through the pension plan. All prior years include Covered payroll which is all elements included in compensation paid to active employees on which contributions to a pension plan are based.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percentage of payroll, closed, increasing 3.0% per year.
Remaining amortzation period	19 to 28 years with an average effective period of 25 years. Starting with new bases in 2014, assumption changes and gains and losses are amortized over 20 years and plan changes are amortized over the average future service of the active population at the time of the change.
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increases	Graded schedule begins for age 20 at 6.5% and move to 3.5% at age 55.
Investment rate of return	7.50% net of pension plan investment expense, including inflation, effective 1/1/2014
Retirement age	Rates vary by participant age and service.
Mortality	Healthy: RP-2000 Blue Collar Mortality Table for males and females projected generationally using scale AA. Disabled: RP-2000 Blue Collar Mortality Table for males and females set forward nine years and then projected generationally using scale AA.

Anne Arundel County Retirement and Pension System

Required Supplementary Information

Schedule of Employer's Contributions - Police Service Retirement Plan

For the Last Ten Years Ended December 31

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014* (in thous.)
Actuarially determined contribution	$ 8,930,263	$ 9,611,544	$ 9,997,308	$ 10,522,666	$ 12,428,140	$ 13,695,736	$ 14,153,185	$ 15,530,319	$ 17,745,900	$ 18,870
Contributions in relation to the actuarially determined contribution	8,931,530	9,611,544	9,997,308	10,522,656	12,428,136	14,055,660	13,793,256	15,530,322	17,745,906	18,870
Contribution deficiency (excess)	$ (1,267)	$ -	$ -	$ 10	$ 4	$ (359,924)	$ 359,929	$ (3)	$ (6)	$ -
	-	-	-	-	-	-	-	-	-	-
Covered-employee payroll	$ 36,694,307	$ 37,805,038	$ 41,011,366	$ 41,508,547	$ 42,499,380	$ 42,449,204	$ 41,334,580	$ 40,521,944	$ 41,714,302	$ 55,345
Contributions as a percentage of covered-employee payroll	24.34%	25.42%	24.38%	25.35%	29.24%	33.11%	33.37%	38.33%	42.54%	34.10%

Notes to Schedule

Valuation Date:	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015

Actuarially determined contribution rates are calculated as of January 1 for the upcoming fiscal year beginning July 1 of the same year.

For 2014, "Covered-employee payroll" is the payroll of employees that are provided with pension through the pension plan. All prior years include Covered payroll which is all elements included in compensation paid to active employees on which contributions to a pension plan are based.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percentage of payroll, closed
Remaining amortzation period	19 to 28 years with an average effective period of 25 years. Starting with new bases in 2014, assumption changes and gains and losses are amortized over 20 years and plan changes are amortized over the average future service of the active population at the time of the change.
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increases	Graded schedule begins for age 20 at 6.0% and moves to 4.0% at age 50.
Investment rate of return	7.50% net of pension plan investment expense, including inflation, effective 1/1/2014.
Retirement age	Rates vary by participant age and service.
Mortality	Healthy: RP-2000 Blue Collar Mortality Table projected generationally using scale AA. Pre-Termination mortality uses 60% of these rates. Disabled: RP-2000 Blue Collar Mortality Table set forward five years and then projected generationally using scale AA.
Other	Employer contributions for calendar 2010 are greater then 100.0% of the Actuarially Determined Contribution due to 6/30 fiscal year revisions. Calendar 2011 was reduced for the revisions.

Anne Arundel County Retirement and Pension System

Required Supplementary Information

Schedule of Employer's Contributions - Fire Service Retirement Plan

For the Last Ten Years Ended December 31

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
										(in thous.)
Actuarially determined contribution	$ 10,015,826	10,481,244	10,959,888	11,189,712	12,701,160	14,213,332	14,395,096	15,238,101	16,152,403	15,899
Contributions in relation to the actuarially determined contribution	10,016,964	10,481,244	10,959,888	11,189,712	12,701,160	14,648,580	13,959,852	15,238,104	16,152,402	15,899
Contribution deficiency (excess)	$ (1,138)	$ -	$ -	$ -	$ -	$ (435,248)	$ 435,244	$ (3)	$ 1	$ -
	-	-	-	-	-	-	-	-	-	-
Covered-employee payroll	$ 38,592,322	$ 43,527,351	$ 43,941,526	$ 48,824,352	$ 49,064,454	$ 47,840,812	$ 45,673,006	$ 43,361,686	$ 44,950,885	$ 58,250
Contributions as a percentage of covered-employee payroll	25.96%	24.08%	24.94%	22.92%	25.89%	30.62%	30.56%	35.14%	35.93%	27.29%

Notes to Schedule

Valuation Date:	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015

Actuarially determined contribution rates are calculated as of January 1 for the upcoming fiscal year beginning July 1 of the same year.

For 2014, "Covered-employee payroll" is the payroll of employees that are provided with pension through the pension plan. All prior years include Covered payroll which is all elements included in compensation paid to active employees on which contributions to a pension plan are based.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percentage of payroll, closed, increasing 3.0% per year.
Remaining amortzation period	19 to 28 years with an average effective period of 25 years. Starting with new bases in 2014, assumption changes and gains and losses are amortized over 20 years and plan changes are amortized over the average future service of the active population at the time of the change.
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increases	Graded schedule begins for age 20 at 6.0% and moves to 4.0% at age 50.
Investment rate of return	7.50% net of pension plan investment expense, including inflation, effective 1/1/2014.
Retirement age	Rates vary by participant age and service.
Mortality	Healthy: RP-2000 Blue Collar Mortality Table for males and females projected generationally using scale AA. 60% of these rates. Pre-Termination mortality uses 60% of these rates. Disabled: RP-2000 Blue Collar Mortality Table set forward five years and then projected generationally using scale AA.
Other	Employer contributions for calendar 2010 are greater then 100.0% of the Actuarially Determined Contribution due to 6/30 fiscal year revisions. Calendar 2011 was reduced for the revisions.

Anne Arundel County Retirement and Pension System

Required Supplementary Information

Schedule of Employer's Contributions - Detention Officers' and Deputy Sheriffs' Retirement Plan

For the Last Ten Years Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 (in thous.)
Actuarially determined contribution	$ 3,191,433	$ 3,462,366	$ 3,600,894	$ 3,788,256	$ 4,348,917	$ 4,789,078	$ 4,994,389	$ 5,141,277	$ 5,600,175	$ 6,111
Contributions in relation to the actuarially determined contribution	3,191,610	3,462,366	3,600,894	3,788,256	4,348,914	4,907,130	4,876,332	5,141,280	5,600,178	6,111
Contribution deficiency (excess)	$ (177)	$ -	$ -	$ -	$ 3	$ (118,052)	$ 118,057	$ (3)	$ (3)	$ -
	-	-	-	-	-	-	-	-	-	-
Covered-employee payroll	16,794,068	17,367,873	18,122,458	19,785,653	20,203,895	19,310,216	18,760,664	17,896,574	18,132,868	21,367
Contributions as a percentage of covered-employee payroll	19.00%	19.94%	19.87%	19.15%	21.53%	25.41%	25.99%	28.73%	30.88%	28.60%

Notes to Schedule

Valuation Date:	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015

Actuarially determined contribution rates are calculated as of January 1 for the upcoming fiscal year beginning July 1 of the same year.

For 2014, "Covered-employee payroll" is the payroll of employees that are provided with pension through the pension plan. All prior years include Covered payroll which is all elements included in compensation paid to active employees on which contributions to a pension plan are based.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percentage of payroll, closed, increasing 3.0% per year.
Remaining amortzation period	18 to 28 years with an average effective period of 23 years. Starting with new bases in 2014, assumption changes and gains and losses are amortized over 20 years and plan changes are amortized over the average future service of the active population at the time of the change.
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increases	Graded schedule begins for age 20 at 6.0% and moves to 4.25% at age 50.
Investment rate of return	7.50% net of pension plan investment expense, including inflation, effective 1/1/2014.
Retirement age	Rates vary by participant age and service.
Mortality	Healthy: RP-2000 Blue Collar Mortality Table for males and females projected generationally using scale AA. 60% of these rates. Pre-Termination mortality uses 60% of these rates. Disabled: RP-2000 Blue Collar Mortality Table set forward five years and then projected generationally using scale AA.
Other	Employer contributions for calendar 2010 are greater then 100.0% of the Actuarially Determined Contribution due to 6/30 fiscal year revisions. Calendar 2011 was reduced for the revisions.

1 Changes in Actuarial Methods and Assumptions

Effective with the valuation for 2010, the method of asset valuation has been changed to reflect the actual beginning market value rather than the beginning actuarial value. As of the 2013 valuation, various mortality tables have been updated based on the System's 2012 experience study effective for the FY2014 plan contributions.

The actuarial valuations for the 2013 data are based on a reduced inflation assumption from 3.5% to 3.0%. This in turn changed assumptions for investment return (discount rate), salary growth, total payroll growth, and retiree COLA's. Most of these changes were offsetting but there is a net increase in the liabilities and the County's contribution because the drop in the investment assumption from 8.0% to 7.5% was more significant than the other changes. The amortization period for gains and losses and assumption changes was also reduced from 30 to 20 years.

2 Significant Legislative Changes 2000 to 2014

All legislative changes are listed in the General Description of the System in the Notes to the Basic Financial Statements.

Schedule of Administrative Expenses

Professional Services		*Miscellaneous: County paid*	
Actuarial	$ 182,258	Supplies	3,940
Benefit payment processing	79,617	Postage	21,913
Insurance service fees	35,729	Printing	5,832
Audit	59,306	Medical evaluations	550
Investment consulting fees	426,587	Training & memberships	600
Legal counsel	8,385	Indirect costs paid to County	500,000
Misc. Fees from Investment Mgrs	46,211	Legal notices	248
Other Consultant	1,342		533,083
	839,435		
Communication		*Miscellaneous: system paid*	
Telephone	2,222	Prudential administration	3,960
Travel & meals	3,454	Tax withholding expenses	27,094
	5,676		31,054
		Total Administrative Costs	**$ 1,409,248**

Schedule of Investment Expenses

Management Fees		*Management Fees (continued)*	
Aetna/ING Investment Mgmt	$ 466,664	Lexington	129,177
Apollo	329,122	Newstone Partners Combined	198,552
Bridgewater	3,841,399	Penn Capital	391,052
Causeway	569,220	Quellos Private Capital	89,798
Chartwell Investment Partners	447,561	Southeastern Asset Mgmt, Inc.	403,225
Clarion Lion Real Estate	542,454	State Street Global Advisors	35,416
Crescent Mezzanine (TCW)	160,014	VOYA-ING	514,689
Dupont Capital Management	16,447	WEDGE Capital Management	511,908
EIG Energy	392,002	Western Asset Management	216,967
Entrust Special Opportunities	362,246	Westwood Management Company	356,938
			9,974,851
		Custodial Fees	
		State Street Bank & Trust	380,359
		Total Investment Expense	**$ 10,355,210**

Schedule of Payments to Consultants

Company	*Fee*	*Nature of Service*
Aetna	$ 35,729	Insurance Services
ADP	79,617	Benefit Payment Processing
Bolton Partners, Inc.	182,258	Actuarial Services
CliftonLarsonAllen	59,306	Audit Services
New England Pension Consultants	426,587	Investment Consulting Services
Other	55,938	Legal Services & Miscellaneous
	$ **839,435**	

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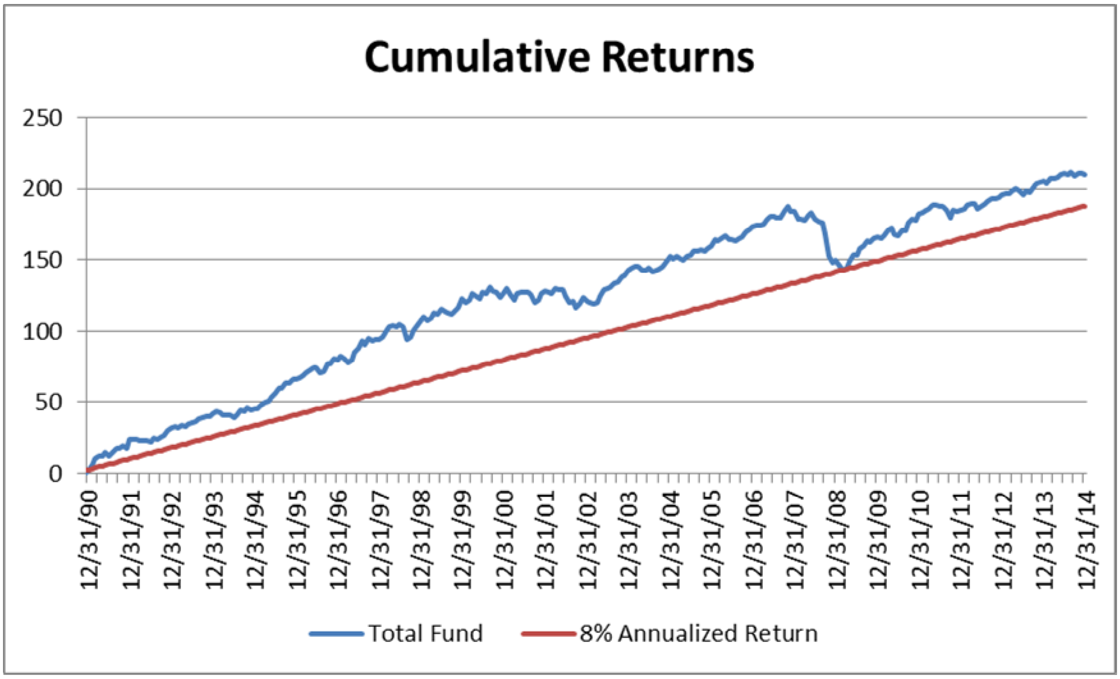
Investment Section

The following is a review of investment activity of the System with discussion and comparisons to general investment market trends. NEPC, LLC (NEPC), the Investment Advisor, prepared this review using information provided by State Street Bank, the Custodian Bank.



Calendar year 2014 was the sixteenth consecutive year the System's investment portfolio has been overseen by the Board of Trustees. NEPC continues to act as the System's pension and investment consultant. In 2014, the System added BlackRock's Strategic Income Opportunities fund to create an absolute return fixed income composite. The System also added private equity strategies from Lexington Partners and Private Advisors.

Market Commentary

2014 brought a bounty of good economic news for the US. Domestic. Equities topped off another strong year, yields on fixed income securities narrowed, the economy grew at a healthy pace and unemployment receded further. Consumer confidence in the US hit levels last seen before the great recession and the economy added the most jobs since 1999.

The positive economic data supports the return of the US economy, after years of recuperation and unprecedented central bank stimulus. The S&P 500 Index rose nearly 14% in 2014 and the Barclays Aggregate Index was up 6%. The US economy grew 5% in the third quarter following 4.6% in the second quarter. The unemployment rate fell to 5.6% with the economy averaging more than 200,000 new jobs a month. The economic resurgence and the resilience of capital markets in the US signal their readiness to function without the support of the Federal Reserve (Fed). October marked the end of quantitative easing in the US and 2015 is likely to bring the first increase in the federal funds rate in nearly a decade.

For investors looking beyond US stocks and government bonds, 2014 was less than stellar. Equities of developed and emerging markets were in the red along with global bond indices. The negative returns can be largely attributed to the strengthening US dollar. The dollar shot up over 10% relative to a variety of major global currencies, representing a headwind for unhedged equity and bond exposures. Meanwhile, the Organization of Petroleum Exporting Countries (OPEC) set aside decades of policy and pledged to maintain oil output despite the excess global supply. Energy markets were acutely impacted, as the price of oil declined to nearly $50 a barrel at year end from over $100. Debt markets were not spared, as high yield credit spreads increased 100 basis points on the year, with yields on energy debt rising significantly. Emerging economies reliant on energy exports were stressed and suffered from declines in currencies, bonds and stocks.

Global Equity Markets

Following a strong 2013 and with concerns regarding Fed tapering and potential rising interest rates, the US market continued to be a primary driver of global growth, outperforming other developed markets as well as emerging markets in 2014. Particularly evident in the US, large cap outperformed small cap. Global growth outperformed global value, while value stocks persevered across developed market indexes by very small margins.

With concerns of Fed tapering, stocks started the year with a drop in January. They rebounded in February, hitting new record highs, on the heels of the Fed stating it would maintain short term interest rates. Equities oscillated again in March, falling after the Fed again touched on the possibility of raising interest rates.

U.S. equities advanced in the second quarter with improving economic data underscoring growth in the United States and Europe. Equity indices scaled new highs with large cap stocks outperforming small cap stocks. International equities gained in the second quarter. Japan was one of the better performing regions of the market, given positive remarks on structural reform from Prime Minister Abe. Emerging markets rallied to a 12-month high as returns during the quarter were bolstered by improving conditions in the Ukraine, positive election results in India and better economic conditions in China. Technology, energy and utilities led the way in sector performance and the consumer segment of the market lagged.

In the third quarter, riskier small cap equities significantly underperformed large cap equities with growing concerns around economic growth in Europe and China. The energy sector was the worst performer as oil prices dropped and global supplies continued to rise. In terms of style, growth beat value in both large and small stocks. Beyond the US, equities in developed and emerging markets underperformed, partially due to currency weakness. Also, weak economic data in Europe pushed the European Central Bank (ECB) to continue easing its monetary policy. Europe was the worst performing developed market region while subdued economic data in Japan resulted in a weaker yen.

With positive economic data, US stocks continued their winning streak in the fourth quarter. Energy was the worst performing sector, bearing the brunt of the increasing oil supply, a stronger US dollar and deteriorating global macroeconomic conditions. Small cap stocks outperformed large cap equities for the quarter, but fell behind in the year as a whole. Value equities narrowly outperformed growth among large cap and mid cap stocks in 2014, while growth beat value in small cap equities.

Stocks of developed and emerging markets lost during the fourth quarter, as continuing weakness in commodities and a strong US dollar eroded returns. In local currency terms, developed markets performed relatively better with the Eurozone being roughly flat while Japanese stocks gained. The energy and materials sectors were the weakest performers in developed and emerging markets. Among countries, Russia was particularly hard hit with the addition of a large decline in the ruble. A bright spot in emerging markets was the financial sector in China, which gained amid speculation of a supportive monetary policy.

Equity Index Returns as of 12/31/2014				
Global Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
MSCI World	0.7%	2.9%	14.9%	9.3%
US Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
S&P 500	4.9%	13.7%	20.4%	15.5%
Dow Jones Industrial Average	4.6%	7.5%	15.3%	14.2%
NASDAQ Composite	5.4%	13.4%	27.3%	21.7%
Russell 1000 Growth	4.8%	13.1%	20.3%	15.8%
Russell 1000 Value	5.0%	13.5%	20.9%	15.4%
Russell 2000	9.7%	4.9%	19.2%	15.6%
Russell 2000 Growth	10.1%	5.6%	20.1%	16.8%
Russell 2000 Value	9.4%	4.2%	18.3%	14.3%
International Equity	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
MSCI EAFE	-3.6%	-4.9%	11.1%	5.3%
MSCI Emerging Markets	-4.5%	-2.2%	4.0%	1.8%
MSCI Europe	-4.4%	-6.2%	13.3%	5.9%
MSCI UK	-4.2%	-5.4%	10.5%	7.9%
MSCI Japan	-2.4%	-4.0%	10.7%	6.1%
MSCI Far East	-1.7%	-2.6%	11.4%	6.7%

Global Fixed Income Markets

Bond markets rallied in the first quarter, appearing to move beyond the challenges faced by a majority of fixed income sectors in 2013. Flight to quality assets played out because of concerns around an economic slowdown in China and the unseasonably harsh winter in the US, fueled further by the crisis of Ukraine and Russia taking control of Crimea. A small portion of the gains in Treasuries was lost in March when markets thought the Fed may increase the federal funds rate earlier than expected. Emerging markets debt underperformed through January, but rebounded strongly in February and March.

Fixed income markets continued to rally through June on the heels of a robust first quarter. Despite expectations for higher interest rates, Treasuries rallied in the second quarter, spurring strong performance across bond sectors. Spreads continued to grind tighter during the second quarter with demand for high yield, fueling robust gains in credit markets. Despite record new supply, investment grade credit posted strong performance. Spreads on high yield credit declined to a post-crisis low. Bank loan performance softened in the second quarter as retail flows turned negative after over 90 consecutive weeks of net inflows. However, demand for collateralized loan obligations (CLOs), helped loans end the quarter in positive territory. Additional monetary accommodation implemented by the ECB in June fueled gains in Eurozone sovereign debt and helped to extend a rally in emerging markets debt. Emerging market debt was the clear winner in the first half of the year following a challenging 2013. Declining Treasury yields and economic stability in several emerging market countries also provided a tailwind for the asset class.

Risk aversion permeated fixed income markets in the third quarter due to growing concerns around geopolitical events and global economic growth. As a result, demand for long-dated US Treasuries increased, while the fear of interest rate hikes triggered a selloff in shorter dated maturities. The Treasury yield curve flattened with the spread between two- and 10-year rates falling. After a long stretch of credit spread narrowing, spreads on investment grade credit widened during the third quarter. Heavy new issuance and event risk weighed on the investment grade corporate sector, where performance was ultimately flat. Leveraged loans also turned in a lack luster performance in the third quarter, while loans experienced outflows over the period, the sector was supported by demand from the CLO market. Emerging market debt also slowed in the third quarter following a strong first half of the year.

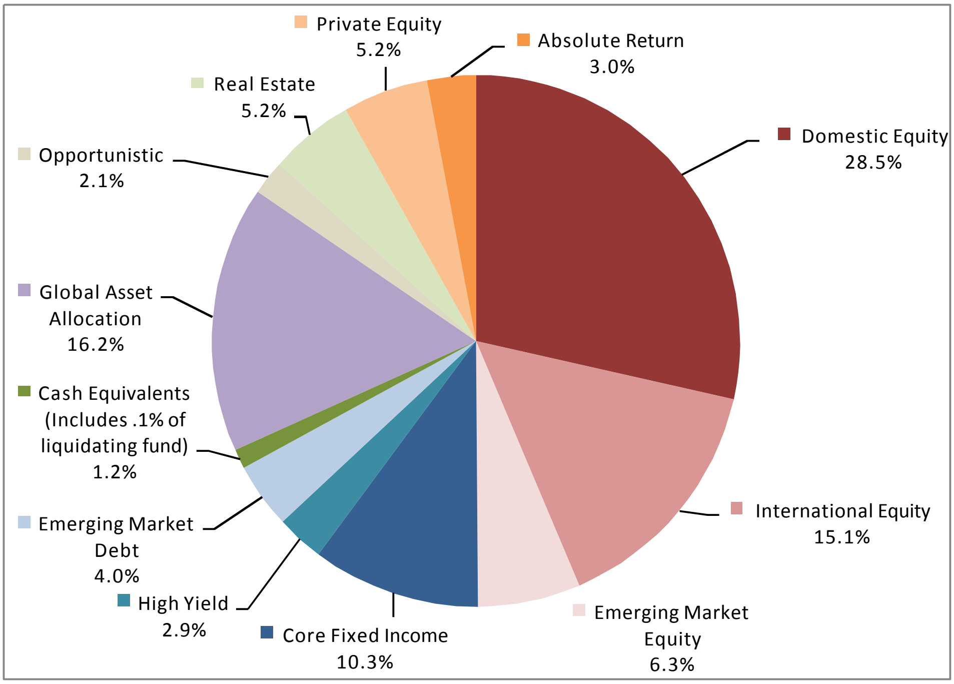
Government bonds of developed markets rallied in the fourth quarter in the midst of diverging policy among central banks, global growth concerns outside of the US and a steep decline in energy prices. The yield on the 10-year US Treasury dropped during the quarter and rates on shorter-dated Treasuries rose with expectations that the Fed would start raising rates in mid-2015. In addition, expectations of lower inflation pulled down rates on the long-end, flattening the yield curve. Many risky assets underperformed Treasuries during the quarter as oil prices declined and investors fled to quality. The US investment grade corporate sector gained during the period, but underperformed like-duration Treasuries. Retail investors withdrew $13 billion from the asset class in the quarter, but demand for CLOs remained robust. Weaker commodity prices and concerns around global growth proved to be a headwind for emerging market debt in the fourth quarter, especially for oil exporting countries such as Russia and Venezuela. Driven mostly by currency depreciation, local currency emerging market debt declined during the quarter.

Fixed Income Index Returns as of 12/31/2014				
Global Fixed Income	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
Citi WGBI	-1.5%	-0.5%	-1.0%	1.7%
JPM EMBI Plus	-0.9%	6.2%	5.0%	8.1%
Domestic Fixed Income	**Quarter**	**1 Year**	**3 Yrs**	**5 Yrs**
BC Aggregate Bond	1.8%	6.0%	2.7%	4.5%
BC US Agg. Treasury	1.9%	5.1%	1.4%	4.2%
BC US Credit	1.8%	7.5%	5.1%	7.1%
BC Mortgage Backed	1.8%	6.1%	2.4%	4.0%
BC Interm. Gov't/Credit	0.9%	3.1%	2.1%	3.8%
BC 1-10 Yr TIPS	-1.0%	0.9%	0.0%	2.8%
BC High Yield	-1.0%	2.5%	8.4%	9.0%
S&P LSTA Lev. Loan	-0.5%	1.6%	5.8%	6.2%
3 Month T-Bills	0.0%	0.0%	0.1%	0.1%
10-Year Bond Yields	**Dec-14**	**Sep-14**	**Dec-13**	**Dec-12**
US	2.2%	2.5%	3.0%	1.8%
Germany	0.5%	0.9%	1.9%	1.3%
UK	1.8%	2.4%	3.0%	1.8%
Japan	0.3%	0.5%	0.7%	0.8%

Growth of Assets and Asset Allocation

As of December 31, 2014, the System's net assets stood at $1.65 billion, up slightly from where assets were at the end of 2013. During the past year, the System experienced a net $50.0 million in cash outflows, and gains on investment of $91.7 million. At December 31, 2014, the System's assets were in compliance with Policy and were allocated as follows:

12/31/2014 Asset Allocation by Manager Type



Investment Performance

For the year ending December 31, 2014, the System returned 4.7%. Over the 3-year time period, the System averaged a 9.2% return, while the System's 5-year return was 8.8%. All performance returns are net of fees and are calculated using the time-weighted rate of return method.

The following table summarizes investment holdings as of December 31, 2014, displaying fair market value and percent of the total value compared with the prior year data.

	2014		2013	
	Fair Value	Percentage of Total Fair Value	Fair Value	Percentage of Total Fair Value
Cash and temporary investments	$ 56,196,158	3.4%	$ 82,319,243	5.1%
Domestic fixed income	455,094,285	27.2%	406,799,085	25.1%
Domestic equity	179,841,793	10.8%	236,637,128	14.6%
Global fixed asset allocation and pools	269,332,161	16.1%	248,118,011	15.3%
Opportunistic	34,672,076	2.1%	24,387,898	1.5%
International investment pools	421,315,988	25.2%	440,743,374	27.1%
Private Markets	87,926,550	5.3%	74,415,630	4.6%
Real estate investment pools	87,023,135	5.2%	80,022,951	4.9%
Absolute return fixed income	50,205,466	3.0%	-	0.0%
Stable Value Aetna insurance pools	26,195,987	1.6%	28,116,467	1.7%
Portable Alpha	977,211	0.1%	1,746,181	0.1%
	$ 1,668,780,810	100.0%	$ 1,623,305,968	100.0%

	Time Weighted Rate of Return			
	Last	Last 3	Last 5	
Asset Type and Percent of Portfolio at 12/31/14	**Year**	**Years**	**Years**	**Notes**
Equity 49.9%				
Russell 2000 Benchmark	4.9	19.2	15.6	
S&P 500 Benchmark	13.7	20.4	15.5	
Domestic Equity Composite	10.3	19.5	15.1	
MSCI EAFE	(4.9)	11.1	5.3	
International Equity Composite	(4.8)	13.0	6.9	
MSCI Emerging Markets Free	(2.2)	4.0	1.8	
International Emerging Markets Composite	(4.4)	3.1	(0.3)	
Total Equity	**3.3**	**14.8**	**10.6**	
Fixed Income/Stable Value 20.2%				
Barclays Capital Bond Aggregate Benchmark	6.0	2.7	4.4	
Core Fixed Composite	6.5	4.1	5.6	
3-Month LIBOR + 3	3.2	3.3	3.3	
Absolute Return Composite	n/a	n/a	n/a	A
BoA ML US High Yield BB-B Rated Benchmark	3.7	8.0	8.7	
High Yield Composite	0.9	6.5	7.2	
50% JPM EMBI Global Div/25%JPM EMBI Global/25%JPM Corporate EMBI	6.8	5.8	n/a	
Emerging Market Debt Composite	(2.9)	2.0	n/a	B
Total Fixed Income	**3.4**	**4.4**	**5.9**	
Real Estate (R.E.) 5.2%				
Nat'l Council R.E. Invest. Fudiciaries Benchmark	11.8	11.1	12.1	
Real Estate Composite	12.7	11.5	13.9	
Global Asset Allocation 16.2%				
T-Bills + 6%	6.0	6.1	6.1	
GAA Composite	7.0	5.4	9.4	
Opportunistic 2.1%				
Barclays Capital High Yield Benchmark	2.5	8.4	9.0	
Opportunistic Composite	8.8	15.8	n/a	C
Private Equity Funds 5.2%				
Private Equity 7.5%	7.5	7.5	7.5	
Private Equity Composite	9.8	12.4	12.0	
Cash Equivalents* 1.2%				
91 DayT-Bill Benchmark	0.0	0.1	0.1	
Cash Account	0.1	0.1	0.5	
Total Fund Composite Return	**4.7**	**9.2**	**8.8**	

Notes: A. Inception August 2014 B. Inception July 2010 C. Inception November 2011
*Includes .1% of liquidating composite

Investment Objectives

The Trustees of the Anne Arundel County Retirement System (System) seek to maintain the annual rate of pension contributions based on accepted actuarial practices, at a stable or declining percent of payroll. The Trustees also seek to maintain the funded ratio (market value of assets/actuarial value of benefits earned to date as measured by the Accrual Benefit Obligation) at a target level of 115% and in no event less than 100% in any given year. The System must remain capable of paying all benefits earned by employees. This principle is paramount and will not be compromised. Prudence is thus a mandatory factor in all decisions relating to the System. The disposition of the System's assets shall be made solely in the interest of the participants and their beneficiaries of the pension plan for exclusive purposes of providing benefits to such participants and their beneficiaries. Investments shall be made in a cost efficient manner, and reflect current industry best practices. The System return requirements are articulated in three separate ways:

- Nominal Returns – The actuarially required rate of return for the Fund is 7.5% annually, net of all fees and operating expenses. In order to achieve a buffer and have a somewhat higher likelihood of achieving the Fund's objective, the Board desires a net total return in excess of this 7.5% target.
- Real Returns – The Board is aware the preservation of purchasing power is driven by inflation. As the Consumer Price Index (CPI) is the most commonly accepted measure of inflation, The Board has defined its real rate of return target as the nominal return less CPI. With an actuarially assumed return rate of 7.5% (long-term) and an actuarially assumed inflation rate of 3.0% (long-term), the long-term, real return target is set at 4.5%.
- Relative Returns – Total return shall rank in the top half of the appropriate public fund universe. Risk-adjusted returns should also rank in the top half of the same universe. Returns for investment managers shall exceed their respective benchmarks, as well as rank in the top half of the appropriate universe of managers adhering to the same investment strategy.

The Board further recognizes that the return targets described herein may not be achieved in any single year. Instead, a longer-term horizon of 5-7 years shall be used in measuring the long-term success of the Fund. While the Board expects that returns will vary over time, the Fund shall have a risk tolerance consistent with that of other funds created for similar purposes, and the assets of the Fund shall be invested accordingly.

General Investment Policy

The System operates under the "Prudent Person" rule used herein, meaning that in investing, the governing authorities of the systems, funds and plans, shall exercise the judgment and care under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of investments entrusted to it, not in regard to speculation, but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income.

Investments are made in full accordance with any and all applicable Maryland statutes, as well as any other applicable legislation or regulation, state, federal or otherwise. The roles and responsibilities of the Board of Trustees, the Investment Committee, the Investment Consultant, the Investment Managers and the Custodian are clearly defined. The Board has established a diversified portfolio to meet the System's return requirements. The table below summarizes the target asset allocation.

Asset Class	Market Target (%)	Minimum Exposure (%)	Maximum Exposure (%)
Domestic Equity	23	13	33
International Equity	15	7	25
Emerging Market Equity	7	0	12
Domestic Fixed Income	15	5	25
Emerging Market Debt	5	0	10
Private Markets	9	0	17
Opportunistic Investments	3	0	8
Real Estate	5	0	10
Global Asset Allocation (GAA)	16	11	21
Cash	2	0	10

The Chair of the Investment Committee reviews the asset allocation at least on a quarterly basis to determine if the asset allocation is consistent with the exposure ranges described herein. The Chair of the Investment Committee directs investment managers to transfer funds to rebalance the asset allocation as necessary with subsequent Board notification. The System shall strive to maintain a neutral bias with respect to Style Allocation (Growth versus Value) in its equity investments. As part of the normal rebalancing responsibilities, The Chair of the Investment Committee shall use appropriate judgment and care when rebalancing portfolios. Market conditions and transaction costs are considered.

For each separate account, investment managers must comply with the quality and diversification requirements stated in the investment policy. Investment managers have detailed reporting requirements and must certify policy compliance on a quarterly basis. Permissible derivative uses are hedging, creation of permitted market exposures, and management of country and asset allocation exposure.

Proxy Voting

The Board of Trustees delegates proxy voting responsibility to its investment managers. Investment managers are required to report to the Board on an annual basis, summarizing proxy voting over the previous fiscal year. The report must detail any changes that have occurred in the manager’s proxy voting policies, and note any instances where proxies were not voted in accordance with the best interest of the System’s beneficiaries.

Investment Manager Fees

The following table presents investments managers' fees paid by asset class.

Asset Class	Managed (Includes Cash)	Fees Paid
Domestic equity	$ 471,713,732	$ 2,269,737
International equity	355,578,306	569,220
Domestic fixed income	112,303,595	608,019
Global assets	269,332,261	3,841,399
Other	135,085,959	*
Private markets **	122,735,805	1,677,357
Real estate	84,283,317	542,454
Stable value insurance account	107,627,421	466,664
Total Investment Managers' Fees		9,974,850
Other Investment Service Fees:		
Custodial fees		380,360
Total Investment Expenses		$10,355,210

*Fees net to fund assets. Not available as discrete amounts.
**Fees reported for a portion, but not all of private market accounts.

Brokerage Commissions

Broker's commissions on investment transactions, excluding mutual funds, for the year ended December 31, 2014 totaled $254,999.18. Brokerage firms receiving more than $6,000 in fees are listed below.

Brokerage Firms	Fees Paid	Brokerage Firms	Fees Paid
Liquidnet, Inc.	$ 27,447	Convergexecution Solutions LLC	$ 9,555
J P Morgan Securities	17,604	Morgan Stanley Co Inc.	8,695
Goldman Sachs & Co.	15,902	Weeden & Co.	7,469
Credit Suisse Securities	15,483	Boenning & Scattergood, Inc.	7,136
Citigroup Global Markets Inc	9,615		
			$ 118,906

The Investment Policy Statement requires that each manager shall provide an annual commission report to the Investment Committee and Investment Consultant within forty-five (45) days of the end of each calendar year. The report shall cover all trades executed during the prior year and should include a discussion of the firm's policy for selecting brokers, reviewing brokers, and negotiating brokerage commissions. This should include identification of any situations where the investment manager has a financial interest in brokers used to execute trades in the portfolio as well as a list of all broker-dealers used by the firm. Actual commission expenses are to be compared to the prior year. If the firm has a system for monitoring total transaction costs (commissions plus market impact), a copy of this analysis should be provided. If no such system is being used, the commission report should include a complete explanation of how the firm monitors selected brokers for best execution.

Manager Name	Asset Class	Long-term Benchmark	Style Benchmark	Peer Group Universe	Guideline Exemptions
Apollo Investment Fund VIII, L.P.	Private Equity	7.5% Annualized Compound Return	7.5% Annualized Compound Return	Private Equity Managers	None
BlackRock	Absolute Return Fixed Income	3 Month Libor +3%	3 Month Libor + 3%	Absolute Return Fixed Income Managers	None
Bridgewater Associates, Inc.	Global Asset Allocation	91 Day T-Bills + 6%	91 Day T-Bills + 6%	Absolute Return Managers (low volatility HFOF managers)	None
Bridgewater Associates, Inc.	Hedge Fund	91 Day T-Bills + 6%	91 Day T-Bills + 6%	Absolute Return (Global Macro Managers)	None
Causeway Capital Management LLC	International Equity	MSCI EAFE	MSCI EAFE	International Developed Equity	None
Chartwell Investment Partners	U.S. Small Cap Growth Equity	Russell 2000 Index	Russell 2000 Growth	U.S. Small Cap Growth Equity	None
Clarion Partners	Real Estate	NCREIF Property Index	NCREIF Property Index	Real Estate Managers	None
Dimensional Fund Advisors, LP	Emerging Markets Equity	MSCI Emerging Markets Free Index	MSCI Emerging Markets Index (net div)	Emerging Markets Equity	None
DuPont Capital Management	Private Equity Fund of Funds	7.5% Annualized Compound Return	7.5% Annualized Compound Return	Private Equity Managers	None
EIG XV EIG XVI	Private Equity Fund of Funds	7.5% Annualized Compound Return	7.5% Annualized Compound Return	Private Equity Managers	None
Entrust	Opportunistic	HFRI ED: Distressed/Restructuring Index	HFRI ED: Distressed/Restructuring Index	Absolute Return Managers	None
Grantham, Mayo Van Otterloo	International Small Cap Equity	MSCI EAFE Small Cap Index	MSCI EAFE Small Cap Index	International Developed Equity	None
HRJ Capital (Capital Dynamics)	Private Equity Distressed Debt	7.5% Annualized Compound Return	7.5% Annualized Compound Return	Private Equity Managers	None
Lazard Asset Management LLC	International Equity	MSCI EAFE-ND	MSCI EAFE	International Developed Equity	None
Lexington Partners VI-B Lexington Partners VII Lexington Partners VIII	Private Equity Secondaries	7.5% Constant Return	7.5% Constant Return	Private Equity Managers	None
Newstone Capital Partners I Newstone Capital Partners II	Private Equity Distressed Debt	7.5% Annualized Compound Return	7.5% Annualized Compound Return	Private Equity Managers	None
Penn Capital	US High Yield Fixed Income	BofA ML US High Yield BB-B Rated Index	BofA ML US High Yield BB-B Rated Index	High Yield Bond	None
PIMCO	Emerging Market Debt	50% JPM EMBI Global Div./25% JPM EMBI Global/25% JPM	50% JPM EMBI Global Div./25% JPM EMBI Global/25% JPM	Emerging Market Debt	None

Manager Name	Asset Class	Long-term Benchmark	Style Benchmark	Peer Group Universe	Guideline Exemptions
Private Advisors Small Company Buyout Fund V Private Advisors Small Company Buyout Fund VI	Private Equity Small Buyout Fund of Funds	7.5% Annualized Compound Return	7.5% Annualized Compound Return	Private Equity Managers	None
Quellos Private Capital II, LP Quellos Private Capital III, LP	Private Equity Fund of Funds	7.5% Annualized Compound Return	7.5% Annualized Compound Return	Private Equity Managers	None
Siguler Guff DOF III Siguler Guff DOF IV	Private Equity Distressed Debt	7.5% Constant Return	7.5% Constant Return	Private Equity Managers	None
Southeastern Asset Management	U.S. Large Cap Value Equity	Russell 1000 Index	Russell 1000 Value Index	U.S. Large Cap Value Equity	Note B
State Street Global Advisors	Domestic Equity	S&P 500	S&P 500	US Large Cap Core Equity	None
TCW/Crescent Mezzanine Partners, LP IV TCW/Crescent Mezzanine Partners, LP V Crescent Mezzanine Partners, LP VI	Private Equity Mezzanine Debt	7.5% Annualized Compound Return	7.5% Annualized Compound Return	Private Equity Managers	None
VOYA Financial	Core Fixed Income	Barclays Capital Aggregate Bond Index	Barclays Capital Aggregate Bond Index	Core Fixed Income	Note A
VOYA Financial	U.S. Large Cap Growth Equity`	Russell 1000 Index	Russell 1000 Growth Index	U.S. Large Cap Growth Equity	None
WEDGE Capital Management	US Small Cap Value Equity	Russell 2000 Index	Russell 2000 Value Index	US Small Cap Value	None
Western Asset Management	Core Plus Fixed Income	Barclays Capital Aggregate Bond Index	Barclays Capital Aggregate Bond Index	Core Fixed Income	Note C
Westwood Management Corp.	U.S. Large Cap Value Equity	Russell 1000 Index	Russell 1000 Value Index	U.S. Large Cap Value Equity	None

Note A: 1. May hold up to 5% of the portfolio, at market value, in Senior Bank Loan Debt securities.

Note B:
1. May hold up to 10% of their portfolio in any one security.
2. May hold up to 30% of the portfolio in American Depository Receipts (ADRs), which are stocks or convertibles of foreign companies that are publicly traded in the US.
3. Is exempt from being required to hold at least 25 stocks in their portfolio.
4. For securities held in the Anne Arundel County Pension and Retirement System portfolio, Southeastern may own up to 20% of the outstanding market capitalization of a given company across all of their portfolios. If Southeastern owns more than this 20% limit for any security within the Anne Arundel County Pension and Retirement System portfolio, the Investment Committee Chairman and Investment Consultant of the Anne Arundel County Pension and Retirement System must be notified immediately for approval to continue holding the security, which may or may not be granted, depending on prevailing conditions.
5. May hold up to 20% of the portfolio in cash and equivalents if market conditions warrant, but Board must be notified if cash goes above 20%.

Note C:
1. Exempt from receiving at least two competitive offers on the same or similar securities prior to purchasing new issue mortgage back securities.
2. Permitted to invest in the securities referenced in Section A of the Anne Arundel County Retirement and Pension System Investment Policy Statement. In addition, Western Asset may hold investments in High yield Fixed Income, Emerging Market Debt, Emerging Market Debt Local Currency, and/or Bank Loans.

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Largest Stock Holdings (By Fair Value)

Rank	Shares	Company	Fair Value
1	80,168	Apple Inc	$ 8,848,944
2	52,600	Home Depot Inc	5,521,422
3	78,460	Comcast Corp Class A	4,551,464
4	96,900	Microsoft Corp	4,501,005
5	35,260	Union Pacific Corp	4,200,524
6	44,070	Pepsico Inc	4,167,259
7	206,500	Chesapeake Energy Corp	4,041,205
8	74,300	Oracle Corp	3,341,271
9	66,132	Level 3 Communications Inc	3,265,598
10	18,650	Fedex Corp	3,238,759

Note: This list does not include investments in stock investment pools
A complete list of portfolio holding is available upon request.

Largest Bond Holdings (By Fair Value)

Rank	Par	Description	Fair Value
1	2,130,000	US Treasury N/B 3.125% due 8/15/44	$ 2,293,073
2	1,500,000	FNMA TBA 15 Year 3.5% due 1/20/2030	1,584,615
3	1,400,000	FHLMC TBA Gold Conv Inter 2.5% due 12/1/2030	1,423,912
4	1,100,000	FNMA TBA 30 Tear 4.5% due 1/14/2045	1,194,017
5	1,000,000	FNMA TBA 30 Year 4% due 1/14/2045	1,067,250
6	1,000,000	FNMA TBA 15 Year 3% due 1/20/2030	1,039,410
7	692,682	FNMA Pool 890604 1% due 10/1/2044	763,903
8	700,000	GNMA II TBA 30 Year 4% due 1/21/2045	750,526
9	710,000	US Treasury N/B 3% due 11/15/2044	746,167
10	649,958	GNMA II Pool 004978 4.5% due 3/20/2041	713,108

Note: A complete list of portfolio holdings is available upon request.

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Actuarial Section

Anne Arundel County Retirement and Pension System Statement from the Actuary for the Measurement Period Ending December 31, 2014

Date of Report: June 2, 2015

Prepared By: Bolton Partners, Inc.
100 Light Street, 9th Floor
Baltimore, MD 21202

Anne Arundel County Retirement and Pension System
Statement from the Actuary
December 31, 2014

Board of Trustees
Anne Arundel County Retirement and Pension System
Annapolis, Maryland

Dear Members of the Board of Trustees

We prepared annual actuarial valuations as of January 1, 2015 for the Anne Arundel County Retirement and Pension System. The system consists of the following plans, each of which is valued separately:

- Employees' Retirement Plan
- Police Service Retirement Plan
- Fire Service Retirement Plan
- Detention Officers' and Deputy Sheriffs' Retirement Plan

The contributions determined in these valuations are for the Fiscal year ending June 30, 2016. The valuations are based on employee and financial data, which were provided by the County Office of Personnel and County Office of Finance, respectively. We have performed limited tests for consistency and reasonableness and have not found any material problems with the data.

The following GASB68 information is provided as of the December 31, 2014 measurement date for FYE2015. This will require that the actual County contributions for the second half of FY15 (i.e. contributions made after the measurement date) to be treated as a deferred outflow (when the amount is known), but this will not affect the Total Pension Expense recognized for FY15. The methods, assumptions, and participant data as of December 31, 2014 used for these calculations are summarized in the relevant sections of this report. The GASB68 information was prepared using the Entry Age Normal actuarial cost method.

Methodology, Reliance and Certification

There are many actuarial standard communication requirements that we must comply with and important information we should provide beyond simply providing "the numbers" contained in the attached exhibits. The remainder of this letter provides that information.

This report is prepared for the County. The report contains the actuarial information to be included with the County's financial statements for the year end June 30, 2015 (the County's fiscal year end date) as required by GASB68. This information has been prepared for use in the financial statements of the County. This information is not intended for, nor should it be used for, any additional purposes.

All costs, liabilities and other factors under the Plans were determined in accordance with generally accepted actuarial principles and procedures. The funding method used in the actuarial valuations is the projected unit credit cost method. The objective of this funding method is to produce level contributions as a percentage of payroll as long as the average age of the population does not change. The funding objective of the System is to meet long-term benefit promises through contributions and investment income. The funding ratio, which is the actuarial value of assets divided by the actuarial accrued liability, is an estimate of how well the System is meeting the objective. The ratio for all four plans increased from the prior year.

The included calculations assume that the members and the County will continue to make all required actuarially determined contributions. Based on that assumption, the plan's fiduciary net position is expected to be available to make all future benefit payments of current plan members.

Methodology, Reliance and Certification (cont.)

These calculations and comparisons with assets are applicable for the valuation date only. The future is uncertain, and the plan may become better funded or more poorly funded in the future. This valuation does not provide any guarantee that the plan will be able to provide the promised benefits in the future.

This is a deterministic valuation in that it is based on a single set of assumptions. This set of assumptions is one possible basis for our calculations. Other assumptions may be equally valid. The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions. We may consider that some factors are not material to the valuation of the plan and may not provide a specific assumption for those factors. We may have used other assumptions in the past. We will likely consider changes in assumptions at a future date.

The County is responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in this report. The County is solely responsible for communicating to Bolton Partners, Inc. any changes required thereto.

The County could reasonably ask how the valuation would change if we used a different assumption set or if plan experience exhibited variations from our assumptions. This report does not contain such an analysis. This type of analysis would be a separate assignment.

The cost of this plan is determined by the benefits promised by the plan, the plan's participant population, the investment experience of the plan and many other factors. An actuarial valuation is a budgeting tool for the County or in this case a measure of accounting expense. It does not affect the cost of the plan. As the experience of the plan evolves, it is normal for the level of contributions and expense to the plan to change. If a contribution is not made for a particular year, either by deliberate choice or because of an error in a calculation, that contribution can be made in later years. We will not be responsible for contributions that are made at a future time rather than an earlier time. The plan sponsor is responsible for funding the cost of the plan.

We make every effort to ensure that our calculations are accurately performed. These calculations are complex. Despite our best efforts, we may make a mistake. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

This report is based on plan provisions, census data, and asset data submitted by the County. We have relied on this information for purposes of preparing this report, but have not performed an audit. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The plan sponsor is solely responsible for the validity and completeness of this information.

The County is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Bolton Partners, Inc.'s actuaries have not provided any investment advice to the County.

The information in this report was prepared for the internal use of the County, the plan and their auditors in connection with our actuarial valuations of the pension plan as required by GASB68. This report may not be used for any other purpose; Bolton Partners, Inc. is not responsible for the consequences of any unauthorized use or the reliance on this information by any other party.

The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, the lower the estimated liability will be. For purposes of estimating the liabilities (future and accrued) in this report, you selected an assumption based on the expected long-term rate of return on plan investments. Using a lower discount rate assumption, such as a rate based on long-term bond yields, could substantially increase the estimated present value of future and accrued liabilities.

Methodology, Reliance and Certification (cont.)

This report provides certain financial calculations for use by the auditor. These values have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the Plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the Plan in the case of Plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The actuarial assumptions and methods used for these valuations meet the parameters set forth in the Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Defined Benefit Pension Plans.

We have included the following supporting schedules: Actuarial Basis, Schedule of Member Valuation Data, Summary of Plan Provisions, Summary of Major Legislative changes, a Solvency Test, and Analysis of Financial Experience. We meet the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained in the reports and are currently compliant with the Continuing Professional Development Requirement of the Society of Actuaries.

Thomas B. Lowman, FSA, EA, MAAA Bolton Partners, Inc.	June 2, 2015 Date
Kristopher E. Seets, FSA, EA Bolton Partners, Inc.	June 2, 2015 Date

Order of Attachments by Plan

Attachment A

Employees' Retirement Plan

A. Method Used for Funding Purposes

This valuation was performed using the projected unit credit cost method. The contribution equals the sum of the normal cost and the amount necessary to amortize any actuarial gains/(losses) over closed periods. Effective January 1, 2014, new bases are amortized over closed periods of 20 years. Amortization payments increase 3.0% per year.

B. Asset Valuation Method

The actuarial value of assets is determined by spreading the asset gain or loss over a 5-year period. The asset gain or loss is the amount by which the actual market value investment return differs from the expected market value asset return. The method was effective with the 1/1/2011 actuarial valuation. The Actuarial Value of Assets recognizes adjustments resulting from an audit.

There is a six-month lag between the valuation and the fiscal year. The 2015 valuation determines the County contributions due for the fiscal year ending June 30, 2016. Contributions made between the valuation date and the beginning of the next fiscal year (January 1, 2015 to June 30, 2015) have not been treated as assets in the current valuation.

C. Valuation Procedures

Tier One active participants who terminate prior to age 40 are assumed to elect to receive a refund of employee contributions with interest. Employees who terminate at or after age 40 are assumed to receive their vested benefit at normal retirement date.

D. Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the Plan for purposes of determining contributions and liabilities under GASB. These assumptions are used for all members eligible to receive benefits under the Employees' Plan provisions.

Economic	
Investment Return	7.5% compounded annually net of investment expenses (3.0% inflation and 4.5% real return) effective January 1, 2014.
Salary Increases	A graded schedule is used. See Earnings Progression Table.
Cost of Living Adjustment	Benefits accrued before Bill 88-96 are assumed to increase by 3.0% of the original benefit each year from retirement. Benefits accrued after Bill 88-96 are assumed to increase by 1.8% of the current benefit each year from retirement.
Other	
Mortality	Healthy: RP-2000 Blue Collar Mortality Table for males and females projected generationally using scale AA. Pre-Termination mortality uses 60% of these rates. Disabled: RP-2000 Blue Collar Mortality Table for males and females set forward nine years and then projected generationally using scale AA. 100% of pre-retirement deaths are assumed to be non-duty-related. Projection to the year of the valuation is assumed to be current experience. The generational projection beyond the valuation date is to account for future mortality improvements. See Table of Sample Rates.
Withdrawal	See Table of Sample Rates.
Disability	See Table of Sample Rates. 10% of disablement is assumed to be duty-related.

Administrative Expenses — $618,000 for FY2016 and $636,000 for FY2015 (average of actual expenses for the two years preceding the valuation date).

Retirement Rates

Age	Service 20	Service 30	Service 31
50	6%	40%	40%
55	9%	30%	5%
60	15%	15%	15%
65	40%	40%	40%
68	100%	100%	100%

Percentage Married — Males – 70%; Females – 70%

Age Difference — Males are assumed to be four years older than their spouses.

Military Service — Active liabilities (which depend on credit service) are loaded by 1.0% to account for future crediting of military service.

Disability Leave — Active liabilities (which depend on credit service) are loaded by 1.5% to account for future crediting of disability service.

The Tier 1 service cap of 60% is valued as 62% to account for Disability and Military service credit not being limited by the 30-year cap on service.

	Table of Sample Base Mortality Rates (2000)				Projection Scale	
	Healthy Mortality		Disabled Mortality		(Healthy and Disabled)	
	Males	Females	Males	Females	Males	Females
20	0.03%	0.02%	0.04%	0.02%	1.90%	1.60%
25	0.04	0.02	0.10	0.05	1.00	1.40
30	0.07	0.03	0.13	0.08	0.50	1.00
35	0.11	0.05	0.17	0.13	0.50	1.10
40	0.14	0.09	0.23	0.18	0.80	1.50
45	0.18	0.14	0.36	0.26	1.30	1.60
50	0.24	0.20	0.73	0.43	1.80	1.70
55	0.42	0.28	1.38	0.91	1.90	0.80
60	0.83	0.49	2.39	1.64	1.60	0.50
65	1.55	1.04	3.91	2.82	1.40	0.50

	Table of Sample Decrement Rates		
	Percentage		
		Withdrawal	
Attained Age	Disablement	Males	Females
20	0.020%	12.47%	21.57%
25	0.020	9.97	18.12
30	0.020	6.78	13.34
35	0.030	4.37	9.05
40	0.061	3.48	7.48
45	0.100	2.40	5.95
50	0.162	0.63	1.56
55	0.266	0.43	1.07
60	0.397	0.00	0.00
64	0.541	0.00	0.00

Earnings Progression	
Attained Age	Percentage Increase at Attained Age
20	6.5%
25	6.0
30	5.5
35	5.0
40	4.5
45	4.0
50	3.5
55	3.5

Active Members

Valuation Date	Number	Annual Payroll (Jan. 1 Rate)	Average Annual Pay	% Increase in Average Pay
January 1, 2006	2,225	107,290,189	48,220	3.7%
January 1, 2007	2,338	116,709,102	49,917	3.5%
January 1, 2008	2,284	117,222,681	51,323	2.8%
January 1, 2009	2,312	124,803,488	53,981	5.2%
January 1, 2010	2,278	126,030,706	55,325	2.5%
January 1, 2011	2,239	123,498,129	55,158	(0.3%)
January 1, 2012	2,209	120,415,534	54,511	(1.2%)
January 1, 2013	2,152	116,024,717	53,915	(1.1%)
January 1, 2014	2,125	115,809,426	54,499	1.1%
January 1, 2015	2,207	127,090,869	57,585	5.7%

Members With Deferred Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/05 to 12/31/05	217	37	(22)	232
1/1/06 to 12/31/06	232	20	(12)	240
1/1/07 to 12/31/07	240	42	(22)	260
1/1/08 to 12/31/08	260	37	(40)	257
1/1/09 to 12/31/09	257	25	(25)	257
1/1/10 to 12/31/10	257	24	(24)	257
1/1/11 to 12/31/11	257	22	(19)	260
1/1/12 to 12/31/12	260	41	(28)	273
1/1/13 to 12/31/13	273	34	(36)	271
1/1/14 to 12/31/14	271	27	(29)	269

Members Receiving Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/05 to 12/31/05	911	93	(22)	982
1/1/06 to 12/31/06	982	109	(22)	1,069
1/1/07 to 12/31/07	1,069	102	(28)	1,143
1/1/08 to 12/31/08	1,143	82	(31)	1,194
1/1/09 to 12/31/09	1,194	93	(17)	1,270
1/1/10 to 12/31/10	1,270	82	(27)	1,325
1/1/11 to 12/31/11	1,325	107	(39)	1,393
1/1/12 to 12/31/12	1,393	110	(35)	1,468
1/1/13 to 12/31/13	1,468	130	(54)	1,544
1/1/14 to 12/31/14	1,544	113	(34)	1,623

Summary of Retirees and Beneficiaries Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		Rolls End of Year			
Year Ending	Number	Annual Allowance[1]	Number	Annual Allowance	Number	Annual Allowance	% Increase in Average Annual Allowance	Average Annual Allowance
12/31/2006	109	$3,576,394	22	$400,214	1,069	$21,649,834	7.65%	$20,252
12/31/2007	102	$2,170,425	28	$306,253	1,143	$23,514,006	1.58%	$20,572
12/31/2008	82	$2,955,585	31	$523,131	1,194	$25,946,460	5.63%	$21,731
12/31/2009	93	$1,846,297	17	$157,628	1,270	$27,635,129	0.13%	$21,760
12/31/2010	82	$2,841,455	27	$403,314	1,325	$30,073,270	4.31%	$22,697
12/31/2011	107	$3,147,404	39	$744,281	1,393	$32,476,393	2.72%	$23,314
12/31/2012	110	$3,351,810	35	$557,851	1,468	$35,270,352	3.05%	$24,026
12/31/2013	130	$3,331,597	54	$1,034,187	1,544	$37,567,762	1.27%	$24,331
12/31/2014	113	$2,915,234	34	$720,676	1,623	$39,762,320	0.69%	$24,499

[1] Includes COLA's

Tier One Members

Compensation	For purposes of the pension plan, compensation is the regular annual rate of pay, exclusive of extra compensation of any kind such as overtime pay, bonuses and commissions.
Final Earnings	The average of the highest 3 years of all basic pays.
Eligibility Requirements	Full-time general employees of the County will be eligible to participate in the pension plan upon hire.
Employee Contributions	4% of compensation.
Retirement Date	
Normal Retirement	The first of the month coincident with or next following the participant's 60th birthday or, if earlier, when the participant has 30 years of service.
Early Retirement	Reduced benefits are available the first of any month coincident with or next following the completion of 20 years of continuous service, provided the participant is at least age 50.
Postponed Retirement	A participant may work beyond his normal retirement date and may subsequently retire on the first of any month.
Retirement Benefits	
Normal Retirement	2.0% of final earnings for each year of service (maximum 60% plus 2% times unused disability credit and pre-employment military service credit).
Early Retirement	Same as normal retirement, but reduced actuarially for early commencement.

Years Early	Reduction Factor
1	2%
2	5%
3	9%
4	14%
5	20%
6	28%
7	36%
8	44%
9	52%
10	60%

Postponed Retirement	Same as normal retirement, but based on continued accrual past normal retirement date.
Disability	
Eligibility	Totally and permanently disabled (except as the result of actions specified in the County code). To receive duty-related disability benefits, there is no service requirement. Five years of service are required to receive non-duty benefits.
Duty-Related	The greater of the accrued benefit or 66-2/3% of final earnings, payable immediately, unreduced.
Non-Duty	The greater of the accrued benefit or 25% of final earnings, payable immediately, unreduced.

Normal form of Payment Monthly life annuity with modified cash refund.

Termination of Employment

Less than 5 years of service: Return of employee contributions with 4.25% interest.

5 years of service: At the discretion of the employee, either a return of contributions with interest or the accrued normal retirement benefit taking into account final earnings and service at date of termination, payable at normal retirement date.

Death Benefits

Married and eligible for early retirement: The greatest of:

- $10 per month
- 50% of the final earnings
- The accrued benefit, reduced actuarially for early commencement and the joint and 100% survivor form.

Unmarried or not eligible for early retirement: Return of employee contributions with 4.25% interest plus a lump sum of 50% of final earnings.

Cost of Living Increase (simple, for benefits accrued as of 1/31/97): Retiree benefits are adjusted each year. The revised benefit amount is the lesser of:

- Prior year benefit plus base benefit multiplied by increase current March CPI from March CPI for prior year.
- Benefit increased by 3% of initial benefit.

Cost of Living Increase (compound, for benefits accrued after 1/31/97): Retiree benefits are adjusted each year. The revised benefit amount is the lesser of:

- Prior year benefit multiplied by 60% of the increase in current March CPI from March CPI for prior year.
- Benefit increased by 2.5%.

Benefit payments can be reduced or increased. However, the amount can never be less than the initial benefit amount.

Tier Two Members

Compensation For purposes of the pension plan, compensation is the regular annual rate of pay, exclusive of extra compensation of any kind such as overtime pay, bonuses and commissions.

Final Earnings The average of the highest 3 years of all basic pays.

Eligibility Requirements Full-time general employees of the County will be eligible to participate in the pension plan upon hire. Members can elect to join Tier One.

Employee Contributions No employee contributions required or allowed.

Retirement Date

Normal Retirement: The first of the month coincident with or next following the participant's 60th birthday or, if earlier, when the participant has 30 years of service.

Early Retirement: Reduced benefits are available the first of any month coincident with or next following the completion of 20 years of continuous service, provided the participant is at least age 50.

Postponed Retirement: A participant may work beyond his normal retirement date and may subsequently retire on the first of any month.

Retirement Benefits	
Normal Retirement	1.0% of final earnings for each year of service.
Early Retirement	Same as normal retirement, but reduced actuarially for early commencement (same reduction factors as Tier 1).
Postponed Retirement	Same as normal retirement, but based on continued accrual past normal retirement date.
Normal form of Payment	Monthly life annuity.
Disability	
Eligibility	Totally and permanently disabled (except as the result of actions specified in the County code). To receive duty-related disability benefits, there is no service requirement. Five years of service are required to receive non-duty benefits.
Duty-Related	The greater of the accrued benefit or 66-2/3% of final earnings, payable immediately, unreduced.
Non-duty	The greater of the accrued benefit or 25% of final earnings, payable immediately, unreduced.
Termination of Employment	
Less than 5 years of service	No benefit is payable.
5 years of service	The accrued normal retirement benefit taking into account final earnings and service at date of termination, payable at normal retirement date.
Death benefits	
Married and eligible for early retirement	The greatest of: • $10 per month • 50% of the final earnings • The accrued benefit, reduced actuarially for early commencement and the joint and 100% survivor form.
Unmarried or not eligible for early retirement	A lump sum of 50% of final earnings.
Cost of Living Increase (compound)	Retiree benefits are adjusted each year. The revised benefit amount is the lesser of: • Prior year benefit multiplied by 60% of the increase in current March CPI from March CPI for prior year. • Benefit increased by 2.5%. Benefit payments can be reduced or increased. However, the amount can never be less than the initial benefit amount.

County Council Bill No. 34-92	Effective 6/1/92 through 8/31/92
	Participants age 50 or older with at least 20 years of service could elect to retire with an additional pension equal to 1/12 of 2% for each year of credited service. The additional amount could be taken as a pension increase, a lump sum, or as a temporary supplement to age 62. Appropriate actuarial adjustments apply.
State House Bill No. 687	Effective 7/1/90
	County employees were given the opportunity to apply for credit under the County's plan for previous service with the State of Maryland (or a political subdivision of the State).
County Council Bill No. 90-93	Effective 12/22/93
	Plan participants are required to pay the full actuarial value of service purchases. Purchases can only be made at retirement. To be eligible, an employee must have 60 months of County service. Existing plan participants must be notified of their right to purchase service under existing law.
County Council Bill No. 82-94	Effective 10/31/94
	Transfers assets from general employees plan to A&E plan for participants who have transferred between these two plans.
County Council Bill No. 88-96	Effective 12/4/96
	The previous method of calculating cost of living increase will only apply to benefits accrued as of 1/31/97. The cost of living increase for future benefits is a compound increase equal to 60% of the annual change in the CPI, not to exceed 2.5%. Employees hired, or rehired, on or after 12/4/96 will be Tier Two employees and will have different benefits than current employees.
County Council Bill No. 41-99	Effective 6/15/99
	Employees paid under the deputy sheriff employees pay schedule become Tier Two members of the Detention Center Plan effective as of January 1, 1999. Service credited under the Employees' Plan will count as credited service in the Detention Center Plan and no future benefit will be paid from the Employees' Plan. Assets are transferred from the Employees' Plan to the Detention Center Plan in an amount equal to the projected unit credit accrued liability in the Employees' Plan.
Recodification	Effective 2/25/2002
	Allows a benefit based on disability leave service and pre-plan military service to be paid over the 60% cap. Normal retirement was changed to the earlier of 30 years of service or age 60.
County Council Bill No. 74-09	Effective 12/11/2009.
	For non-represented members, FY2010 annual pay shall be determined by increasing FY2009 annual pay by an assumed 3% for determining the final average basic pay.
County Council Bill No. 6-10	Effective 4/18/2010.
	Provides for a disability benefit for those participants who are totally and permanently disabled as a result of qualified military service.
County Council Bill No. 98-12	Effective 5/13/2013.
	Changed the definition of "final average basic pay" from highest 3 out of the last 5 years basic pays to highest 3 of all basic pays.

Solvency Test

2001 to 2015

Actuarial Valuation Date	Active Member Contribution (1)	Retirees and Beneficiaries Inactive and Pay-Status Members (2)	Active Members Employer Financed Portion (3)	Actuarial Value of Assets	Portion of Actuarial Accrued Liabilities Covered by Assets (1)	(2)	(3)
1/1/2001	41,406,031	111,719,124	186,186,863	302,805,427	100%	100%	80.4%
1/1/2002	44,309,682	121,204,179	192,282,764	321,443,897	100%	100%	81.1%
1/1/2003	45,678,833	150,497,365	176,296,171	335,539,414	100%	100%	79.1%
1/1/2004	47,751,449	163,182,780	156,607,123	367,756,502	100%	100%	100.1%
1/1/2005	49,689,830	197,181,410	158,300,584	395,501,876	100%	100%	93.9%
1/1/2006	50,870,066	224,477,149	163,885,111	422,234,496	100%	100%	89.6%
1/1/2007	52,535,798	257,120,315	172,315,517	456,656,849	100%	100%	85.3%
1/1/2008	52,839,596	289,584,191	183,917,695	492,788,674	100%	100%	81.8%
1/1/2009	54,817,303	315,594,769	197,782,908	488,275,803	100%	100%	59.6%
1/1/2010	58,025,700	333,890,452	206,924,979	519,556,093	100%	100%	61.7%
1/1/2011	60,121,679	360,630,667	206,517,241	522,165,145	100%	100%	49.1%
1/1/2012	62,225,800	383,559,354	207,867,904	516,070,401	100%	100%	33.8%
1/1/2013	63,403,319	423,101,739	207,075,617	508,232,321	100%	100%	10.5%
1/1/2014	63,002,887	460,323,316	212,402,830	545,812,384	100%	100%	10.6%
1/1/2015	65,660,434	486,377,944	229,067,582	582,795,438	100%	100%	13.4%

Analysis of Financial Experience

Reasons for Change in the Unfunded Accrued Liability
The unfunded accrued liability increased from $189,916,649 to $198,310,522. The increase is due to salary increases being higher than the assumption. The funded

Reasons for Change in Contribution Rates
The employer contribution rate decreased from 21.5% for the fiscal year ending June 30, 2015 to 20.8% for the fiscal year ending June 30, 2016. The decrese of 0.7%

Pay Increases	1.3%
Investment Loss/(Gain)	-1.1%
New Entrants/Change in Normal Cost	-0.4%
COLAs	-1.1%
Expenses	-0.1%
Assumption Changes	0.0%
Demographics and Other Changes	0.7%
Total	**-0.7%**

Net Pension Liability of the County

The components of the net pension liability of the County at December 31, 2014, were as follows:

Total pension liability	$ 798,349,049
Plan fiduciary net position	(583,936,390)
County's net pension liability	$ 214,412,659
Plan fiduciary net position as a percentage of the total pension liability	73.14%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of December 31, 2014 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	Rates vary by participant age
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Mortality	RP-2000 Blue Collar Mortality tables with generational projection by Scale AA. A nine-year set forward is used for post-disability mortality.

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the January 1, 2014 actuarial valuation report.

Sensitivity of the net pension liability to changes in the discount rate

	1% Decrease 6.50%	*Current Discount Rate* 7.50%	*1% Increase* 8.50%
County's net pension liability	$ 307,453,508	$ 214,412,659	$ 135,941,210

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 12/31/13	$ 730,874,035	$ 565,902,490	$ 164,971,545
Changes for the year:			
Service cost	14,159,089		14,159,089
Interest	53,352,604		53,352,604
Changes of benefit terms	-		-
Differences between expected and actual experience	16,407,918		16,407,918
Changes of assumptions	22,567,389		22,567,389
Contributions - employer		24,451,074	(24,451,074)
Contributions - member		4,662,147	(4,662,147)
Net investment income		28,451,206	(28,451,206)
Benefit payments, including refunds of member contributions	(39,011,986)	(39,011,986)	-
Administrative expense		(518,541)	518,541
Other		-	-
Net Changes	67,475,014	18,033,900	49,441,114
Balances at 12/31/14	$ 798,349,049	$ 583,936,390	$ 214,412,659

Changes in the County's Net Pension Liability and Related Ratios
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total pension liability										
Service cost	$ 14,159									
Interest	53,353									
Changes of benefit terms	-									
Differences between expected and actual experience	16,408									
Changes of assumptions	22,567			Information for FY2013 and earlier is not available						
Benefit payments, including refunds of member contributions	(39,012)									
Net change in total pension liability	67,475									
Total pension liability - beginning	730,874									
Total pension liability - ending (a)	$ 798,349									
Plan fiduciary net position										
Contributions - employer	$ 24,451									
Contributions - member	4,662									
Net investment income	28,451									
Benefit payments, including refunds of member contributions	(39,012)									
Administrative expense	(519)									
Other	-									
Net change in plan fiduciary net position	$ 18,034									
Plan fiduciary net position - beginning	565,902									
Plan fiduciary net position - ending (b)	$ 583,936									
County's net pension liability - ending (a)-(b)	$ 214,413									
Plan fiduciary net position as a percentage of the total pension liability	73.14%									
Covered-employee payroll	$ 127,481									
County's net pension liability as a percentage of covered-employee payroll	168.19%									
Expected average remaining service years of all participants	5									

Notes to Schedule:

Benefit changes: There are no benefit changes reflected in the current schedule.

Changes of assumptions: For FY2014, the expected rate of investment return was reduced from 8.0% to 7.5% and other assumptions were changed to reflect the results of the 2012 experience study.

Schedule of County Contributions
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially determined contribution	$ 24,426									
Contributions in relation to the actuarially determined contribution	24,451			Information for FY2013 and earlier is not available						
Contribution deficiency (excess)	$ (25)									
Covered-employee payroll [1]	$ 127,481									
Contributions as a percentage of covered employee payroll	19.18%									

[1] Amounts shown are based on total compensation and not just pensionable earnings only.

Notes to Schedule

Valuation date:
Actuarially determined contribution amounts are calculated as of each January 1 for the upcoming County fiscal year beginning July 1. Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percent of payroll (closed), increasing 3.0% per year.
Remaining amortization period	Remaining Amortization periods range from 19 to 28 years.
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increases	Rates vary by participant age
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by participant age and service
Mortality	RP-2000 Blue Collar Mortality tables with generational projection by Scale AA. A nine-year set forward is used for post-disability mortality.

Attachment B

Police Service Retirement Plan

A. Method Used for Funding Purposes

This valuation was performed using the projected unit credit cost method. The contribution equals the sum of the normal cost and the amount necessary to amortize any actuarial gains/(losses) over closed periods. Effective January 1, 2014, new bases are amortized over closed periods of 20 years. Amortization payments increase 3.0% per year.

B. Asset Valuation Method

The actuarial value of assets is determined by spreading the asset gain or loss over a 5-year period. The asset gain or loss is the amount by which the actual market value investment return differs from the expected market value asset return. The method was effective with the 1/1/2011 actuarial valuation. The Actuarial Value of Assets recognizes adjustments resulting from the final prior year's audit.

There is a six-month lag between the valuation and the fiscal year. The 2015 valuation determines the County contributions due for the fiscal year ending June 30, 2016. Contributions made between the valuation date and the beginning of the next fiscal year (January 1, 2015 to June 30, 2015) have not been treated as assets in the current valuation.

C. Valuation Procedures

Generally, the plan provides a 100% survivor benefit to the spouse at the time of the retiree's death. This allows for post retirement marriages. We have valued the forms of payment originally coded in the data or based this on marital status at time of retirement (generally a 100% survivor benefit but not always). Starting with the 2008 valuation, all new retirements are valued with a 100% Joint and Survivor form of payment.

D. Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the Plan for purposes of determining contributions and liabilities under GASB. These assumptions are used for all members eligible to receive benefits under the Police Service Retirement Plan provisions.

Economic

Investment Return	7.5% compounded annually net of investment expenses (3.0% inflation and 4.5% real return) effective January 1, 2014.
Salary Increases	A graded schedule is used. See Earnings Progression Table.
Cost of Living Adjustment	Benefits accrued before Bill 88-96 are assumed to increase by 3.0% of the current benefit each year from retirement effective January 1, 2014. Benefits accrued after Bill 88-96 are assumed to increase by 1.8% of the current benefit each year from retirement effective January 1, 2014.

Other

Mortality	Healthy: RP-2000 Blue Collar Mortality Table for males and females projected generationally using scale AA. Pre-Termination mortality uses 60% of these rates. Disabled: RP-2000 Blue Collar Mortality Table for males and females set forward five years and then projected generationally using scale AA. 100% of pre-retirement deaths are assumed to be non-duty-related. Projection to the year of the valuation is assumed to be current experience. The generational projection beyond the valuation date is to account for future mortality improvements. See Table of Sample Rates.
Withdrawal	See Table of Sample Rates.
Disability	See Table of Sample Rates. 75% of disablement is assumed to be duty-related.
Administrative Expenses	$500,000 for FY2016 and $517,000 for FY2015 (average of actual expenses for the two years preceding the valuation date).

Prudential Benefits — Our calculations reflect that some benefits have already been purchased.

Retirement Rates[1] — Sample Rates:

For funding

Age	Service 20	22	24	27	30
40	26.40%	10.00%	18.33%	10.00%	10.00%
45	18.34%	10.00%	18.33%	10.00%	10.00%
50	36.66%	50.00%	58.33%	50.00%	100.00%
55	50.00%	50.00%	50.00%	50.00%	100.00%

For GASB68 accounting

Age	20	22	23+
40	26.40%	10.00%	100.00%
45	18.34%	10.00%	100.00%
50	36.66%	50.00%	100.00%
55	50.00%	50.00%	100.00%

DROP load — To reflect the cost of the more valuable benefits provided from the deferred retirement option program the following loads were applied:

Sample Load Rates

Age	Service 23	27	30	35
44	0.4%	1.4%	2.3%	12.0%
50	2.0%	3.7%	4.5%	14.6%
55	2.7%	4.6%	5.4%	15.6%
60	3.2%	5.3%	6.1%	16.4%

Percentage Married — 80% of employees and 70% of current retirees and disableds are assumed married.

Age Difference — Males are assumed to be four years older than their spouses.

Military Service — Active liabilities (which depend on credit service) are loaded by 3.25% to account for future crediting of military service.

Disability Leave — Active liabilities (which depend on credit service) are loaded by 1.75% to account for future crediting of disability service.

Table of Sample Base Mortality Rates (2000)

	Healthy Mortality		Disabled Mortality		Projection Scale (Healthy and Disabled)	
	Males	Females	Males	Females	Males	Females
20	0.03%	0.02%	0.04%	0.02%	1.90%	1.60%
25	0.04	0.02	0.07	0.03	1.00	1.40
30	0.07	0.03	0.11	0.05	0.50	1.00
35	0.11	0.05	0.14	0.09	0.50	1.10
40	0.14	0.09	0.18	0.14	0.80	1.50
45	0.18	0.14	0.24	0.20	1.30	1.60
50	0.24	0.20	0.42	0.28	1.80	1.70
55	0.42	0.28	0.83	0.49	1.90	0.80
60	0.83	0.49	1.55	1.04	1.60	0.50
65	1.55	1.04	2.68	1.86	1.40	0.50

[1] 100% at age 58.

Attained Age	Table of Sample Decrement Rates	
	Percentage	
	Disability	Withdrawal
20	0.3060%	5.31%
25	0.3060	4.25
30	0.3060	3.19
35	0.4526	2.13
40	0.9340	1.28
45	1.5619	0.64
50	2.2983	0.00
55	0.0000	0.00
60	0.0000	0.00
64	0.0000	0.00

Earnings Progression	
Attained Age	Percentage Increase at Attained Age
20	6.0%
25	6.0
30	5.5
35	5.0
40	4.5
45	4.0
50	4.0

Active Members

Valuation Date	Number	Annual Payroll (Jan. 1 Rate)	Average Annual Pay	% Increase in Average Pay
January 1, 2006[4]	642	36,694,307	57,156	7.56%
January 1, 2007[5]	640	37,805,038	59,070	3.35%
January 1, 2008[6]	658	41,011,336	62,327	5.51%
January 1, 2009[7]	627	41,508,547	66,202	6.22%
January 1, 2010[8]	632	42,499,380	67,246	1.58%
January 1, 2011[9]	620	42,449,204	68,466	1.81%
January 1, 2012[10]	636	41,334,580	64,991	(5.08%)
January 1, 2013[11]	640	40,521,944	63,316	(2.58%)
January 1, 2014[12]	666	41,714,302	62,634	(1.08%)
January 1, 2015[13]	693	48,261,635	69,642	11.19%

4 Includes 58 participants in DROP.
5 Includes 51 participants in DROP.
6 Includes 47 participants in DROP.
7 Includes 34 participants in DROP.
8 Includes 45 participants in DROP.
9 Includes 57 participants in DROP.
10 Includes 60 participants in DROP.
11 Includes 60 participants in DROP.
12 Includes 58 participants in DROP.
13 Includes 55 participants in DROP.

Members Receiving Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/04 to 12/31/04	411	18	(2)	427
1/1/05 to 12/31/05	427	29	(4)	452
1/1/06 to 12/31/06	452	38	(12)	478
1/1/07 to 12/31/07	478	40	(7)	511
1/1/08 to 12/31/08	511	50	(8)	553
1/1/09 to 12/31/09	553	30	(12)	571
1/1/10 to 12/31/10	571	26	(14)	583
1/1/11 to 12/31/11	583	31	(14)	600
1/1/12 to 12/31/12	600	40	(11)	629
1/1/13 to 12/31/13	629	22	(12)	639
1/1/14 to 12/31/14	639	29	(13)	655

Summary of Retirees and Beneficiaries Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		Rolls End of Year			
Year Ending	Number	Annual Allowance[1]	Number	Annual Allowance	Number	Annual Allowance	% Increase in Average Annual Allowance	Average Annual Allowance
12/31/2008	50	$2,367,778	8	$359,448	553	$20,719,636	2.32%	$37,468
12/31/2009	30	$1,788,475	12	$391,958	571	$22,116,153	3.37%	$38,732
12/31/2010	26	$1,037,257	14	$550,831	583	$22,602,579	0.10%	$38,769
12/31/2011	31	$1,825,986	14	$551,286	600	$23,877,279	2.65%	$39,795
12/31/2012	40	$2,627,863	11	$542,409	629	$25,962,733	3.72%	$41,276
12/31/2013	22	$1,353,267	12	$401,425	639	$26,914,575	2.04%	$42,120
12/31/2014	29	$1,788,688	13	$669,885	655	$28,033,378	1.61%	$42,799

1 Includes COLA's

Compensation	For purposes of the pension plan, compensation is the regular annual rate of pay, exclusive of extra compensation of any kind such as overtime pay, bonuses and commissions.
Final Earnings	The average of the highest 3 years of all basic pays.
Eligibility Requirements	Full-time employees occupying the classes of work listed below and making contributions to the plan will be eligible to participate in the pension plan upon hire: • Police Officer • Police Sergeant • Police Lieutenant • Police Captain • Police Major • Deputy Police Chief • Chief of Police, by election
Employee Contributions	7.25% of compensation for all participants.
Retirement Date	
Normal Retirement	The first of the month coincident with or next following the participant's 50th birthday with 5 years of service or the completion of 20 years of service. For those hired prior to February 25, 2002, the five years of service is not required.
Postponed Retirement	A participant may work beyond his normal retirement date and may subsequently retire on the first of any month.
Retirement Benefits	
Normal Retirement	2.5% of final earnings for each year of service up to 20 years plus 2.0% of final earnings per year of service in excess of 20 years (maximum 70% plus 2% times unused disability credit and pre-employment military service credit).
Postponed Retirement	Same as normal retirement, but based on continued accrual past normal retirement date.
Normal Form of Payment	For single participants, monthly life annuity with payments guaranteed for 5 years. For married participants, unreduced 100% joint and survivor annuity with payments guaranteed for 5 years.
Disability	
Eligibility	Totally and permanently disabled (except as the result of activities specified in the County code) regardless of length of service.
Duty-Related	The greater of the accrued benefit or 66-2/3% of final earnings, payable immediately, unreduced.
Non-Duty	The greater of the accrued benefit or 20% of final earnings, payable immediately, unreduced.
Termination of Employment	
Less than 20 years of service	Return of employee contributions with 3.00% interest.

Death Benefits

Married	Duty-Related: Greater of accrued benefit or 66-2/3% of final earnings. Non-duty Related: Accrued Benefit.
Unmarried	Return of employee contributions with 3.00% interest plus, if one or more years of service, a lump sum of 50% of final earnings.
Cost of Living Increase (for benefits accrued as of 1/31/97)	Retiree benefits are adjusted each year. The revised benefit amount is the lesser of: • Base benefit multiplied by ratio of current 12 month average CPI to 12 month average CPI at retirement. • Prior year benefit increased by 4%. Benefit payments can be reduced or increased. However, the amount can never be less than the initial amount.
Cost of Living Increase (for benefits accrued after 1/31/97)	Retiree benefits are adjusted each year. The revised benefit amount is the lesser of: • Prior year benefit multiplied by 60% of the increase in current March CPI from March CPI for prior year. • Prior year benefit increased by 2.5%. Benefit payments can be reduced or increased. However, the amount can never be less than the initial amount.
Deferred Retirement Option Program (DROP)	Allows accumulation of pension after 20 years of County service. DROP period must be between 3 and 5 years.

County Council Bill No. 34-92	Effective 6/1/92 through 8/31/92
	Participants age 50 or with at least 20 years of service could elect to retire with an additional pension equal to 1/12 of 2.5% of final earnings for the first 20 years of service, plus 1/12 of 2% of final earnings for each additional year of service. The additional amount could be taken as a pension increase, a lump sum, or as a temporary supplement to age 62. Appropriate actuarial adjustments apply.
County Council Bill No. 66-92	Effective 7/2/92
	The plan was amended to allow normal, unreduced retirement after 20 years of service.
	Employee contributions were increased to 6% from 5%.
	Participants under age 50 were not allowed to retire and receive retirement incentives (under Bill No, 34-92) in addition to unreduced retirement. They could either retire early with the incentives, or normally without the incentives.
State House Bill No. 687	Effective 7/1/90
	County employees were given the opportunity to apply for credit under the County's plan for previous service with the State of Maryland (or a political subdivision of the State).
County Council Bill No. 88-96	Effective 12/4/96
	The previous method of calculating cost of living increase will only apply to benefits accrued as of 1/31/97. The cost of living increase for future benefits is a compound increase equal to 60% of the annual change in the CPI, not to exceed 2.5%. Employees hired, or rehired, on or after 12/4/96 will be Tier Two employees and will have different benefits than current employees.
Recodification	Effective 2/25/2002
	Allows a benefit based on disability leave service and pre-plan military service to be paid over the 70% cap. Normal Retirement was changed to the earlier of 20 years of service or age 50 with 5 years of service. Elimination of Tier 2 benefits. Implemented a Deferred Retirement Option Program (DROP), a voluntary program that provides an alternative way to earn and receive retirement benefits.
County Council Bill No. 66-05	Effective 10/10/2005
	Reduced the contribution percentage for Category II participants from 6% to 5%.
County Council Bill No. 58-07	Effective 10/11/2007
	Reduced the contribution percentage for Category I participants from 6% to 5%.
County Council Bill 74-09	Effective 12/11/2009.
	For non-represented members, FY2010 annual pay shall be determined by increasing FY2009 annual pay by an assumed 3% for determining the average basic pay. Clarified the limits on those entering DROP. The effective annual interest rate for the DROP account changed from 8% to 4.25% for those entering DROP on or after July 1, 2009.
County Council Bill No. 6-10	Effective 4/18/2010
	Provides for a disability benefit for those participants who are totally and permanently disabled as a result of qualified military service.
County Council Bill 41-10	Effective 7/1/2010.
	Increased the contribution rate for Police Officers, Police Officer First Class, Police Corporals, and Police Sergeants to 7.25%.
County Council Bill No. 98-12	Effective 5/13/2013.
	Changed the definition of "final average basic pay" from highest 3 out of the last 5 years basic pays to highest 3 of all basic pays.

County Council Bill No. 30-12	Effective 2/1/2013
	All participant except for those in the Police Lieutenant classification shall contribute 7.25% of his or her annual basic pay in each calendar year or portion of a calendar year while an active participant in the plan.
County Council Bill No. 67-12	Effective 2/1/2013
	Participant in the Police Lieutenant classification shall contribute 7.25% of his or her annual basic pay in each calendar year or portion of a calendar year while an active participant in the plan.

Solvency Test

2001 to 2015

Actuarial Valuation Date	Active Member Contribution (1)[1]	Retirees and Beneficiaries Inactive and Pay-Status Members (2)	Active Members Employer Financed Portion (3)	Actuarial Value of Assets	Portion of Actuarial Accrued Liabilities Covered by Assets (1)	(2)	(3)
1/1/2001	16,460,010	140,990,477	130,567,495	252,149,932	100%	100%	72.5%
1/1/2002	17,063,875	157,661,880	130,272,087	268,703,856	100%	100%	72.1%
1/1/2003	17,905,001	169,590,397	131,140,395	281,967,318	100%	100%	72.0%
1/1/2004	18,600,457	183,863,447	123,091,936	311,371,499	100%	100%	88.5%
1/1/2005	19,504,325	193,958,675	132,691,153	337,113,153	100%	100%	93.2%
1/1/2006	17,307,619	211,322,531	147,930,753	360,268,341	100%	100%	89.0%
1/1/2007	18,309,729	231,512,770	151,875,606	389,877,885	100%	100%	92.2%
1/1/2008	19,041,581	256,380,618	158,244,903	417,278,055	100%	100%	89.6%
1/1/2009	19,699,084	286,232,025	157,750,087	408,261,502	100%	100%	64.9%
1/1/2010	19,761,988	303,531,019	164,282,171	432,176,036	100%	100%	66.3%
1/1/2011	20,787,782	310,212,178	171,001,709	435,891,125	100%	100%	61.3%
1/1/2012	21,860,897	325,991,800	178,302,281	430,342,941	100%	100%	46.3%
1/1/2013	22,454,626	357,544,534	175,292,937	420,675,703	100%	100%	23.2%
1/1/2014	24,465,302	364,953,146	186,969,390	452,075,806	100%	100%	33.5%
1/1/2015	26,791,267	381,682,950	205,142,796	481,633,710	100%	100%	35.7%

Analysis of Financial Experience

Reasons for Change in the Unfunded Accrued Liability
The unfunded accrued liability increased from $124,312,032 to $131,983,303. The increase is partly due to salary increases being higher than the assumption. The

Reasons for Change in Contribution Rates
The employer contribution rate decreased from 45.1% for the fiscal year ending June 30, 2015 to 42.1% for the fiscal year ending June 30, 2016. The decrese of 3.0%

Pay Increases	0.2%
Investment Loss/(Gain)	-0.3%
New Entrants/Change in Normal Cost	-1.6%
COLAs	-0.4%
Expenses	-0.2%
Assumption Changes	0.0%
Amortization Change	0.0%
Demographics and Other Changes	-0.7%
Total	**-3.0%**

[1] Does not include contribution balances for any participants currently in DROP

Net Pension Liability of the County

The components of the net pension liability of the County at December 31, 2014, were as follows:

Total pension liability	$ 621,869,655
Plan fiduciary net position	(479,987,860)
County's net pension liability	$ 141,881,795
Plan fiduciary net position as a percentage of the total pension liability	77.18%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of December 31, 2014 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	Rates vary by participant age
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Mortality	RP-2000 Blue Collar Mortality tables with generational projection by Scale

2014 actuarial valuation report.

Sensitivity of the net pension liability to changes in the discount rate

	1% Decrease 6.50%	*Current Discount Rate* 7.50%	*1% Increase* 8.50%
County's net pension liability	$ 222,661,078	$ 141,881,795	$ 75,944,629

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 12/31/13	$ 567,814,876	$ 466,280,524	$ 101,534,352
Changes for the year:			
Service cost	10,950,610		10,950,610
Interest	41,479,596		41,479,596
Changes of benefit terms	-		-
Differences between expected and actual experience	12,800,507		12,800,507
Changes of assumptions	18,331,256		18,331,256
Contributions - employer		18,869,736	(18,869,736)
Contributions - member		2,949,789	(2,949,789)
Net investment income		21,812,782	(21,812,782)
Benefit payments, including refunds of member contributions	(29,507,190)	(29,507,190)	-
Administrative expense		(417,781)	417,781
Other		-	-
Net Changes	54,054,779	13,707,336	40,347,443

Changes in the County's Net Pension Liability and Related Ratios

Last 10 Fiscal Years

(Dollar amounts in thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total pension liability										
Service cost	$ 10,951									
Interest	41,480									
Changes of benefit terms	-									
Differences between expected and actual experience	12,801									
Changes of assumptions	18,331			Information for FY2013 and earlier is not available						
Benefit payments, including refunds of member contributions	(29,507)									
Net change in total pension liability	54,055									
Total pension liability - beginning	567,815									
Total pension liability - ending (a)	$ 621,870									
Plan fiduciary net position										
Contributions - employer	$ 18,870									
Contributions - member	2,950									
Net investment income	21,813									
Benefit payments, including refunds of member contributions	(29,507)									
Administrative expense	(418)									
Other	-									
Net change in plan fiduciary net position	$ 13,707									
Plan fiduciary net position - beginning	466,281									
Plan fiduciary net position - ending (b)	$ 479,988									
County's net pension liability - ending (a)-(b)	$ 141,882									
Plan fiduciary net position as a percentage of the total pension liability	77.18%									
Covered-employee payroll	$ 55,345									
County's net pension liability as a percentage of covered-employee payroll	256.36%									
Expected average remaining service years of all participants	4									

Notes to Schedule:

Benefit changes: There are no benefit changes reflected in the current schedule.

Changes of assumptions: For FY2014, the expected rate of investment return was reduced from 8.0% to 7.5% and other assumptions were changed to reflect the results of the 2012 experience

Schedule of County Contributions

Last 10 Fiscal Years

(Dollar amounts in thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially determined contribution	$ 18,870									
Contributions in relation to the actuarially determined contribution	18,870			Information for FY2013 and earlier is not available						
Contribution deficiency (excess)	$ (0)									
Covered-employee payroll [1]	$ 55,345									
Contributions as a percentage of covered employee payroll	34.10%									

[1] Amounts shown are based on total compensation and not just pensionable earnings only.

Notes to Schedule

Valuation date:

Actuarially determined contribution amounts are calculated as of each January 1 for the upcoming County fiscal year beginning July 1. Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percent of payroll (closed), increasing 3.0% per year.
Remaining amortization period	Remaining Amortization periods range from 19 to 28 years.
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increases	Rates vary by participant age
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by participant age and service
Mortality	RP-2000 Blue Collar Mortality tables with generational projection by Scale AA. A five-year set forward is used for post-disability mortality.

Attachment C

Fire Service Retirement Plan

A. Method Used for Funding Purposes

This valuation was performed using the projected unit credit cost method. The contribution equals the sum of the normal cost and the amount necessary to amortize any actuarial gains/(losses) over closed periods. Effective January 1, 2014, new bases are amortized over closed periods of 20 years. Amortization payments increase 3.0% per year.

B. Asset Valuation Method

The actuarial value of assets is determined by spreading the asset gain or loss over a 5-year period. The asset gain or loss is the amount by which the actual market value investment return differs from the expected market value asset return. The method was effective with the 1/1/2011 actuarial valuation. The Actuarial Value of Assets recognizes adjustments resulting from an audit.

There is a six month lag between the valuation and the fiscal year. The 2015 valuation determines the County contribution due for the fiscal year ending June 30, 2016. Contributions made between the valuation date and the beginning of the next fiscal year (January 1, 2015 to June 30, 2015) have not been treated as assets in the current valuation.

C. Valuation Procedures

Generally, the plan provides a 100% survivor benefit to the spouse at the time of the retiree's death. This allows for post retirement marriages. We have valued the forms of payment originally coded in the data or based this on marital status at time of retirement (generally a 100% survivor benefit but not always). Starting with the 2008 valuation, all new retirements are valued with a 100% Joint and Survivor form of payment.

D. Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the Plan for purposes of determining contributions and liabilities under GASB. These assumptions are used for all members eligible to receive benefits under the Fire Plan provisions.

Economic	
Investment Return	7.5% compounded annually net of investment expenses (3.0% inflation and 4.5% real return) effective January 1, 2014.
Salary Increases	A graded schedule is used. See Earnings Progression Table.
Cost of Living Adjustment	Benefits accrued before Bill 88-96 are assumed to increase by 3.0% of the current benefit each year from retirement. Benefits accrued after Bill 88-96 are assumed to increase by 1.8% of current benefit each year from retirement.
Other	
Mortality	Healthy: RP-2000 Blue Collar Mortality Table for males and females projected generationally using scale AA. Pre-Termination mortality uses 60% of these rates. Disabled: RP-2000 Blue Collar Mortality Table for males and females set forward five years and then projected generationally using scale AA. 100% of pre-retirement deaths are assumed to be non-duty-related. Projection to the year of the valuation is assumed to be current experience. The generational projection beyond the valuation date is to account for future mortality improvements. See Table of Sample Rates.
Withdrawal	See Table of Sample Rates.
Disability	See Table of Sample Rates. 75% of disablement is assumed to be duty-related.
Administrative Expenses	\$511,000 for FY2016 and \$529,000 for FY2015 (average of actual expenses for the two years preceding the valuation date).

Prudential Benefits — Our calculations reflect that some benefits have already been purchased.

Retirement Rates — ***Sample Rates:***

For funding

	Service						
Age	20	22	24	27	30	32	34
40	5.00%	5.00%	20.00%	10.00%	40.00%	40.00%	100.00%
45	5.00%	5.00%	20.00%	10.00%	40.00%	40.00%	100.00%
50	10.00%	10.00%	28.00%	25.00%	40.00%	40.00%	100.00%
55	25.00%	25.00%	25.00%	25.00%	40.00%	40.00%	100.00%
59	33.00%	33.00%	33.00%	33.00%	40.00%	40.00%	100.00%
62	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

For GASB68 accounting

Age	20	22	24	25+
40	5.00%	5.00%	20.00%	100.00%
45	5.00%	5.00%	20.00%	100.00%
50	10.00%	10.00%	28.00%	100.00%
55	25.00%	25.00%	25.00%	100.00%
59	33.00%	33.00%	33.00%	100.00%
62	100.00%	100.00%	100.00%	100.00%

DROP load — To reflect the cost of the more valuable benefits provided from the deferred retirement option program the following loads were applied:

Sample Load Rates

	Service			
Age	23	27	30	35
44	0.45%	1.71%	2.70%	14.40%
50	2.43%	4.41%	5.40%	17.46%
55	3.24%	5.49%	6.48%	18.72%
60	3.87%	6.39%	7.29%	19.62%

Percentage Married — 80% of employees and 70% of current retirees and disableds are assumed married.

Age Difference — Males are assumed to be four years older than their spouses.

Military Service — Active liabilities (which depend on credit service) are loaded by 3.25% to account for future crediting of military service.

Disability Leave — Service credit for benefit formula purposes is increased by 1.75% to account for disability leave, which is converted, to service credit at retirement.

	Table of Sample Base Mortality Rates (2000)				Projection Scale (Healthy and Disabled)	
	Healthy Mortality		Disabled Mortality			
	Males	Females	Males	Females	Males	Females
20	0.03%	0.02%	0.04%	0.02%	1.90%	1.60%
25	0.04	0.02	0.07	0.03	1.00	1.40
30	0.07	0.03	0.11	0.05	0.50	1.00
35	0.11	0.05	0.14	0.09	0.50	1.10
40	0.14	0.09	0.18	0.14	0.80	1.50
45	0.18	0.14	0.24	0.20	1.30	1.60
50	0.24	0.20	0.42	0.28	1.80	1.70
55	0.42	0.28	0.83	0.49	1.90	0.80
60	0.83	0.49	1.55	1.04	1.60	0.50
65	1.55	1.04	2.68	1.86	1.40	0.50

	Table of Sample Decrement Rates	
	Percentage	
Attained Age	Disability	Withdrawal
20	0.1836%	6.11%
25	0.1836	4.73
30	0.1836	2.87
35	0.2716	2.21
40	0.5604	1.69
45	0.9371	1.21
50	1.3790	0.00
55	0.0000	0.00
60	0.0000	0.00
65	0.0000	0.00

Earnings Progression	
Attained Age	Percentage Increase at Attained Age
20	6.5%
25	6.0
30	5.5
35	5.0
40	4.5
45	4.0
50	4.0

Active Members

Valuation Date	Number	Annual Payroll (Jan. 1 Rate)	Average Annual Pay	% Increase in Average Pay
January 1, 2006	722[5]	38,592,322	53,452	3.0%
January 1, 2007	811[6]	43,527,351	53,671	0.4%
January 1, 2008	770[7]	43,941,526	57,067	6.3%
January 1, 2009	845[8]	48,824,352	57,780	1.2%
January 1, 2010	820[9]	49,064,454	59,835	3.6%
January 1, 2011	792[10]	47,840,812	60,405	1.0%
January 1, 2012	752[11]	45,673,006	60,735	0.5%
January 1, 2013	713[12]	43,361,686	60,816	0.1%
January 1, 2014	754[13]	44,950,885	59,617	(2.0%)
January 1, 2015	780[14]	48,549,950	62,244	4.41%

[5] Includes 106 members in DROP.
[6] Includes 93 members in DROP.
[7] Includes 61 members in DROP.
[8] Includes 36 members in DROP.
[9] Includes 63 members in DROP.
[10] Includes 103 members in DROP.
[11] Includes 121 members in DROP.
[12] Includes 127 members in DROP.
[13] Includes 115 members in DROP.
[14] Includes 87 members in DROP.

Members Receiving Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/05 to 12/31/05	270	26	(3)	293
1/1/06 to 12/31/06	293	48	(9)	332
1/1/07 to 12/31/07	332	42	(10)	364
1/1/08 to 12/31/08	364	45	(4)	405
1/1/09 to 12/31/09	405	13	(4)	414
1/1/10 to 12/31/10	414	18	(5)	427
1/1/11 to 12/31/11	427	15	(3)	439
1/1/12 to 12/31/12	439	24	(4)	459
1/1/13 to 12/31/13	459	27	(5)	481
1/1/14 to 12/31/14	481	45	(9)	517

Summary of Retirees and Beneficiaries Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		Rolls End of Year			
Year Ending	Number	Annual Allowance[1]	Number	Annual Allowance	Number	Annual Allowance	% Increase in Average Annual Allowance	Average Annual Allowance
12/31/2007	42	$1,968,498	10	$178,384	364	$13,209,380	5.51%	$36,290
12/31/2008	45	$2,033,100	4	$116,736	405	$15,125,744	2.92%	$37,348
12/31/2009	13	$859,830	4	$124,348	414	$15,861,226	2.58%	$38,312
12/31/2010	18	$760,013	5	$215,742	427	$16,405,497	0.28%	$38,420
12/31/2011	15	$926,323	3	$95,933	439	$17,235,887	2.19%	$39,262
12/31/2012	24	$1,419,348	4	$53,068	459	$18,602,167	3.22%	$40,528
12/31/2013	27	$1,516,284	5	$182,136	481	$19,936,315	2.27%	$41,448
12/31/2014	45	$2,426,712	9	$307,354	517	$22,055,673	2.93%	$42,661

[1] Includes COLA's

Compensation — For purposes of the pension plan, compensation is the regular annual rate of pay, exclusive of extra compensation of any kind such as overtime pay, bonuses and commissions.

Final Earnings — The average of the highest 3 years of all basic pays.

Eligibility Requirements — Full-time employees occupying the classes of work listed below and making contributions to the plan will be eligible to participate in the pension plan upon hire:

- Fire Fighter II
- Fire Fighter III
- Fire Fighter/Cardiac Rescue Technician
- Fire Fighter/Emergency Medical Technician Paramedic
- Fire Lieutenant
- Fire Captain
- Fire Battalion Chief
- Fire Division Chief
- Deputy Fire Chief
- Fire Chief, by election

Employee Contributions — 7.25% of compensation for all participants.

Retirement Date

Normal Retirement — The first of the month coincident with or next following the participant's 50th birthday and 5 years of service or the completion of 20 years of service.

Postponed Retirement — A participant may work beyond his normal retirement date and may subsequently retire on the first of any month.

Retirement Benefits

Normal Retirement — 2.5% of final earnings for each year of service up to 20 years plus 2.0% of final earnings per year of service in excess of 20 years (maximum 70% plus 2% times unused disability credit and pre-employment military service credit.)

Postponed Retirement — Same as normal retirement, but based on continued accrual past normal retirement date.

Normal Form of Payment — For single participants, monthly life annuity with payments guaranteed for 5 years.
For married participants, unreduced 100% joint and survivor annuity with payments guaranteed for 5 years.

Disability

Eligibility — Totally and permanently disabled (except as the result of activities specified in the Country code) regardless of length of service.

Duty-Related — The greater of the accrued benefit or 66-2/3% of final earnings, payable immediately, unreduced.

Non-Duty — The greater of the accrued benefit or 20% of final earnings, payable immediately, unreduced.

Termination of Employment Return of employee contributions with 3.00% interest.

Death Benefits

Married

Duty-Related: Greater of accrued benefit or 66-2/3% of final earnings.
Non-duty Related: Accrued Benefit.

Unmarried

Return of employee contributions with 3.00% interest plus, if one or more years of service, a lump sum of 50% of final earnings..

Cost of Living Increase (for benefits accrued as of 1/31/97)

Retiree benefits are adjusted each year. The revised benefit amount is the lesser of:

- Base benefit multiplied by ratio of current 12 month average CPI to 12 month average CPI at retirement.
- Prior year benefit increased by 4%.

Benefit payments can be reduced or increased. However, the amount can never be less than the initial benefit amount.

Cost of Living Increase (for benefits accrued after 1/31/97)

Retiree benefits are adjusted each year. The revised benefit amount is the lesser of:

- Prior year benefit multiplied by 60% of the increase in current March CPI from March CPI for prior year.
- Prior year benefit increased by 2.5%.

Benefit payments can be reduced or increased. However, the amount can never be less than the initial benefit amount.

Deferred Retirement Option Program (DROP)

Allows accumulation of pension after 20 years of County service. DROP period must be between 3 and 5 years.

County Council Bill No. 48-89	Effective 9/13/89
	The previously combined Police and Fire plan was separated into distinct plans for each group.
	The reduction for retirement prior to age 50 was changed to 0.2% per month from 0.3% per month.
County Council Bill No. 34-92	Effective 6/1/92 through 8/31/92
	Participants age 50 or with at least 20 years of service could elect to retire with an additional pension equal to 1/12 of 2.5% of final earnings for the first 20 years of service, plus 1/12 of 2% of final earnings for each additional year of service. The additional amount could be taken as a pension increase, a lump sum, or as a temporary supplement to age 62. Appropriate actuarial adjustments apply.
State House Bill No. 687	Effective 7/1/90
	County employees were given the opportunity to apply for credit under the County's plan for previous service with the State of Maryland (or a political subdivision of the State).
County Council Bill No. 88-96	Effective 12/4/96
	The previous method of calculating cost of living increase will only apply to benefits accrued as of 1/31/97. The cost of living increase for future benefits is a compound increase equal to 60% of the annual change in the CPI, not to exceed 2.5%. Employees hired, or rehired, on or after 12/4/96 will be Tier Two employees and will have different benefits than current employees.
County Council Bill No. 80-00 Recodification	Effective 2/25/2002
	Allows a benefit based on disability leave service and pre-plan military service to be paid over the 70% cap. Normal Retirement was changed to the earlier of 20 years of service or age 50 with 5 years of service. Elimination of Tier 2 benefits. Implemented a Deferred Retirement Option Program (DROP), a voluntary program that provides an alternative way to earn and receive retirement benefits (retroactive to 1/1/2001).
County Council Bill 74-09	Effective 12/11/2009
	For non-represented members, FY2010 annual pay shall be determined by increasing FY2009 annual pay by an assumed 3% for determining the final average basic pay. For represented members, FY2010 annual pay shall be determined by increasing FY2009 annual pay by an assumed 5% for determining the final average basic pay.
County Council Bill 6-10	Effective 4/18/2010
	Provides for a disability benefit for those participants who are totally and permanently disabled as a result of qualified military service.
County Council Bill 41-10	Reduced the DROP interest rate from 8 % to 4.25%. Increased the contribution rate for all but Battalion Chief, Division Chief, Deputy Chief and Fire Chief to 7.25%.
County Council Bill No. 98-12	Effective 5/13/2013.
	Changed the definition of "final average basic pay" from highest 3 out of the last 5 years basic pays to highest 3 of all basic pays.
County Council Bill No. 30-12	Effective 2/1/2013
	All participant shall contribute 7.25% of his or her annual basic pay in each calendar year or portion of a calendar year while an active participant in the plan.

Solvency Test

2001 to 2015

Actuarial Valuation Date	Active Member Contribution (1)[1]	Retirees and Beneficiaries Inactive and Pay-Status Members (2)	Active Members Employer Financed Portion (3)	Actuarial Value of Assets	Portion of Actuarial Accrued Liabilities Covered by Assets (1)	(2)	(3)
1/1/2001	18,423,733	80,220,043	165,988,380	225,133,219	100%	100%	76.2%
1/1/2002	17,271,015	89,282,049	174,533,657	241,162,428	100%	100%	77.1%
1/1/2003	17,874,473	100,771,355	177,832,409	256,190,269	100%	100%	77.3%
1/1/2004	18,501,046	114,331,831	169,067,357	286,763,188	100%	100%	91.0%
1/1/2005	19,654,724	126,074,578	181,130,954	313,478,279	100%	100%	92.6%
1/1/2006	20,610,737	139,896,281	195,279,378	340,274,675	100%	100%	92.1%
1/1/2007	16,552,044	163,245,791	203,896,433	368,413,752	100%	100%	92.5%
1/1/2008	18,136,682	199,472,219	196,206,186	395,884,441	100%	100%	90.9%
1/1/2009	20,084,128	222,938,946	193,497,784	390,551,359	100%	100%	76.2%
1/1/2010	19,643,430	231,194,224	204,438,155	418,191,046	100%	100%	81.9%
1/1/2011	18,426,718	231,165,590	214,897,299	425,830,155	100%	100%	82.0%
1/1/2012	18,980,755	241,688,369	225,426,623	426,196,539	100%	100%	73.4%
1/1/2013	20,011,772	259,809,098	230,649,782	426,659,036	100%	100%	63.7%
1/1/2014	21,692,514	278,481,205	241,904,214	462,235,880	100%	100%	67.0%
1/1/2015	24,732,788	311,351,876	231,670,080	490,533,983	100%	100%	66.7%

Analysis of Financial Experience

Reasons for Change in the Unfunded Accrued Liability
The unfunded accrued liability decreased from $79,842,052 to $77,220,761. The decrease is partly due to investment results and COLA's being less than assumed.

Reasons for Change in Contribution Rates
The employer contribution rate decreased from 34.2% for the fiscal year ending June 30, 2015 to 30.6% for the fiscal year ending June 30, 2016. The decrese of 3.6%

Pay Increases	0.5%
Investment Loss/(Gain)	-0.7%
New Entrants/Change in Normal Cost	-2.3%
COLAs	-0.6%
Expense Load	-0.1%
Assumption Changes	0.0%
Amortization Change	0.0%
Demographics and Other Changes	-0.4%
Total	**-3.6%**

[1] Does not include contribution balances for any participants currently in DROP

Net Pension Liability of the County

The components of the net pension liability of the County at December 31, 2014, were as follows:

Total pension liability	$ 574,747,595
Plan fiduciary net position	(489,766,897)
County's net pension liability	$ 84,980,698
Plan fiduciary net position as a percentage of the total pension liability	85.21%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of December 31, 2014 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	Rates vary by participant age
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Mortality	RP-2000 Blue Collar Mortality tables with generational projection by Scale AA. A five-year set forward is used for post-disability mortality.

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the January 1, 2014 actuarial valuation report.

Sensitivity of the net pension liability to changes in the discount rate

	1% Decrease 6.50%	*Current Discount Rate* 7.50%	*1% Increase* 8.50%
County's net pension liability	$ 159,603,267	$ 84,980,698	$ 24,122,270

Anne Arundel County Fire Service Plan

Actuarial Information to Include in the Financial Statements
for the December 31, 2014 Measurement Date

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 12/31/13	$ 533,731,432	$ 477,647,839	$ 56,083,593
Changes for the year:			
Service cost	9,183,945		9,183,945
Interest	38,948,993		38,948,993
Changes of benefit terms	-		-
Differences between expected and actual experience	3,678,563		3,678,563
Changes of assumptions	18,027,710		18,027,710
Contributions - employer		15,898,956	(15,898,956)
Contributions - member		2,778,355	(2,778,355)
Net investment income		22,687,926	(22,687,926)
Benefit payments, including refunds of member contributions	(28,823,048)	(28,823,048)	-
Administrative expense		(423,131)	423,131
Other		-	-
Net Changes	41,016,163	12,119,058	28,897,105
Balances at 12/31/14	$ 574,747,595	$ 489,766,897	$ 84,980,698

Anne Arundel County Fire Service Plan

Actuarial Information to Include in the Financial Statements
for the December 31, 2014 Measurement Date

Changes in the County's Net Pension Liability and Related Ratios
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total pension liability										
Service cost	$ 9,184									
Interest	38,949									
Changes of benefit terms	-									
Differences between expected and actual experience	3,679									
Changes of assumptions	18,028			Information for FY2013 and earlier is not available						
Benefit payments, including refunds of member contributions	(28,823)									
Net change in total pension liability	41,016									
Total pension liability - beginning	533,731									
Total pension liability - ending (a)	$ 574,748									
Plan fiduciary net position										
Contributions - employer	$ 15,899									
Contributions - member	2,778									
Net investment income	22,688									
Benefit payments, including refunds of member contributions	(28,823)									
Administrative expense	(423)									
Other	-									
Net change in plan fiduciary net position	$ 12,119									
Plan fiduciary net position - beginning	477,648									
Plan fiduciary net position - ending (b)	$ 489,767									
County's net pension liability - ending (a)-(b)	$ 84,981									
Plan fiduciary net position as a percentage of the total pension liability	85.21%									
Covered-employee payroll	$ 58,250									
County's net pension liability as a percentage of covered-employee payroll	145.89%									
Expected average remaining service years of all participants	5									

Anne Arundel County Fire Service Plan
Actuarial Information to Include in the Financial Statements
for the December 31, 2014 Measurement Date

Schedule of County Contributions
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially determined contribution	$ 15,899									
Contributions in relation to the actuarially determined contribution	15,899			Information for FY2013 and earlier is not available						
Contribution deficiency (excess)	$ 0									
Covered-employee payroll [1]	$ 58,250									
Contributions as a percentage of covered employee payroll	27.29%									

[1] Amounts shown are based on total compensation and not just pensionable earnings only.

Notes to Schedule

Valuation date:
Actuarially determined contribution amounts are calculated as of each January 1 for the upcoming County fiscal year beginning July 1. Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percent of payroll (closed), increasing 3.0% per year.
Remaining amortization period	Remaining Amortization periods range from 19 to 28 years.
Asset valuation method	5-year smoothed market
Inflation	3.00%

Attachment D

Detention Officers' and Deputy Sheriffs' Retirement Plan

A. Method Used for Funding Purposes

This valuation was performed using the projected unit credit cost method. The contribution equals the sum of the normal cost and the amount necessary to amortize any actuarial gains/(losses) over closed periods. Effective January 1, 2014, new bases are amortized over closed periods of 20 years. Amortization payments increase 3.0% per year.

B. Asset Valuation Method

The actuarial value of assets is determined by spreading the asset gain or loss over a 5-year period. The asset gain or loss is the amount by which the actual market value investment return differs from the expected market value asset return. The method was effective with the 1/1/2011 actuarial valuation. The Actuarial Value of Assets recognizes adjustments resulting from an audit.

There is a six-month lag between the valuation and the fiscal year. The 2015 valuation determines the County contribution due for the fiscal year ending June 30, 2016. Contributions made between the valuation date and the beginning of the next fiscal year (January 1, 2015 to June 30, 2015) have not been treated as assets in the current valuation.

C. Valuation Procedures

Active participants who terminate prior to age 40 are assumed to elect to receive a refund of employee contributions with interest. Employees who terminate at or after age 40 are assumed to receive their vested benefit at normal retirement date.

D. Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the Plan for purposes of determining contributions and liabilities under GASB. These assumptions are used for all members eligible tom receive benefits under the Detention Officers and Deputy Sheriffs' Retirement Plan provisions.

Economic

Investment Return	7.5% compounded annually net of investment expenses (3.0% inflation and 4.5% real return) effective January 1, 2014.
Salary Increases	A graded schedule is used. See Earnings Progression Table.
Cost of Living Adjustment	Benefits accrued before Bill 88-96 are assumed to increase by 3.0% of the original benefit each year from retirement. Benefits accrued after Bill 88-96 are assumed to increase by 1.8% of the current benefit each year from retirement.

Other

Mortality	Healthy: RP-2000 Blue Collar Mortality Table for males and females projected generationally using scale AA. Pre-Termination mortality uses 60% of these rates. Disabled: RP-2000 Blue Collar Mortality Table for males and females set forward five years and then projected generationally using scale AA. 100% of pre-retirement deaths are assumed to be non-duty-related. Projection to the year of the valuation is assumed to be current experience. The generational projection beyond the valuation date is to account for future mortality improvements. See Table of Sample Rates.
Withdrawal	See Table of Sample Rates.
Disability	See Table of Sample Rates. 75% of disablement is assumed to be duty-related.
Administrative	$112,000 for FY2016 and $112,000 for FY2015 (average of actual expenses for the

Expenses two years preceding the valuation date).

Retirement Rates (Category I)

	Annual Rate		
	Years of Service		
Age	Less than 20	20 or more but less than 30	30 or more
40-49	0%	15%	N/A
50	10%	30%	100%
51-54	5%	30%	100%
55-59	20%	30%	100%
60	100%	100%	100%

Retirement Rates (Category II)

	Annual Rate			
	Years of Service			
Age	Less than 20	20	21-29	30 or more
<50	N/A	5%	2%	100%
50	10%	30%	30%	100%
51-59	10%	15%	15%	100%
60-64	10%	20%	20%	100%
>64	100%	100%	100%	100%

Percentage Married Males – 80%; Females – 80%

Age Difference Males are assumed to be four years older than their spouses.

Military Service Active liabilities (which depend on credit service) are loaded by 3.25% to account for future crediting of military service.

Disability Leave Service credit for benefit formula purposes is increased by 1.75% to account for disability leave which is converted to service credit at retirement.

In addition, it is assumed that participants with 30 or more years of service will have credit for 1 year of combined Disability Leave and Military Service.

	Table of Sample Base Mortality Rates (2000)				Projection Scale	
	Healthy Mortality		Disabled Mortality		(Healthy and Disabled)	
	Males	Females	Males	Females	Males	Females
20	0.03%	0.02%	0.04%	0.02%	1.90%	1.60%
25	0.04	0.02	0.07	0.03	1.00	1.40
30	0.07	0.03	0.11	0.05	0.50	1.00
35	0.11	0.05	0.14	0.09	0.50	1.10
40	0.14	0.09	0.18	0.14	0.80	1.50
45	0.18	0.14	0.24	0.20	1.30	1.60
50	0.24	0.20	0.42	0.28	1.80	1.70
55	0.42	0.28	0.83	0.49	1.90	0.80
60	0.83	0.49	1.55	1.04	1.60	0.50
65	1.55	1.04	2.68	1.86	1.40	0.50

Attained Age	Table of Sample Disability Rates Percentage
20	0.245%
25	0.245%
30	0.245%
35	0.362%
40	0.747%
45	1.250%
50	1.839%
55	0.000%
60	0.000%
64	0.000%

Attained Age	Table of Sample Withdrawal Rates			
	Less Than 10 Years of Service		10 or more Years of Service	
	Male Percentage	Female Percentage	Male Percentage	Female Percentage
20	12.38%	18.75%	8.67%	13.13%
25	8.98%	14.06%	6.29%	9.84%
30	6.81%	11.25%	4.77%	7.88%
35	4.95%	8.44%	3.47%	5.91%
40	3.41%	6.19%	2.39%	4.33%
45	1.86%	3.94%	1.30%	2.76%
50	0.00%	0.00%	0.00%	0.00%

Earnings Progression	
Attained Age	Percentage Increase at Attained Age
20	6.00%
25	6.00
30	5.50
35	5.25
40	4.75
45	4.25
50	4.25

Active Members

Valuation Date	Number	Annual Payroll (Jan. 1 Rate)	Average Annual Pay	% Increase in Average Pay
January 1, 2002	368	13,565,333	36,862	7.6%
January 1, 2003	371	14,690,339	39,597	7.4%
January 1, 2004	365	15,396,301	42,182	6.5%
January 1, 2005	347	15,355,590	44,252	4.9%
January 1, 2006	365	16,794,068	46,011	4.0%
January 1, 2007	359	17,367,873	48,378	5.1%
January 1, 2008	357	18,122,458	50,763	4.9%
January 1, 2009	373	19,785,653	53,045	4.5%
January 1, 2010	374	20,203,895	54,021	1.8%
January 1, 2011	354	19,310,216	54,549	1.0%
January 1, 2012	347	18,760,664	54,065	(0.9%)
January 1, 2013	338	17,896,574	52,948	(2.1%)
January 1, 2014	342	18,132,868	53,020	0.1%
January 1, 2015	345	19,775,644	57,321	8.1%

Members With Deferred Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/00 to 12/31/00	4	5	(1)	8
1/1/01 to 12/31/01	8	3	0	11
1/1/02 to 12/31/02	11	4	(9)	6
1/1/03 to 12/31/03	6	3	(1)	8
1/1/04 to 12/31/04	8	3	0	11
1/1/05 to 12/31/05	11	3	(1)	13
1/1/06 to 12/31/06	13	3	(1)	15
1/1/07 to 12/31/07	15	1	0	16
1/1/08 to 12/31/08	16	2	(2)	16
1/1/09 to 12/31/09	16	1	(2)	15
1/1/10 to 12/31/10	15	0	(3)	12
1/1/11 to 12/31/11	12	0	(3)	9
1/1/12 to 12/31/12	9	3	0	12
1/1/13 to 12/31/13	12	0	(3)	9
1/1/14 to 12/31/14	9	0	(1)	8

Members Receiving Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/99 to 12/31/99	29	4	1	33
1/1/00 to 12/31/00	33	12	(2)	43
1/1/01 to 12/31/01	43	6	0	49
1/1/02 to 12/31/02	49	6	(1)	54
1/1/03 to 12/31/03	54	10	0	64
1/1/04 to 12/31/04	64	17	0	81
1/1/05 to 12/31/05	81	13	(2)	92
1/1/06 to 12/31/06	92	14	0	106
1/1/07 to 12/31/07	106	13	0	119
1/1/08 to 12/31/08	119	16	(2)	133
1/1/09 to 12/31/09	133	14	(1)	146
1/1/10 to 12/31/10	146	19	(1)	164
1/1/11 to 12/31/11	164	16	(1)	179
1/1/12 to 12/31/12	179	22	(4)	197
1/1/13 to 12/31/13	197	14	(3)	208
1/1/14 to 12/31/14	208	18	(3)	223

Summary of Retirees and Beneficiaries Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		Rolls End of Year			
Year Ending	Number	Annual Allowance[1]	Number	Annual Allowance	Number	Annual Allowance	% Increase in Average Annual Allowance	Average Annual Allowance
12/31/2007	13	426,794	0	0	119	2,789,664	5.17%	23,443
12/31/2008	16	441,233	2	32,949	133	3,197,948	2.57%	24,045
12/31/2009	14	358,390	1	9,828	146	3,546,510	1.02%	24,291
12/31/2010	19	502,095	1	9,390	164	4,039,215	1.39%	24,629
12/31/2011	16	458,651	1	17,061	179	4,480,805	1.64%	25,032
12/31/2012	22	701,667	4	72,326	197	5,110,146	3.63%	25,940
12/31/2013	14	378,114	3	47,509	208	5,440,751	0.84%	26,157
12/31/2014	18	416,562	3	46,299	223	5,811,014	(0.38%)	26,058

[1] Includes COLA's

Compensation

For purposes of the pension plan, compensation is the regular annual rate of pay, exclusive of extra compensation of any kind such as overtime pay, bonuses and commissions.

Final Earnings

The average of the highest 3 years of all basic pays.

Eligibility Requirements

Permanent employees who work at least 50% of the time specified for their position. They are either Category I or Category II

Category I

- Detention Officer
- Detention Corporal
- Detention Sergeant
- Detention Lieutenant
- Detention Captain
- Deputy Sheriff I, II, III, and IV

Category II

- Correctional Program Specialist I and II
- Criminal Justice Program Supervisor
- Correctional Facility Administrator
- Assistant Correctional Facility Administrator
- Superintendent of Detention Facilities, by election

Employee Contributions

6.75% of compensation for Detention Officer, Detention Corporal or Detention Sergeant. 5% of compensation for all others.

Retirement Date

Normal Retirement

Category I: The first of the month coincident with or next following the participant's 50th birthday and five years of service or 20 years of service whichever comes first.
Category II: The first of the month coincident with or next following the participant's 50th birthday and five years of service.

Early Retirement

Reduced benefits are available the first of any month coincident with or next following the completion of 20 years of continuous service for Category II.

Postponed Retirement

A participant may work beyond his normal retirement date and may subsequently retire on the first of any month.

Retirement Benefits

Normal Retirement

2.5% of final earnings for each year of service up to 20 years plus 2.0% of final earnings per year of service in excess of 20 years (maximum 70% plus 2% times unused disability credit and pre-employment military service credit)

Early Retirement

Same as normal retirement but reduced for early commencement.

Postponed Retirement

Same as normal retirement, but based on continued accrual past normal retirement date.

Normal Form of Payment

Monthly life annuity with payments guaranteed for 5 years.

Disability

Eligibility

Totally and permanently disabled (except as the result of activities specified in the County code) regardless of length of service.

Duty-Related	The greater of the accrued benefit or 66-2/3% of final earnings, payable immediately, unreduced.
Non-Duty	The greater of the accrued benefit or 20% of final earnings, payable immediately, unreduced.

Termination of Employment

Less than 5 years of service	Return of employee contributions with 4.25% interest.
5 years of service or more	At the discretion of the employee, either a return of contributions with interest or the accrued normal retirement taking into account final earnings and service at date of termination, payable at normal retirement date.

Death Benefits

Married and eligible for retirement	Duty-Related: Greater of accrued benefit or 66-2/3% of final earnings. Non-duty Related: Accrued Benefit.
Unmarried or not eligible for retirement	Return of employee contributions with 4.25% interest plus a lump sum equal to 50% of annual pay.

Cost of Living Increase *(simple, for benefits accrued as of 1/31/97)*

Retiree benefits are adjusted each year. The revised benefit amount is the lesser of:

- Prior year benefit plus base benefit multiplied by increase in current CPI from CPI for prior year.
- Benefit increased by 4% of original benefit.

Cost of Living Increase (compound, for benefits accrued after 1/31/97)

Retiree benefits are adjusted each year. The revised benefit amount is the lesser of:

- Prior year benefit multiplied by 60% of the increase in current March CPI from March CPI for prior year.
- Prior year Benefit increased by 2.5%.

State House Bill No. 687	Effective 7/1/90
	County employees were given the opportunity to apply for credit under the County's plan for previous service with the State of Maryland (or a political subdivision of the State).
County Council Bill 90-93	Effective 12/22/93
	Plan participants are required to pay the full actuarial value for service purchases. Purchases can only be made at retirement, To be eligible, an employee must have 60 months of County service. Existing plan participants must be notified of their right to purchase service under existing law.
County Council Bill No. 94-93	Effective 11/19/93
	All current and future employees shall be 100% vested after 5 years of Credited service.
County Council Bill No. 88-96	Effective 12/4/96
	The previous method of calculating cost of living increase will only apply to benefits accrued as of 1/31/97. The cost of living increase for future benefits is a compound increase equal to 60% of the annual change in the CPI, not to exceed 2.5%. Employees hired, or rehired, on or after 12/4/96 will be Tier Two employees and will have different benefits than current employees.
County Council Bill No. 41-99	Effective 6/15/99
	Employees paid under the deputy sheriff employees pay schedule become members of the Detention Center Plan effective as of January 1, 1999. Service credited under the Employees' Plan will count as credited service in the Detention Center plan and no future benefit will be paid from the Employees' Plan. Assets are transferred from the Employees' Plan to the Detention Center Plan in an amount equal to the projected unit credit accrued liability in the Employees' Plan.
Recodification	Effective 2/25/2002
	Allows a benefit based on disability leave service and pre-plan military service to be credited over the 70% cap. Elimination of Tier Two benefits. Changed early retirement factors. Added a death benefit.
County Council Bill No. 32-04	Effective 7/1/2004
	Allows retirement after 20 years of service for "Category I" participants. Changes vesting for new hires from 5 years to 20 years. Provides for employees contributions to be made on a pre-tax ("pick up") basis.
County Council Bill No. 74-09	Effective 12/11/2009
	For non-represented members, FY2010 annual pay shall be determined by increasing FY2009 annual pay by an assumed 3% for determining the final average basic pay. For D3 and S2 members, FY2010 annual pay shall be determined by increasing FY2009 annual pay by an assumed 4% for determining the final average basic pay.
County Council Bill No. 78-09	Effective 11/16/2009
	For D1 and D2 members, FY2010 annual pay shall be determined by increasing FY2009 annual pay by an assumed 4% for determining the final average basic pay.
County Council Bill No. 6-10	Effective 4/18/2010
	Provides for a disability benefit for those participants who are totally and permanently disabled as a result of qualified military service.
County Council Bill 41-10	Effective 7/1/2010
	Increased the contribution rate for Detention Officers, Detention Corporals and Detention Sergeants to 6.75%. Added a "pop-up" option.
County Council Bill No. 98-12	Effective 5/13/2013.
	Changed the definition of "final average basic pay" from highest 3 out of the last 5 years basic pays to highest 3 of all basic pays.

County Council Bill No. 30-12	Effective 2/1/2013
	A participant in the classification of Detention Officer, Detention Corporal, or Detention Sergeant shall contribute 6.75% of his or her annual basic pay in each calendar year or portion of a calendar year while an active participant in the plan.

Solvency Test

2001 to 2015

Actuarial Valuation Date	Active Member Contribution (1)	Retirees and Beneficiaries Inactive and Pay-Status Members (2)	Active Members Employer Financed Portion (3)	Actuarial Value of Assets	Portion of Actuarial Accrued Liabilities Covered by Assets (1)	(2)	(3)
1/1/2001	4,015,794	11,751,069	21,011,053	31,116,751	100%	100%	73.1%
1/1/2002	4,882,365	13,089,569	22,481,827	34,742,230	100%	100%	74.6%
1/1/2003	5,105,832	14,383,130	27,646,526	38,889,689	100%	100%	70.2%
1/1/2004	5,744,543	17,546,625	29,593,370	45,710,154	100%	100%	75.8%
1/1/2005	6,117,371	22,450,982	31,704,400	52,200,204	100%	100%	74.5%
1/1/2006	6,595,639	26,899,045	35,598,042	58,379,332	100%	100%	69.9%
1/1/2007	7,106,372	30,095,327	38,744,537	66,233,757	100%	100%	74.9%
1/1/2008	7,597,158	38,734,008	42,464,385	74,355,736	100%	100%	66.0%
1/1/2009	8,270,983	43,352,591	46,861,578	76,525,847	100%	100%	53.1%
1/1/2010	9,015,467	48,652,402	53,609,828	84,490,610	100%	100%	50.0%
1/1/2011	9,835,267	54,507,031	55,424,905	87,911,133	100%	100%	42.5%
1/1/2012	10,727,312	59,538,436	55,721,536	90,334,022	100%	100%	36.0%
1/1/2013	10,907,008	68,999,860	53,771,217	92,617,788	100%	100%	23.6%
1/1/2014	11,270,515	73,758,850	58,666,981	102,136,092	100%	100%	29.2%
1/1/2015	12,626,207	78,123,913	64,234,148	112,017,103	100%	100%	33.1%

Analysis of Financial Experience

Reasons for Change in the Unfunded Accrued Liability

The unfunded accrued liability increased from $41,560,254 to $42,967,165. The increase is due in part to salary increases being higher than the assumption. The funded status increased from 71.1% to 72.3%.

Reasons for Change in Contribution Rates

The employer contribution rate decreased from 34.3% for the fiscal year ending June 30, 2015 to 33.0% for the fiscal year ending June 30, 2016. The decrese of 1.3% is due to the following reasons:

Pay Increases	1.0%
Investment Loss/(Gain)	-0.1%
New Entrants/Change in Normal Cost	-0.7%
Expenses	-0.1%
COLAs	-0.2%
Assumption Changes	0.0%
Demographics and Other Changes	-1.2%
Total	**-1.3%**

Net Pension Liability of the County

The components of the net pension liability of the County at December 31, 2014, were as follows:

Total pension liability	$ 155,156,334
Plan fiduciary net position	(111,368,056)
County's net pension liability	$ 43,788,278
Plan fiduciary net position as a percentage of the total pension liability	71.78%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of December 31, 2014 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	Rates vary by participant age
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Mortality	RP-2000 Blue Collar Mortality tables with generational projection by Scale AA. A five-year set forward is used for post-disability mortality.

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the January 1, 2014 actuarial valuation report.

Sensitivity of the net pension liability to changes in the discount rate

	1% Decrease 6.50%	*Current Discount Rate* 7.50%	*1% Increase* 8.50%
County's net pension liability	$ 63,454,334	$ 43,788,278	$ 27,473,098

Anne Arundel County Detention Officers and Deputy Sheriffs' Plan

Actuarial Information to Include in the Financial Statements

for the December 31, 2014 Measurement Date

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 12/31/13	$ 140,256,261	$ 104,930,415	$ 35,325,846
Changes for the year:			
Service cost	4,602,193		4,602,193
Interest	10,301,018		10,301,018
Changes of benefit terms	-		-
Differences between expected and actual experience	2,321,848		2,321,848
Changes of assumptions	3,493,736		3,493,736
Contributions - employer		6,110,988	(6,110,988)
Contributions - member		1,297,641	(1,297,641)
Net investment income		4,943,781	(4,943,781)
Benefit payments, including refunds of member contributions	(5,818,722)	(5,818,722)	-

Changes in the County's Net Pension Liability and Related Ratios
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total pension liability										
Service cost	$ 4,602									
Interest	10,301									
Changes of benefit terms	-									
Differences between expected and actual experience	2,322									
Changes of assumptions	3,494			Information for FY2013 and earlier is not available						
Benefit payments, including refunds of member contributions	(5,819)									
Net change in total pension liability	14,900									
Total pension liability - beginning	140,256									
Total pension liability - ending (a)	$ 155,156									
Plan fiduciary net position										
Contributions - employer	$ 6,111									
Contributions - member	1,298									
Net investment income	4,944									
Benefit payments, including refunds of member contributions	(5,819)									
Administrative expense	(96)									
Other	-									
Net change in plan fiduciary net position	$ 6,438									
Plan fiduciary net position - beginning	104,930									
Plan fiduciary net position - ending (b)	$ 111,368									
County's net pension liability - ending (a)-(b)	$ 43,788									
Plan fiduciary net position as a percentage of the total pension liability	71.78%									
Covered-employee payroll	$ 21,367									
County's net pension liability as a percentage of covered-employee payroll	204.94%									
Expected average remaining service years of all participants	4									

Notes to Schedule:

Benefit changes: There are no benefit changes reflected in the current schedule.

Changes of assumptions: For FY2014, the expected rate of investment return was reduced from 8.0% to 7.5% and other assumptions were changed to reflect the results of the 2012 experience study.

Schedule of County Contributions
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially determined contribution	$ 6,111									
Contributions in relation to the actuarially determined contribution	6,111			Information for FY2013 and earlier is not available						
Contribution deficiency (excess)	$ -									
Covered-employee payroll [1]	$ 21,367									
Contributions as a percentage of covered employee payroll	28.60%									

[1] Amounts shown are based on total compensation and not just pensionable earnings only.

Notes to Schedule

Valuation date:
Actuarially determined contribution amounts are calculated as of each January 1 for the upcoming County fiscal year beginning July 1. Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percent of payroll (closed), increasing 3.0% per year.
Remaining amortization period	Remaining Amortization periods range from 19 to 28 years.
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increases	Rates vary by participant age
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by participant age and service
Mortality	RP-2000 Blue Collar Mortality tables with generational projection by Scale AA. A five-year set forward is used for post-disability mortality.

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Statistical Section

Anne Arundel County Retirement and Pension System

Statement of Changes in Plan Net Position - Employees' Retirement Plan

For the Last Ten Years Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
ADDITIONS										
Contributions:										
Employer	$ 10,015,144	$ 10,755,168	$ 11,778,948	$ 12,906,750	$ 15,246,252	$ 17,284,080	$ 18,186,402	$ 19,823,814	$ 22,361,658	$ 24,451,074
Participant	4,124,898	4,376,510	4,412,061	4,630,624	5,085,885	4,556,815	4,562,145	4,416,529	4,452,981	4,662,147
Total contributions	14,140,042	15,131,678	16,191,009	17,537,374	20,332,137	21,840,895	22,748,547	24,240,343	26,814,639	29,113,221
Total investment income (loss)	28,970,375	55,739,853	52,269,375	(159,154,283)	62,603,110	61,439,541	9,825,346	63,100,607	52,230,456	28,221,576
Total Additions	43,110,417	70,871,531	68,460,384	(141,616,909)	82,935,247	83,280,436	32,573,893	87,340,950	79,045,095	57,334,797
DEDUCTIONS										
Benefit payments and refunds	17,748,296	19,733,152	22,800,104	25,276,047	27,267,923	29,520,937	31,480,607	34,375,282	36,727,715	39,008,750
Administrative expenses	458,806	508,917	531,801	426,611	487,143	504,442	481,210	546,061	757,210	502,007
Total deductions	18,207,102	20,242,069	23,331,905	25,702,658	27,755,066	30,025,379	31,961,817	34,921,343	37,484,925	39,510,757
Net increases (decreases)	24,903,315	50,629,462	45,128,479	(167,319,568)	55,180,181	53,255,057	612,076	52,419,607	41,560,170	17,824,040
Net assets, January 1	410,065,898	434,969,213	485,598,675	530,727,154	363,407,586	418,587,767	471,842,824	472,454,900	524,874,507	566,434,677
Transfers	-	-	-	-	-	-	-	-	-	-
Net position, December 31	$ 434,969,213	$ 485,598,675	$ 530,727,154	$ 363,407,586	$ 418,587,767	$ 471,842,824	$ 472,454,900	$ 524,874,507	$ 566,434,677	584,258,717

Anne Arundel County Retirement and Pension System

Statement of Changes in Plan Net Position - Police Service Retirement Plan

For the Last Ten Years Ended December 31

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
ADDITIONS										
Contributions:										
Employer	$ 8,931,530	$ 9,611,544	$ 9,997,308	$ 10,522,656	$ 12,428,136	$ 14,055,660	$ 13,793,256	$ 15,530,322	$ 17,745,906	$ 18,869,736
Participant	1,848,116	1,925,644	2,005,960	1,910,671	2,024,825	2,297,386	2,637,833	2,553,740	2,679,723	2,949,789
Total contributions	10,779,646	11,537,188	12,003,268	12,433,327	14,452,961	16,353,046	16,431,089	18,084,062	20,425,629	21,819,525
Total investment income (loss)	25,061,802	48,252,499	42,938,230	(136,630,639)	50,713,568	49,685,037	6,731,539	50,828,258	41,763,446	22,133,732
Total Additions	35,841,448	59,789,687	54,941,498	(124,197,312)	65,166,529	66,038,083	23,162,628	68,912,320	62,189,075	43,953,257
DEDUCTIONS										
Benefit payments and refunds	13,986,960	15,638,571	21,008,831	23,872,491	22,214,203	21,449,672	23,479,998	28,241,364	26,936,388	29,507,128
Administrative expenses	401,094	431,925	443,634	358,812	406,518	410,184	391,458	444,328	615,138	406,090
Total deductions	14,388,054	16,070,496	21,452,465	24,231,303	22,620,721	21,859,856	23,871,456	28,685,692	27,551,526	29,913,218
Net increases (decreases)	21,453,394	43,719,191	33,489,032	(148,428,615)	42,545,808	44,178,227	(708,828)	40,226,628	34,637,549	14,040,039
Net assets, January 1	355,242,813	376,696,207	420,415,398	453,904,430	305,475,815	348,021,623	392,199,850	391,491,022	431,717,650	466,355,199
Transfers	-	-	-	-	-	-	-	-	-	-
Net position, December 31	$ 376,696,207	$ 420,415,398	$ 453,904,430	$ 305,475,815	$ 348,021,623	$ 392,199,850	$ 391,491,022	$ 431,717,650	$ 466,355,199	480,395,238

Anne Arundel County Retirement and Pension System

Statement of Changes in Plan Net Position - Fire Service Retirement Plan

For the Last Ten Years Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
ADDITIONS										
Contributions:										
Employer	$ 10,016,964	$ 10,481,244	$ 10,959,888	$ 11,189,712	$ 12,701,160	$ 14,648,580	$ 13,959,852	$ 15,238,104	$ 16,152,402	$ 15,898,956
Participant	1,496,252	1,741,476	1,889,083	2,033,588	2,346,754	2,494,043	2,659,114	2,453,627	2,432,737	2,778,355
Total contributions	11,513,216	12,222,720	12,848,971	13,223,300	15,047,914	17,142,623	16,618,966	17,691,731	18,585,139	18,677,311
Total investment income (loss)	23,343,883	44,928,717	41,080,254	(127,885,708)	49,183,327	48,957,240	7,013,578	51,522,774	43,133,618	23,014,967
Total Additions	34,857,099	57,151,437	53,929,225	(114,662,408)	64,231,241	66,099,863	23,632,544	69,214,505	61,718,757	41,692,278
DEDUCTIONS										
Benefit payments and refunds	9,186,241	15,570,004	19,299,469	21,339,616	17,785,497	17,432,953	18,091,220	19,520,674	21,870,063	28,842,723
Administrative expenses	364,848	416,838	415,672	330,485	379,081	398,463	388,157	444,256	633,476	409,916
Total deductions	9,551,089	15,986,842	19,715,141	21,670,101	18,164,578	17,831,416	18,479,377	19,964,930	22,503,539	29,252,639
Net increases (decreases)	25,306,010	41,164,595	34,214,085	(136,332,509)	46,066,663	48,268,447	5,153,167	49,249,575	39,215,218	12,439,639
Net assets, January 1	325,322,699	350,628,709	391,793,304	426,007,390	289,674,881	335,741,544	384,009,991	389,163,158	438,412,733	477,627,951
Transfers	-	-	-	-	-	-	-	-	-	-
Net position, December 31	$ 350,628,709	$ 391,793,304	$ 426,007,389	$ 289,674,881	$ 335,741,544	$ 384,009,991	$ 389,163,158	$ 438,412,733	$ 477,627,951	490,067,590

Anne Arundel County Retirement and Pension System

Statement of Changes in Plan Net Position - Detention Officers' and Deputy Sheriffs' Retirement Plan

For the Last Ten Years Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
ADDITIONS										
Contributions:										
Employer	$ 3,191,610	$ 3,462,366	$ 3,600,894	$ 3,788,256	$ 4,348,914	$ 4,907,130	$ 4,876,332	$ 5,141,280	$ 5,600,178	$ 6,110,988
Participant	795,363	860,542	881,978	950,675	1,029,277	1,084,820	1,175,133	1,120,848	1,195,439	1,297,641
Total contributions	3,986,973	4,322,908	4,482,872	4,738,931	5,378,191	5,991,950	6,051,465	6,262,128	6,795,617	7,408,629
Total investment income (loss)	3,925,218	7,814,479	7,292,557	(24,343,278)	9,672,565	9,901,091	1,330,029	10,887,141	9,305,671	5,017,294
Total Additions	7,912,191	12,137,387	11,775,429	(19,604,347)	15,050,756	15,893,041	7,381,494	17,149,269	16,101,288	12,425,923
DEDUCTIONS										
Benefit payments and refunds	1,847,932	2,112,241	2,644,842	3,101,950	3,525,414	3,837,564	4,207,935	5,018,268	5,397,604	5,812,419
Administrative expenses	61,554	71,158	75,560	64,389	75,803	80,434	79,614	93,341	137,963	91,235
Total deductions	1,909,486	2,183,399	2,720,402	3,166,339	3,601,217	3,917,998	4,287,549	5,111,609	5,535,567	5,903,654
Net increases (decreases)	6,002,705	9,953,988	9,055,027	(22,770,686)	11,449,539	11,975,043	3,093,945	12,037,660	10,565,721	6,522,269
Net assets, January 1	53,539,559	59,542,264	69,496,252	78,551,279	55,780,593	67,230,132	79,205,175	82,299,120	94,336,780	104,902,501
Transfers	-	-	-	-	-	-	-	-	-	-
Net position, December 31	$ 59,542,264	$ 69,496,252	$ 78,551,279	$ 55,780,593	$ 67,230,132	$ 79,205,175	$ 82,299,120	$ 94,336,780	$ 104,902,501	111,424,770

Anne Arundel County Retirement and Pension System

Schedule of Additions by Source - Employees' Retirement Plan

For the Last Ten Years Ended December 31

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
Employer Data										
Contributions	$ 10,015,144	$ 10,755,168	$ 11,778,948	$ 12,906,750	$ 15,246,252	$ 17,284,080	$ 18,186,402	$ 19,823,814	$ 22,361,658	$ 24,451,074
% of Covered Payroll	(9.3)	(9.2)	(10.0)	(10.3)	(12.1)	(14.0)	(15.1)	(17.1)	(19.3)	(19.2)
Participant Data										
Contributions	4,124,898	4,376,510	4,412,061	4,630,624	5,085,885	4,556,815	4,562,145	4,416,529	4,452,981	4,662,147
Total contributions	14,140,042	15,131,678	16,191,009	17,537,374	20,332,137	21,840,895	22,748,547	24,240,343	26,814,639	29,113,221
Total investment income (loss)	28,970,375	55,739,853	52,269,375	(159,154,283)	62,603,110	61,439,541	9,825,346	63,100,607	52,230,456	28,221,576
Total Additions	$ 43,110,417	$ 70,871,531	$ 68,460,384	$ (141,616,909)	$ 82,935,247	$ 83,280,436	$ 32,573,893	$ 87,340,950	$ 79,045,095	57,334,797
Covered Payroll	(107,290,189)	(116,709,102)	(117,222,681)	(124,803,488)	(126,030,706)	(123,498,129)	(120,415,534)	(116,024,717)	(115,809,426)	(127,090,869)
Source: Actuarial Report	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015

Anne Arundel County Retirement and Pension System

Schedule of Additions by Source - Police Service Retirement Plan

For the Last Ten Years Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Employer Data										
Contributions	$ 8,931,530	$ 9,611,544	$ 9,997,308	$ 10,522,656	$ 12,428,136	$ 14,055,660	$ 13,793,256	$ 15,530,322	$ 17,745,906	$ 18,869,736
% of Covered Payroll	(24.3)	(25.4)	(24.4)	(25.4)	(29.2)	(33.1)	(33.4)	(38.3)	(42.5)	(39.1)
Participant Data										
Contributions	1,848,116	1,925,644	2,005,960	1,910,671	2,024,825	2,297,386	2,637,833	2,553,740	2,679,723	2,949,789
Total contributions	10,779,646	11,537,188	12,003,268	12,433,327	14,452,961	16,353,046	16,431,089	18,084,062	20,425,629	21,819,525
Total investment income (loss)	25,061,802	48,252,499	42,938,229	(136,630,639)	50,713,568	49,685,037	6,731,539	50,828,258	41,763,446	22,133,732
Total Additions	$ 35,841,448	$ 59,789,687	$ 54,941,497	$ (124,197,312)	$ 65,166,529	$ 66,038,083	$ 23,162,628	$ 68,912,320	$ 62,189,075	43,953,257
Covered Payroll	(36,694,307)	(37,805,038)	(41,011,366)	(41,508,547)	(42,499,380)	(42,449,204)	(41,334,580)	(40,521,944)	(41,714,302)	(48,261,635)
Source: Actuarial Report	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015

Anne Arundel County Retirement and Pension System

Schedule of Additions by Source - Fire Service Retirement Plan

For the Last Ten Years Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Employer Data										
Contributions	$ 10,016,964	$ 10,481,244	$ 10,959,888	$ 11,189,712	$ 12,701,160	$ 14,648,580	$ 13,959,852	$ 15,238,104	$ 16,152,402	$ 15,898,956
% of Covered Payroll	(26.0)	(24.1)	(24.9)	(22.9)	(25.9)	(30.6)	(30.6)	(35.1)	(35.9)	(32.7)
Participant Data										
Contributions	1,496,252	1,741,476	1,889,083	2,033,588	2,346,754	2,494,043	2,659,114	2,453,627	2,432,737	2,778,355
Total contributions	11,513,216	12,222,720	12,848,971	13,223,300	15,047,914	17,142,623	16,618,966	17,691,731	18,585,139	18,677,311
Total investment income (loss)	23,343,883	44,928,717	41,080,256	(127,885,708)	49,183,327	48,957,240	7,013,478	51,522,774	43,133,618	23,014,967
Total Additions	$ 34,857,099	$ 57,151,437	$ 53,929,227	$ (114,662,408)	$ 64,231,241	$ 66,099,863	$ 23,632,444	$ 69,214,505	$ 61,718,757	41,692,278
Covered Payroll	(38,592,322)	(43,527,351)	(43,941,526)	(48,824,352)	(49,064,454)	(47,840,812)	(45,673,006)	(43,361,686)	(44,950,885)	(48,549,950)
Source: Actuarial Report	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015

Anne Arundel County Retirement and Pension System

Schedule of Additions by Source - Detention Officers' and Deputy Sheriffs' Retirement Plan

For the Last Ten Years Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Employer Data										
Contributions	$ 3,191,610	$ 3,462,366	$ 3,600,894	$ 3,788,256	$ 4,348,914	$ 4,907,130	$ 4,876,332	$ 5,141,280	$ 5,600,178	$ 6,110,988
% of Covered Payroll	(19.0)	(19.9)	(19.9)	(19.1)	(21.5)	(25.4)	(26.0)	(28.7)	(30.9)	(30.9)
Participant Data										
Contributions	795,363	860,542	881,978	950,675	1,027,277	1,084,820	1,175,133	1,120,848	1,195,439	1,297,641
Total contributions	3,986,973	4,322,908	4,482,872	4,738,931	5,376,191	5,991,950	6,051,465	6,262,128	6,795,617	7,408,629
Total investment income (loss)	3,925,218	7,814,479	7,292,557	(24,343,278)	9,672,565	9,901,091	1,330,029	10,887,141	9,305,671	5,017,294
Total Additions	$ 7,912,191	$ 12,137,387	$ 11,775,429	$ (19,604,347)	$ 15,048,756	$ 15,893,041	$ 7,381,494	$ 17,149,269	$ 16,101,288	12,425,923
Covered Payroll	(16,794,068)	(17,367,873)	(18,122,458)	(19,785,653)	(20,203,895)	(19,310,216)	(18,760,664)	(17,896,574)	(18,132,868)	(19,775,644)
Source: Actuarial Report	1/1/2006	1/1/2007	1/1/2008	1/1/2009	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015

Anne Arundel County Retirement and Pension System

Schedule of Expenses by Type - Employees' Retirement Plan

For the Last TenYears Ended December 31

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
Retirement Benefits	$ 17,115,761	$ 19,269,278	$ 22,419,239	$ 24,981,888	$ 26,707,107	$ 29,178,742	$ 31,102,824	$ 34,031,017	$ 36,318,903	$ 38,790,383
Refunds	632,535	463,874	380,865	294,159	560,816	342,195	377,783	344,265	408,812	218,367
Administrative	458,806	508,917	531,801	426,611	487,143	504,442	481,210	546,061	757,210	502,007
Total Expenses	$ 18,207,102	$ 20,242,069	$ 23,331,905	$ 25,702,658	$ 27,755,066	$ 30,025,379	$ 31,961,817	$ 34,921,343	$ 37,484,925	$ 39,510,757

Anne Arundel County Retirement and Pension System

Schedule of Expenses by Type - Police Service Retirement Plan

For the Last TenYears Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Retirement Benefits	$ 12,870,535	$ 13,180,043	$ 15,661,838	$ 17,240,916	$ 19,638,650	$ 20,973,246	$ 22,560,005	$ 24,178,421	$ 25,801,600	$ 26,857,368
Refunds	131,954	67,412	808,927	1,056,383	540,887	10,476	184,099	245,111	4,271	47,790
DROP payments	984,471	2,391,116	4,538,066	5,575,192	2,034,666	465,950	735,894	3,817,832	1,130,517	2,601,970
Administrative	401,094	431,925	443,634	358,812	406,518	410,184	391,458	444,328	615,138	406,090
Total Expenses	$ 14,388,054	$ 16,070,496	$ 21,452,465	$ 24,231,303	$ 22,620,721	$ 21,859,856	$ 23,871,456	$ 28,685,692	$ 27,551,526	$ 29,913,218

NOTE: DROP plan initiated 2002. First eligible payments made 2005.

Anne Arundel County Retirement and Pension System

Schedule of Expenses by Type - Fire Service Retirement Plan

For the Last TenYears Ended December 31

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
Retirement Benefits	$ 8,460,438	$ 10,464,329	$ 12,059,353	$ 13,057,997	$ 14,975,604	$ 15,560,775	$ 15,876,486	$ 17,701,069	$ 19,577,152	$ 20,143,295
Refunds	235,129	477,530	455,933	545,079	847,725	114,588	457,144	199,210	119,655	20,220
DROP payments	490,674	4,628,145	6,784,183	7,736,540	1,962,168	1,757,590	1,757,590	1,620,395	2,173,256	8,679,208
Administrative	364,848	416,838	415,672	330,485	379,081	398,463	388,157	444,256	633,476	409,916
Total Expenses	$ 9,551,089	$ 15,986,842	$ 19,715,141	$ 21,670,101	$ 18,164,578	$ 17,831,416	$ 18,479,377	$ 19,964,930	$ 22,503,539	$ 29,252,639

NOTE: DROP plan initiated 2001. First eligible payments made 2005.

Anne Arundel County Retirement and Pension System

Schedule of Expenses by Type - Detention Officers' and Deputy Sheriffs' Retirement Plan

For the Last TenYears Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Retirement Benefits	$ 1,770,524	$ 2,085,412	$ 2,573,235	$ 3,017,953	$ 3,435,870	$ 3,790,618	$ 4,190,561	$ 4,824,001	$ 5,364,396	$ 5,768,304
Refunds	77,408	26,829	71,607	83,997	89,544	46,946	17,374	194,267	33,208	44,115
Administrative	61,554	71,158	75,560	64,389	75,803	80,434	79,613	93,341	137,963	91,235
Total Expenses	$ 1,909,486	$ 2,183,399	$ 2,720,402	$ 3,166,339	$ 3,601,217	$ 3,917,998	$ 4,287,548	$ 5,111,609	$ 5,535,567	$ 5,903,654

Anne Arundel County Retirement and Pension System
Average Benefit Payments - Employees' Plan
Retirement Effective Dates for the last Ten Fiscal Years Ended June 30, and the Six Months Ended December 31, 2014

		Years of Credited Service						
Retirement Effective Dates		**0 to 4**	**5 to 9**	**10 to 14**	**15 to 19**	**20 to 24**	**25 to 29**	**Over 30**
Period 7/1/2004	Average monthly benefit	$0	$813	$1,310	$1,415	$1,958	$2,180	$2,369
to 6/30/2005	Average final average salary	$97,635	$41,792	$63,733	$46,316	$56,906	$49,898	$53,077
	Number of retired members	1	15	9	10	18	21	16
Period 7/1/2005	Average monthly benefit	$0	$794	$1,004	$1,706	$2,001	$2,953	$2,770
to 6/30/2006	Average final average salary	$0	$47,803	$45,160	$53,932	$56,340	$64,247	$60,415
	Number of retired members	0	11	9	12	18	14	21
Period 7/1/2006	Average monthly benefit	$0	$777	$1,589	$1,378	$2,877	$2,507	$3,264
to 6/30/2007	Average final average salary	$0	$52,105	$50,901	$42,480	$73,032	$56,572	$69,784
	Number of retired members	0	13	18	15	8	25	24
Period 7/1/2007	Average monthly benefit	$0	$351	$1,044	$1,935	$2,341	$2,755	$2,986
to 6/30/2008	Average final average salary	$0	$36,688	$58,916	$60,032	$63,835	$63,422	$62,363
	Number of retired members	0	9	14	13	15	20	19
Period 7/1/2008	Average monthly benefit	$0	$753	$1,301	$1,521	$2,697	$2,602	$2,805
to 6/30/2009	Average final average salary	$0	$73,930	$33,899	$51,788	$76,461	$62,998	$59,919
	Number of retired members	0	12	7	14	10	22	17
Period 7/1/2009	Average monthly benefit	$858	$446	$1,325	$1,488	$2,285	$2,787	$3,062
to 6/30/2010	Average final average salary	$33,675	$42,397	$60,468	$44,408	$65,207	$64,581	$64,768
	Number of retired members	1	8	10	9	15	15	27
Period 7/1/2010	Average monthly benefit	$866	$820	$1,341	$1,535	$2,086	$2,490	$2,973
to 06/30/2011	Average final average salary	$48,000	$75,659	$73,933	$60,514	$63,166	$66,363	$64,628
	Number of retired members	1	5	5	8	11	13	20
Period 7/1/2011	Average monthly benefit	$0	$576	$1,191	$1,735	$3,008	$3,302	$3,104
to 06/30/2012	Average final average salary	$0	$53,200	$57,406	$67,233	$83,960	$81,180	$68,741
	Number of retired members	0	10	13	10	14	19	23
Period 7/1/2012	Average monthly benefit	$0	$751	$1,373	$1,493	$2,113	$3,021	$3,531
to 06/30/2013	Average final average salary	$0	$63,180	$61,423	$53,374	$54,783	$67,402	$73,827
	Number of retired members	0	17	18	9	20	13	24
Period 7/1/2013	Average monthly benefit	$0	$762	$969	$1,896	$1,749	$2,664	$3,533
to 06/30/2014	Average final average salary	$0	$69,049	$52,434	$64,927	$51,423	$62,863	$77,560
	Number of retired members	0	22	22	7	13	19	22
Period 7/1/2014	Average monthly benefit	$0	$537	$1,452	$2,364	$2,546	$2,685	$3,291
to 12/31/2014	Average final average salary	$0	$39,926	$48,110	$85,883	$68,988	$63,875	$69,956
	Number of retired members	0	14	5	4	5	9	9

Anne Arundel County Retirement and Pension System
Average Benefit Payments - Police Service Retirement Plan
Retirement Effective Dates for the last Ten Fiscal Years Ended June 30, and the Six Months Ended December 31, 2014

		Years of Credited Service						
Retirement Effective Dates		**0 to 4**	**5 to 9**	**10 to 14**	**15 to 19**	**20 to 24**	**25 to 29**	**Over 30**
Period 7/1/2004	Average monthly benefit	$2,188	$2,805	$2,940	$2,699	$3,020	$3,551	$3,217
to 6/30/2005	Average final average salary	$42,402	$51,796	$55,349	$64,376	$66,186	$70,989	$73,777
	Number of retired members	1	2	2	3	5	4	1
Period 7/1/2005	Average monthly benefit	$0	$1,800	$3,129	$2,922	$3,120	$4,573	$3,626
to 6/30/2006	Average final average salary	$0	$53,170	$58,662	$63,068	$69,536	$95,691	$75,990
	Number of retired members	0	2	2	5	4	2	1
Period 7/1/2006	Average monthly benefit	$0	$2,914	$3,209	$3,227	$2,844	$3,622	$0
to 6/30/2007	Average final average salary	$0	$56,366	$61,475	$75,359	$69,795	$68,279	$0
	Number of retired members	0	3	3	3	7	3	0
Period 7/1/2007	Average monthly benefit	$0	$0	$2,747	$2,936	$3,808	$0	$3,512
to 6/30/2008	Average final average salary	$0	$0	$66,441	$74,480	$84,145	$0	$70,082
	Number of retired members	0	0	6	7	3	0	2
Period 7/1/2008	Average monthly benefit	$0	$2,085	$3,552	$3,341	$3,705	$0	$0
to 6/30/2009	Average final average salary	$0	$60,471	$68,090	$75,440	$80,116	$0	$0
	Number of retired members	0	2	3	3	5	0	0
Period 7/1/2009	Average monthly benefit	$0	$1,885	$3,118	$3,863	$4,374	$5,043	$4,902
to 6/30/2010	Average final average salary	$0	$46,628	$71,648	$94,631	$90,867	$94,651	$84,864
	Number of retired members	0	1	3	1	3	3	1
Period 7/1/2010	Average monthly benefit	$2,545	$3,912	$3,821	$3,895	$4,007	$0	$0
to 6/30/2011	Average final average salary	$47,962	$72,675	$70,711	$72,479	$87,711	$0	$0
	Number of retired members	1	3	3	1	5	0	0
Period 7/1/2011	Average monthly benefit	$0	$2,452	$0	$3,660	$4,100	$4,694	$0
to 06/30/2012	Average final average salary	$0	$77,361	$0	$79,411	$81,402	$87,293	$0
	Number of retired members	0	1	0	8	8	3	0
Period 7/1/2012	Average monthly benefit	$0	$0	$3,291	$3,535	$4,310	$4,960	$0
to 06/30/2013	Average final average salary	$0	$0	$58,658	$74,339	$86,975	$91,069	$0
	Number of retired members	0	0	1	2	8	3	0
Period 7/1/2013	Average monthly benefit	$0	$3,011	$3,429	$3,355	$3,927	$0	$0
to 06/30/2014	Average final average salary	$0	$55,286	$63,264	$82,074	$82,427	$0	$0
	Number of retired members	0	1	2	1	2	0	0
Period 7/1/2014	Average monthly benefit	0	$2,617	$0	$3,754	$3,421	$0	$0
to 12/31/2014	Average final average salary	0	$51,685	$0	$78,836	$84,599	$0	$0
	Number of retired members	0	2	0	3	1	0	0

Anne Arundel County Retirement and Pension System
Average Benefit Payments - Fire Service Retirement Plan
Retirement Effective Dates for the last Ten Fiscal Years Ended June 30, and the Six Months Ended December 31, 2014

		Years of Credited Service						
Retirement Effective Dates		**0 to 4**	**5 to 9**	**10 to 14**	**15 to 19**	**20 to 24**	**25 to 29**	**Over 30**
Period 7/1/2004 to 6/30/2005	Average monthly benefit	$2,198	$2,531	$3,177	$2,872	$2,828	$3,558	$3,547
	Average final average salary	$41,922	$47,808	$58,111	$61,731	$63,996	$70,439	$62,884
	Number of retired members	1	1	1	3	9	6	5
Period 7/1/2005 to 6/30/2006	Average monthly benefit	$0	$0	$2,707	$3,322	$2,722	$0	$0
	Average final average salary	$0	$0	$50,949	$63,177	$60,683	$0	$0
	Number of retired members	0	0	3	1	5	0	0
Period 7/1/2006 to 6/30/2007	Average monthly benefit	$0	$2,373	$0	$2,689	$2,857	$5,063	$4,064
	Average final average salary	$0	$44,472	$0	$61,380	$62,573	$92,680	$78,725
	Number of retired members	0	1	0	2	3	1	3
Period 7/1/2007 to 6/30/2008	Average monthly benefit	$0	$0	$0	$0	$3,560	$3,424	$0
	Average final average salary	$0	$0	$0	$0	$75,334	$65,838	$0
	Number of retired members	0	0	0	0	3	1	0
Period 7/1/2008 to 6/30/2009	Average monthly benefit	$2,394	$0	$0	$4,415	$3,380	$0	$0
	Average final average salary	$47,082	$0	$0	$83,123	$79,240	$0	$0
	Number of retired members	1	0	0	1	2	0	0
Period 7/1/2009 to 6/30/2010	Average monthly benefit	$0	$2,810	$0	$4,291	$0	$0	$0
	Average final average salary	$0	$52,555	$0	$77,747	$0	$0	$0
	Number of retired members	0	1	0	2	0	0	0
Period 7/1/2010 to 6/30/2011	Average monthly benefit	$0	$2,522	$0	$4,087	$4,153	$4,061	$0
	Average final average salary	$0	$46,971	$0	$81,781	$83,115	$77,005	$0
	Number of retired members	0	1	0	3	2	1	0
Period 7/1/2011 to 06/30/2012	Average monthly benefit	$3,856	$1,489	$3,240	$0	$3,410	$4,338	$0
	Average final average salary	$70,096	$42,806	$58,567	$0	$77,007	$77,005	$0
	Number of retired members	1	1	2	0	1	1	0
Period 7/1/2012 to 06/30/2013	Average monthly benefit	$0	$2,708	$2,203	$3,854	$3,651	$0	$4,492
	Average final average salary	$0	$48,963	$67,073	$82,747	$79,277	$0	$77,005
	Number of retired members	0	2	1	3	8	0	1
Period 7/1/2013 to 06/30/2014	Average monthly benefit	$0	$2,747	$0	$3,351	$3,278	$4,088	$0
	Average final average salary	$0	$50,146	$0	$71,511	$77,656	$84,977	$0
	Number of retired members	0	2	0	2	1	1	0
Period 7/1/2014 to 12/31/2014	Average monthly benefit	$0	$2,841	$0	$0	$4,764	$7,584	$0
	Average final average salary	$0	$52,848	$0	$0	$96,184	$160,740	$0
	Number of retired members	0	1	0	0	2	1	0

Anne Arundel County Retirement and Pension System
Average Benefit Payments - Detention Officers' and Deputy Sheriffs' Retirement Plan
Retirement Effective Dates for the last Ten Fiscal Years Ended June 30, and the Six Months Ended December 31, 2013

Retirement Effective Dates		Years of Credited Service						
		0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	Over 30
Period 7/1/2004	Average monthly benefit	$0	$1,236	$1,621	$2,054	$2,203	$2,462	$0
to 6/30/2005	Average final average salary	$0	$40,444	$49,883	$48,002	$52,641	$47,374	$0
	Number of retired members	0	5	3	3	7	1	0
Period 7/1/2005	Average monthly benefit	$0	$1,718	$1,286	$2,581	$2,037	$3,980	$0
to 6/30/2006	Average final average salary	$0	$43,851	$49,151	$48,139	$56,919	$76,537	$0
	Number of retired members	0	3	3	2	2	1	0
Period 7/1/2006	Average monthly benefit	$0	$842	$1,271	$2,294	$3,104	$2,883	$0
to 6/30/2007	Average final average salary	$0	$46,190	$48,635	$60,229	$80,300	$55,999	$0
	Number of retired members	0	2	2	4	4	2	0
Period 7/1/2007	Average monthly benefit	$0	$1,165	$0	$0	$3,524	$4,263	$0
to 6/30/2008	Average final average salary	$0	$44,257	$0	$0	$75,510	$86,111	$0
	Number of retired members	0	9	0	0	5	1	0
Period 7/1/2008	Average monthly benefit	$0	$782	$1,963	$2,997	$4,341	$3,434	$3,935
to 6/30/2009	Average final average salary	$0	$48,249	$67,568	$71,019	$94,610	$73,170	$70,905
	Number of retired members	0	3	3	4	2	1	2
Period 7/1/2009	Average monthly benefit	$0	$1,345	$1,910	$2,537	$0	$0	$0
to 6/30/2010	Average final average salary	$0	$48,257	$56,966	$64,507	$0	$0	$0
	Number of retired members	0	5	5	2	0	0	0
Period 7/1/2010	Average monthly benefit	$0	$1,216	$1,511	$1,933	$2,606	$0	$4,230
to 6/30/2011	Average final average salary	$0	$46,342	$51,707	$54,454	$64,099	$0	$80,876
	Number of retired members	0	7	3	1	7	0	1
Period 7/1/2011	Average monthly benefit	$0	$1,294	$1,922	$1,800	$3,098	$3,917	$4,623
to 06/30/12	Average final average salary	$0	$44,652	$50,740	$55,734	$68,057	$73,954	$75,880
	Number of retired members	0	3	5	7	2	1	2
Period 7/1/2012	Average monthly benefit	$0	$577	$1,877	$2,113	$3,283	$0	$4,158
to 06/30/13	Average final average salary	$0	$37,324	$50,974	$61,015	$74,501	$0	$85,146
	Number of retired members	0	3	5	2	8	0	1
Period 7/1/2013	Average monthly benefit	$0	$563	$1,353	$2,526	$2,683	$0	$0
to 06/30/14	Average final average salary	$0	$47,394	$55,388	$69,155	$65,806	$0	$0
	Number of retired members	0	2	4	4	2	0	0
Period 7/1/2014	Average monthly benefit	$0	$739	$1,458	$2,082	$0	$4,448	$0
to 12/31/14	Average final average salary	$0	$43,807	$53,915	$57,825	$0	$94,120	$0
	Number of retired members	0	3	1	4	0	1	0

Anne Arundel County Retirement and Pension System

Schedule of Members by Years of Service - Employees' Retirement Plan

For the Last Ten Years Ended December 31

Years of Credited Service	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
0 to 4	646	750	747	807	755	673	534	443	468	614
5 to 9	447	485	465	421	451	452	501	533	578	512
10 to 14	250	267	283	286	291	349	415	432	333	347
15 to 19	402	357	307	273	233	191	211	220	229	236
20 to 24	211	203	225	281	287	308	278	233	196	163
25 to 29	180	177	167	136	146	153	149	170	205	203
30 and over	89	98	90	108	115	113	121	121	116	132
Total members	2,225	2,337	2,284	2,312	2,278	2,239	2,209	2,152	2,125	2,207
Average years of service	12.19	11.62	11.59	11.58	11.97	12.30	12.83	13.08	12.81	12.37
Average age	46.35	46.12	46.39	46.88	47.44	47.81	48.24	48.63	48.95	48.60
Average salary	$ 48,220	$ 49,940	$ 51,323	$ 53,981	$ 55,325	$ 55,158	$ 54,511	$ 53,915	$ 54,499	$57,585

Anne Arundel County Retirement and Pension System

Schedule of Members by Years of Service - Police Service Retirement Plan

For the Last Ten Years Ended December 31

Years of Credited Service	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
0 to 4	146	143	158	168	166	133	149	135	157	183
5 to 9	154	154	135	101	110	129	120	138	158	151
10 to 14	109	132	145	156	151	133	140	126	92	98
15 to 19	131	112	127	112	101	99	114	126	142	138
20 to 24	24	29	32	43	50	61	44	49	49	53
25 to 29	18	16	11	11	6	7	7	4	7	13
30 and over	2	3	3	2	3	1	2	2	3	2
Total members	584	589	611	593	587	563	576	580	608	638
Average years of service	10.60	10.69	10.69	10.72	10.61	11.13	10.92	10.67	10.65	10.57
Average age	36.76	36.88	36.88	37.12	37.04	37.69	37.44	37.36	37.42	37.18
Average salary	$ 55,693	$ 58,051	$ 60,948	$ 64,867	$ 65,534	$ 66,276	$ 64,170	$ 62,102	$ 62,122	$67,336

Anne Arundel County Retirement and Pension System

Schedule of Members by Years of Service - Fire Service Retirement Plan

For the Last Ten Years Ended December 31

Years of Credited Service	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
0 to 4	223	307	297	400	323	244	133	98	71	142
5 to 9	98	83	92	69	133	183	239	240	320	258
10 to 14	80	115	85	89	82	95	76	85	63	118
15 to 19	118	109	106	116	100	75	105	77	84	76
20 to 24	54	69	96	98	93	74	58	60	71	60
25 to 29	38	28	20	19	20	16	18	24	29	36
30 and over	5	7	13	18	6	2	2	2	1	3
Total members	616	718	709	809	757	689	631	586	639	693
Average years of service	10.73	9.53	10.22	9.54	9.81	9.83	10.42	11.18	10.83	10.57
Average age	37.17	36.15	36.75	36.13	36.58	36.73	37.31	38.15	37.86	37.53
Average salary	$ 51,305	$ 51,463	$ 55,461	$ 56,834	$ 57,714	$ 56,521	$ 55,924	$ 55,581	$ 54,752	$58,407

Anne Arundel County Retirement and Pension System

Schedule of Members by Years of Service - Detention Officers' and Deputy Sheriffs' Retirement Plan

For the Last Ten Years Ended December 31

Years of Credited Service	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
0 to 4	127	102	94	114	122	89	88	79	76	85
5 to 9	130	144	101	84	73	87	68	72	82	85
10 to 14	55	58	107	110	112	106	114	71	59	50
15 to 19	33	37	40	49	49	49	47	87	88	82
20 to 24	15	13	4	8	9	14	23	22	28	33
25 to 29	4	3	8	6	6	6	5	4	5	5
30 and over	1	2	3	2	3	3	2	3	4	5
Total members	365	359	357	373	374	354	347	338	342	345
Average years of service	8.36	8.82	9.16	9.16	6.92	10.40	10.80	10.96	11.27	11.43
Average age	42.40	42.45	43.19	43.19	43.85	44.46	44.50	44.27	44.99	44.72
Average salary	$ 46,011	$ 48,378	$ 50,763	$ 53,045	$ 54,021	$ 54,549	$ 54,065	$ 52,949	$ 53,020	$57,321

Anne Arundel County Retirement and Pension System

Summary of Current Active Members and DROP Members by Years of Service and Plan

For the Year Ended December 31, 2014

	Employees' Retirement Plan	*Police Service Retirement Plan*	*Fire Service Retirement Plan*	*Officers' and Deputy Sheriffs' Retirement Plan*	*Total*
Years of Credited Service					
0-4	613	170	142	85	1,010
5-9	459	143	239	73	914
10-14	348	104	131	50	633
15-19	254	114	80	74	522
20-24	161	54	44	37	296
25-29	225	37	40	21	323
30+	166	11	17	7	201
Total Current Active Members	2,226	633	693	347	3,899
0-4	N/A	-	-	N/A	-
5-9	N/A	-	-	N/A	-
10-14	N/A	-	-	N/A	-
15-19	N/A	-	-	N/A	-
20-24	N/A	5	7	N/A	12
25-29	N/A	31	39	N/A	70
30+	N/A	19	37	N/A	56
Total Current Active DROP Members		55	83		138

Anne Arundel County Retirement and Pension System

Schedule of Current Active DROP Members by Year of Entry

For the Last Five Years Ended December 31

	Police Service Retirement Plan	***Fire Service Retirement Plan***	***Total***
2010	35	9	44
2011	25	14	39
2012	14	14	28
2013	2	6	8
2014	2	5	7
	78	48	126

Notes:
1) The Employee's Retirement Plan does not provide a DROP.
2) The Police Service Retirement Plan DROP was initiated in 2002.
3) The Fire Service Retirement Plan DROP was initiated in 2001.
4) The Detention Officers' and Deputy Sheriffs' Retirement Plan does not provide a DROP.
5) Actuarial data is based on preliminary employee information which therefore, does not agree with the final census data reflected above.

Anne Arundel County Retirement and Pension System

Schedule of Retirees and Beneficiaries by Attained Age and Type of Retirement

For the Year Ended December 31, 2014

Age Group	*Normal Retirement*	*Early Retirement*	*Service Connected Disability*	*Non-Service Connected Disability*	*Total*
Under 29		-	1	1	2
30-34	-	-	4	2	6
35-39	-	-	13	2	15
40-44	12	-	29	4	45
45-49	54	1	48	10	113
50-54	162	6	42	8	218
55-59	309	44	57	10	420
60-64	438	37	35	12	522
65-69	439	15	32	4	490
70-74	300	-	9	4	313
75-79	182	-	2	2	186
80-84	119	-	2	1	122
85 & up	66	-	1	-	67
Total Members	2,081	103	275	60	2,519

Anne Arundel County Retirement and Pension System

History of Operating Revenues and Expenses

For the Last Ten Years Ended December 31

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
REVENUES										
Employer Contributions	$ 32,155,248	$ 34,310,322	$ 36,337,038	$ 38,407,374	$ 44,724,462	50,895,450	50,815,842	55,733,520	61,860,144	65,330,754
Participant Contributions	8,264,629	8,904,172	9,189,082	9,525,558	10,486,741	10,433,064	11,034,225	10,544,744	10,760,880	11,687,932
Investment Income	81,301,278	156,735,548	143,580,417	(448,013,909)	172,172,570	169,916,939	24,900,493	176,338,780	145,893,607	78,387,569
Total Revenues	**$ 121,721,155**	**$ 199,950,042**	**189,106,537**	**(400,080,977)**	**227,383,773**	**231,245,453**	**86,750,560**	**242,617,044**	**218,514,631**	**155,406,255**
EXPENSES										
Benefits and Refunds	$ 42,769,429	$ 53,053,968	65,753,246	73,590,104	70,793,037	72,241,126	77,259,760	87,155,588	90,931,770	103,171,020
Administrative Expenses	1,286,302	1,428,838	1,466,667	1,180,297	1,348,545	1,393,523	1,340,439	1,527,986	1,604,203	1,409,248
Total Expenses	**$ 44,055,731**	**$ 54,482,806**	**$ 67,219,913**	**$ 74,770,401**	**$ 72,141,582**	**$ 73,634,649**	**$ 78,600,199**	**$ 88,683,574**	**$ 92,535,973**	**104,580,268**
COVERED PAYROLL										
Annual Covered Payroll	**199,370,886**	**215,409,364**	**220,298,031**	**234,922,040**	**237,798,435**	**233,098,361**	**226,183,784**	**217,804,921**	**220,607,481**	**243,678,098**
Total Covered Payroll	$ 199,370,886	$ 215,409,364	$ 220,298,031	$ 234,922,040	$ 237,798,435	$ 233,098,361	$ 226,183,784	$ 217,804,921	$ 220,607,481	243,678,098
Employer Contributions as a Percent of Covered Payroll	**16.13**	**15.93**	**16.49**	**16.35**	**18.81**	**21.83**	**22.47**	**25.59**	**28.04**	**26.81**

Anne Arundel County Retirement and Pension System

History of Plan Investments and Liabilities

For the Ten Years Ended December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Net Assets Fair Market Value	$1,221,836,393	$1,367,303,629	$1,489,190,253	$1,014,338,875	$1,169,581,066	$1,337,927,398	$1,342,485,137	$1,498,074,369	$1,623,305,968	$ 1,668,780,810
Actuarial Accrued Liability (AAL)	$1,240,672,351	$1,343,310,239	$1,462,619,222	$1,566,882,186	$1,652,709,089	$1,713,528,066	$1,791,891,067	$1,893,021,509	$1,997,891,150	$ 2,117,461,985
Actuarial Value of Assets (AVA)	$1,181,256,844	$1,281,182,243	$1,380,306,906	$1,363,614,511	$1,454,413,785	$1,471,797,558	$1,462,944,903	$1,448,184,848	$1,562,260,162	$ 1,666,980,234
Unfunded Actuarial Liability (UAL)	$59,515,507	$62,127,996	$74,934,851	$203,267,675	$198,295,304	$241,730,508	$328,946,164	$444,836,661	$435,630,988	$ 450,481,751
Funded Ratio (AVA/AAL)	95.21%	95.38%	94.37%	87.03%	88.00%	85.89%	81.64%	76.50%	78.20%	78.73%