

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, 2012

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, 2012**

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Introductory Section



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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, 2012. 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.

Major Initiatives

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.

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 2012 Private Equity exposure continued to be increased, as well as both Emerging International Equities, and Fixed Income. Absolute Return was eliminated and several investment manager changes were made.

Also, 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.

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, 2012 declined to 73.3%, 75.8%, 83.6% and 69.3%, respectively. The declines are primarily due to changes in assumptions and the recognition of the final portion of the 2008 investment losses.

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, 2012 were 13.6%, 13.2%, 13.7% and 13.2%, 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 0.6%, 0.2%, 0.7%, and 0.7%, respectively. Actuarial investment returns were less than the 8% assumption for 2012 as a result of the asset smoothing methodology which is still recognizing net investment losses from calendar years 2008 and 2009. 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 2012.

Independent Audit

The System is audited annually. For the year ended December 31, 2012, CliftonLarsonAllen LLP, an independent firm of Certified Public Accountants, conducted the audit. Refer to Independent Auditors' Report for the audit opinion.

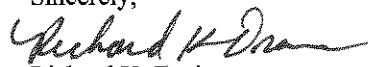
Internal Accounting Control

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, 2012, adequately safeguard the assets and provide reasonable assurance regarding the proper recording of financial transactions.

Awards and 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.

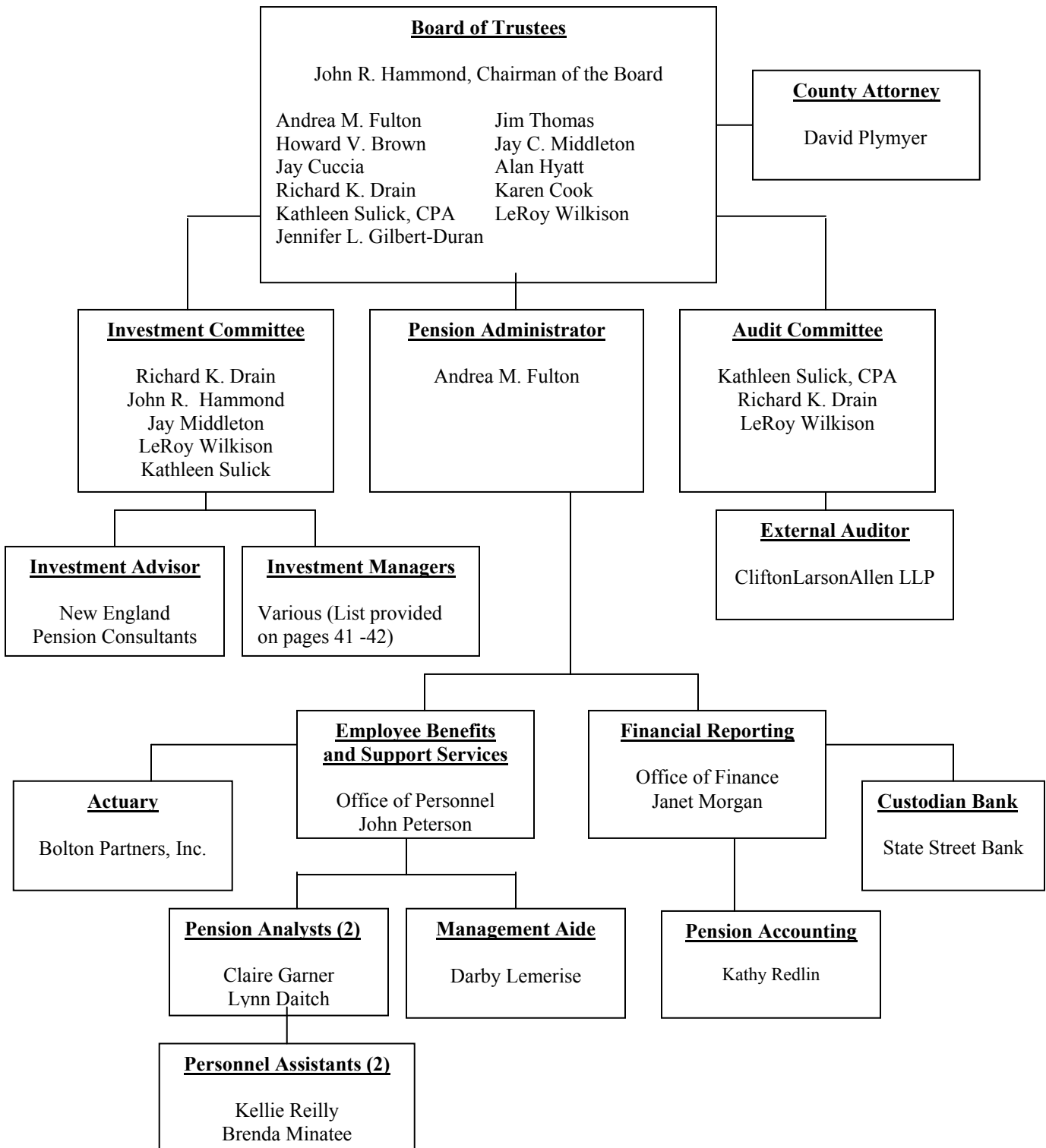
Sincerely,



Richard K. Drain
Controller

Anne Arundel County Retirement and Pension System

Organizational Chart



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Financial Section

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 plan net position as of December 31, 2012 and the related combining statement of changes in plan net position for the year then ended, and the related notes to the financial statements, as listed on the table of contents. The prior year summarized comparative information has been derived from the System's 2011 financial statements and, in our report dated June 8, 2012, we expressed an unqualified 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 entity'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 entity'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 financial position of the System as of December 31, 2012, and the respective changes in its financial 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 discussion and analysis and required supplementary information listed on 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 expense, and payments to consultants as listed on the table of contents, is presented for purposes of additional analysis and is not a required part of the financial statements.

The supplementary schedules, as listed on the table of contents, is the responsibility of management and was derived from and relates 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 expense, and payments to consultants, as listed on the table of contents, is fairly stated, in all material respects, in relation to the financial statements as a whole.

The introductory, investment, actuarial and statistical sections, as listed on 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 7, 2013 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.



Baltimore, Maryland
June 7, 2013

**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 plan net position as of December 31, 2012 and the related combining statement of changes in plan net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated June 7, 2013.

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 entity'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 entity'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 entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in cursive script that reads "CliftonLarsonAllen LLP".

Baltimore, Maryland
June 7, 2013

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, 2012. Please read it in conjunction with the rest of the report, which consists of the basic financial statements, including the notes thereto, and required supplementary information (RSI), and supplementary schedules. Comparable combined amounts from the year ended December 31, 2011 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 \$153.9 million in calendar year 2012 bringing net position to \$1.49 billion. Consequently, the System's net position now exceeds its pre-2008 level of \$1.4 billion. Contributions increased 7.2% to \$66.3 million versus \$61.8 million in 2011. Of this total, employer contributions of \$55.7 million were 9.7% higher than the 2011 total of \$50.8 million, while participant contributions decreased by \$489,481 to \$10.5 million due to the declining number of active employees. The 2012 time weighted total rate of return of 13.7% compares to a gain of 2.1% for 2011. Investment returns, as in prior years, drive the overall health of the System.

The System paid \$87.2 million in benefits in 2012, compared with \$77.3 million paid in 2011 an increase of 12.8%. The 2012 Cost of Living Adjustment (COLA) for most beneficiaries was 1.6% and the number of benefit recipients increased 5.4% to 2,753.

Employee's Retirement Plan – In 2012 net position increased \$52.4 million to \$524.9 million or 11.0%. Benefit payments of \$34.4 million outpaced contributions of \$24.2 by \$10.2 million and various administrative expenses were \$546,061.

Police Service Retirement Plan – In 2012 net position increased \$40.2 million to \$431.7 million or 10.3%. The Plan's benefit payments of \$28.2 million were \$10.1 million greater than contributions of \$18.1 million. Various administrative expenses were \$444,328.

Fire Service Retirement Plan – In 2012 net position increased by \$49.3 million to \$438.4 million a 12.7% increase. Contributions of \$17.7 million lagged only slightly the benefit payments of \$19.5 million. Various administrative expenses were \$444,256.

Detention Officers' and Deputy Sheriffs' Retirement Plan. – In 2012 net position increased by \$12 million to \$94.3 million or 14.6%. Contributions were \$6.3 million compared with benefit payments of \$5.0 million, allowing for higher returns compared with the other Plans. Various administrative expenses were \$93,341.

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, 2012 with combined comparative information as of and for the year ended December 31, 2011. 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 consist of domestic and foreign debt obligations, domestic and foreign equities, real estate, insurance company contracts, absolute return funds, private equity, and portable alpha strategy. 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; rather, the statements refer readers to 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

To provide actuarially determined information about the Plans, this report includes schedules of historical trend information in the Required Supplementary Information (RSI) section. The Schedule of Funding Progress and the Schedule of Employer Contributions provide actuarial information to help the reader understand the changes in the actuarial funding and funded status of the Plans over time. Please note that the actuarial information is based on assumptions about future events, and therefore, the figures presented are estimates.

The Schedule of Funding Progress provides information about the progress made to accumulate sufficient assets to pay benefits when due. It presents the funded status of the Plans by comparing the actuarial value of the assets to the actuarial accrued liability. The Schedule of Employer Contributions presents information about the County's annual required contributions and the contributions actually made to display the performance of the funding of the Plans. The schedules present information for the most recent seven years.

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 2012 and 2011.

Condensed Combined Statement of Plan Net Position (in millions)

	<u>December 2012</u>	<u>December 2011</u>	<u>Change in Dollars</u>	<u>Percentage change</u>
Assets				
Cash and short-term investments	\$ 39.2	\$ 60.0	\$ (20.8)	(34.7) %
Securities lending collateral	66.9	62.5	4.4	7.0 %
Receivables	10.9	10.8	0.1	0.9 %
Investments at fair value and deposits	<u>1,459.1</u>	<u>1,282.7</u>	<u>176.4</u>	13.7%
Total assets	<u>1,576.1</u>	<u>1,416.0</u>	<u>160.1</u>	11.3 %
Liabilities				
Investments settlements and other	19.9	18.1	1.8	9.9%
Securities lending obligations	<u>66.9</u>	<u>62.5</u>	<u>4.4</u>	7.0%
Total liabilities	<u>86.8</u>	<u>80.6</u>	<u>6.2</u>	7.7%
Net position available for benefits	<u>\$ 1,489.3</u>	<u>\$ 1,335.4</u>	<u>\$ 153.9</u>	<u>11.5%</u>

Condensed Combined Statement of Changes in Plan Net Position (in millions)

	<u>December 2012</u>	<u>December 2011</u>	<u>Change in Dollars</u>	<u>Percentage change</u>
Additions				
Employer contributions	\$ 55.7	\$ 50.8	\$ 4.9	9.6 %
Participant contributions	10.6	11.0	(0.4)	(3.6) %
Investment income	<u>176.3</u>	<u>24.9</u>	<u>151.4</u>	608.0 %
Total additions	<u>242.6</u>	<u>86.7</u>	<u>155.9</u>	179.8 %
Deductions				
Benefit payments and refunds	87.2	77.2	10.0	12.9%
Administrative expenses	<u>1.5</u>	<u>1.3</u>	<u>0.2</u>	15.4%
Total deductions	<u>88.7</u>	<u>78.5</u>	<u>10.2</u>	13.0%
Net change in net position	153.9	8.2	145.7	1776.8%
Net position available, Jan. 1	<u>1,335.4</u>	<u>1,327.2</u>	<u>8.2</u>	0.6%
Net position available, Dec. 31	<u>\$ 1,489.3</u>	<u>\$ 1,335.4</u>	<u>\$ 153.9</u>	<u>11.5%</u>

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.

<u>Investment Type</u>	2012 Percent of Investments	2011 Percent of Investments	2012 Annual Investment Return	2011 Annual Investment Return
Cash and temporary investments	2.6%	4.5%	0.3%	0.6%
Domestic equity	15.1%	16.8%	17.8%	-0.5%
International equity pools	24.9%	18.3%	19.8%	-14.1%
Domestic fixed income	19.1%	16.6%	7.7%	6.8%
Global assets and pools	21.1%	21.4%	13.3%	11.7%
Opportunistic	0.9%	0.1%	12.1%	N/A
Private markets	4.9%	4.3%	12.3%	11.1%
Real estate investment pools	3.7%	3.8%	10.9%	18.7%
Stable value pooled investments	2.0%	2.4%	4.9%	6.8%
Absolute Return funds	0.0%	6.4%	N/A	-4.4%
Portable Alpha	5.7%	5.4%	19.0%	-0.7%
	<u>100.0%</u>	<u>100.0%</u>	13.7%	2.1%

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, 2012 and 2011 the funded ratios for the System were 76.5% and 81.6%, respectively. The decline results primarily from changes in assumptions and the recognition of the final portion of the 2008 investment losses.

The System paid \$87.2 million in retirement benefits and refunds to 2,753 participants and beneficiaries during 2012, compared to \$77.3 million in 2011 to 2,611 persons. This reflects an average of \$31,658 per person in 2012, compared to an average of \$29,590 in 2011.

The System received \$10.5 million in monthly contributions from 3,656 active participants during 2012. In 2011, \$11.0 million was received from 3,763 active participants. The employer contributions were \$55.7 million in 2012, compared to \$50.8 million in 2011. 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 2012 annual required contribution (ARC) for all Plans and has contributed the ARC recommended by the actuary for every year. Administrative costs for 2012 were approximately \$1.5 million for 6,881 participants or an average cost of \$222 per person. This was a 14% increase in administrative costs from 2011 of \$1.3 million for 6,824 participants, an average of \$196 per person. Administrative costs were impacted by the Experience Study performed by the actuary, hiring of outside vendor to facilitate an electronic records system, and a greater overall allocation of County employees' time administering the Pension System.

Overall Analysis of Financial Position

The System has experienced increasing market valuations since 2008. The Actuarial Value of Assets and Funded Ratios, while increasing over the long-run, have deteriorated over the past three years. This can be attributed to assumption changes which move the System to more conservative projections and the ongoing realization of actuarial losses resulting from the 2008 financial crisis. The January 1, 2013 Actuarial Valuations mark the final booking of the 2008 losses. 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.

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Anne Arundel County Retirement and Pension System
Combining Statement of Plan Net Position
December 31, 2012 (with December 31, 2011 Combined Comparative Totals)

	<i>Employees' Retirement Plan</i>	<i>Police Service Retirement Plan</i>	<i>Fire Service Retirement Plan</i>	<i>Detention Officers' and Deputy Sheriffs' Retirement Plan</i>	<i>2012 Combined Total</i>	<i>2011 Combined Total</i>
ASSETS						
Investments at market value:						
Cash and temporary investments	\$ 13,806,879	\$ 11,356,147	\$ 11,533,480	\$ 2,477,783	\$ 39,174,289	\$ 60,017,252
U. S. Government obligations	5,644,600	4,642,858	4,716,892	1,013,019	16,017,369	11,337,735
Corporate obligations	65,060,285	53,514,093	54,367,419	11,676,172	184,617,969	129,351,471
Fixed income mutual funds	30,158,816	24,806,557	25,202,118	5,412,511	85,580,002	82,017,834
International fixed income mutual funds	45,405,665	37,347,561	37,943,099	8,148,817	128,845,142	76,349,255
Global asset pools	111,454,584	91,674,835	93,136,666	20,002,417	316,268,502	287,957,768
Domestic equity	79,966,140	65,774,618	66,823,448	14,351,281	226,915,487	225,288,143
International equity pools	85,874,144	70,634,134	71,760,453	15,411,572	243,680,303	169,130,058
Private markets	30,609,132	25,176,956	25,578,423	5,493,328	86,857,839	58,790,498
Portable Alpha	30,039,784	24,708,650	25,102,649	5,391,149	85,242,232	72,266,945
Real estate investment pools	19,314,066	15,886,416	16,139,738	3,466,237	54,806,457	51,563,187
Aetna insurance pooled fixed income	10,596,386	8,715,855	8,854,836	1,901,701	30,068,778	32,008,560
Absolute Return funds	-	-	-	-	-	86,406,431
Total investments	<u>527,930,481</u>	<u>434,238,680</u>	<u>441,159,221</u>	<u>94,745,987</u>	<u>1,498,074,369</u>	<u>1,342,485,137</u>
Collateral from securities lending transactions:	<u>23,586,930</u>	<u>19,400,978</u>	<u>19,710,342</u>	<u>4,233,075</u>	<u>66,931,325</u>	<u>62,530,045</u>
Receivables						
Employer contributions	1,730,412	1,379,812	1,324,639	432,792	4,867,655	4,421,265
Participant contributions	365,442	196,953	180,712	85,255	828,362	1,238,046
Accrued interest and dividends	947,385	779,255	791,680	170,027	2,688,347	2,061,385
Investment sales proceeds	877,020	721,376	732,880	157,396	2,488,672	3,087,864
Total receivables	<u>3,920,259</u>	<u>3,077,396</u>	<u>3,029,911</u>	<u>845,470</u>	<u>10,873,035</u>	<u>10,808,560</u>
Deposits on hand	<u>14,895</u>	<u>154,793</u>	<u>65,915</u>	<u>-</u>	<u>235,603</u>	<u>225,351</u>
Total assets	<u>555,452,565</u>	<u>456,871,847</u>	<u>463,965,389</u>	<u>99,824,531</u>	<u>1,576,114,332</u>	<u>1,416,049,093</u>
LIABILITIES						
Accounts payable	622,537	514,856	520,421	111,725	1,769,539	1,528,538
Investment commitments payable	6,368,591	5,238,363	5,321,893	1,142,952	18,071,799	16,582,311
Obligation for collateral received under						
securities lending transactions	<u>23,586,930</u>	<u>19,400,978</u>	<u>19,710,342</u>	<u>4,233,075</u>	<u>66,931,325</u>	<u>62,530,045</u>
Total liabilities	<u>30,578,058</u>	<u>25,154,197</u>	<u>25,552,656</u>	<u>5,487,752</u>	<u>86,772,663</u>	<u>80,640,894</u>
Net position held in trust for pension benefits	<u>\$ 524,874,507</u>	<u>\$ 431,717,650</u>	<u>\$ 438,412,733</u>	<u>\$ 94,336,780</u>	<u>\$ 1,489,341,670</u>	<u>\$ 1,335,408,200</u>

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 Plan Net Position
For the Year Ended December 31, 2012 (with December 31, 2011 Combined Comparative Totals)

	<i>Employees' Retirement Plan</i>	<i>Police Service Retirement Plan</i>	<i>Fire Service Retirement Plan</i>	<i>Detention Officers' and Dep. Sheriffs' Retirement Plan</i>	<i>2012 Combined Total</i>	<i>2011 Combined Comparative Total</i>
ADDITIONS						
Contributions						
Employer	\$ 19,823,814	\$ 15,530,322	\$ 15,238,104	\$ 5,141,280	\$ 55,733,520	\$ 50,815,842
Participants	4,416,529	2,553,740	2,453,627	1,120,848	10,544,744	11,034,225
Total contributions	24,240,343	18,084,062	17,691,731	6,262,128	66,278,264	61,850,067
Investment income						
Net appreciation in market value of investments	52,776,856	43,634,734	43,827,004	9,325,872	149,564,466	3,910,507
Interest income	7,110,315	4,561,884	4,993,511	979,392	17,645,102	15,439,520
Dividend income	6,118,751	5,049,951	5,093,815	1,088,347	17,350,864	12,448,321
Income from investment activities	66,005,922	53,246,569	53,914,330	11,393,611	184,560,432	31,798,348
Less investment expense	2,987,251	2,486,001	2,459,683	521,005	8,453,940	7,095,923
Net income from investing activities	63,018,671	50,760,568	51,454,647	10,872,606	176,106,492	24,702,425
Securities lending activities:						
Securities lending income	132,650	109,587	110,294	23,531	376,062	314,772
Securities lending expenses:						
Borrower rebates	15,566	12,860	12,943	2,761	44,130	31,730
Management fees	35,148	29,037	29,224	6,235	99,644	84,975
Total securities lending expenses	50,714	41,897	42,167	8,996	143,774	116,705
Net income from securities lending	81,936	67,690	68,127	14,535	232,288	198,067
Total Investment Income	63,100,607	50,828,258	51,522,774	10,887,141	176,338,780	24,900,492
Total additions	87,340,950	68,912,320	69,214,505	17,149,269	242,617,044	86,750,559
DEDUCTIONS						
Benefit payments	34,375,282	28,241,364	19,520,674	5,018,268	87,155,588	77,259,760
Administrative expenses	546,061	444,328	444,256	93,341	1,527,986	1,340,439
Total deductions	34,921,343	28,685,692	19,964,930	5,111,609	88,683,574	78,600,199
Net increases	52,419,607	40,226,628	49,249,575	12,037,660	153,933,470	8,150,360
Net position, January 1	472,454,900	391,491,022	389,163,158	82,299,120	1,335,408,200	1,327,257,840
Net position December 31	\$ 524,874,507	\$ 431,717,650	\$ 438,412,733	\$ 94,336,780	\$ 1,489,341,670	\$ 1,335,408,200

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. 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.

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.

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, 2012 were \$1,527,986 of which approximately \$617,297 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 2011, from which the combined prior year amounts were derived.

G New Pronouncements – GASB Statement 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, introduces and defines these elements as a consumption or acquisition of net assets and liabilities, and result in the redefinition of Net Assets to the concept of Net Position. GASB 63 was implemented for the year ended December 31, 2012. GASB Statement 64, *Derivative Instruments: Application of Hedge Accounting Termination Provisions* (an amendment of GASB 53) establishes criteria for when an effective hedging relationship continues and hedge accounting should continue to be applied. GASB 64 was implemented for the year ended December 31, 2012

2 General Description of the System

A Covered Membership - Membership in each plan consisted of the following as of December 31, 2012, based on the January 1, 2013 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	1,468	629	459	197	2,753
Terminated Plan members entitled to but not yet receiving payments	273	-	-	12	285
Deferred Retirement Option (DROP)	-	60	127	-	187
Active Plan members	2,152	580	586	338	3,656
Total	3,893	1,269	1,172	547	6,881

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 2012 annual recommended contribution of \$19,823,814, 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 6 percent of their annual covered salary. The County provided monthly contributions to the Plan based on the 2012 annual recommended contribution of \$15,530,322, 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 5 percent of their annual covered salary. The County provided monthly contributions to the Plan based on the 2012 annual recommended contribution of \$15,238,104, 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 retire 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 5 percent of their annual covered salary. The County provided monthly contributions to the Plan based on the 2012 annual recommended contribution of \$5,141,280, 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.

3 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 change could materially affect the amounts reported in the Statements of Net Position Available for Plan Benefits.

4 Funded Status and Funding Progress—Pension Plans

The funded status of each plan as of January 1, 2013, the most recent actuarial valuation date, is as follows:

	<i>(A)</i> <i>Actuarial</i> <i>Value</i> <i>of Assets</i>	<i>(B)</i> <i>Actuarial</i> <i>Accrued</i> <i>Liability (AAL)</i>	<i>(B-A)</i> <i>Unfunded</i> <i>AAL</i> <i>(UAAL)</i>	<i>(A/B)</i> <i>Funded</i> <i>Ratio</i>	<i>(C)</i> <i>Covered</i> <i>Payroll</i>	<i>((A-B)/C)</i> <i>UAAL as a</i> <i>percentage of</i> <i>Covered</i> <i>Payroll</i>
Employee's Plan	\$508,232,321	\$693,580,675	\$185,348,354	73.3%	\$116,024,717	159.7%
Police Service Plan	420,675,703	555,292,097	134,616,394	75.8%	40,521,944	332.2%
Fire Service Plan	426,659,036	510,470,652	83,811,616	83.6%	43,361,686	193.3%
Det. Officers' & Sheriffs Plan	92,617,788	133,678,085	41,060,297	69.3%	17,896,574	229.4%

The schedules of funding progress, included as required supplementary information (RSI) following the notes to the financial statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the AALs for benefits.

Additional information as of the latest actuarial valuation follows:

	Employees Retirement Plan	Police Service Retirement Plan	Fire Service Retirement Plan	Detention Officers' and Deputy Sheriff's Retirement Plan
Actuarial valuation date	01/01/2013	01/01/2013	01/01/2013	01/01/2013
Actuarial cost method	Projected unit credit	Projected unit credit	Projected unit credit	Projected unit credit
Amortization method	Level percent of payroll	Level percent of payroll	Level percent of payroll	Level percent of payroll
Remaining amortization Period	Remaining amort. per. 21-30 yrs. average 26 yrs, closed	Remaining amort. per. 21-30 yrs. average 26 yrs, closed	Remaining amort. per. 21-30 yrs. average 26 yrs, closed	Remaining amort. per. 22-30 yrs. average 26 yrs, closed
Asset valuation method	5 year smoothed market	5 year smoothed market	5 year smoothed market	5 year smoothed market
Actuarial assumptions:				
Investment rate of return	4.5%	4.5%	4.5%	4.5%
Inflation Rate	3.5%	3.5%	3.5%	3.5%
Projected salary increases	Varies by age (4.0%-7.0%)	Varies by age (4.5%-6.5%)	Varies by age (4.5%-7.0%)	Varies by age (4.75%-6.5%)
Cost of living adjustments	3.0% pre-2/97 2.1% post-2/97	3.5% pre-2/97 2.1% post-2/97	3.5% pre-2/97 2.1% post-2/97	3.5% pre-2/97 2.1% post-2/97

5 Investments

A 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, as well as mortgage participation's and real estate. State statutes do not prohibit the System from participating in securities lending transactions. (See Note 6 to the basic financial statements for additional information concerning the System's security lending transactions.)

B 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, 2012 there were no investments that met this criteria. The System's Investment Policy Statement (IPS) does not address custodial credit risk.

C 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, 2012 there was no exposure to a single issuer greater than 5.0% of the plan net position excluding investment pools. The IPS sets maximum concentration limits by asset type and style.

D 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 County has no formal policy providing any additional guidance or limits affecting the System's interest rate exposure.

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 \$9,884,342 as of December 31, 2012.

<u>Investment Type</u>	<u>Fair Value</u>	<u>Investment Maturities (in Years)</u>			
		<u>Less than 1 year</u>	<u>1 to 5</u>	<u>6 to 10</u>	<u>over 10</u>
U.S. Treasuries	\$ 16,017,369	\$ 5,313,146	\$ 390,892	\$ 4,628,817	\$ 5,684,514
Agency/Instrumentalities	36,611,339	7,028,381	-	1,009,275	28,573,683
Corporate Bonds	129,522,016	1,284,720	55,757,341	61,930,237	10,549,718
Bond Mutual Funds	214,425,143	-	85,580,002	128,845,141	-
Collateralized Mrtg Obligations	6,578,944	-	60,779	427,962	6,090,203
Other Asset-Backed Securities	2,810,208	-	278,150	102,009	2,430,049
Foreign and Yankee Bonds	<u>9,095,463</u>	<u>135,279</u>	<u>4,803,095</u>	<u>3,867,949</u>	<u>289,140</u>
Totals	\$ <u>415,060,482</u>	\$ <u>13,761,526</u>	\$ <u>146,870,259</u>	\$ <u>200,811,390</u>	\$ <u>53,617,307</u>

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 \$102,224,851 with call dates ranging from January 1, 2013, for continuously callable issues, to March 1, 2041. Stated call prices are generally at par. The callable holdings include issues with floating interest rates which have a market value of \$8,667,782.

E 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 \$468,271,644 of fixed income excluding U.S. Treasuries. The Investment Policy Statement provides guidelines to all fixed income managers related to allowable quality ratings. The County has no additional formal policy related to the credit ratings of the System's investments.

Anne Arundel County Retirement and Pension System
Notes to the Basic Financial Statements

<u>Investment Type</u>	<u>S&P</u>	<u>Moody's</u>	<u>%</u>	<u>Investment Type</u>	<u>S&P</u>	<u>Moody's</u>	<u>%</u>
Agency/Instrumentalities	AA	AAA	4.33	Other Asset-backed	CCC	Ca	0.08
"	AA	Aaa	0.59	Obligations	CC	Caa	0.07
"	AA	NR	1.65	"	D	Ca	0.02
"	A	Aa	0.04	"	D	NR	0.01
"	A	NR	0.15	Yankee & Foreign Gov	AA	Aa	0.15
"	NR	NR	1.06	Issued Debt	AA	A	0.02
Collateralized Mort. Oblig.	AAA	Aaa	0.03	"	A	Aa	0.05
"	AAA	Aa	0.01	"	A	A	0.40
"	AAA	NR	0.09	"	A	Baa	0.06
"	AA	Aaa	0.02	"	BBB	A	0.10
"	NR	Aaa	0.02	"	BBB	Baa	0.37
"	AA	Aa	0.02	"	BB	Baa	0.08
"	AA	Baa	0.06	"	BB	Ba	0.01
"	AA	B	0.03	"	BB	B	0.28
"	A	Aaa	0.02	"	BB	NR	0.12
"	A	Aa	0.03	"	B	B	0.30
"	A	A	0.01	Corporate Bonds	AA	Aa	0.09
"	A	NR	0.03	"	AA	A	0.27
"	BBB	Aaa	0.02	"	A	Aa	0.08
"	BBB	A	0.09	"	A	A	1.19
"	BBB	Caa	0.03	"	NR	A	0.12
"	BB	B	0.01	"	A	Baa	0.77
"	B	Caa	0.06	"	BBB	A	0.12
"	NR	B	0.02	"	BBB	Baa	1.87
"	CCC	Caa	0.38	"	BBB	Ba	0.23
"	CCC	C	0.05	"	BBB	NR	0.26
"	NR	C	0.01	"	BB	Baa	0.14
"	D	Caa	0.06	"	BB	Ba	3.11
"	D	Ca	0.01	"	BB	B	4.79
"	NR	Baa	0.02	"	BB	NR	0.17
"	NR	NR	0.29	"	B	Ba	0.50
Other Asset-backed	AAA	Aaa	0.07	"	B	B	11.00
Obligations	AA	Aaa	0.02	"	B	BB	0.18
"	AA	B	0.03	"	B	Caa	0.85
"	AA	NR	0.02	"	B	NR	0.38
"	NR	Aaa	0.06	"	NR	B	0.20
"	BBB	Baa	0.03	"	CCC	B	1.28
"	BBB	Ba	0.04	"	NR	NR	0.06
"	BBB	B	0.05	Mutual Funds	NR	NR	45.79
"	B	B	0.03	Guaranteed Invest Contracts	NR	NR	6.42
"	B	Caa	0.01	Short Term Investment Pools	NR	NR	8.36
"	CCC	A	0.01				<u>100.00%</u>
"	CCC	Baa	0.01				
"	CCC	Caa	0.03				

F Foreign Currency Risk - The investment policy recognizes the value of global diversification. A maximum of 51% 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, 2012. International/global equities and fixed income assets totaled \$688,793,947 in fair market value, managed in pooled funds as of December 31, 2012.

6 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 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, 2012. No income from one STIF was assigned to another STIF by State Street Bank and Trust Company during the year ended December 31, 2012.

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, 2012 was \$66,931,324. There were no securities held as collateral. The market value of securities on loan for the System as of December 31, 2012 was \$65,833,125.

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, 2012, the STIF had an average duration of 34 days and a weighted average maturity of 68 days. The System's ownership of the STIF was \$66,931,324 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.

7 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, 2012, the fair value of government mortgage-backed securities was \$36,611,339, asset-backed securities was \$2,708,199, and CMO's was \$6,680,953.

8 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, 2012 within the mutual funds, commingled funds, and other investment vehicles is comprised of allowable instruments based on the IPS.

9 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.

10 Commitments

The System has committed to fund various private equity investments totaling \$140 million at December 31, 2012, of which approximately \$56.4 million remains unfunded. The expected funding dates for these commitments extend through 2017.

11 Subsequent Events

The system evaluated subsequent events through June 7, 2012, the date the financial statements were available to be issued. Events or transactions occurring after December 31, 2012, but prior to June 7, 2012 that provided additional evidence about conditions that existed at December 31, 2012, have been recognized in the financial statements for the year ended December 31, 2012. Events or transactions that provided evidence about conditions that did not exist at December 31, 2012, 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, 2012.

Anne Arundel County Retirement and Pension System
Required Supplementary Information
Schedule of Funding Progress for Single Employer Defined Benefit Pension Plans
December 31, 2006 through 2012

As of December 31,	(A) Actuarial Value of Assets	(B) Actuarial Accrued Liability (AAL)	(B-A) Unfunded AAL (UAAL)	(A/B) Funded Ratio	(C) Covered Payroll	((A-B)/C) UAAL as a Percentage of Covered Payroll
EMPLOYEES' RETIREMENT PLAN						
2006	\$ 456,656,849	\$ 481,971,630	\$ 25,314,781	94.7	\$116,709,102	21.7
2007	492,788,674	526,341,482	33,552,808	93.6	117,222,681	28.6
2008	488,275,803	568,194,980	79,919,177	85.9	124,803,488	64.0
2009	519,556,093	598,841,131	79,285,038	86.8	126,030,706	62.9
2010	522,165,145	627,269,587	105,104,442	83.2	123,498,129	85.1
2011	516,070,401	653,653,058	137,582,657	79.0	120,415,534	114.3
2012	508,232,321	693,580,675	185,348,354	73.3	116,024,717	159.7
POLICE SERVICE RETIREMENT PLAN						
2006	\$ 389,877,885	\$ 401,698,105	\$ 11,820,220	97.1	\$37,805,038	31.3
2007	417,278,055	433,667,102	16,389,047	96.2	41,011,366	40.0
2008	408,261,502	463,681,196	55,419,694	88.0	41,508,547	133.5
2009	432,176,036	487,458,733	55,282,697	88.7	42,499,380	130.1
2010	435,891,125	502,001,669	66,110,544	86.8	42,449,204	155.7
2011	430,342,941	526,154,978	95,812,037	81.8	41,334,580	231.8
2012	420,675,703	555,292,097	134,616,394	75.8	40,521,944	332.2
FIRE SERVICE RETIREMENT PLAN						
2006	\$ 368,413,752	\$ 383,694,268	\$ 15,280,516	96.0	\$43,527,351	35.1
2007	395,884,441	413,815,087	17,930,646	95.7	43,941,526	40.8
2008	390,551,359	436,520,858	45,969,499	89.5	48,824,352	94.2
2009	418,191,046	455,275,809 ¹	37,084,763	91.9	49,064,454	75.6
2010	425,830,155	464,489,607	38,659,452	91.7	47,840,812	80.8
2011	426,196,539	486,095,747	59,899,208	87.7	45,673,006	131.1
2012	426,659,036	510,470,652	83,811,615	83.6	43,361,686	193.3
DETENTION OFFICERS' AND DEPUTY SHERIFFS' RETIREMENT PLAN						
2006	\$66,233,757	\$ 75,946,236	\$ 9,712,479	87.2	\$17,367,873	55.9
2007	74,355,736	88,795,551	14,439,815	83.7	18,122,458	79.7
2008	76,525,847	98,485,152	21,959,305	77.7	19,785,653	111.0
2009	84,490,610	111,277,697 ¹	26,787,087	75.9	20,203,895	132.6
2010	87,911,133	119,767,203	31,856,070	73.4	19,310,216	165.0
2011	90,334,022	125,987,284	35,653,262	71.7	18,760,664	190.0
2012	92,617,788	133,678,085	41,060,297	69.3	17,896,574	229.4

Note 1. Revised for increased employee contribution levels negotiated subsequent to initial reporting.
Accompanying Notes to the Required Supplementary Information are an integral part of this schedule.

Anne Arundel County Retirement and Pension System
Required Supplementary Information
Schedule of Employer Contributions
For the Years Ended December 31, 2006 through 2012

<i>For the Year Ended December 31,</i>	<i>Annual Required Contribution</i>	<i>Actual Contribution</i>	<i>Percentage Contributed</i>
EMPLOYEES' RETIREMENT PLAN			
2006	\$ 10,755,168	\$ 10,755,168	100.00%
2007	11,778,948	11,778,948	100.00
2008	12,906,750	12,906,755	100.00
2009	15,246,258	15,246,252	100.00
2010	17,284,082	17,284,080	100.00
2011	18,186,400	18,186,402	100.00
2012	19,823,814	19,823,814	100.00
POLICE SERVICE RETIREMENT PLAN			
2006	\$ 9,611,544	\$ 9,611,544	100.00%
2007	9,997,308	9,997,308	100.00
2008	10,522,666	10,522,660	100.00
2009	12,428,140	12,428,136	100.00
2010 (see note)	13,695,736	14,055,660	102.70
2011 (see note)	14,153,185	13,793,256	97.46
2012	15,530,319	15,530,322	100.00
FIRE SERVICE RETIREMENT PLAN			
2006	\$ 10,481,244	\$ 10,481,244	100.00%
2007	10,959,888	10,959,888	100.00
2008	11,189,712	11,189,718	100.00
2009	12,701,160	12,701,160	100.00
2010 (see note)	14,213,332	14,648,580	103.10
2011 (see note)	14,395,096	13,959,852	96.98
2012	15,238,101	15,238,104	100.00
DETENTION OFFICERS' AND DEPUTY SHERIFFS' RETIREMENT PLAN			
2006	\$ 3,462,366	\$ 3,462,366	100.00%
2007	3,600,894	3,600,894	100.00
2008	3,788,256	3,788,260	100.00
2009	4,348,917	4,348,914	100.00
2010 (see note)	4,789,078	4,907,130	102.60
2011 (see note)	4,994,389	4,876,332	97.64
2012	5,141,277	5,141,280	100.00

Note: Employer Contributions for calendar 2010 are greater than 100.00% of the Annual Required Contribution due to fiscal year revisions. Calendar 2011 will be reduced for the revisions.

Accompanying Notes to the Required Supplementary Information are an integral part of this schedule.

1 Description of Schedule of Funding Progress

The Schedule of Funding Progress summarizes the actuarial value of the System's assets and actuarial liabilities as of December 31, 2012 and each of the six preceding years. The data presented in the schedule was obtained from the System's independent actuary's annual valuation report for each year presented.

The schedule is presented to provide a consistent basis for measuring the System's annual progress toward funding its actuarial accrued liability in accordance with its actuarial funding method. The primary measure of funding progress is the System's funded ratio (i.e., actuarial value of assets expressed as a percentage of the actuarial accrued liability). Analyzing this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater the percentage, the stronger the pension plan.

The Schedule of Funding Progress also discloses the relation between the System's covered payroll (i.e., all elements included in compensation paid to active members on which contributions are based) and the unfunded portion of its actuarial accrued liability as of December 31, 2012 and the six preceding years. This relationship, expressed as a ratio, is a measure of the significance of the unfunded actuarial accrued liability relative to the capacity to pay all contributions required to fund the liability. Generally, the smaller the percentage, the stronger the pension plan.

The actuarial value of assets is determined by spreading the asset gain or loss over a five year period. For the year ended December 31, 2012 the System experienced an investment gain of 13.7%.

2 Change 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.

3 Significant Legislative Changes 2000 to 2012

A review of past legislative actions that made significant changes to the Plans revealed the following four County Council Bills.

Bill No. 80-00, a recodification effective February 25, 2002, impacted all four Plans. For the Employees' Retirement Plan, the bill allowed a benefit based on disability leave service and pre-plan military service to be paid over the 70% cap and normal retirement was changed to the earlier of 30 years of service or age 60.

For the Police Service Retirement Plan, the bill allowed 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. Tier 2 benefits were eliminated. The bill also implemented the Deferred Retirement Option Program (DROP), a voluntary program that provides an alternative way to earn and receive retirement benefits.

In the Fire Service Retirement Plan, the bill allowed 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. Tier 2 benefits were eliminated. The bill also implemented the Deferred Retirement Option Program (DROP), a voluntary program that provides an alternative way to earn and receive retirement benefits. The DROP was retroactive to January 1, 2001.

In the Detention Officers' and Deputy Sheriffs' Retirement Plan, the bill allowed a benefit based on disability leave service and pre-plan military service to be paid over the 70% cap. Tier Two benefits were eliminated, early retirement factors were changed and a death benefit was added.

Bill No. 32-04 implemented provisions of the County labor contracts and included two material changes to this Plan. Section 6-102 redefined participants in the Plan so that one group can be afforded different benefits. Section 6-201 provides a "20 and out" benefit to uniformed Detention Officers & Deputy Sheriffs.

Bill No. 66-05 implemented changes in collective bargaining negotiations, added re-employment provisions, and clarified taxation status of contributions and certain calculations. The major item effecting funding reduced the participant contribution to 5% from 6% retroactive to July 14, 2005 for category II members of the Policy Service Plan. Category II is comprised of Police Sergeant, Police Lieutenant, Police Captain, Police Major, Deputy Police Chief and the Chief of Police by election.

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. This bill also reduced the DROP interest rate from 8% to 4.25% for Police and Fire Plans.

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.

Schedule of Administrative Expenses

Professional Services

Actuarial	\$ 277,539
Benefit payment processing	61,987
Insurance service fees	34,288
Audit	28,400
Investment consulting fees	276,808
Legal counsel	7,016
Misc. Fees from Investment Mgrs	163,545
Other Consultant	23,925
	<u>873,508</u>

Miscellaneous: County paid

Supplies	11,111
Postage	16,180
Printing	14,114
Bonding & legal services	275
Medical evaluations	10,100
Training & memberships	295
Indirect costs paid to County	<u>562,527</u>
	<u>614,602</u>

Communication

Telephone	2,695
Travel & meals	3,671
	<u>6,366</u>

Miscellaneous: system paid

Prudential administration	3,960
Tax withholding expenses	29,550
	<u>33,510</u>

Total Administrative Costs **\$ 1,527,986**

Schedule of Investment Expenses

Management Fees

Aetna/ING Investment Mgmt	\$ 519,655
Bridgewater	3,705,380
Buckhead Capital	153,184
Chartwell Investment Partners	379,989
Dupont	46,875
EIG Energy	145,949
Entrust Special Opportunities	87,013
ING "Separate"	365,550
Lexington	88,686
Newstone Partners	194,056

Management Fees (continued)

Penn Capital	519,230
Quellos Private Capital	130,547
Southeastern Asset Management	284,050
State Street Global Advisors	348,384
Wedge Capital Management	158,661
Wellington Trust Company	379,907
Western Asset Management	201,639
Westwood	<u>368,886</u>
	<u>8,077,641</u>

Custodial Fees

State Street Bank & Trust	<u>376,299</u>
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Total Investment Expense **\$ 8,453,940**

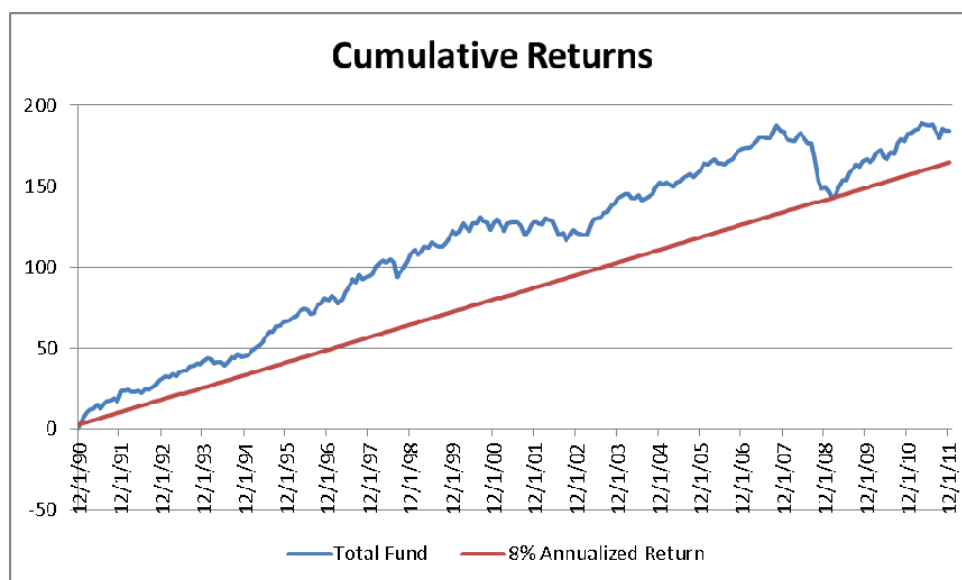
Schedule of Payments to Consultants

<u>Company</u>	<u>Fee</u>
Aetna	\$ 34,288
ADP	61,987
Bolton Partners, Inc.	277,539
CliftonLarsonAllen	28,400
New England Pension Consultants	276,808
Other	194,486
	<u>\$ 873,508</u>

<u>Nature of Service</u>
Insurance Services
Benefit Payment Processing
Actuarial Services
Audit Services
Investment Consulting Services
Legal Services & Miscellaneous

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 2012 was the fourteenth 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 2012, due to performance concerns or changes in asset allocation, the System divested from Buckhead Capital Management's small cap value strategy, Marvin & Palmer Associates' emerging markets equity strategy, Wellington Management Company's GTAA strategy, and Attalus Capital's and Gottex Fund Management's portable alpha strategies. Both Attalus and Gottex have returned a portion of the assets, with the remainder to be returned after the final audit or as illiquid holdings are liquidated. In addition, the System added Bridgewater Associates' Pure Alpha Major Markets in the GAA space, Wedge Capital Partners in the small cap value space, Dimensional Fund Advisors in the emerging markets equity space, Crescent Capital Group and Private Advisors in the private equity space.

Market Commentary

The global equity markets experienced yet another volatile year in 2012, with the market reacting to events such as the prolonged European Debt Crisis, slowing Chinese growth, the US election, the sluggish US economy, and uncertainty surrounding the "fiscal cliff". Despite the negativity in the headlines, the broad markets ended the year in positive territory.

During the year, risk was generally rewarded, as stocks outperformed bonds, international stocks did better than US stocks, and emerging market equities did better than both their International and US counterparts. Corporate bonds did better than government bonds and high yield outperformed investment grade. In general, all sectors generated a positive return in 2012, with cyclical sectors such as Financial Services and Consumer Discretionary leading the pack, while more defensive sectors such as Health Care and Consumer Staples lagged.

Global Equity Markets

The first quarter of 2012 was the best quarter for US stocks since 1998. Global equity markets delivered strong gains as macro fears continued to subside and attention turned to improving fundamentals. In both dollar and local currency terms, US markets outperformed international markets and emerging markets outperformed developed international markets. US equity markets delivered the strongest first quarter gains in more than 10 years.

US equity markets reversed in the second quarter of 2012 as global economic fears mounted and ended the quarter in negative territory. Globally, the second quarter saw growth equity indices struggle on the back of greater political concerns in Europe and slowing GDP in China. Political events again triggered a sell-off starting with the election of the Socialist party in France and further fears that the Greek political parties would not be able to support the

country's austerity measures. Bad news appeared beyond the Eurozone during the quarter, as China announced an official lowering of GDP growth targets. Nevertheless, the quarter ended on a positive note as the European Union announced its willingness to start a process to unify bank oversight in order to shore up confidence in the financial system. All international markets were down for the quarter, with Greece presenting the weakest return of all.

Global equities did well in the third quarter, thanks to the collective monetary easing by central banks in the US and Europe. While returns were positive across all sectors, the financial sector led the pack and the information technology sector trailed behind with flat to modest returns for the quarter. Among countries, Japan was the only region with negative returns.

US equities posted mixed results for the fourth quarter amid uncertainties around the outcomes of the presidential election and the fiscal cliff. Macroeconomic concerns also took a toll. International equity markets, buoyed by positive news flow within the Eurozone, Japanese export-driven stocks, and stronger economic data from China, beat domestic and emerging markets during the quarter.

Equity Index Returns as of 12/31/2012				
Global Equity	Quarter	1 Year	3 Yrs	5 Yrs
MSCI World	2.1%	13.2%	4.9%	-3.2%
US Equity	Quarter	1 Year	3 Yrs	5 Yrs
S&P 500	-0.4%	16.0%	10.9%	1.7%
Dow Jones Industrial Average	-2.5%	7.3%	8.6%	-0.2%
NASDAQ Composite	-3.1%	15.9%	11.0%	2.8%
Russell 1000 Growth	-1.3%	15.3%	11.4%	3.1%
Russell 1000 Value	1.5%	17.5%	10.9%	0.6%
Russell 2000	1.9%	16.3%	11.8%	3.6%
Russell 2000 Growth	0.4%	14.6%	12.4%	3.5%
Russell 2000 Value	3.2%	18.1%	11.0%	3.5%
International Equity	Quarter	1 Year	3 Yrs	5 Yrs
MSCI EAFE	6.6%	17.3%	3.6%	-3.7%
MSCI Emerging Markets	5.6%	18.2%	4.7%	-0.9%
MSCI Europe	7.0%	19.1%	3.5%	-4.3%
MSCI UK	3.4%	10.8%	3.1%	-5.1%
MSCI Japan	5.8%	8.2%	2.1%	-4.3%
MSCI Far East	5.4%	9.1%	1.2%	-4.8%

Global Fixed Income Markets

In the first quarter of 2012, corporate credit and emerging markets led fixed income returns, with the riskiest sectors – among them US high yield bonds – performing the best. US Treasuries and other high-quality developed market sovereign bond markets posted the weakest results in the quarter as investors favored riskier assets and shunned the relative safety of government bonds. Fears over the solvency of the European banking sector ebbed with the apparent early success of the European Central Banks' Long-Term Recovery Operation liquidity window for European banks, which was launched in December.

Long-term US Treasury bonds led fixed-income returns during the second quarter as yields touched all-time lows in response to slowing growth in both the US and China. Economic weakness in Europe continued to weigh on the markets as concerns escalated about that continent's banking and sovereign debt crisis. Credit market indices performed reasonably well, largely due to their interest-rate sensitivity. Credit spreads rose modestly during the quarter, with the largest increases occurring across non-investment-grade issues.

In the third quarter, all fixed income sectors experienced gains, with debt issued by emerging markets and high-yield companies leading the way. Spreads on high-yield debt continued to tighten to end the quarter hovering near record lows. Debt issued by emerging markets rallied. Dollar-denominated issues got a boost as investors sought solace in the emerging market's higher returns and healthier economic fundamentals relative to their developed market counterparts.

Anne Arundel County Retirement and Pension System
Investment Review
For the year ended December 31, 2012

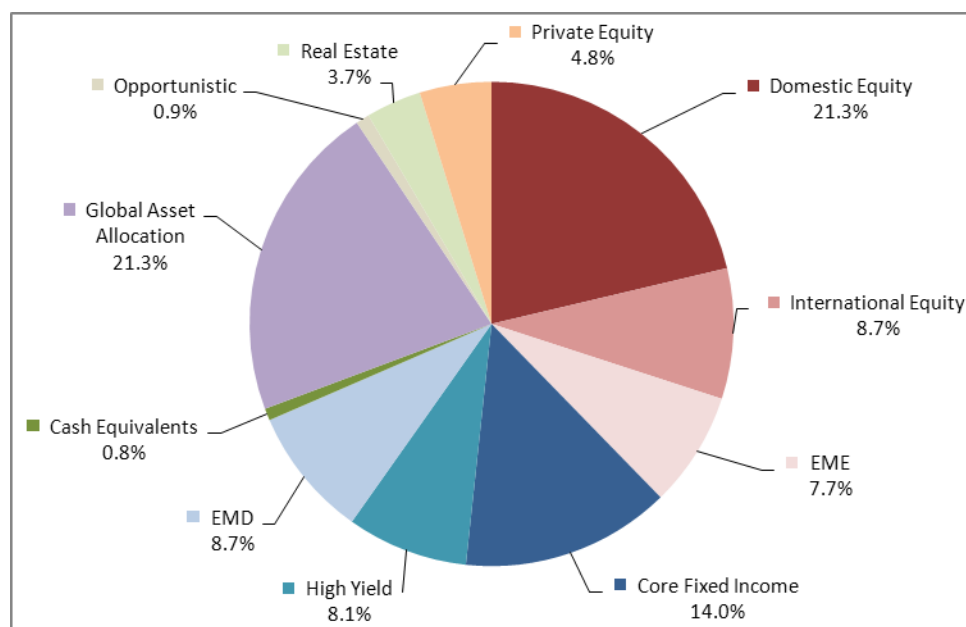
In the fourth quarter, emerging markets debt and high yields experienced the highest returns as yield hungry investors sought higher returns in the low interest rate environment. Even as massive government stimulus poured into Treasuries, the yield curve shifted upwards in the quarter, retreating from all-time lows in the summer.

Fixed Income Index Returns as of 12/31/2012				
Global Fixed Income	Quarter	1 Year	3 Yrs	5 Yrs
Citi WGBI	-1.7%	1.6%	4.4%	5.3%
JPM EMBI Plus	3.2%	18.0%	14.7%	12.8%
Domestic Fixed Income	Quarter	1 Year	3 Yrs	5 Yrs
BC Aggregate	0.2%	4.2%	6.2%	5.9%
BC US Agg. Treasury	-0.1%	3.0%	5.7%	5.4%
BC US Credit	1.1%	9.4%	8.7%	7.7%
BC Mortgage Backed	-0.2%	2.6%	4.7%	5.7%
BC Interm. Gov't/Credit	0.3%	3.9%	5.5%	5.7%
BC 1-10 Yr TIPS	0.5%	5.0%	6.3%	5.6%
BC High Yield	3.3%	15.8%	11.9%	10.3%
S&P LSTA Lev. Loan	1.4%	9.7%	7.1%	5.7%
3 Month T-Bills	-0.1%	0.0%	0.0%	-0.6%
10-Year Bond Yields	Dec-12	Sep-12	Jun-12	Dec-11
US	1.8%	1.6%	1.6%	1.9%
Germany	1.3%	1.4%	1.6%	1.8%
UK	1.8%	1.7%	1.7%	2.0%
Japan	0.8%	0.8%	0.8%	1.0%

Growth of Assets and Asset Allocation

As of December 31, 2012, the System's net position stood at \$1.49 billion, up from where assets were at the end of 2011. During the past year, the System experienced a net \$22.4 million in cash outflows, and gains on investment of \$176.3 million. At December 31, 2012, the System's assets were in compliance with Policy and were allocated as follows:

12/31/2012 Asset Allocation by Manager Type



Investment Performance

For the year ending December 31, 2012, the System gained 13.7%, ranking in the top 13% of all public funds in the InvestorForce universe. Over the 3-year time period, the System averaged a 10.4% return and ranked in the top 1% of public funds. The System's 5-year return is still lagging peers due to the poor market returns in 2008. All performance returns are gross-of-fees and are calculated using the time-weighted rate of return method.

For the coming year, NEPC has recommend changes to the Plan's target asset allocation. These changes will lower both short- and long-term return expectations, but maintain the Plan's risk/return profile. The Plan's allocation to US Large Cap Equities, International Equities, Private Markets, and Real Estate increase, while allocations to High Yield Bonds, Emerging Market Debt, and Risk Parity decrease. Absolute Return investments are eliminated.

The following table summarizes investment holdings as of December 31, 2012, displaying fair market value and percent of the total value compared with the prior year data.

Anne Arundel County Retirement and Pension System
Investment Review
For the year ended December 31, 2012

	2012		2011	
	Fair Value	Percentage of Total Fair Value	Fair Value	Percentage of Total Fair Value
Cash and temporary investments	\$ 39,174,289	2.6%	\$ 60,017,252	4.5%
Domestic fixed income	286,215,340	19.1%	222,707,040	16.6%
Domestic equity	226,915,487	15.1%	225,288,143	16.8%
Global fixed asset allocation and pools	316,268,502	21.1%	287,957,768	21.4%
International investment pools	372,525,445	24.9%	245,479,313	18.3%
Private Markets	86,857,839	5.8%	58,790,498	4.4%
Real estate investment pools	54,806,457	3.7%	51,563,187	3.8%
Stable Value Aetna insurance pools	30,068,778	2.0%	32,008,560	2.4%
Absolute Return funds	-	0.0%	86,406,431	6.4%
Portable Alpha	85,242,232	5.7%	72,266,945	5.4%
	<u>\$ 1,498,074,369</u>	<u>100.0%</u>	<u>\$ 1,342,485,137</u>	<u>100.0%</u>

Anne Arundel County Retirement and Pension System
Investment Review
For the year ended December 31, 2012

Asset Type and Percent of Portfolio at 12/31/12	-----Time Weighted Rate of Return-----			Notes
	Last Year	Last 3 Years	Last 5 Years	
Equity 45.7%				
Russell 2000 ® Benchmark	16.3	11.8	3.6	
S&P 500 Benchmark	16.0	10.9	1.7	
Domestic Equity Composite	17.8	12.3	2.2	
MSCI EAFE	17.3	3.6	(3.7)	
International Equity Composite	19.8	5.3	(3.2)	
MSCI Emerging Markets Free	18.2	4.7	(0.9)	
International Emerging Markets Composite	20.2	3.4	(5.9)	
Total Equity	19.4	9.8	0.3	
Fixed Income/ Stable Value 21.1%				
Barclays Capital Bond Aggregate Benchmark	4.2	6.2	5.9	
Core Fixed Composite	7.7	8.4	6.3	
BoA ML US High Yield BB-B Rated Benchmark	14.7	11.4	9.1	
High Yield Composite	13.9	10.4	7.1	
JP Morgan EMBI Global Benchmark	18.5	12.9	10.5	
Emerging Market Debt Composite	17.8	n/a	n/a	A
Total Fixed Income	11.1	9.5	7.3	
Real Estate (R.E.) 3.7%				
Nat'l. Council R.E. Invest. Fiduciaries Benchmark	10.5	12.6	2.1	
Real Estate Composite	10.9	16.2	(3.4)	
Global Asset Allocation 21.1%				
T-Bills + 6%	6.1	6.1	6.4	
GAA Composite	13.3	15.7	6.5	
Opportunistic 0.9%				
Barclays Capital High Yield Benchmark	15.8	11.9	10.3	
Opportunistic Composite	12.1	n/a	n/a	B
Private Equity Funds 4.9%				
Private Equity 10%	10.0	10.0	10.0	
Private Equity Composite	12.3	11.6	7.1	
Cash Equivalents 2.6%				
91 Day T-bills Benchmark	0.1	0.1	0.3	
Cash Account	0.3	0.8	1.1	
Total Fund Composite Return	13.7	10.4	2.0	

Notes: A. Inception July 2010 B. Inception November 2011

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 is 8.0% 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 8% target.
- Real returns – 5.0% above the Consumer Price Index.
- 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	21	11	31
International Equity	10	0	20
Emerging Market Equity	7	0	10
Domestic Fixed Income	18	5	25
Emerging Market Debt	8	0	10
Private Markets	7	0	15
Opportunistic Investments	3	0	8
Real Estate	4	0	10
Global Asset Allocation (GAA)	20	15	25
Cash	2	0	10

The Chair of the Investment Committee reviews the asset allocation at least quarterly 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. The Chair of the Investment Committee, as part of the normal rebalancing responsibilities, shall use appropriate judgment and care when rebalancing portfolios. Market conditions and transaction costs are considered.

Each separate account investment manager 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.

<u>Asset Class</u>	<u>Assets Managed (Includes Cash)</u>	<u>Fees Paid</u>
Domestic equity	\$ 229,954,160	\$ 1,710,320
International equity	243,680,303	348,384
Domestic fixed income	213,601,337	720,869
Global assets	316,281,728	4,085,287
Other	226,484,164	*
Private equity	86,857,835	693,126
Real estate	53,926,536	*
Stable value insurance account	113,501,256	519,655
Total Investment Managers' Fees		8,077,641
Other Investment Service Fees:		
Custodial fees		376,299
Total Investment Expenses		\$ 8,453,940

*Fees net to fund assets. Not available as discrete amounts.

Brokerage Commissions

Broker's commissions on investment transactions, excluding mutual funds, for the year ended December 31, 2012 totaled \$319,590. Brokerage firms receiving more than \$6,000 in fees are listed below.

<u>Brokerage Firms</u>	<u>Fees Paid</u>	<u>Brokerage Firms</u>	<u>Fees Paid</u>
Goldman Sachs & Co.	\$ 37,743	Convergex Execution Solutions	\$ 8,948
Liquidnet, Inc.	29,370	UBS Securities	8,795
Instinet	17,217	Citigroup Global Markets Inc	8,603
J P Morgan Securities	13,496	Morgan Stanley	8,162
Merrill Lynch	10,783	Capital Institutional Services	8,153
Jefferies & Co., Inc.	9,341	Jones Trading	6,810
Deutsche Bank Securities	9,200	BTIG, LLC	6,756
ITG Inc	9,004	Raymond James & Assoc., Inc.	6,450
			\$ 198,830

Brokerage Commissions

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.

Anne Arundel County Retirement and Pension System
Investment Managers Guidelines and Exemptions as of December 31, 2012

<u>Manager Name</u>	Asset Class	<u>Long-term Benchmark</u>	Style Benchmark	Peer Group Universe	Guideline Exemptions
Bridgewater Associates, Inc.	Global Asset Allocation	T-Bills + 6%	T-Bills + 6%	Absolute Return Managers (low volatility HFOF managers)	None
Chartwell Investment Partners	U.S. Small Cap Growth Equity	Russell 2000 Index	Russell 2000 Growth	U.S. Small Cap Growth Equity	None
Dimensional Fund Advisors, LP	Emerging Markets Equity	MSCI Emerging Markets Free Index	MSCI Emerging Markets Index (net div)	Emerging Markets Equity Managers	None
DuPont Capital Management	Private Equity Fund of Funds	10% Annualized Compound Return	10% Annualized Compound Return	Private Equity Managers	None
EIG	Private Equity Fund of Funds	10% Annualized Compound Return	10% 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	10% Annualized Compound Return	10% Annualized Compound Return	Private Equity Managers	None
ING Clarion Partners	Real Estate	NCREIF Property Index	NCREIF Property Index	Real Estate Managers	None
ING Investment Management, Inc.	Core Fixed Income	Barclays Capital Aggregate Bond Index	Barclays Capital Aggregate Bond Index	Core Fixed Income Managers	Note A
ING Investment Management, Inc.	U.S. Large Cap Growth Equity	Russell 1000 Index	Russell 1000 Growth Index	U.S. Large Cap Growth Equity	None
Lexington Partners VI-B Lexington Partners VII	Private Equity Secondaries	10% Annualized Compound Return	10% Annualized Compound Return	Private Equity Managers	None
Mariner Select Ltd Partnership	Absolute Return	91-Day T-Bills plus 4% Index	91-Day T-Bills plus 4% Index	Absolute Return Strategy Managers	Note B
Newstone Capital Partners I Newstone Capital Partners II	Private Equity Distressed Debt	10% Annualized Compound Return	10% 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 Managers	None
PIMCO	Emerging Market Debt	JP Morgan EMBI Global Index	JP Morgan EMBI Global Index	Emerging Market Debt Managers	None

Anne Arundel County Retirement and Pension System
Investment Managers Guidelines and Exemptions as of December 31, 2012

Private Advisors Small Company Buyout Fund V	Private Equity Small Buyout Fund of Funds	8% Annualized Compound Return	8% Annualized Compound Return	Private Equity Managers	None
Quellos Private Capital II, LP Quellos Private Capital III, LP	Private Equity Fund of Funds	10% Annualized Compound Return	10% Annualized Compound Return	Private Equity Managers	None
Siguler Guff DOF III Siguler Guff DOF IV	Private Equity Distressed Debt	10% Annualized Compound Return	10% Annualized Compound 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 Managers	Note C
State Street Global Advisors	Int'l Developed Market Equity	MSCI EAFE Index	MSCI EAFE Index	International Developed Equity Managers	None
TCW/Crescent Mezzanine Partners, LP IV TCW/Crescent Mezzanine Partners, LP V	Private Equity Mezzanine Debt	10% Annualized Compound Return	10% Annualized Compound Return	Private Equity Managers	None
WEDGE Capital Management	US Small Cap Value Equity	Russell 2000 Index	Russell 2000 Value Index	US Small Cap Value Managers	None
Western Asset Management	Core Plus Fixed Income	Barclays Capital Aggregate Bond Index	Barclays Capital Aggregate Bond Index	Core Fixed Income Managers	Note D
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. Exempt from adhering to the CFA Institute Performance Presentation Standards.

Note C: 1. May hold up to 10% of their portfolio in any one security.
2. May hold up to 20% of the portfolio in American Depositary 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 D: 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.

Anne Arundel County Retirement and Pension System

Schedule of Largest Assets Held

December 31, 2012

Largest Stock Holdings (By Fair Value)

Rank	Shares	Company	Fair Value
1	11,404	Apple Inc	\$ 6,078,674
2	103,020	Oracle Corp	3,432,626
3	51,970	Abbot Laboratories	3,404,035
4	4,120	Google Inc Cl A	2,922,604
5	14,370	Intl Business Machines Corp	2,752,574
6	37,160	Travelers Cos Inc	2,668,831
7	102,090	Mondelez International Inc	2,600,232
8	20,180	Union Pacific Corp	2,537,030
9	27,145	Wells Fargo & Co	2,529,469
10	65,340	Comcast Corp Class A	2,442,409

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	5,900,000	FNMA CONV 15yr TBA 2.5% due 01/01/28	\$ 6,169,217
2	4,531,000	US Treasury Bond 2.75% due 08/15/42	4,375,270
3	3,290,000	US Treasury Bond 1.625% due 11/15/22	3,254,007
4	3,000,000	FNMA TBA 15yr 3% due 01/01/28	3,166,410
5	2,150,000	SABINE PASS LNG LP 7.5% due 11/30/16	2,370,375
6	2,000,000	US Treasury N/B 1.375% due 03/15/13	2,005,080
7	1,900,000	FED Home Ln Discount Nt 0.1% due 05/22/13	1,899,335
8	1,618,211	FNMA Pool AL2688 6% due 11/01/42	1,771,633
9	1,480,000	Frontier Communications 9.25% due 07/01/21	1,735,300
10	1,600,000	FNMA TBA 30yr Single Family 3.5% due 01/01/43	1,705,808

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
December 31, 2012

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, 2013 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, 2014. 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.

All costs, liabilities and other factors under the Plans were determined in accordance with generally accepted actuarial principals and procedures. The funding method used in the actuarial valuations is the projected unit credit cost method. This 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 decreased.

The valuations are based on a closed group of members; no new hires are assumed. In addition, the valuations assume the plans will remain in effect on an ongoing basis. The actuarial value of assets is determined by spreading the asset gain or loss over a 5-year period.

The actuarial assumptions and methods used for these valuations meet the parameters set forth in the Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans.

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

Thomas B. Lowman, FSA, EA, MAAA
Bolton Partners, Inc.

May 10, 2013
Date

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 a 30-year closed period. Amortization payments increase 3.5% 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 2013 valuation determines the County contributions due for the fiscal year ending June 30, 2014. Contributions made between the valuation date and the beginning of the next fiscal year (January 1, 2013 to June 30, 2013) 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.

<i>Economic</i>	
Investment Return	8.0% compounded annually net of investment expenses (3.5% inflation and 4.5% real return)
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 2.1% of the current benefit each year from retirement.
<i>Other</i>	
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 \$523,000 for FY2014 and \$491,000 for FY2013 (average of actual expenses for the two years preceding the valuation date).

Retirement Rates

<u>Age</u>	<u>Service</u>		
	<u>20</u>	<u>30</u>	<u>31</u>
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

Attained Age	Table of Sample Decrement Rates		
	Percentage		
	Disablement	Withdrawal	
		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	7.0%
25	6.5
30	6.0
35	5.5
40	5.0
45	4.5
50	4.0
55	4.0

Active Members

Valuation Date	Number	Annual Payroll (Jan. 1 Rate)	Average Annual Pay	% Increase in Average Pay
January 1, 2004	2,239	100,944,238	45,085	3.2%
January 1, 2005	2,217	103,105,736	46,507	3.2%
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%)

Members With Deferred Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/03 to 12/31/03	127	82	(4)	205
1/1/04 to 12/31/04	205	22	(10)	217
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

Members Receiving Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/03 to 12/31/03	794	90	(36)	848
1/1/04 to 12/31/04	848	90	(27)	911
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

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

¹ Includes COLA's

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Unfunded AAL (UAAL)	(3) Actuarial Accrued Liability (AAL)	(4) Funded Ratio (1) ÷ (3)	(5) Covered Payroll	(6) UAAL as a Percentage of Covered Payroll (2) ÷ (5)
1/1/03	335,539,414	36,932,955	372,472,369	90.1%	101,172,221	36.5%
1/1/04 ¹	367,756,502	(215,150)	367,541,352	100.1%	100,944,238	(0.2)%
1/1/05	395,501,876	9,669,948	405,171,824	97.6%	103,105,736	9.4%
1/1/06	422,234,496	16,997,830	439,232,326	96.1%	107,290,189	15.8%
1/1/07	456,656,849	25,314,781	481,971,630	94.7%	116,709,102	21.7%
1/1/08 ²	492,788,674	23,821,217	516,609,891	95.4%	117,222,681	20.3%
1/1/08 ³	492,788,674	33,552,808	526,341,482	93.6%	117,222,681	28.6%
1/1/09	488,275,803	79,919,177	568,194,980	85.9%	124,803,488	64.0%
1/1/10	519,556,093	79,285,038	598,841,131	86.8%	126,030,706	62.9%
1/1/11 ⁴	550,786,200	76,483,387	627,269,587	87.8%	123,498,129	61.9%
1/1/11 ⁵	522,165,145	105,104,442	627,269,587	83.2%	123,498,129	85.1%
1/1/12	516,070,401	137,582,657	653,653,058	79.0%	120,415,534	114.3%
1/1/13 ²	508,232,321	173,188,445	681,420,766	74.6%	116,024,717	149.3%
1/1/13 ³	508,232,321	185,348,354	693,580,675	73.3% ^a	116,024,717	159.7%

¹Revised funding method

²Prior to assumption changes

³After assumption changes

⁴Prior to asset method change

⁵After asset method change

Analysis of the dollar amounts of plan assets, Actuarial Accrued Liability and Unfunded Actuarial Accrued Liability in isolation can be misleading. Expressing the assets as a percentage of the Actuarial Accrued Liability provides one indication of funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in Unfunded Actuarial Accrued Liability and annual covered payroll are both affected by inflation. Expressing the Unfunded Actuarial Accrued Liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

^aThe funded ratio as of 1/1/2013 would increase to 75.7% if all investment gains were fully recognized.

Tier One Members

<i>Compensation</i>	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.																						
<i>Final Earnings</i>	The average of the highest 3 consecutive years of the last 5 years of compensation.																						
<i>Eligibility Requirements</i>	Full-time general employees of the County will be eligible to participate in the pension plan upon hire.																						
<i>Employee Contributions</i>	4% of compensation.																						
<i>Retirement Date</i>																							
Normal Retirement	The first of the month coincident with or next following the participant's 60 th 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.																						
<i>Retirement Benefits</i>																							
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.																						
	<table> <tr> <th><u>Years Early</u></th><th><u>Reduction Factor</u></th></tr> <tr><td>1</td><td>2%</td></tr> <tr><td>2</td><td>5%</td></tr> <tr><td>3</td><td>9%</td></tr> <tr><td>4</td><td>14%</td></tr> <tr><td>5</td><td>20%</td></tr> <tr><td>6</td><td>28%</td></tr> <tr><td>7</td><td>36%</td></tr> <tr><td>8</td><td>44%</td></tr> <tr><td>9</td><td>52%</td></tr> <tr><td>10</td><td>60%</td></tr> </table>	<u>Years Early</u>	<u>Reduction Factor</u>	1	2%	2	5%	3	9%	4	14%	5	20%	6	28%	7	36%	8	44%	9	52%	10	60%
<u>Years Early</u>	<u>Reduction Factor</u>																						
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.																						
<i>Disability</i>																							
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.																						

<i>Normal form of Payment</i>	Monthly life annuity with modified cash refund.
<i>Termination of Employment</i>	
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.
<i>Death Benefits</i>	
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.
<i>Cost of Living Increase</i> (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.
<i>Cost of Living Increase</i> (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.
<u>Tier Two Members</u>	
<i>Compensation</i>	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.
<i>Final Earnings</i>	The average of the highest 3 consecutive years of the last 5 years of compensation.
<i>Eligibility Requirements</i>	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.
<i>Employee Contributions</i>	No employee contributions required or allowed.
<i>Retirement Date</i>	
Normal Retirement	The first of the month coincident with or next following the participant's 60 th 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.

Solvency Test

2001 to 2013

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%

Analysis of Financial Experience

Reasons for Change in the Unfunded Accrued Liability

The unfunded accrued liability increased from \$137,582,657 to \$185,348,354. The increase is due to assumption changes and investment results. The funded status decreased from 79.0% to 73.3%.

Reasons for Change in Contribution Rates

The employer contribution rate increased from 17.2% for the fiscal year ending June 30, 2013 to 20.6% for the fiscal year ending June 30, 2014. The increase of 3.4% is due to the following reasons:

Pay Increases	-0.6%
Investment Loss/(Gain)	1.9%
New Entrants/Change in Normal Cost	0.0%
COLAs	-0.1%
Assumption Changes	0.9%
Demographics and Other Changes	1.3%
Total	3.4%

Anne Arundel County Retirement and Pension System
Employees' Retirement Plan – Summary of Major Legislative Changes
December 31, 2012

County Council Bill No. 36-89	Effective 7/1/89
	Pension benefits and vesting provisions were improved. The accrual percentage per year of service was increased from 1.8% to 2.0%, permitting accrual of the maximum 60% benefit in 30 years instead of 33-1/3.
	Full vesting was granted after 5 years of service. The old provisions used a graded scale granting 75% vesting after 10 years, climbing to 100% vesting after 15 years.
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.

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 a closed 30-year period. Amortization payments increase 3.5% 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 2013 valuation determines the County contributions due for the fiscal year ending June 30, 2014. Contributions made between the valuation date and the beginning of the next fiscal year (January 1, 2013 to June 30, 2013) 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.

<i>Economic</i>	
Investment Return	8.0% compounded annually net of investment expenses (3.5% inflation and 4.5% real return)
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 3.5% of the current benefit each year from retirement. Benefits accrued after Bill 88-96 are assumed to increase by 2.1% of the current benefit each year from retirement.
<i>Other</i>	
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	\$424,000 for FY2014 and \$399,000 for FY2013 (average of actual expenses for the two years preceding the valuation date).

Prudential Benefits
Retirement Rates¹

Our calculations reflect that some benefits have already been purchased.
Sample Rates:

<u>Age</u>	<u>Service</u>				
	<u>20</u>	<u>22</u>	<u>24</u>	<u>27</u>	<u>30</u>
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%

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				
<u>Age</u>	<u>Service</u>			
	<u>23</u>	<u>27</u>	<u>30</u>	<u>35</u>
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)				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

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	6.5%
25	6.5
30	6.0
35	5.5
40	5.0
45	4.5
50	4.5

Active Members

Valuation Date	Number	Annual Payroll (Jan. 1 Rate)	Average Annual Pay	% Increase in Average Pay
January 1, 2004 ²	610	31,915,536	52,321	2.00%
January 1, 2005 ³	631	33,530,370	53,138	1.60%
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%)

² Includes 55 participants in DROP.

³ Includes 60 participants in DROP.

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.

Members Receiving Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/02 to 12/31/02	372	24	(4)	392
1/1/03 to 12/31/03	392	24	(5)	411
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

Summary of Retirees and Beneficiaries Added to and Removed from Rolls

Year Ending	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase in Average Annual Allowance	Average Annual Allowance
	Number	Annual Allowance ¹	Number	Annual Allowance	Number	Annual Allowance		
12/31/2006	38	\$1,864,403	12	\$360,477	478	\$17,008,081	3.73%	\$35,582
12/31/2007	40	\$1,914,977	7	\$211,751	511	\$18,711,306	2.91%	\$36,617
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

¹ Includes COLA's

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Unfunded AAL (UAAL)	(3) Actuarial Accrued Liability (AAL)	(4) Funded Ratio (1) ÷ (3)	(5) Covered Payroll	(6) UAAL as a Percentage of Covered Payroll (2) ÷ (5)
1/1/03	281,967,318	36,668,475	318,635,793	88.5%	33,459,024	109.6%
1/1/04 ¹	311,371,499	14,184,341	325,555,840	95.6%	31,915,536	44.4%
1/1/05	337,113,153	9,041,000	346,154,153	97.4%	33,530,370	27.0%
1/1/06	360,268,341	16,292,562	376,560,903	95.7%	36,694,307	44.4%
1/1/07	389,877,885	11,820,220	401,698,105	97.1%	37,805,038	31.3%
1/1/08 ²	417,278,055	15,975,209	433,253,264	96.3%	41,011,366	39.0%
1/1/08 ³	417,278,055	16,389,047	433,667,102	96.2%	41,011,366	40.0%
1/1/09	408,261,502	55,419,694	463,681,196	88.0%	41,508,547	133.5%
1/1/10	432,176,036	55,282,697	487,458,733	88.6%	42,499,380	130.1%
1/1/11 ⁴	459,323,278	42,678,391	502,001,669	91.5%	42,449,204	100.5%
1/1/11 ⁵	435,891,125	66,110,544	502,001,669	86.8%	42,449,204	155.7%
1/1/12	430,342,941	95,812,037	526,154,978	81.8%	41,334,580	231.8%
1/1/13 ⁶	420,675,703	129,817,736	550,493,439	76.4%	40,521,944	320.4%
1/1/13 ⁷	420,675,703	134,616,394	555,292,097	75.8% ^a	40,521,944	332.2%

¹Revised funding method

²Prior to assumption and plan changes

³After assumption and plan changes

⁴Prior to asset method change

⁵After asset method change

⁶Prior to assumption changes

⁷After to assumption changes

Analysis of the dollar amounts of plan assets, Actuarial Accrued Liability and Unfunded Actuarial Accrued Liability in isolation can be misleading. Expressing the assets as a percentage of the Actuarial Accrued Liability provides one indication of funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in Unfunded Actuarial Accrued Liability and annual covered payroll are both affected by inflation. Expressing the Unfunded Actuarial Accrued Liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

^a The funded ratio as of 1/1/2013 would increase to 77.8% if all investment gains were fully recognized.

<i>Compensation</i>	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.
<i>Final Earnings</i>	The average of the highest 3 consecutive years of the last 5 years of compensation.
<i>Eligibility Requirements</i>	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
<i>Employee Contributions</i>	7.25% of compensation for Police Officers, Police Officer First Class, Police Corporals, and Police Sergeants. 5% of compensation for all others.
<i>Retirement Date</i>	
Normal Retirement	The first of the month coincident with or next following the participant's 50 th 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.
<i>Retirement Benefits</i>	
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.
<i>Normal Form of Payment</i>	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.
<i>Disability</i>	
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.
<i>Termination of Employment</i>	
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.

Solvency Test

2001 to 2013

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%

Analysis of Financial Experience

Reasons for Change in the Unfunded Accrued Liability

The unfunded accrued liability increased from \$95,812,037 to \$134,616,394. The increase is partly due to assumption changes and investment results. The funded status decreased from 81.8% to 75.8%.

Reasons for Change in Contribution Rates

The employer contribution rate increased from 40.1% for the fiscal year ending June 30, 2013 to 46.7% for the fiscal year ending June 30, 2014. The increase of 6.6% is due to the following reasons:

Pay Increases	-1.1%
Investment Loss/(Gain)	4.8%
New Entrants/Change in Normal Cost	-0.7%
COLAs	-0.8%
Expenses	0.1%
Assumption Changes	1.4%
Demographics and Other Changes	2.9%
Total	6.6%

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

Anne Arundel County Retirement and Pension System
Police Service Retirement Plan - Summary of Major Legislative Changes
December 31, 2012

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.
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%.

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 a closed 30-year period. Amortization payments increase 3.5% 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 2013 valuation determines the County contribution due for the fiscal year ending June 30, 2014. Contributions made between the valuation date and the beginning of the next fiscal year (January 1, 2013 to June 30, 2013) 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.

<i>Economic</i>	
Investment Return	8.0% compounded annually net of investment expenses (3.5% inflation and 4.5% real return)
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 3.5% of the current benefit each year from retirement. Benefits accrued after Bill 88-96 are assumed to increase by 2.1% of current benefit each year from retirement.
<i>Other</i>	
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	\$423,000 for FY2014 and \$387,000 for FY2013 (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:

<u>Age</u>	<u>Service</u>						
	<u>20</u>	<u>22</u>	<u>24</u>	<u>27</u>	<u>30</u>	<u>32</u>	<u>34</u>
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%

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				
<u>Service</u>				
<u>Age</u>	<u>23</u>	<u>27</u>	<u>30</u>	<u>35</u>
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 disabled 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 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 Decrement Rates	
	Percentage	
	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	7.0%
25	6.5
30	6.0
35	5.5
40	5.0
45	4.5
50	4.5

Anne Arundel County Retirement and Pension System
Fire Service Retirement Plan – Schedules of Member Valuation Data
December 31, 2012

Active Members

Valuation Date	Number	Annual Payroll (Jan. 1 Rate)	Average Annual Pay	% Increase in Average Pay
January 1, 2003	619 ²	32,000,686	51,697	5.8%
January 1, 2004	599 ³	31,463,220	52,526	1.6%
January 1, 2005	672 ⁴	34,871,614	51,892	(1.2%)
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%

² Includes 64 members in DROP.

³ Includes 103 members in DROP.

⁴ Includes 109 members in DROP.

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.

Members Receiving Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/00 to 12/31/00	198	9	(3)	204
1/1/01 to 12/31/01	204	17	(2)	219
1/1/02 to 12/31/02	219	19	(4)	234
1/1/03 to 12/31/03	234	21	(1)	254
1/1/04 to 12/31/04	254	24	(8)	270
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

Anne Arundel County Retirement and Pension System
Fire Service Retirement Plan – Schedules of Member Valuation Data
December 31, 2012

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	48	\$1,893,236	9	\$240,230	332	\$11,419,267	3.19%	\$34,395
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

¹ Includes COLA's

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Unfunded AAL (UAAL)	(3) Actuarial Accrued Liability (AAL)	(4) Funded Ratio (1) ÷ (3)	(5) Covered Payroll	(6) UAAL as a Percentage of Covered Payroll (2) ÷ (5)
1/1/03	256,190,269	40,287,968	296,478,237	86.4%	32,000,686	125.9%
1/1/04	286,763,188	15,137,045	301,900,234	95.0%	31,463,220	48.1%
1/1/05	313,478,279	13,381,977	326,860,256	95.9%	34,871,614	38.4%
1/1/06	340,274,675	15,511,721	355,786,396	95.6%	38,592,322	40.2%
1/1/07	368,413,752	15,280,517	383,694,268	96.0%	43,527,351	35.1%
1/1/08 ¹	395,884,441	18,467,029	414,351,470	95.5%	43,941,526	42.0%
1/1/08 ²	395,884,441	17,930,646	413,815,087	95.7%	43,941,526	40.8%
1/1/09	390,551,359	45,969,499	436,520,858	89.5%	48,824,352	94.2%
1/1/10	418,191,046	37,084,763	455,275,809	91.9%	49,064,454	75.6%
1/1/11 ³	449,253,388	15,236,219	464,489,607	96.7%	47,840,812	31.8%
1/1/11 ⁴	425,830,155	38,659,452	464,489,607	91.7%	47,840,812	80.8%
1/1/12	426,196,539	59,899,207	486,095,747	87.7%	45,673,006	131.1%
1/1/13 ¹	426,659,036	86,235,517	512,894,554	83.2%	43,361,686	198.9%
1/1/13 ²	426,659,036	83,811,615	510,470,652	83.6% ^a	43,361,686	193.3%

¹ Prior to assumption changes

² After assumption changes

³ Prior to asset method change

⁴ After asset method change

Analysis of the dollar amounts of plan assets, Actuarial Accrued Liability and Unfunded Actuarial Accrued Liability in isolation can be misleading. Expressing the assets as a percentage of the Actuarial Accrued Liability provides one indication of funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in Unfunded Actuarial Accrued Liability and annual covered payroll are both affected by inflation. Expressing the Unfunded Actuarial Accrued Liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

^a The funded ratio as of 1/1/2013 would increase to 85.9% if all investment gains were fully recognized.

<i>Compensation</i>	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.
<i>Final Earnings</i>	The average of the highest 3 consecutive years of the last 5 years of compensation.
<i>Eligibility Requirements</i>	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
<i>Employee Contributions</i>	5% of compensation for Battalion Chief, Division Chief, Deputy Chief and Fire Chief. 7.25% for all others.
<i>Retirement Date</i>	
Normal Retirement	The first of the month coincident with or next following the participant's 50 th 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.
<i>Retirement Benefits</i>	
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.
<i>Normal Form of Payment</i>	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.
<i>Disability</i>	
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.

<i>Termination of Employment</i>	Return of employee contributions with 3.00% interest.
<i>Death Benefits</i>	
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..
<i>Cost of Living Increase</i> (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.
<i>Cost of Living Increase</i> (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.

Solvency Test

2001 to 2013

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%

Analysis of Financial Experience

Reasons for Change in the Unfunded Accrued Liability

The unfunded accrued liability increased from \$59,899,207 to \$83,811,615. The increase is partly due to assumption changes and investment results. The funded status decreased from 87.7% to 83.6%.

Reasons for Change in Contribution Rates

The employer contribution rate increased from 34.8% for the fiscal year ending June 30, 2013 to 37.8% for the fiscal year ending June 30, 2014. The increase of 3.0% is due to the following reasons:

Pay Increases	0.2%
Investment Loss/(Gain)	4.2%
New Entrants/Change in Normal Cost	-0.6%
COLAs	-0.2%
Expense Load	0.1%
Assumption Changes	-1.0%
Demographics and Other Changes	0.3%
Total	3.0%

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

Anne Arundel County Retirement and Pension System
Fire Service Retirement Plan - Summary of Major Legislative Changes
December 31, 2012

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%.

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 a closed 30-year period. Amortization payments increase 3.5% 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 2013 valuation determines the County contribution due for the fiscal year ending June 30, 2014. Contributions made between the valuation date and the beginning of the next fiscal year (January 1, 2013 to June 30, 2013) 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 to receive benefits under the Detention Officers and Deputy Sheriffs' Retirement Plan provisions.

Economic

Investment Return	8.0% compounded annually net of investment expenses (3.5% inflation and 4.5% real return)
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 3.5% of the original benefit each year from retirement. Benefits accrued after Bill 88-96 are assumed to increase by 2.1% 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	\$88,000 for FY2014 and \$80,000 for FY2013 (average of actual expenses for the

Expenses two years preceding the valuation date).

Retirement Rates
(Category I)

Age	Annual Rate		
	Years of Service		
	<u>Less than 20</u>	<u>20 or more but less than 30</u>	<u>30 or more</u>
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)

Age	Annual Rate			
	Years of Service			
	<u>Less than 20</u>	<u>20</u>	<u>21-29</u>	<u>30 or more</u>
<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	6.50%
25	6.50
30	6.00
35	5.75
40	5.25
45	4.75
50	4.75

Anne Arundel County Retirement and Pension System
 Detention Officers' and Deputy Sheriffs' Retirement Plan – Schedules of Member Valuation Data
 December 31, 2012

Active Members

Valuation Date	Number	Annual Payroll (Jan. 1 Rate)	Average Annual Pay	% Increase in Average Pay
January 1, 2000	363	11,893,991	32,766	4.4%
January 1, 2001	359	12,302,830	34,270	4.6%
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%)

Members With Deferred Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/98 to 12/31/98	1	3	0	4
1/1/99 to 12/31/99	4	1	(1)	4
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

Members Receiving Benefits

Year	Number at Beginning of Year	Additions	Decreases	Number at End of Year
1/1/97 to 12/31/97	23	6	1	28
1/1/98 to 12/31/98	28	2	(1)	29
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

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 Allowance¹	Number	Annual Allowance	Number	Annual Allowance	% Increase in Average Annual Allowance	Average Annual Allowance
12/31/2006	14	\$364,032	0	\$0	106	\$2,362,870	5.08%	\$22,291
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

¹ Includes COLA's

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Unfunded AAL (UAAL)	(3) Actuarial Accrued Liability (AAL)	(4) Funded Ratio (1) ÷ (3)	(5) Covered Payroll	(6) UAAL as a Percentage of Covered Payroll (2) ÷ (5)
1/1/02	34,742,230	5,711,531	40,453,761	85.9%	13,565,333	42.1%
1/1/03 ¹	38,889,689	8,245,799	47,135,488	82.5%	14,690,339	56.1%
1/1/04	45,710,154	7,174,384	52,884,538	86.4%	15,396,301	46.6%
1/1/05	52,200,204	8,072,549	60,272,753	86.6%	15,355,590	52.6%
1/1/06 ²	58,379,332	10,713,394	69,092,726	84.5%	16,794,068	63.8%
1/1/07	66,233,757	9,712,479	75,946,236	87.2%	17,367,873	55.9%
1/1/08 ³	74,355,736	13,061,602	87,417,338	85.1%	18,122,458	72.1%
1/1/08 ⁴	74,355,736	14,439,815	88,795,551	83.7%	18,122,458	79.7%
1/1/09	76,525,847	21,959,305	98,485,152	77.7%	19,785,653	111.0%
1/1/10	84,490,610	26,764,415	111,255,025	75.9%	20,203,895	132.5%
1/1/11 ⁵	92,968,797	26,798,406	119,767,203	77.6%	19,310,216	138.8%
1/1/11 ⁶	87,911,133	31,856,070	119,767,203	73.4%	19,310,216	165.0%
1/1/12	90,334,022	35,653,262	125,987,284	71.7%	18,760,664	190.0%
1/1/13 ³	92,617,788	39,803,655	132,421,443	69.9%	17,896,574	222.4%
1/1/13 ⁴	92,617,788	41,060,297	133,678,085	69.3% ^a	17,896,574	229.4%

¹ Revised funding method

² Revised plan provisions and actuarial assumptions

³ Prior to assumption changes

⁴ After assumption changes

⁵ Prior to asset method change

⁶ After asset method change

Analysis of the dollar amounts of plan assets, Actuarial Accrued Liability and Unfunded Actuarial Accrued Liability in isolation can be misleading. Expressing the assets as a percentage of the Actuarial Accrued Liability provides one indication of funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in Unfunded Actuarial Accrued Liability and annual covered payroll are both affected by inflation. Expressing the Unfunded Actuarial Accrued Liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

^a The funded ratio as of 1/1/2013 would increase to 70.6% if all investment gains were fully recognized.

<i>Compensation</i>	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.
<i>Final Earnings</i>	The average of the highest 3 consecutive years of the last 5 years of compensation.
<i>Eligibility Requirements</i>	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
<i>Employee Contributions</i>	6.75% of compensation for Detention Officer, Detention Corporal or Detention Sergeant. 5% of compensation for all others.
<i>Retirement Date</i>	
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.
<i>Retirement Benefits</i>	
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.
<i>Normal Form of Payment</i>	Monthly life annuity with payments guaranteed for 5 years.
<i>Disability</i>	
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.
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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%.
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Solvency Test

2001 to 2013

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%

Analysis of Financial Experience

Reasons for Change in the Unfunded Accrued Liability

The unfunded accrued liability increased from \$35,653,262 to \$41,060,297. The increase is due in part to assumption changes and investment results. The funded status decreased from 71.7% to 69.3%.

Reasons for Change in Contribution Rates

The employer contribution rate increased from 27.7% for the fiscal year ending June 30, 2013 to 33.6% for the fiscal year ending June 30, 2014. The increase of 5.9% is due to the following reasons:

Pay Increases	-1.1%
Investment Loss/(Gain)	2.2%
New Entrants/Change in Normal Cost	-0.7%
Expenses	0.1%
COLAs	-0.1%
Assumption Changes	4.3%
Demographics and Other Changes	1.2%
Total	5.9%

Anne Arundel County Retirement and Pension System
Detention Officers' and Deputy Sheriffs' Retirement Plan – Summary of Major Legislative Changes
December 31, 2012

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 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.

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Statistical Section

rundel County Retirement and Pension System

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

Last Ten Years Ended December 31

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
CONTRIBUTIONS										
Contributions:										
Employer	\$ 7,036,915	\$ 8,610,774	\$ 10,015,144	\$ 10,755,168	\$ 11,778,948	\$ 12,906,750	\$ 15,246,252	\$ 17,284,080	\$ 18,186,402	\$ 19,823,814
Participant	3,856,604	3,971,341	4,124,898	4,376,510	4,412,061	4,630,624	5,085,885	4,556,815	4,562,145	4,416,529
Total contributions	10,893,519	12,582,115	14,140,042	15,131,678	16,191,009	17,537,374	20,332,137	21,840,895	22,748,547	24,240,343
Total investment income (loss)	69,329,609	36,395,650	28,970,375	55,739,853	52,269,375	(159,154,283)	62,603,110	61,439,541	9,825,346	63,100,607
Total Additions	80,223,128	48,977,765	43,110,417	70,871,531	68,460,384	(141,616,909)	82,935,247	83,280,436	32,573,893	87,340,950
DEDUCTIONS										
Benefit payments and refunds	13,848,357	15,934,324	17,748,296	19,733,152	22,800,104	25,276,047	27,267,923	29,520,937	31,480,607	34,375,282
Administrative expenses	463,779	426,963	458,806	508,917	531,801	426,611	487,143	504,442	481,210	546,061
Total deductions	14,312,136	16,361,287	18,207,102	20,242,069	23,331,905	25,702,658	27,755,066	30,025,379	31,961,817	34,921,343
Net increases (decreases)	65,910,992	32,616,478	24,903,315	50,629,462	45,128,479	(167,319,568)	55,180,181	53,255,057	612,076	52,419,607
Balance, January 1	311,538,428	377,449,420	410,065,898	434,969,213	485,598,675	530,727,154	363,407,586	418,587,767	471,842,824	472,454,900
Transfers	-	-	-	-	-	-	-	-	-	-
Balance, December 31	\$ 377,449,420	\$ 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

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

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
ADDITIONS										
Contributions:										
Employer	\$ 8,229,336	\$ 8,834,748	\$ 8,931,530	\$ 9,611,544	\$ 9,997,308	\$ 10,522,656	\$ 12,428,136	\$ 14,055,660	\$ 13,793,256	\$ 15,530,322
Participant	<u>1,825,584</u>	<u>1,725,839</u>	<u>1,848,116</u>	<u>1,925,644</u>	<u>2,005,960</u>	<u>1,910,671</u>	<u>2,024,825</u>	<u>2,297,386</u>	<u>2,637,833</u>	<u>2,553,740</u>
Total contributions	10,054,920	10,560,587	10,779,646	11,537,188	12,003,268	12,433,327	14,452,961	16,353,046	16,431,089	18,084,062
 Total investment income (loss)	<u>59,799,163</u>	<u>31,546,774</u>	<u>25,061,802</u>	<u>48,252,499</u>	<u>42,938,230</u>	<u>(136,630,639)</u>	<u>50,713,568</u>	<u>49,685,037</u>	<u>6,731,539</u>	<u>50,828,258</u>
Total Additions	<u>69,854,083</u>	<u>42,107,361</u>	<u>35,841,448</u>	<u>59,789,687</u>	<u>54,941,498</u>	<u>(124,197,312)</u>	<u>65,166,529</u>	<u>66,038,083</u>	<u>23,162,628</u>	<u>68,912,320</u>
 DEDUCTIONS										
Benefit payments and refunds	11,220,998	11,812,788	13,986,960	15,638,571	21,008,831	23,872,491	22,214,203	21,449,672	23,479,998	28,241,364
Administrative expenses	<u>399,045</u>	<u>366,223</u>	<u>401,094</u>	<u>431,925</u>	<u>443,634</u>	<u>358,812</u>	<u>406,518</u>	<u>410,184</u>	<u>391,458</u>	<u>444,328</u>
Total deductions	<u>11,620,043</u>	<u>12,179,011</u>	<u>14,388,054</u>	<u>16,070,496</u>	<u>21,452,465</u>	<u>24,231,303</u>	<u>22,620,721</u>	<u>21,859,856</u>	<u>23,871,456</u>	<u>28,685,692</u>
Net increases (decreases)	58,234,040	29,928,350	21,453,394	43,719,191	33,489,032	(148,428,615)	42,545,808	44,178,227	(708,828)	40,226,628
Net assets, January 1	267,080,423	325,314,463	355,242,813	376,696,207	420,415,398	453,904,430	305,475,815	348,021,623	392,199,850	391,491,022
Transfers	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net position, December 31	<u>\$ 325,314,463</u>	<u>\$ 355,242,813</u>	<u>\$ 376,696,207</u>	<u>\$ 420,415,398</u>	<u>\$ 453,904,430</u>	<u>\$ 305,475,815</u>	<u>\$ 348,021,623</u>	<u>\$ 392,199,850</u>	<u>391,491,022</u>	<u>431,717,650</u>

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

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
ADDITIONS										
Contributions:										
Employer	\$ 7,991,349	\$ 9,006,192	\$ 10,016,964	\$ 10,481,244	\$ 10,959,888	\$ 11,189,712	\$ 12,701,160	\$ 14,648,580	\$ 13,959,852	\$ 15,238,104
Participant	1,352,179	1,324,760	1,496,252	1,741,476	1,889,083	2,033,588	2,346,754	2,494,043	2,659,114	2,453,627
Total contributions	9,343,528	10,330,952	11,513,216	12,222,720	12,848,971	13,223,300	15,047,914	17,142,623	16,618,966	17,691,731
Total investment income (loss)	53,948,794	28,734,931	23,343,883	44,928,717	41,080,254	(127,885,708)	49,183,327	48,957,240	7,013,578	51,522,774
Total Additions	63,292,322	39,065,883	34,857,099	57,151,437	53,929,225	(114,662,408)	64,231,241	66,099,863	23,632,544	69,214,505
DEDUCTIONS										
Benefit payments and refunds	6,448,118	8,107,661	9,186,241	15,570,004	19,299,469	21,339,616	17,785,497	17,432,953	18,091,220	19,520,674
Administrative expenses	359,046	340,521	364,848	416,838	415,672	330,485	379,081	398,463	388,157	444,256
Total deductions	6,807,164	8,448,182	9,551,089	15,986,842	19,715,141	21,670,101	18,164,578	17,831,416	18,479,377	19,964,930
Net increases (decreases)	56,485,158	30,617,701	25,306,010	41,164,595	34,214,085	(136,332,509)	46,066,663	48,268,447	5,153,167	49,249,575
Net assets, January 1	238,219,840	294,704,998	325,322,699	350,628,709	391,793,304	426,007,390	289,674,881	335,741,544	384,009,991	389,163,158
Transfers	-	-	-	-	-	-	-	-	-	-
Net position, December 31	\$ <u>294,704,998</u>	\$ <u>325,322,699</u>	\$ <u>350,628,709</u>	\$ <u>391,793,304</u>	\$ <u>426,007,389</u>	\$ <u>289,674,881</u>	\$ <u>335,741,544</u>	\$ <u>384,009,991</u>	\$ <u>389,163,158</u>	\$ <u>438,412,733</u>

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

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
ADDITIONS										
Contributions:										
Employer	\$ 3,030,140	\$ 3,072,600	\$ 3,191,610	\$ 3,462,366	\$ 3,600,894	\$ 3,788,256	\$ 4,348,914	\$ 4,907,130	\$ 4,876,332	\$ 5,141,280
Participant	751,071	771,879	795,363	860,542	881,978	950,675	1,029,277	1,084,820	1,175,133	1,120,848
Total contributions	3,781,211	3,844,479	3,986,973	4,322,908	4,482,872	4,738,931	5,378,191	5,991,950	6,051,465	6,262,128
Total investment income (loss)	8,338,642	4,698,719	3,925,218	7,814,479	7,292,557	(24,343,278)	9,672,565	9,901,091	1,330,029	10,887,141
Total Additions	12,119,853	8,543,198	7,912,191	12,137,387	11,775,429	(19,604,347)	15,050,756	15,893,041	7,381,494	17,149,269
DEDUCTIONS										
Benefit payments and refunds	1,219,336	1,487,245	1,847,932	2,112,241	2,644,842	3,101,950	3,525,414	3,837,564	4,207,935	5,018,268
Administrative expenses	55,475	54,396	61,554	71,158	75,560	64,389	75,803	80,434	79,614	93,341
Total deductions	1,274,811	1,541,641	1,909,486	2,183,399	2,720,402	3,166,339	3,601,217	3,917,998	4,287,549	5,111,609
Net increases (decreases)	10,845,042	7,001,557	6,002,705	9,953,988	9,055,027	(22,770,686)	11,449,539	11,975,043	3,093,945	12,037,660
Net assets, January 1	35,692,960	46,538,002	53,539,559	59,542,264	69,496,252	78,551,279	55,780,593	67,230,132	79,205,175	82,299,120
Transfers	-	-	-	-	-	-	-	-	-	-
Net position, December 31	\$ <u>46,538,002</u>	\$ <u>53,539,559</u>	\$ <u>59,542,264</u>	\$ <u>69,496,252</u>	\$ <u>78,551,279</u>	\$ <u>55,780,593</u>	\$ <u>67,230,132</u>	\$ <u>79,205,175</u>	\$ <u>82,299,120</u>	\$ <u>94,336,780</u>

Anne Arundel County Retirement and Pension System

Schedule of Additions by Source - Employees' Retirement Plan

For the Last Ten Years Ended December 31

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
<u>Employer Data</u>										
Contributions	\$ 7,036,915	\$ 8,610,774	\$ 10,015,144	\$ 10,755,168	\$ 11,778,948	\$ 12,906,750	\$ 15,246,252	\$ 17,284,080	\$ 18,186,402	\$ 19,823,814
% of Covered Payroll	(7.0)	(8.4)	(9.3)	(9.2)	(10.0)	(10.3)	(12.1)	(14.0)	(15.1)	(17.1)
<u>Participant Data</u>										
Contributions	<u>3,856,604</u>	<u>3,971,341</u>	<u>4,124,898</u>	<u>4,376,510</u>	<u>4,412,061</u>	<u>4,630,624</u>	<u>5,085,885</u>	<u>4,556,815</u>	<u>4,562,145</u>	<u>4,416,529</u>
Total contributions	10,893,519	12,582,115	14,140,042	15,131,678	16,191,009	17,537,374	20,332,137	21,840,895	22,748,547	24,240,343
Total investment income (loss)	<u>69,329,609</u>	<u>36,395,650</u>	<u>28,970,375</u>	<u>55,739,853</u>	<u>52,269,375</u>	<u>(159,154,283)</u>	<u>62,603,110</u>	<u>61,439,541</u>	<u>9,825,346</u>	<u>63,100,607</u>
Total Additions	\$ <u>80,223,128</u>	\$ <u>48,977,765</u>	\$ <u>43,110,417</u>	\$ <u>70,871,531</u>	\$ <u>68,460,384</u>	\$ <u>(141,616,909)</u>	\$ <u>82,935,247</u>	\$ <u>83,280,436</u>	\$ <u>32,573,893</u>	\$ <u>87,340,950</u>

Anne Arundel County Retirement and Pension System

Schedule of Additions by Source - Police Service Retirement Plan

For the Last Ten Years Ended December 31

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
<u>Employer Data</u>										
Contributions	\$ 8,229,336	\$ 8,834,748	\$ 8,931,530	\$ 9,611,544	\$ 9,997,308	\$ 10,522,656	\$ 12,428,136	\$ 14,055,660	\$ 13,793,256	\$ 15,530,322
% of Covered Payroll	(25.8)	(26.3)	(24.3)	(25.4)	(24.4)	(25.4)	(29.2)	(33.1)	(33.4)	(38.3)
<u>Participant Data</u>										
Contributions	<u>1,825,584</u>	<u>1,725,839</u>	<u>1,848,116</u>	<u>1,925,644</u>	<u>2,005,960</u>	<u>1,910,671</u>	<u>2,024,825</u>	<u>2,297,386</u>	<u>2,637,833</u>	<u>2,553,740</u>
Total contributions	10,054,920	10,560,587	10,779,646	11,537,188	12,003,268	12,433,327	14,452,961	16,353,046	16,431,089	18,084,062
Total investment income (loss)	<u>59,799,163</u>	<u>31,546,774</u>	<u>25,061,802</u>	<u>48,252,499</u>	<u>42,938,229</u>	<u>(136,630,639)</u>	<u>50,713,568</u>	<u>49,685,037</u>	<u>6,731,539</u>	<u>50,828,258</u>
Total Additions	<u>\$ 69,854,083</u>	<u>\$ 42,107,361</u>	<u>\$ 35,841,448</u>	<u>\$ 59,789,687</u>	<u>\$ 54,941,497</u>	<u>\$ (124,197,312)</u>	<u>\$ 65,166,529</u>	<u>\$ 66,038,083</u>	<u>\$ 23,162,628</u>	<u>\$ 68,912,320</u>

Anne Arundel County Retirement and Pension System

Schedule of Additions by Source - Fire Service Retirement Plan

For the Last Ten Years Ended December 31

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
<u>Employer Data</u>										
Contributions	\$ 7,991,349	\$ 9,006,192	\$ 10,016,964	\$ 10,481,244	\$ 10,959,888	\$ 11,189,712	\$ 12,701,160	\$ 14,648,580	\$ 13,959,852	\$ 15,238,104
% of Covered Payroll	(25.4)	(25.8)	(26.0)	(24.1)	(24.9)	(22.9)	(25.9)	(30.6)	(30.6)	(35.1)
<u>Participant Data</u>										
Contributions	<u>1,352,179</u>	<u>1,324,760</u>	<u>1,496,252</u>	<u>1,741,476</u>	<u>1,889,083</u>	<u>2,033,588</u>	<u>2,346,754</u>	<u>2,494,043</u>	<u>2,659,114</u>	<u>2,453,627</u>
Total contributions	9,343,528	10,330,952	11,513,216	12,222,720	12,848,971	13,223,300	15,047,914	17,142,623	16,618,966	17,691,731
Total investment income (loss)	<u>53,948,794</u>	<u>28,734,931</u>	<u>23,343,883</u>	<u>44,928,717</u>	<u>41,080,256</u>	<u>(127,885,708)</u>	<u>49,183,327</u>	<u>48,957,240</u>	<u>7,013,478</u>	<u>51,522,774</u>
Total Additions	<u>\$ 63,292,322</u>	<u>\$ 39,065,883</u>	<u>\$ 34,857,099</u>	<u>\$ 57,151,437</u>	<u>\$ 53,929,227</u>	<u>\$ (114,662,408)</u>	<u>\$ 64,231,241</u>	<u>\$ 66,099,863</u>	<u>\$ 23,632,444</u>	<u>\$ 69,214,505</u>

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

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
<u>Employer Data</u>										
Contributions	\$ 3,030,140	\$ 3,072,600	\$ 3,191,610	\$ 3,462,366	\$ 3,600,894	\$ 3,788,256	\$ 4,348,914	\$ 4,907,130	\$ 4,876,332	\$ 5,141,280
% of Covered Payroll	(19.7)	(20.0)	(19.0)	(19.9)	(19.9)	(19.1)	(21.5)	(25.4)	(26.0)	(28.7)
<u>Participant Data</u>										
Contributions	<u>751,071</u>	<u>771,879</u>	<u>795,363</u>	<u>860,542</u>	<u>881,978</u>	<u>950,675</u>	<u>1,027,277</u>	<u>1,084,820</u>	<u>1,175,133</u>	<u>1,120,848</u>
Total contributions	3,781,211	3,844,479	3,986,973	4,322,908	4,482,872	4,738,931	5,376,191	5,991,950	6,051,465	6,262,128
Total investment income (loss)	<u>8,338,642</u>	<u>4,698,719</u>	<u>3,925,218</u>	<u>7,814,479</u>	<u>7,292,557</u>	<u>(24,343,278)</u>	<u>9,672,565</u>	<u>9,901,091</u>	<u>1,330,029</u>	<u>10,887,141</u>
Total Additions	<u>\$ 12,119,853</u>	<u>\$ 8,543,198</u>	<u>\$ 7,912,191</u>	<u>\$ 12,137,387</u>	<u>\$ 11,775,429</u>	<u>\$ (19,604,347)</u>	<u>\$ 15,048,756</u>	<u>\$ 15,893,041</u>	<u>\$ 7,381,494</u>	<u>\$ 17,149,269</u>

Anne Arundel County Retirement and Pension System

Schedule of Expenses by Type - Employees' Retirement Plan

For the Last Ten Years Ended December 31

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Retirement Benefits	\$ 13,443,700	\$ 15,421,929	\$ 17,115,761	\$ 19,269,278	\$ 22,419,239	\$ 24,981,888	\$ 26,707,107	\$ 29,178,742	\$ 31,102,824	\$ 34,031,017
Refunds	404,657	512,394.8	632,535	463,874	380,865	294,159	560,816	342,195	377,783	344,265
Administrative	<u>463,779</u>	<u>426,963</u>	<u>458,806</u>	<u>508,917</u>	<u>531,801</u>	<u>426,611</u>	<u>487,143</u>	<u>504,442</u>	<u>481,210</u>	<u>546,061</u>
Total Expenses	\$ <u>14,312,136</u>	\$ <u>16,361,287</u>	\$ <u>18,207,102</u>	\$ <u>20,242,069</u>	\$ <u>23,331,905</u>	\$ <u>25,702,658</u>	\$ <u>27,755,066</u>	\$ <u>30,025,379</u>	\$ <u>31,961,817</u>	\$ <u>34,921,343</u>

Anne Arundel County Retirement and Pension System

Schedule of Expenses by Type - Police Service Retirement Plan

For the Last Ten Years Ended December 31

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Retirement Benefits	\$ 11,065,345	\$ 11,728,309	\$ 12,870,535	\$ 13,180,043	\$ 15,661,838	\$ 17,240,916	\$ 19,638,650	\$ 20,973,246	\$ 22,560,005	\$ 24,178,421
Refunds	155,653	84,479	131,954	67,412	808,927	1,056,383	540,887	10,476	184,099	245,111
DROP payments	-	-	984,471	2,391,116	4,538,066	5,575,192	2,034,666	465,950	735,894	3,817,832
Administrative	<u>399,045</u>	<u>366,223</u>	<u>401,094</u>	<u>431,925</u>	<u>443,634</u>	<u>358,812</u>	<u>406,518</u>	<u>410,184</u>	<u>391,458</u>	<u>444,328</u>
Total Expenses	<u>\$ 11,620,043</u>	<u>\$ 12,179,011</u>	<u>\$ 14,388,054</u>	<u>\$ 16,070,496</u>	<u>\$ 21,452,465</u>	<u>\$ 24,231,303</u>	<u>\$ 22,620,721</u>	<u>\$ 21,859,856</u>	<u>\$ 23,871,456</u>	<u>\$ 28,685,692</u>

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 Ten Years Ended December 31

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Retirement Benefits	\$ 6,317,162	\$ 7,511,880	\$ 8,460,438	\$ 10,464,329	\$ 12,059,353	\$ 13,057,997	\$ 14,975,604	\$ 15,560,775	\$ 15,876,486	\$ 17,701,069
Refunds	130,956	595,781	235,129	477,530	455,933	545,079	847,725	114,588	457,144	199,210
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
Administrative	<u>359,046</u>	<u>340,521</u>	<u>364,848</u>	<u>416,838</u>	<u>415,672</u>	<u>330,485</u>	<u>379,081</u>	<u>398,463</u>	<u>388,157</u>	<u>444,256</u>
Total Expenses	\$ <u>6,807,164</u>	\$ <u>8,448,182</u>	\$ <u>9,551,089</u>	\$ <u>15,986,842</u>	\$ <u>19,715,141</u>	\$ <u>21,670,101</u>	\$ <u>18,164,578</u>	\$ <u>17,831,416</u>	\$ <u>18,479,377</u>	\$ <u>19,964,930</u>

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 Ten Years Ended December 31

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Retirement Benefits	\$ 1,131,705	\$ 1,413,696	\$ 1,770,524	\$ 2,085,412	\$ 2,573,235	\$ 3,017,953	\$ 3,435,870	\$ 3,790,618	\$ 4,190,561	\$ 4,824,001
Refunds	87,631	73,549	77,408	26,829	71,607	83,997	89,544	46,946	17,374	194,267
Administrative	<u>55,475</u>	<u>54,396</u>	<u>61,554</u>	<u>71,158</u>	<u>75,560</u>	<u>64,389</u>	<u>75,803</u>	<u>80,434</u>	<u>79,613</u>	<u>93,341</u>
Total Expenses	\$ <u>1,274,811</u>	\$ <u>1,541,641</u>	\$ <u>1,909,486</u>	\$ <u>2,183,399</u>	\$ <u>2,720,402</u>	\$ <u>3,166,339</u>	\$ <u>3,601,217</u>	\$ <u>3,917,998</u>	\$ <u>4,287,548</u>	\$ <u>5,111,609</u>

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, 2012

		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 7/1/2002 to 6/30/2003	Average monthly benefit	\$365	\$985	\$1,056	\$1,130	\$1,831	\$2,147	\$2,406
	Average final average salary	\$33,315	\$49,483	\$47,967	\$40,886	\$51,895	\$48,583	\$51,460
	Number of retired members	1	13	8	13	10	24	21
Period 7/1/2003 to 6/30/2004	Average monthly benefit	\$2,098	\$1,366	\$1,304	\$1,121	\$1,830	\$2,396	\$2,465
	Average final average salary	\$39,499	\$62,285	\$41,813	\$39,481	\$44,800	\$52,567	\$46,982
	Number of retired members	1	8	10	14	13	22	19
Period 7/1/2004 to 6/30/2005	Average monthly benefit	\$0	\$813	\$1,310	\$1,415	\$1,958	\$2,180	\$2,369
	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 to 6/30/2006	Average monthly benefit	\$0	\$794	\$1,004	\$1,706	\$2,001	\$2,953	\$2,770
	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 to 6/30/2007	Average monthly benefit	\$0	\$777	\$1,589	\$1,378	\$2,877	\$2,507	\$3,264
	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 to 6/30/2008	Average monthly benefit	\$0	\$351	\$1,044	\$1,935	\$2,341	\$2,755	\$2,986
	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 to 6/30/2009	Average monthly benefit	\$0	\$753	\$1,301	\$1,521	\$2,697	\$2,602	\$2,805
	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 to 6/30/2010	Average monthly benefit	\$858	\$446	\$1,325	\$1,488	\$2,285	\$2,787	\$3,062
	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 to 06/30/2011	Average monthly benefit	\$866	\$820	\$1,341	\$1,535	\$2,086	\$2,490	\$2,973
	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 to 06/30/2012	Average monthly benefit	\$0	\$576	\$1,191	\$1,735	\$3,008	\$3,302	\$3,104
	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 to 12/31/2012	Average monthly benefit	\$0	\$665	\$955	\$1,601	\$2,378	\$2,809	\$3,491
	Average final average salary	\$0	\$54,923	\$55,110	\$49,424	\$63,155	\$63,663	\$74,499
	Number of retired members	0	8	10	5	6	6	14

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, 2012

		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 7/1/2002 to 6/30/2003	Average monthly benefit	\$0	\$0	\$0	\$2,058	\$2,690	\$2,932	\$3,773
	Average final average salary	\$52,592	\$0	\$50,284	\$57,889	\$60,994	\$69,378	\$78,486
	Number of retired members	1	0	1	2	9	12	15
Period 7/1/2003 to 6/30/2004	Average monthly benefit	\$0	\$1,715	\$2,754	\$2,201	\$2,877	\$3,213	\$3,702
	Average final average salary	\$0	\$49,393	\$52,009	\$55,196	\$64,350	\$73,510	\$77,452
	Number of retired members	0	2	2	4	20	18	3
Period 7/1/2004 to 6/30/2005	Average monthly benefit	\$2,188	\$2,805	\$2,940	\$2,699	\$3,020	\$3,551	\$3,217
	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 to 6/30/2006	Average monthly benefit	\$0	\$1,800	\$3,129	\$2,922	\$3,120	\$4,573	\$3,626
	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 to 6/30/2007	Average monthly benefit	\$0	\$2,914	\$3,209	\$3,227	\$2,844	\$3,622	\$0
	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 to 6/30/2008	Average monthly benefit	\$0	\$0	\$2,747	\$2,936	\$3,808	\$0	\$3,512
	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 to 6/30/2009	Average monthly benefit	\$0	\$2,085	\$3,552	\$3,341	\$3,705	\$0	\$0
	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 to 6/30/2010	Average monthly benefit	\$0	\$1,885	\$3,118	\$3,863	\$4,374	\$5,043	\$4,902
	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 to 6/30/2011	Average monthly benefit	\$2,545	\$3,912	\$3,821	\$3,895	\$4,007	\$0	\$0
	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 to 06/30/2012	Average monthly benefit	\$0	\$2,452	\$0	\$3,660	\$4,100	\$4,694	\$0
	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 to 12/31/2012	Average monthly benefit	\$0	\$0	\$0	\$3,833	\$3,696	\$5,552	\$0
	Average final average salary	\$0	\$0	\$0	\$68,995	\$78,149	\$103,608	\$0
	Number of retired members	0	0	0	1	2	1	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, 2012

		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 7/1/2002 to 6/30/2003	Average monthly benefit	\$0	\$0	\$2,765	\$2,589	\$2,943	\$3,054	\$3,415
	Average final average salary	\$0	\$0	\$52,707	\$59,350	\$65,446	\$70,964	\$71,946
	Number of retired members	0	0	1	3	3	16	32
Period 7/1/2003 to 6/30/2004	Average monthly benefit	\$0	\$2,160	\$2,673	\$3,183	\$2,662	\$3,082	\$3,161
	Average final average salary	\$0	\$41,297	\$50,258	\$59,401	\$71,795	\$70,448	\$71,990
	Number of retired members	0	1	2	4	14	22	5
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

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, 2012

		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 7/1/2002 to 6/30/2003	Average monthly benefit	\$1,623	\$637	\$2,291	\$1,955	\$1,989	\$2,542	\$0
	Average final average salary	\$32,136	\$37,096	\$47,664	\$47,980	\$58,616	\$47,507	\$0
	Number of retired members	1	1	2	2	1	1	0
Period 7/1/2003 to 6/30/2004	Average monthly benefit	\$0	\$814	\$2,475	\$2,225	\$1,996	\$0	\$0
	Average final average salary	\$0	\$31,855	\$45,217	\$56,103	\$45,092	\$0	\$0
	Number of retired members	0	5	1	1	2	0	0
Period 7/1/2004 to 6/30/2005	Average monthly benefit	\$0	\$1,236	\$1,621	\$2,054	\$2,203	\$2,462	\$0
	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 to 6/30/2006	Average monthly benefit	\$0	\$1,718	\$1,286	\$2,581	\$2,037	\$3,980	\$0
	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 to 6/30/2007	Average monthly benefit	\$0	\$842	\$1,271	\$2,294	\$3,104	\$2,883	\$0
	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 to 6/30/2008	Average monthly benefit	\$0	\$1,165	\$0	\$0	\$3,524	\$4,263	\$0
	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 to 6/30/2009	Average monthly benefit	\$0	\$782	\$1,963	\$2,997	\$4,341	\$3,434	\$3,935
	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 to 6/30/2010	Average monthly benefit	\$0	\$1,345	\$1,910	\$2,537	\$0	\$0	\$0
	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 to 6/30/2011	Average monthly benefit	\$0	\$1,216	\$1,511	\$1,933	\$2,606	\$0	\$4,230
	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 to 06/30/12	Average monthly benefit	\$0	\$1,294	\$1,922	\$1,800	\$3,098	\$3,917	\$4,623
	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

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

<i>Years of Credited Service</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
0 to 4	744	650	667	646	750	747	807	755	673	534
5 to 9	373	392	389	447	485	465	421	451	452	501
10 to 14	382	350	296	250	267	283	286	291	349	415
15 to 19	321	377	376	402	357	307	273	233	191	211
20 to 24	239	217	214	211	203	225	281	287	308	278
25 to 29	199	183	193	180	177	167	136	146	153	149
30 and over	<u>57</u>	<u>70</u>	<u>82</u>	<u>89</u>	<u>98</u>	<u>90</u>	<u>108</u>	<u>115</u>	<u>113</u>	<u>121</u>
Total members	2,315	2,239	2,217	2,225	2,337	2,284	2,312	2,278	2,239	2,209
Average years of service	11.90	12.26	12.38	12.19	11.62	11.59	11.58	11.97	12.30	12.83
Average age	45.36	45.95	46.22	46.35	46.12	46.39	46.88	47.44	47.81	48.24
Average salary	\$ 43,703	\$ 45,085	\$ 46,507	\$ 48,220	\$ 49,940	\$ 51,323	\$ 53,981	\$ 55,325	\$ 55,158	\$ 54,511

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

<i>Years of Credited Service</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
0 to 4	155	102	121	146	143	158	168	166	133	149
5 to 9	168	185	179	154	154	135	101	110	129	120
10 to 14	146	129	116	109	132	145	156	151	133	140
15 to 19	65	83	108	131	112	127	112	101	99	114
20 to 24	57	40	28	24	29	32	43	50	61	44
25 to 29	29	13	17	18	16	11	11	6	7	7
30 and over	<u>7</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>
Total members	627	555	571	584	589	611	593	587	563	576
Average years of service	10.75	10.83	10.67	10.60	10.69	10.69	10.72	10.61	11.13	10.92
Average age	36.48	36.83	36.85	36.76	36.88	36.88	37.12	37.04	37.69	37.44
Average salary	\$ 50,722	\$ 51,228	\$ 51,757	\$ 55,693	\$ 58,051	\$ 60,948	\$ 64,867	\$ 65,534	\$ 66,276	\$ 64,170

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

<i>Years of Credited Service</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
0 to 4	104	76	168	223	307	297	400	323	244	133
5 to 9	88	90	84	98	83	92	69	133	183	239
10 to 14	113	125	105	80	115	85	89	82	95	76
15 to 19	139	132	123	118	109	106	116	100	75	105
20 to 24	42	33	43	54	69	96	98	93	74	58
25 to 29	62	38	38	38	28	20	19	20	16	18
30 and over	<u>7</u>	<u>2</u>	<u>2</u>	<u>5</u>	<u>7</u>	<u>13</u>	<u>18</u>	<u>6</u>	<u>2</u>	<u>2</u>
Total members	555	496	563	616	718	709	809	757	689	631
Average years of service	13.48	12.98	11.41	10.73	9.53	10.22	9.54	9.81	9.83	10.42
Average age	39.11	38.97	37.79	37.17	36.15	36.75	36.13	36.58	36.73	37.31
Average salary	\$ 50,710	\$ 50,872	\$ 49,847	\$ 51,305	\$ 51,463	\$ 55,461	\$ 56,834	\$ 57,714	\$ 56,521	\$ 55,924

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

<i>Years of Credited Service</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
0 to 4	141	121	110	127	102	94	114	122	89	88
5 to 9	137	138	132	130	144	101	84	73	87	68
10 to 14	51	60	60	55	58	107	110	112	106	114
15 to 19	24	19	20	33	37	40	49	49	49	47
20 to 24	15	22	19	15	13	4	8	9	14	23
25 to 29	3	5	5	4	3	8	6	6	6	5
30 and over	-	-	1	1	2	3	2	3	3	2
Total members	371	365	347	365	359	357	373	374	354	347
Average years of service	7.30	7.99	8.50	8.36	8.82	9.16	9.16	6.92	10.40	10.80
Average age	41.45	42.03	42.70	42.40	42.45	43.19	43.19	43.85	44.46	44.50
Average salary	\$ 39,597	\$ 42,182	\$ 44,252	\$ 46,011	\$ 48,378	\$ 50,763	\$ 53,045	\$ 54,021	\$ 54,549	\$ 54,065

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, 2012

Years of Credited Service	<i>Employees' Retirement Plan</i>	<i>Police Service Retirement Plan</i>	<i>Fire Service Retirement Plan</i>	<i>Officers' and Deputy Sheriffs' Retirement Plan</i>	<i>Total</i>
0-4	487	147	96	80	810
5-9	521	147	239	65	972
10-14	360	106	85	63	614
15-19	226	110	66	80	482
20-24	205	49	57	35	346
25-29	217	28	32	10	287
30+	<u>149</u>	<u>4</u>	<u>7</u>	<u>5</u>	<u>165</u>
Total Current Active Members	<u><u>2,165</u></u>	<u><u>591</u></u>	<u><u>582</u></u>	<u><u>338</u></u>	<u><u>3,676</u></u>
0-4	N/A	-	1	N/A	1
5-9	N/A	-	-	N/A	-
10-14	N/A	-	-	N/A	-
15-19	N/A	-	-	N/A	-
20-24	N/A	11	21	N/A	32
25-29	N/A	25	57	N/A	82
30+	N/A	<u>21</u>	<u>48</u>	N/A	<u>69</u>
Total Current Active DROP Members		<u><u>57</u></u>	<u><u>127</u></u>		<u><u>184</u></u>

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

	<i>Police Service Retirement Plan</i>	<i>Fire Service Retirement Plan</i>	<i>Total</i>
2008	3	7	10
2009	17	30	47
2010	10	46	56
2011	14	27	41
2012	14	15	29
	<u>58</u>	<u>125</u>	<u>183</u>

- 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 by Attained Age and Type of Retirement

For the Year Ended December 31, 2012

<u>Age Group</u>	<u>Normal Retirement</u>	<u>Early Retirement</u>	<u>Service Connected Disability</u>	<u>Non-Service Connected Disability</u>	<u>Total</u>
20-29	-	-	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	<u>2,081</u>	<u>103</u>	<u>275</u>	<u>60</u>	<u>2,519</u>

Note: Excludes beneficiaries

Anne Arundel County Retirement and Pension System

History of Operating Revenues and Expenses

For the Last Ten Years Ended December 31

		<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
REVENUES											
Employer Contributions	\$	26,287,740	\$ 29,524,314	\$ 32,155,248	\$ 34,310,322	\$ 36,337,038	\$ 38,407,374	\$ 44,724,462	50,895,450	50,815,842	55,733,520
Participant Contributions		7,785,438	7,793,819	8,264,629	8,904,172	9,189,082	9,525,558	10,486,741	10,433,064	11,034,225	10,544,744
Investment Income		<u>191,416,208</u>	<u>101,376,074</u>	<u>81,301,278</u>	<u>156,735,548</u>	<u>143,580,417</u>	<u>(448,013,909)</u>	<u>172,172,570</u>	<u>169,916,939</u>	<u>24,900,493</u>	<u>176,338,780</u>
Total Revenues	\$	<u>225,489,386</u>	<u>138,694,207</u>	<u>121,721,155</u>	<u>199,950,042</u>	<u>189,106,537</u>	<u>(400,080,977)</u>	<u>227,383,773</u>	<u>231,245,453</u>	<u>86,750,560</u>	<u>242,617,044</u>
EXPENSES											
Benefits and Refunds	\$	32,736,809	\$ 37,342,018	\$ 42,769,429	\$ 53,053,968	65,753,246	73,590,104	70,793,037	72,241,126	77,259,760	87,155,588
Administrative Expenses		<u>1,277,345</u>	<u>1,188,103</u>	<u>1,286,302</u>	<u>1,428,838</u>	<u>1,466,667</u>	<u>1,180,297</u>	<u>1,348,545</u>	<u>1,393,523</u>	<u>1,340,439</u>	<u>1,527,986</u>
Total Expenses	\$	<u>34,014,154</u>	<u>38,530,121</u>	<u>44,055,731</u>	<u>54,482,806</u>	<u>67,219,913</u>	<u>74,770,401</u>	<u>72,141,582</u>	<u>73,634,649</u>	<u>78,600,199</u>	<u>88,683,574</u>
COVERED PAYROLL											
Annual Covered Payroll		<u>179,719,295</u>	<u>186,863,310</u>	<u>199,370,886</u>	<u>215,409,364</u>	<u>220,298,031</u>	<u>234,922,040</u>	<u>237,798,435</u>	<u>233,098,361</u>	<u>226,183,784</u>	<u>217,804,921</u>
Total Covered Payroll	\$	<u>179,719,295</u>	<u>186,863,310</u>	<u>199,370,886</u>	<u>215,409,364</u>	<u>220,298,031</u>	<u>234,922,040</u>	<u>237,798,435</u>	<u>233,098,361</u>	<u>226,183,784</u>	<u>217,804,921</u>
Employer Contributions as a Percent of Covered Payroll		<u>14.63</u>	<u>15.80</u>	<u>16.13</u>	<u>15.93</u>	<u>16.49</u>	<u>16.35</u>	<u>18.81</u>	<u>21.83</u>	<u>22.47</u>	<u>25.59</u>

Anne Arundel County Retirement and Pension System

History of Plan Investments and Liabilities

For the Ten Years Ended December 31

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total Net Assets Fair Market Value	<u>\$1,044,006,884</u>	<u>\$1,144,170,969</u>	<u>\$1,221,836,393</u>	<u>\$1,367,303,629</u>	<u>\$1,489,190,253</u>	<u>\$1,014,338,875</u>	<u>\$1,169,581,066</u>	<u>\$1,337,927,398</u>	<u>\$1,342,485,137</u>	<u>\$1,498,074,369</u>
Actuarial Accrued Liability (AAL)	\$1,047,886,964	\$1,138,458,986	\$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
Actuarial Value of Assets (AVA)	<u>\$1,011,601,334</u>	<u>\$1,098,293,512</u>	<u>\$1,181,256,844</u>	<u>\$1,281,182,243</u>	<u>\$1,380,306,906</u>	<u>\$1,363,614,511</u>	<u>\$1,454,413,785</u>	<u>\$1,471,797,558</u>	<u>\$1,462,944,903</u>	<u>\$1,448,184,848</u>
Unfunded Actuarial Liability (UAL)	<u>\$36,285,621</u>	<u>\$40,165,474</u>	<u>\$59,515,507</u>	<u>\$62,127,996</u>	<u>\$74,934,851</u>	<u>\$203,267,675</u>	<u>\$198,295,304</u>	<u>\$241,730,508</u>	<u>\$328,946,164</u>	<u>\$444,836,661</u>
Funded Ratio (AVA/AAL)	<u>96.54%</u>	<u>96.47%</u>	<u>95.21%</u>	<u>95.38%</u>	<u>94.37%</u>	<u>87.03%</u>	<u>88.00%</u>	<u>85.89%</u>	<u>81.64%</u>	<u>76.50%</u>