



MARYLAND  
STATE RETIREMENT  
*and* PENSION SYSTEM

# Comprehensive Annual Financial Report

**Maryland State Retirement and Pension System**

A Pension Trust Fund of the State of Maryland

For the Years Ended June 30, 2015 and 2014

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2015

## MISSION STATEMENT

The Board of Trustees of the Maryland State Retirement and Pension System (System) is charged with the fiduciary responsibility for administering the survivor, disability and retirement benefits of the System's participants and to ensure that sufficient assets are available to fund the benefits when due. To accomplish this mission the System has established the following key goals:

- To prudently invest System assets in a well diversified manner to optimize long-term returns, while controlling risk through excellence in execution of the investment objectives and strategies of the System.
- To effectively communicate with all retirement plan participants to inform them about the benefits provided by the System, and to educate them about planning and preparing for all aspects of their future retirement.
- To accurately and timely pay retirement allowances provided by State pension law to the System's retirees and their beneficiaries.
- To implement an automated, comprehensive and integrated pension administration and electronic document management system.
- To efficiently collect the required employer and members contributions necessary to fund the System.

# Comprehensive Annual Financial Report Maryland State Retirement and Pension System



A Pension Trust Fund of the State of Maryland

For the Years Ended June 30, 2015 and 2014

*Prepared by:*

Maryland State Retirement Agency  
120 East Baltimore Street  
Baltimore, Maryland 21202

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December 15, 2015

**MARYLAND  
STATE RETIREMENT  
and PENSION SYSTEM**

**STATE RETIREMENT AGENCY**  
120 East Baltimore Street  
Baltimore, MD 21202  
Tel: 410-625-5555  
1-800-492-5909  
TDD/TTY 410-625-5535  
sra.maryland.gov

**BOARD OF TRUSTEES**  
Nancy K. Kopp  
*Chairman*

Peter Franchot  
*Vice Chairman*

David S. Blitstein  
David R. Brinkley  
James A. Bush, Jr.  
Robert R. Hagans, Jr.  
Kenneth B. Haines  
James M. Harkins  
Linda A. Herman  
Sheila Hill  
F. Patrick Hughes  
Theresa Lochte  
Richard E. Norman  
Harold Zirkin  
Thurman W. Zollicoffer, Jr.

R. Dean Kenderdine  
*Executive Director*  
*Secretary To The Board*

Dear Members, Retirees and Beneficiaries:

On behalf of the Board of Trustees, we are pleased to present the Comprehensive Annual Financial Report of the Maryland State Retirement and Pension System for the fiscal year ended June 30, 2015. This report provides information on the financial status of the retirement system during a period when the system issued, on average, approximately \$277 million in monthly payments to nearly 148,000 retirees and beneficiaries.

The board's fundamental mission is to ensure that retirement benefits are paid in full, and in an accurate and timely manner. The board oversees the investment of the Maryland State Retirement and Pension System assets in order to help ensure the funding necessary to meet those obligations.

The pension fund realized modest gains in fiscal 2015, earning 2.68 percent for the year and beating the policy benchmark of 0.88 percent by 1.80 percentage points, but falling short of the 7.65 percent actuarial target. The policy benchmark represents what the fund would have earned had it been indexed, or passively managed.

Investment returns moderated over fiscal year 2015 relative to recent years, particularly in foreign equities, as the strong dollar and concerns relating to global growth and the Greek debt situation weighed on performance. While absolute performance did not meet the actuarial target for the fiscal year, we are very pleased with the performance of our active management program, which continues to add significant value over the overall plan benchmark. For the fiscal year, active management added roughly \$800 million in excess of the benchmark.

While earnings for this one year fell short of our expected rate of return, the board continues to focus on long-term performance. Over the last five years our average return has been 9.36 percent. Although this has been a challenging year for most institutional investors, the long term positive returns confirm the appropriateness of the Board's decision, some time ago, to more broadly diversify its portfolio to reduce the volatility of annual returns.

The capital markets are always going to experience volatility, which will result in good years and bad years. Being a long-term investor allows the system to weather the short-term volatility for long-term returns. Over the last 25 years—a period that has included multiple economic cycles—the system has earned an average return of 7.51%.

Your retirement system remains administratively and financially sound. As a participant in the system, you can remain confident that your pension benefits are secure. As always, your commitment to and involvement in the concerns of the system are greatly appreciated. We value your input—this is your system. If you have any questions, please do not hesitate to contact us.

Sincerely,

NANCY K. KOPP  
*Chairman*

PETER FRANCHOT  
*Vice Chairman*



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R. Dean Kenderdine  
*Executive Director*  
*Secretary To The Board*

## LETTER OF TRANSMITTAL

December 15, 2015

Honorable Chairman and Members of the Board of Trustees:

We are pleased to submit the Comprehensive Annual Financial Report for the Maryland State Retirement and Pension System for the fiscal year ended June 30, 2015. We believe this report fairly presents the operating results achieved during this 12-month reporting period.

The System is responsible for properly administering retirement, disability, and death benefits. At the same time, it strives to keep employer contribution rates as reasonable as possible by maximizing investment returns while maintaining an acceptable level of risk. Members covered by the plans include state employees, teachers, law enforcement officers, legislators, judges, as well as local government employees and correctional personnel whose employers have elected to participate in the System.

The System currently provides monthly allowances to about 148,000 retirees and beneficiaries, and is an essential element of the future financial security for more than 193,000 active participating members. Descriptions of the membership requirements and benefits provided by each plan administered by the System are included in the Plan Summary Section starting on page 116.

This Comprehensive Annual Financial Report contains six sections. The Introductory Section provides information about the administrative structure of the System. The Financial Section provides a comprehensive review of the System's financial position, the results of its operations and its funded status. It also contains the report from the System's independent auditor, the combined financial statements and supplementary financial data. The Investment Section includes a report highlighting the System's investment performance in addition to various summary level portfolio compositions and other investment data. The Actuarial Section contains the independent actuary's report on the results of the System's annual actuarial valuation. The Statistical and Plan Summary Sections provide demographic composition of the System's membership segments affected by each plan and detailed descriptions of the various plans' provisions. In addition to this Letter of Transmittal, additional narrative, overview, and analysis can be found in Management's Discussion and Analysis beginning on page 18.

### INVESTMENTS

The System's investment portfolio returned 2.68 percent in fiscal year 2015, exceeding the plan's policy benchmark of 0.88 percent by 180 basis points, but falling short of the 7.65 percent actuarial return target. The plan policy benchmark is a point of reference that compares the System's total investment performance against the weighted average of the benchmark performance of each of the System's underlying asset classes.

Investment returns moderated over fiscal year 2015 relative to recent years, particularly in foreign equities, as the strong dollar, concerns relating to global growth and the Greek debt situation weighed on performance. While absolute performance did not meet the actuarial target for the fiscal year, the performance of the system's active management program continues to add significant value over the overall plan benchmark.

After the payment of benefits, the market value of assets increased by approximately \$450 million from \$45.3 billion on June 30, 2014 to \$45.8 billion on June 30, 2015.

The System's target asset allocation is comprised of 35 percent public equities, 10 percent fixed income, 10 percent private equities, 10 percent credit/debt strategies, 10 percent real estate, 14 percent real return, 10 percent absolute return and 1 percent cash. The System's portfolio is balanced across several asset and sub-asset classes and is globally diversified. This, coupled with a long term investment horizon, allows the System to weather short term market volatility.

## MAJOR ISSUES

The General Assembly passed legislation during the 2015 session that repeals the corridor funding method beginning in fiscal 2017 and returns the System to the preferred actuarial funding method, seven years earlier than under the ten year phase out that was enacted during the 2013 session.

Under the corridor funding method, contribution rates were fixed from year to year as long as the funded status for each of these systems remained in a “corridor” of 90% to 110%. When it was adopted in 2002, both systems were within the corridor, but within three years, the employees’ plan dropped out of the corridor and the teachers’ plan followed in 2006.

Since its enactment, the corridor funding method has resulted in annual reductions of between \$100 million and \$200 million in the state’s employer contributions, and thus contributed to the declining funded ratio for Maryland State Retirement and Pension System because it creates deliberate short-term underfunding of the system’s liabilities. The Board of Trustees has been on record in opposition to this methodology since its implementation.

Under the Budget and Reconciliation and Financing Act (BRFA) of 2015, the state will also continue the ongoing supplemental contribution of reinvested savings begun in 2011, but limit it to \$75 million annually until the fund is 85 percent funded. The BRFA also requires that beginning in fiscal 2017, one-half of the unappropriated general fund balance in excess of \$10 million be paid to the pension fund. Under this scenario, payments are capped at \$50 million annually through fiscal 2020 at which time this provision will terminate.

## FINANCIAL INFORMATION

System management has committed the resources necessary to maintain an internal control structure that provides reasonable assurance that assets are adequately safeguarded, financial records are consistently and accurately maintained, and transactions are properly executed to permit preparation of financial statements in accordance with generally accepted accounting principles. The System’s internal control structure includes written policies and procedures and an internal audit division that reports to the Board.

## ACCOUNTING SYSTEM AND REPORTS

The System reports its transactions on the accrual basis of accounting. Under this method, revenues are reported in the accounting period they are earned and become measurable, and expenses are reported when the related liability is incurred and measurable. Investments are reported at fair value at fiscal year-end. Investment purchases and sales are reported in the accounting period in which the related trade dates occur.

## REVENUES

The reserves necessary to finance retirement allowances and other benefits are accumulated through investment earnings and the collection of employer and member contributions. During fiscal year 2015, investment earnings were \$1.19 billion, while revenues from employer and member contributions were \$1.86 billion and \$755.4 million, respectively. For fiscal year 2015, member contribution rates on average were 7 percent, while employer rates varied depending on the System.

## EXPENSES

The System’s expenses consist of monthly retirement allowances, refunds of contributions to terminated and transferring members, withdrawing employers, and the administrative cost of System operations. Payments to retirees, beneficiaries and transferring or withdrawing members and employers continued to be the System’s primary disbursements during FY 2015, totaling \$3.3 billion. In addition, the System disbursed \$377.0 million to manage the investment portfolio and to administer the System, of which \$348.9 million was paid for investment management, portfolio custody, and securities lending services and \$29.1 million used to fund the System’s administrative operations.

## FUNDING

Funds are derived from the excess of additions, which include contributions and investment earnings, over deductions, which are comprised of benefits and administrative expenses. Funds are accumulated to meet future benefit obligations to retirees and beneficiaries. This accumulated balance is referred to as the “net position held in trust for pension benefits” in the Statement of Plan Net Position in the Financial Section of this report. The actuarial accrued liability is not disclosed in the basic financial statement but is disclosed in Other Supplementary Information (OSI) to the basic financial statements. The funded status schedule presented in OSI shows the actuarial value of assets, which is based on a five-year smoothed expected rate of return, wherein the excess or shortfall of investment income over or under the actuarial assumed income of 7.65 (for FY15) percent is recognized over a five-year period. This is the value of assets used by the actuary in determining contribution rates for the Systems as disclosed in note five to the basic financial statements.

For funding purposes, the actuarial accrued liability of the Systems is also determined by the actuary. It is a measure of the present value of actuarial accrued liabilities estimated to be payable in the future to current retirees, beneficiaries and employees for service earned to date. The percentage computed by dividing the actuarial value of net assets available for benefits by the actuarial accrued liability is generally referred to as the “funded ratio.” This ratio provides an indication of the funded status of the System on a going-concern basis and generally, the greater this percentage, the stronger the System. The System’s funded ratio increased from 68.67 percent at June 30, 2014 to 69.66 percent at June 30, 2015.



At June 30, 2015, the System's actuarial accrued liability was \$66.2 billion and the unfunded actuarial accrued liability totaled \$20.1 billion, resulting in a funded status ratio of 69.6 percent. The unfunded actuarial accrued liability is being amortized over a closed 25-year period.

### PROFESSIONAL SERVICES

The System contracts for the services of various independent consulting, investment advisory and financial professionals to assist the Board of Trustees in carrying out its fiduciary responsibility to efficiently and effectively manage the System. Actuarial services were provided by Gabriel Roeder Smith & Company and independent financial statement audit services were provided by SB & Company, LLC. The System's asset custody and portfolio accounting services were provided by the State Street Bank & Trust Company under a multi-year, master custody arrangement. Meketa Investment Group, Inc. served as the System's general investment consultant. Specialty consulting services were provided by Altius Associates Limited and Pension Consulting Alliance, Inc. for private equity and real estate, respectively. Albourne America LLC advises staff on the retirement System's Absolute Return portfolio and Barra and Factset provides risk consulting services. A complete listing of the System's professional consultants and external investment advisors is presented on page 11.

### AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Maryland State Retirement and Pension System for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2014. This was the twenty-sixth consecutive year (1989 through 2014) that it has received this prestigious award. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

Additionally, the Maryland State Retirement and Pension System received the Public Pension Coordinating Council's (PPCC) 2015 Recognition Award for Administration, in recognition of meeting professional standards for plan administration as set forth in the Public Pension Standards.

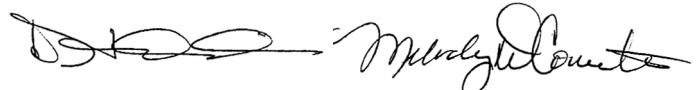
The PPCC is a coalition of associations that represent public pension funds that cover the vast majority of public employees in the U.S., including the National Association of State Retirement Administrators (NASRA), the National Council on Teacher

Retirement (NCTR), and the National Conference on Public Employee Retirement Systems (NCPERS).

The Public Pension Standards are intended to reflect expectations for public retirement Systems management and administration, and serve as a benchmark by which all defined benefit public plans should be measured. The Maryland State Retirement and Pension System is proud to be a recipient of this award.

### ACKNOWLEDGMENTS

This annual report reflects the dedicated efforts of the System's staff under the steady direction of the Board of Trustees. We extend our sincere gratitude to each member of the Board, the System's staff, the Board's advisors and the many people who worked with diligence and dedication throughout fiscal year 2015. Special thanks to the members of the Maryland State Retirement Agency's senior executive team and agency staff of professionals and para-professionals who helped to gather and prepare the information for this report.



R. Dean Kenderdine  
*Executive Director*  
*Secretary to the Board*

Melody Countess, CPA  
*Chief Operating Officer*

BOARD OF TRUSTEES



**NANCY K. KOPP, *Chairman***  
State Treasurer  
Ex Officio since February 14, 2002  
Member, Administrative Committee  
Member, Corporate Governance Committee  
Member, Investment Committee



**PETER FRANCHOT, *Vice Chairman***  
State Comptroller  
Ex Officio since January 22, 2007  
Member, Investment Committee



**DAVID S. BLITZSTEIN**  
April 3, 2008 – July 31, 2016  
Chairman, Corporate Governance Committee  
Member, Investment Committee



**DAVID R. BRINKLEY**  
Ex Officio since January 21, 2015  
Member, Administrative Committee  
Member, Corporate Governance Committee  
Member, Investment Committee



**JAMES A. BUSH, JR.**  
August 1, 2013 - July 31, 2017  
Member, Audit Committee  
Member, Investment Committee



**ROBERT R. HAGANS, JR.**  
November 15, 2011 – Present  
Member, Audit Committee  
Member, Investment Committee



**KENNETH B. HAINES**  
January 1, 2012 – July 31, 2017  
Member, Administrative Committee  
Member, Audit Committee  
Member, Investment Committee



**JAMES M. HARKINS**  
October 1, 2004 - Present  
Chairman, Administrative Committee  
Member, Corporate Governance Committee  
Member, Investment Committee

BOARD OF TRUSTEES



**LINDA A. HERMAN**  
August 1, 2013 - July 31, 2017  
Member, Audit Committee  
Member, Investment Committee



**SHEILA HILL**  
August 1, 2015 – July 31, 2019  
Member, Administrative Committee  
Member, Audit Committee  
Member, Investment Committee



**F. PATRICK HUGHES**  
April 20, 2004 – June 30, 2017  
Chairman, Audit Committee  
Vice Chairman, Investment Committee  
Member, Securities Litigation Committee



**THERESA LOCHTE**  
August 1, 2007 – July 31, 2019  
Vice Chairman, Administrative Committee  
Member, Corporate Governance Committee  
Member, Investment Committee



**RICHARD E. NORMAN**  
August 1, 2014 – July 31, 2018  
Member, Administrative Committee  
Member, Audit Committee  
Member, Investment Committee

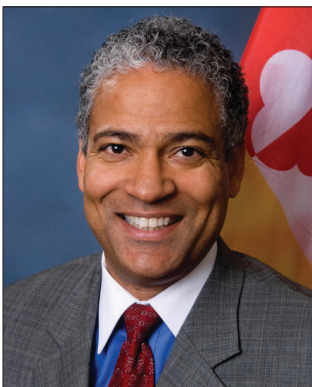


**HAROLD ZIRKIN**  
September 10, 2007 - Present  
Chairman, Investment Committee  
Vice Chairman, Securities Litigation Committee  
Member, Corporate Governance Committee



**THURMAN W. ZOLLIFFER, JR.**  
September 12, 2007 - Present  
Chairman, Securities Litigation Committee  
Vice Chairman, Corporate Governance Committee  
Member, Investment Committee

ADVISORS TO THE INVESTMENT COMMITTEE



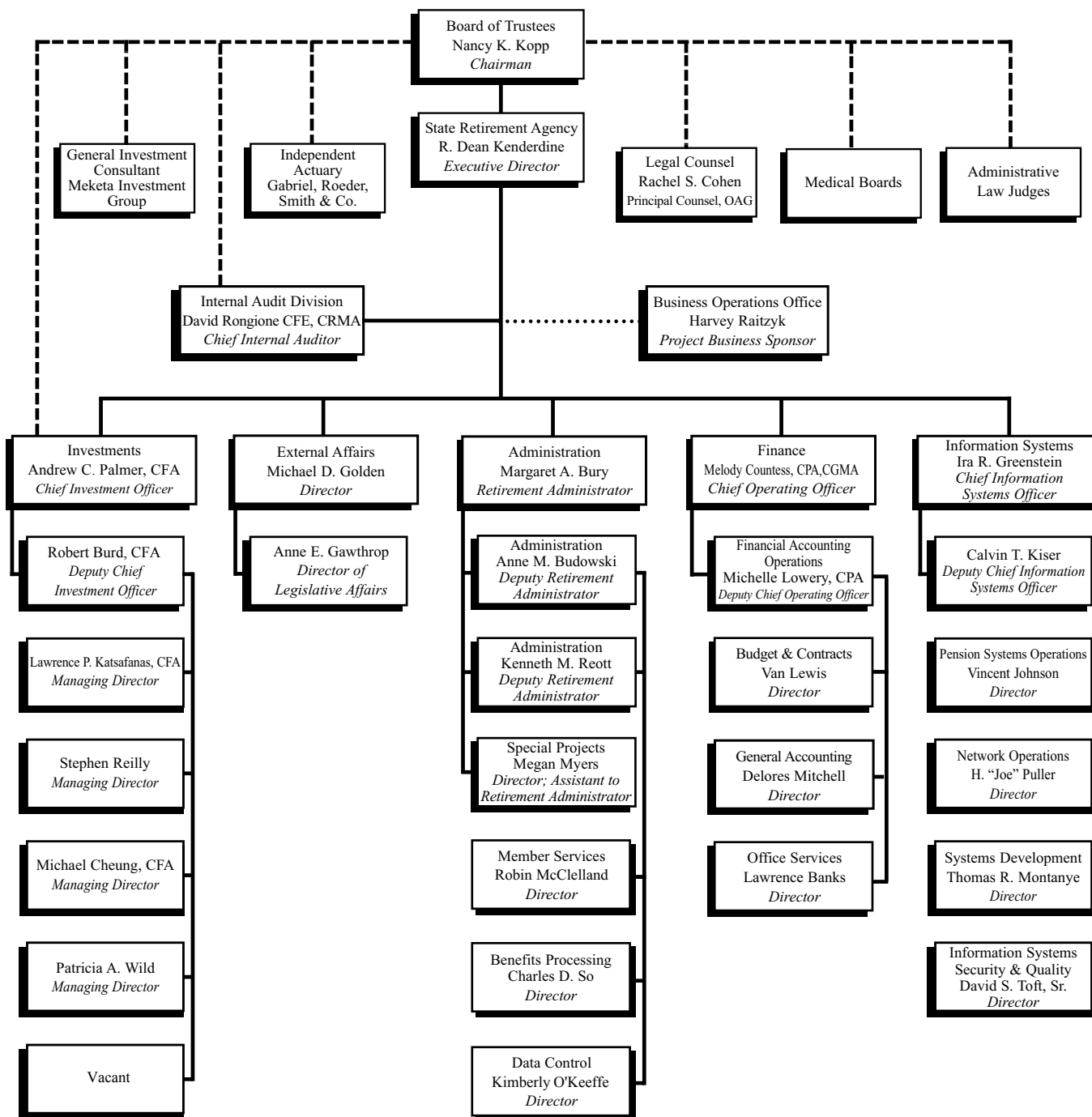
**LARRY E. JENNINGS, JR.**



**STEFAN A. STREIN**



**BRIAN B. TOPPING**



\*Additional information regarding investment professionals who provide services to the System can be found on pages 11, and 69-73.

## PROFESSIONAL SERVICES

### **Global Custodial Bank & Security Lending**

State Street Bank and Trust Company  
Boston, Massachusetts

### **Hearing Officers**

Office of Administrative Hearings  
Baltimore, Maryland

### **Independent Actuary**

Gabriel Roeder Smith & Company  
Southfield, Michigan

### **Independent Public Accountant**

SB & Company, LLC  
Hunt Valley, Maryland

### **Independent Investment Consultants**

Altius Associates Limited  
Richmond, Virginia

Meketa Investment Group, Inc.  
Westwood, Massachusetts

Pension Consulting Alliance  
Encino, California

Albourne America, LLC  
San Francisco, California

### **Medical Board**

Dr. Elizabeth Adegboyega-Panox  
Dr. Eroll L. Bennett  
Dr. Robin A. Conwit  
Dr. Vinu Ganti  
Dr. Arthur Hildreth  
Dr. Bruce Kohn  
Dr. Archana Goel Leon-Guerrero  
Dr. Christian E. Jensen  
Dr. John Parkerson  
Dr. William B. Russell  
D. William Smulyan  
Dr. Zia Zakai

### **Operational Banking Services**

M & T Bank  
Baltimore, Maryland

The Harbor Bank of Maryland  
Baltimore, Maryland



Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Maryland State Retirement  
and Pension System**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2014**

Executive Director/CEO



Public Pension Coordinating Council

***Recognition Award for Administration  
2015***

Presented to

***Maryland State Retirement and Pension System***

In recognition of meeting professional standards for  
plan administration as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle  
Program Administrator



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A large, semi-transparent graphic in the background. It features the letters 'SRPS' in a large, serif font at the top. Below the letters is a stylized, symmetrical design consisting of a central vertical line with circular and rectangular shapes extending outwards, resembling a decorative architectural element or a stylized logo. The entire graphic is centered on the page.

SRPS  
*Financial Section*



## REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Board of Trustees  
Maryland State Retirement and Pension System

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Maryland State Retirement and Pension System (the System), which is a pension trust fund of the State of Maryland, as of and for the years ended June 30, 2015 and 2014, and the related notes to the financial statements, which collectively comprise the System's financial statements as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

The System's 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.

### ***Auditor's Responsibility***

Our responsibility is to express an opinion on the financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits 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 auditor's 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 respective financial position of the System, as of June 30, 2015 and 2014, and the respective changes in plan net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

## Other Matters

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in employers' net pension liability, schedule of employers' net pension liability and related ratios, schedule of employers' contributions and related ratios, schedule of investment returns, and notes to required supplementary information be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audits of the basic 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 audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The introductory, other supplementary information, investment, actuarial, statistical and plan summary sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The schedule of funding progress, schedule of contributions from employers and other contributing entity, fund balance accounts, schedule of fund balances, schedule of administrative expenses, schedule of investment expenses, schedule of plan net position by system, and schedule of changes in plan net position by system are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information as listed in the previous paragraph is the responsibility of management and was derived from, and relates directly to, the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information as listed in the previous paragraph is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial, statistical, and plan summary sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

*SB + Company, LLC*

Hunt Valley, Maryland

November 24, 2015

## MANAGEMENT'S DISCUSSION AND ANALYSIS

To help facilitate a better understanding of the Maryland State Retirement and Pension System's (the System) financial condition as of June 30, 2015, the results of its operations for the fiscal year then ended, and the fiscal policies that govern its significant business operations, management has prepared this narrative analysis. This narrative is intended to supplement the System's audited financial statements and, as such should be read in conjunction with these statements, which are presented beginning on page 24.

### OVERVIEW OF THE FINANCIAL STATEMENTS

As required by accounting principles generally accepted in the United States of America, the System's basic financial statements are comprised of the comparative Statements of Plan Net Position and Statements of Changes in Plan Net Position, along with the related note disclosures. In addition, the System's financial statements include certain required supplementary information (e.g., schedule of changes in employers' net pension liability, schedule of employers' net pension liability, schedule of employers' contributions, and schedule of investment returns) as well as other supplementary schedules considered relevant to the financial statement user (e.g., schedules of fund balances, administrative and investment expenses, plan net position by system, and related changes by system). To better understand the relevance of the information presented in the System's financial statements, related notes, and supplementary information, it is helpful to first consider what purpose each component is intended to serve.

The Statements of Plan Net Position present a comparative, summary-level snapshot, as of a specific point in time (i.e., June 30th – the last day of the System's fiscal year), of the market value of the net position available to pay future pension benefits to retirees and beneficiaries. To assist the reader in understanding the composition of the System's accumulated net position the most significant components (e.g., cash and cash equivalent securities, investments) are separately disclosed. In this regard, cash and cash equivalents represent that portion of the System's assets that, as of the end of the fiscal year, reside in the form of actual cash or short-term, highly liquid, investment securities. This amount gives an indication of the System's liquidity at fiscal year-end. Conversely, the amounts shown as investments represent those funds invested in longer-term securities (e.g., stocks, bonds, real estate) held for the purpose of generating investment income. The sum of these assets, reduced by any liabilities owed by the System as of fiscal year-end, represents the net position held in trust to pay pension benefits.

By contrast, the Statements of Changes in Plan Net Position are intended to show, on a comparative basis, the major categories of income earned (additions to plan net position) and expenses incurred (deductions from plan net position) by the System during the previous fiscal year. As such, the System's net income or loss accounts for the entire change in the net position held in trust to pay pension benefits during the fiscal year as a result of System operations. As with the System's assets and liabilities, significant categories of income and expense, as reported on the Statements of Changes in Plan Net Position, are separately disclosed to help clarify the major sources and uses of the System's resources.

Finally, the note disclosures are provided as an integral component of the basic financial statements to help explain in narrative form some of the more complex or less obvious elements of the statements. Further, the notes to the financial statements provide additional information (e.g., significant accounting policies, various types of investment risk) that is essential for a comprehensive understanding of the System's financial condition and the results of its operations.

The Schedule of Funding Progress, while similar in scope to the Statements of Plan Net Position in that it is primarily focused on reporting on the accumulation of assets, differs from such statements both in its method for valuing such assets and in its approach to explaining their relevance to the liability they are being accumulated to satisfy. In this regard, the Schedule of Funding Progress first takes a long-term, actuarial view toward valuing the System's investment portfolio, as opposed to the market value approach reflected on the Statements of Plan Net Position. Specifically, the System's assets are valued (for funding purposes) using a methodology that distributes investment gains and losses over a five-year period in order to minimize the effects of annual market volatility on employer contribution rates.

The Schedule of Changes in Employers' Net Pension Liability, Schedule of Employers' Net Pension Liability, Schedule of Employers' Contributions, and Schedule of Investment Returns share common characteristics with data disclosed in the basic financial statements. In this regard, both the Statements of Changes in Plan Net Position and the Schedule of Contributions

from Employers and Other Contributing Entity disclose the amount of contributions received from participating employers. However, the Schedule of Employer Contributions differs from the Statements of Changes in Plan Net Position in that the Schedule's primary focus is to disclose the contributions required to be made in accordance with the System's funding policy and the percentage of the required contributions actually made during the fiscal years presented.

Finally, the other supplementary schedules, presented immediately after the required supplementary information, summarize the changes in fund balances, disclose major categories of operating and investment expenses, and provide combining, plan-level detail related to asset, liability, income, and expense amounts summarized in the basic financial statements.

#### **ANALYSIS OF FINANCIAL POSITION AND RESULTS OF OPERATIONS**

The System's overall funding objective is to accumulate sufficient assets over time to meet its long-term benefit obligations as they become due. Accordingly, collecting employer and member contributions as well as earning an adequate long-term rate of return on its investments are essential components of the System's plan for accumulating the funds needed to finance future retirement benefits.

#### **ANALYSIS OF RECENT ACCOUNTING PRONOUNCEMENTS**

In February 2015, the Government Accounting Standards Board (GASB) issued Statement No. 72, *Fair Value Measurement and Application*, (GASB 72) that reflects a change in disclosure of investments by requiring governments to disclose the fair value measurements, level of fair value hierarchy, and valuation techniques used to determine the level in the hierarchy. These disclosures will begin in fiscal year 2016.

**Fiscal Year 2015 compared to 2014**

The following condensed comparative Statement of Plan Net Position for the fiscal years ended June 30, 2015 and 2014, presents an increase in the System's net position of \$449.8 (1.0%). This increase is primarily due to positive net returns in the investment portfolio, led by public equity, private equity, real estate and debt. Additional information on our fiscal year 2015 investment activities can be found in the Investment Section of this report.

A schedule of the System's investments and changes (by type) from fiscal year 2015 to 2014 is as follows (expressed in millions):

	<b>June 30,</b>		<b>Change</b>	
	<b>2015</b>	<b>2014</b>	<b>Variance</b>	<b>%</b>
Cash & cash equivalents	\$ 1,134.3	\$ 2,054.2	\$ (919.9)	-44.8%
U.S. Government obligations	4,521.5	3,422.8	1,098.7	32.1%
Domestic corporate obligations	3,688.1	3,803.3	(115.2)	-3.0%
International obligations	910.9	1,870.1	(959.2)	-51.3%
Domestic stocks	8,471.7	8,344.4	127.3	1.5%
International stocks	7,816.1	8,057.3	(241.2)	-3.0%
Mortgages & mortgage related securities	1,895.9	1,926.7	(30.8)	-1.6%
Alternative investments	17,633.3	16,358.8	1,274.5	7.8%
<b>Total managed investments</b>	<b>46,071.8</b>	<b>45,837.6</b>	<b>234.2</b>	<b>0.5%</b>
Collateral for loaned securities	1,343.5	2,490.9	(1,147.4)	-46.1%
<b>Total investments and cash &amp; cash equivalents</b>	<b>47,415.3</b>	<b>48,328.5</b>	<b>(913.2)</b>	<b>-1.9%</b>
Receivables	1,075.1	848.8	226.3	26.7%
<b>Total Assets</b>	<b>48,490.4</b>	<b>49,177.3</b>	<b>(686.9)</b>	<b>-1.4%</b>
Liabilities	2,700.6	3,837.3	(1,136.7)	-29.6%
<b>Total Net Position, End of Year</b>	<b>\$ 45,789.8</b>	<b>\$ 45,340.0</b>	<b>\$ 449.8</b>	<b>1.0%</b>

As depicted in the following comparative Statement of Changes in Plan Net Position for fiscal years 2015 and 2014, contributions to the System during fiscal year 2015 increased slightly as a result of an increase in covered payroll and the State's reinvestment contribution of savings as a result of the pension reform legislation passed during the 2011 General Assembly session. The System's investments experienced a positive weighted average investment return of 2.59%, recognizing \$1,197.7 million in net investment income.

The System continues to pay out more benefits than contributions collected. An increase of \$162.8 in benefits paid to retirees correlates to the increase in the number of retirees and beneficiaries experienced in fiscal year 2015. This increase offset against \$1,197.7 million of fiscal year 2015 investment returns resulted in a net change in pension net position of \$449.8.

A schedule of the System's additions to and deductions from plan net position and related changes (by major category) from fiscal year 2015 to 2014, is as follows (expressed in millions):

	June 30,		Change	
	2015	2014	Variance	%
Employer contributions	\$ 1,127.9	\$ 1,016.6	\$ 111.3	10.9%
Member contributions	755.4	727.7	27.7	3.8%
State contributions on behalf of local governments & contribution interest	730.7	717.0	13.7	1.9%
Net investment income	1,197.7	5,706.3	(4,508.6)	-79.0%
<b>Total additions</b>	<b>3,811.7</b>	<b>8,167.6</b>	<b>(4,355.9)</b>	<b>-53.3%</b>
Benefit payments	3,284.6	3,121.8	162.8	5.2%
Refunds	48.2	42.9	5.3	12.4%
Administrative expenses	29.1	26.1	3.0	11.5%
<b>Total deductions</b>	<b>3,361.9</b>	<b>3,190.8</b>	<b>171.1</b>	<b>5.4%</b>
<b>Net increase in plan net position</b>	<b>\$ 449.8</b>	<b>\$ 4,976.8</b>	<b>\$ (4,527.0)</b>	<b>-91.0%</b>

Analysis of Net Pension Liability (expressed in millions)

	June 30,		Change	
	2015	2014	Variance	%
Total Pension Liability	\$ 66,571.6	\$ 63,086.7	\$ 3,484.9	5.5%
Plan Fiduciary Net Position	45,789.8	45,340.0	449.8	1.0%
Net Pension Liability	<u>\$ 20,781.8</u>	<u>\$ 17,746.7</u>	<u>\$ 3,035.1</u>	17.1%
Ratio - Fiduciary Net Position/TPL	<u>68.8%</u>	<u>71.9%</u>		

During the year the net pension liability increased by \$3,035.1 million. This was mainly due to decrease in net investment income of \$4,508.6 million, combined with a growth in expenses of \$171.1 million.

### Fiscal Year 2014 compared to 2013

The following condensed comparative Statement of Plan Net Position for the fiscal years ended June 30, 2014 and 2013, presents an increase in the System's net position of \$4.98 billion (12.3%). This increase is primarily due to positive net returns in the investment portfolio, led by public equity, private equity, real estate and debt. Additional information on our fiscal year 2014 investment activities can be found in the Investment Section of this report.

A schedule of the System's investments and changes (by type) from fiscal year 2013 to 2014 follows (expressed in millions):

	June 30,		Change	
	2014	2013	Variance	%
Cash & cash equivalents	\$ 2,054.2	\$ 2,085.1	\$ (30.9)	-1.5%
U.S. Government obligations	3,422.8	3,556.6	(133.8)	-3.8%
Domestic corporate obligations	3,803.3	2,771.8	1,031.5	37.2%
International obligations	1,870.1	1,603.7	266.4	16.6%
Domestic stocks	8,344.4	8,255.4	89.0	1.1%
International stocks	8,057.3	7,827.1	230.2	2.9%
Mortgages & mortgage related securities	1,926.7	2,079.5	(152.8)	-7.3%
Alternative investments	16,358.8	12,227.2	4,131.6	33.8%
<b>Total managed investments</b>	<b>45,837.6</b>	<b>40,406.4</b>	<b>5,431.2</b>	<b>13.4%</b>
Collateral for loaned securities	2,490.9	2,876.4	(385.5)	-13.4%
<b>Total investments and cash &amp; cash equivalents</b>	<b>48,328.5</b>	<b>43,282.8</b>	<b>5,045.7</b>	<b>11.7%</b>
Receivables	848.8	1,455.2	(606.4)	-41.7%
<b>Total Assets</b>	<b>49,177.3</b>	<b>44,738.0</b>	<b>4,439.3</b>	<b>9.9%</b>
Liabilities	3,837.3	4,374.8	(537.5)	-12.3%
<b>Total Net Position, End of Year</b>	<b>\$ 45,340.0</b>	<b>\$ 40,363.2</b>	<b>\$ 4,976.8</b>	

The System continues to pay out more benefits than contributions collected. An increase of \$171.1 million in benefits paid to retirees correlates to the increase in the number of retirees and beneficiaries experienced in fiscal year 2014. This increase offset against \$5,706.3 million of fiscal year 2014 investment returns resulted in a net change in pension net position of \$4,976.8 million.

As depicted in the following comparative Statement of Changes in Plan Net Position for fiscal years 2014 and 2013, contributions to the System during fiscal year 2014 increased slightly as a result of an increase in covered payroll and the State's reinvestment contribution of savings as a result of the pension reform legislation passed during the 2011 General Assembly session. The System's investments experienced a positive weighted average investment return of 14.38%, recognizing \$5,706.3 million in net investment income.



A schedule of the System's additions to and deductions from plan net position and related changes (by major category) from fiscal year 2013 to 2014, is as follows (expressed in millions):

	June 30,		Change	
	2014	2013	Variance	%
Employer contributions	\$ 1,016.6	\$ 959.6	\$ 57.0	5.9%
Member contributions	727.7	710.9	16.8	2.4%
State contributions on behalf of local governments & contribution interest	717.0	683.5	33.5	4.9%
Net investment income	5,706.3	3,845.8	1,860.5	48.4%
<b>Total additions</b>	<u>8,167.6</u>	<u>6,199.8</u>	<u>1,967.8</u>	31.7%
Benefit payments	3,121.8	2,950.7	171.1	5.8%
Refunds	42.9	38.3	4.6	12.0%
Administrative expenses	26.1	26.3	(0.2)	-0.8%
<b>Total deductions</b>	<u>3,190.8</u>	<u>3,015.3</u>	<u>175.5</u>	5.8%
<b>Net increase in plan net position</b>	<u>\$ 4,976.8</u>	<u>\$ 3,184.5</u>	<u>\$ 1,792.3</u>	56.3%

**Analysis of Net Pension Liability (expressed in millions)**

	June 30,		Change	
	2014	2013	Variance	%
Total Pension Liability	\$ 63,086.7	\$ 60,060.1	\$ 3,026.6	5.0%
Plan Fiduciary Net Position	45,340.0	40,363.2	4,976.8	12.3%
Net Pension Liability	<u>\$ 17,746.7</u>	<u>\$ 19,696.9</u>	<u>\$ (1,950.2)</u>	-9.9%
Ratio - Fiduciary Net Position/TPL	<u>71.9%</u>	<u>67.2%</u>		

During the year the net pension liability decreased by \$1,950.2 million. This was mainly due to investment income of \$1,860.5 million, which outpaced the growth in expenses of \$175.5 million.

**Requests for Information**

Members of the System's Board of Trustees and senior management are fiduciaries of the pension trust fund and, as such, are charged with the responsibility of ensuring that the System's assets are used exclusively for the benefit of plan participants and their beneficiaries. This financial report is designed to provide an overview of the System's finances and to demonstrate accountability for the resources entrusted to the System for the benefit of all of the System's stakeholders. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

State Retirement and Pension System of Maryland  
 Attn: Melody Countess  
 120 E. Baltimore Street, Suite 1660  
 Baltimore, Maryland 21202-1600

## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### STATEMENTS OF PLAN NET POSITION

**As of June 30, 2015 and 2014**

*(Expressed in Thousands)*

	<b>2015</b>	<b>2014</b>
<b>Assets:</b>		
Cash & Cash Equivalents (note 3)	<u>\$ 1,134,336</u>	<u>\$ 2,054,181</u>
Receivables		
Contributions:		
Employers	35,612	19,971
Employers – long term (Note 5)	31,254	34,806
Members	11,526	11,003
Accrued investment income	212,114	57,800
Investment sales proceeds	784,555	725,188
Total receivables	<u>1,075,061</u>	<u>848,768</u>
<b>Investments, at fair value</b> (Notes 2 & 3)		
U.S. Government obligations	4,521,543	3,422,824
Domestic corporate obligations	3,688,098	3,803,260
International obligations	910,924	1,870,144
Domestic stocks	8,471,692	8,344,356
International stocks	7,816,127	8,057,309
Mortgages & mortgage related securities	1,895,887	1,926,733
Alternative investments	17,633,283	16,358,754
Collateral for loaned securities	1,343,489	2,490,916
Total investments	<u>46,281,043</u>	<u>46,274,296</u>
<b>Total Assets</b>	<u>48,490,440</u>	<u>49,177,245</u>
<b>Liabilities:</b>		
Accounts payable & accrued expenses (Note 8)	61,272	60,964
Investment commitments payable	1,295,839	1,285,377
Obligation for collateral for loaned securities	1,343,489	2,490,916
<b>Total Liabilities</b>	<u>2,700,600</u>	<u>3,837,257</u>
<b>Net position held in trust for pension benefits</b>	<u>\$ 45,789,840</u>	<u>\$ 45,339,988</u>

*The accompanying notes are an integral part of these financial statements.*

**MARYLAND STATE RETIREMENT AND PENSION SYSTEM**

STATEMENTS OF CHANGES IN PLAN NET POSITION

**for the Fiscal Years Ended June 30, 2015 and 2014**

(Expressed in Thousands)

	<b>2015</b>	<b>2014</b>
<b>ADDITIONS:</b>		
Contributions:		
Employers	\$ 1,127,888	\$ 1,016,653
Members	755,444	727,726
State contributions on behalf of local governments	728,931	714,974
Contribution interest	<u>1,793</u>	<u>2,026</u>
<b>Total contributions</b>	<u>2,614,056</u>	<u>2,461,379</u>
Investment Income:		
Net (depreciation) appreciation in fair value of investments	(126,669)	4,185,982
Interest	242,611	581,186
Dividends	<u>1,420,987</u>	<u>1,259,615</u>
<b>Income before securities lending activity</b>	<u>1,536,929</u>	<u>6,026,783</u>
Gross income from securities lending activity	9,656	10,945
Securities lending borrower rebates	(390)	(174)
Securities lending agent fees	<u>(1,444)</u>	<u>(1,688)</u>
Net income from securities lending activity	<u>7,822</u>	<u>9,083</u>
Total investment income	1,544,751	6,035,866
Investment expenses	<u>(347,080)</u>	<u>(329,599)</u>
Net investment income	<u>1,197,671</u>	<u>5,706,267</u>
<b>TOTAL ADDITIONS</b>	<u>3,811,727</u>	<u>8,167,646</u>
<b>DEDUCTIONS:</b>		
Benefit payments	3,284,550	3,121,823
Refunds	48,245	42,922
Administrative expenses	<u>29,080</u>	<u>26,130</u>
<b>TOTAL DEDUCTIONS</b>	<u>3,361,875</u>	<u>3,190,875</u>
<b>Net increase in plan position</b>	449,852	4,976,771
<b>NET POSITION HELD IN TRUST FOR PENSION BENEFITS</b>		
Beginning of the fiscal year	<u>45,339,988</u>	<u>40,363,217</u>
<b>END OF THE FISCAL YEAR</b>	<u>\$ 45,789,840</u>	<u>\$ 45,339,988</u>

The accompanying notes are an integral part of these financial statements.

## NOTES TO THE FINANCIAL STATEMENTS

### 1. GENERAL DESCRIPTION OF THE SYSTEM

#### A. Organization

The State Retirement Agency (the “Agency”) is the administrator of the Maryland State Retirement and Pension System (the “System”). The System was established by the State Personnel and Pensions Article of the Annotated Code of Maryland to provide retirement allowances and other benefits to State employees, teachers, police, judges, legislators, and employees of participating governmental units. Responsibility for the System’s administration and operation is vested in a 15-member Board of Trustees. The System is made up of two cost-sharing employer pools: the “State Pool” and the “Municipal Pool”. The “State Pool” consists of the State agencies, boards of education, community colleges, and libraries. The “Municipal Pool” consists of the participating governmental units that elected to join the System. Neither pool shares in each other’s actuarial liabilities, thus participating governmental units that elect to join the System (the “Municipal Pool”) share in the liabilities of the Municipal Pool only.

The State of Maryland is the statutory guarantor for the payment of all pensions, annuities, retirement allowances, refunds, reserves, and other benefits of the System. The State is obligated to annually pay into the accumulation fund of each State system at least an amount that, when combined with the System’s accumulation funds, is sufficient to provide benefits payable under each plan during that fiscal year. The System is accounted for as one defined benefit plan as defined in Governmental Accounting Standards Board (GASB) Statement No. 67 “Financial Reporting for Pension Plans.” Additionally, the System is fiscally dependent on the State by virtue of the legislative and executive controls exercised with respect to its operations, policies, and administrative budget. Accordingly, the System is included in the State’s reporting entity and disclosed in its financial statements as a pension trust fund.

The System is comprised of the Teachers’ Retirement and Pension Systems, Employees’ Retirement and Pension Systems, State Police Retirement System, Judges’ Retirement System, and the Law Enforcement Officers’ Pension System.

#### B. Covered Members

The Teachers’ Retirement System was established on August 1, 1927, to provide retirement allowances and other benefits to teachers in the State. Effective January 1, 1980, the Teachers’ Retirement System was closed to new members and the Teachers’ Pension System was established. As a result, teachers hired after December 31, 1979, became members of the Teachers’ Pension System as a condition of employment. On or after January 1, 2005, an individual who is a member of the Teachers’ Retirement System may not transfer membership to the Teachers’ Pension System.

On October 1, 1941, the Employees’ Retirement System was established to provide retirement allowances and other benefits to State employees, elected and appointed officials, and the employees of participating governmental units. Effective January 1, 1980, the Employees’ Retirement System was essentially closed to new members and the Employees’ Pension System was established. As a result, State employees (other than correctional officers) and employees of participating governmental units hired after December 31, 1979, became members of the Employees’ Pension System as a condition of employment, while all State correctional officers and members of the Maryland General Assembly continue to be enrolled as members of the Employees’ Retirement System. On or after January 1, 2005, an individual who is a member of the Employees’ Retirement System may not transfer membership to the Employees’ Pension System. Currently, more than 150 governmental units participate in the Employees’ Retirement System.

The State Police Retirement System was established on July 1, 1949, to provide retirement allowances and other benefits to any police employee or cadet of the Maryland State Police.

The Judges’ Retirement System was established on June 30, 1969, to provide retirement allowances and other benefits for State and local, appointed, or elected judges.

The Law Enforcement Officers’ Pension System (LEOPS) was established on July 2, 1990, to provide retirement allowances and other benefits for certain State and local law enforcement officers. This System includes both retirement plan and pension plan provisions which are applicable to separate portions of this System’s membership. The retirement plan provisions are only applicable to those members who, on the date they elected to participate in LEOPS, were members of the Employees’ Retirement System. This System’s pension plan provisions are applicable to all other participating law enforcement officers.

The following tables present a summary of membership by system as of June 30, 2015 and 2014, with comparative prior year totals:

	Inactive & Deferred Vested	Retirees & Beneficiaries	Active Plan Participants		
			Vested	Non-vested	Total
Teachers' Retirement & Pension Systems	24,541	71,176	80,693	24,833	105,526
Employees' Retirement & Pension Systems*	27,846	72,058	60,791	23,094	83,885
Judges' Retirement System	8	397	243	64	307
State Police Retirement System	81	2,508	988	406	1,394
Law Enforcement Officers' Pension System	293	1,711	1,840	648	2,488
<b>Total as of June 30, 2015</b>	<b>52,769</b>	<b>147,850</b>	<b>144,555</b>	<b>49,045</b>	<b>193,600</b>
Total as of June 30, 2014	52,133	142,887	147,418	46,104	193,522

\*Employees Retirement and Pension System includes 65 vested and 26 non-vested active members, and 27 retired members from the Correctional Officers Retirement System.

	Inactive & Deferred Vested	Retirees & Beneficiaries	Active Plan Participants		
			Vested	Non-vested	Total
Teachers' Retirement & Pension Systems	24,220	68,929	81,595	22,875	104,470
Employees' Retirement & Pension Systems*	27,540	69,482	62,739	22,177	84,916
Judges' Retirement System	8	395	254	47	301
State Police Retirement System	82	2,468	998	353	1,351
Law Enforcement Officers' Pension System	283	1,613	1,832	652	2,484
<b>Total as of June 30, 2014</b>	<b>52,133</b>	<b>142,887</b>	<b>147,418</b>	<b>46,104</b>	<b>193,522</b>
Total as of June 30, 2013	51,552	137,925	150,001	42,809	192,810

\*Employees Retirement and Pension System includes 50 vested and 41 non-vested active members, 23 retired members, and 2 deferred vested members from the Correctional Officers Retirement System.

### C. Summary of Significant Plan Provisions

All plan benefits are specified by the State Personnel and Pensions Article of the Annotated Code of Maryland. For all individuals who are members of the Employees', Teachers', Correctional Officers', or State Police Retirement System on or before June 30, 2011, retirement allowances are computed using both the highest three years' Average Final Compensation (AFC) and the actual number of years of accumulated creditable service. For individuals who become members of the State Police Retirement System or the Correctional Officers' Retirement System on or after July 1, 2011, retirement allowances are computed using both the highest five years' AFC and the actual number of years of accumulated creditable service. For all individuals who are members of the pension systems of the State Retirement and Pension System on or before June 30, 2011, pension allowances are computed using both the highest three consecutive years' AFC and the actual number of years of accumulated creditable service. For any individual who becomes a member of one of the pension systems on or after July 1, 2011, pension allowances are computed using both the highest five consecutive years' AFC and the actual number of years of accumulated creditable service. Various retirement options are available under each system which ultimately determines how a retiree's benefit allowance will be computed. Some of these options require actuarial reductions based on the retiree's and/or designated beneficiary's attained age and similar actuarial factors.

Beginning July 1, 2011, the member contribution rate was increased for members of the Teachers' Pension System and Employees' Pension System from 5% to 7%, and from 4% to 6% respectively, in fiscal year 2013 and 7% in fiscal year 2014 and beyond for members of the Law Enforcement Officers' Pension System. Beginning July 1, 2013, the member contribution rate was increased for members of the Judges' Retirement System from 6% to 8%.

In addition, the benefit attributable to service on or after July 1, 2011 in many of the pension systems now will be subject to different cost-of-living adjustments (COLA) that is based on the increase in the Consumer Price Index (CPI) and capped at 2.5% or 1.0% based on whether the market value investment return for the preceding calendar year was higher or lower than the investment return assumption used in the valuation (currently 7.55%).

A brief summary of the retirement eligibility requirements of and the benefits available under the various systems in effect during fiscal year 2015, are as follows:

### Service Retirement Allowances

A member of either the Teachers' or Employees' Retirement System is generally eligible for full retirement benefits upon the earlier of attaining age 60 or accumulating 30 years of creditable service regardless of age. The annual retirement allowance equals  $1/55$  (1.81%) of the member's AFC multiplied by the number of years of accumulated creditable service.

An individual who is a member of either the Teachers' or Employees' Pension System on or before June 30, 2011, is eligible for full retirement benefits upon the earlier of attaining age 62, with specified years of eligibility service, or accumulating 30 years of eligibility service regardless of age. An individual who becomes a member of either the Teachers' or Employees' Pension System on or after July 1, 2011, is eligible for full retirement benefits if the member's combined age and eligibility service equals at least 90 years or if the member is at least age 65 and has accrued at least 10 years of eligibility service.

For most individuals who retired from either the Teachers' or Employees' Pension System on or before June 30, 2006, the annual pension allowance equals 1.2% of the member's AFC, multiplied by the number of years of creditable service accumulated prior to July 1, 1998, plus 1.4% of the member's AFC, multiplied by the number of years of creditable service accumulated subsequent to June 30, 1998. With certain exceptions, for individuals who are members of the Teachers' or Employees' Pension System on or after July 1, 2006, the annual pension allowance equals 1.2% of the member's AFC, multiplied by the number of years of creditable service accumulated prior to July 1, 1998, plus 1.8% of the member's AFC, multiplied by the number of years of creditable service accumulated subsequent to June 30, 1998. Beginning July 1, 2011, any new member of the Teachers' or Employees' Pension System shall earn an annual pension allowance equal to 1.5% of the member's AFC multiplied by the number of years of creditable service accumulated as a member of the Teachers' or Employees' Pension System.

Exceptions to these benefit formulas apply to members of the Employees' Pension System, who are employed by a participating governmental unit that does not provide the 1998 or 2006 enhanced pension benefits or the 2011 reformed pension benefits. The pension allowance for these members equals 0.8% of the member's AFC up to the social security integration level (SSIL), plus 1.5% of the member's AFC in excess of the SSIL, multiplied by the number of years of accumulated creditable service. For the purpose of computing pension allowances, the SSIL is the average of the social security wage bases for the past 35 calendar years ending with the year the retiree separated from service.

An individual who is a member of the State Police Retirement System on or before June 30, 2011, is eligible for full retirement benefits upon the earlier of attaining age 50 or accumulating 22 years of eligibility service regardless of age. An individual who becomes a member of the State Police Retirement System on or after July 1, 2011 is eligible for full retirement benefits upon the earlier of attaining age 50 or accumulating 25 years of eligibility service regardless of age. The annual retirement allowance equals 2.55% of the member's AFC multiplied by the number of years of accumulated creditable service and may not exceed 71.4% of the member's AFC.

A member of the Judges' Retirement System is eligible for full retirement benefits upon attaining age 60. The annual retirement allowance for a member with at least 16 years of accumulated creditable service equals  $2/3$  (66.7%) of the salary of an active judge holding a comparable position. The annual retirement allowance is prorated if the member retires with fewer than 16 years of accumulated creditable service.

A member of the Law Enforcement Officers' Pension System is eligible for full retirement benefits upon the earlier of attaining age 50 or accumulating 25 years of eligibility service regardless of age. The annual retirement allowance for a member who is covered under the retirement plan provisions equals  $1/50$  (2.0%) of the member's AFC multiplied by the number of years of accumulated creditable service up to 30 years, plus  $1/100$  (1.0%) of the member's AFC multiplied by the number of years of accumulated creditable service in excess of 30 years. For members subject to the pension provisions, full service pension allowances equal 2.0% of AFC up to a maximum benefit of 60% (30 years of credit).

### Vested Allowances

Any individual who is a member of the State Retirement and Pension System on or before June 30, 2011 (other than a judge or a legislator), and who terminates employment before attaining retirement age but after accumulating five years of eligibility service is eligible for a vested retirement allowance. Any individual who joins the State Retirement and Pension System on or after July 1, 2011 (other than a judge or a legislator), and who terminates employment before attaining retirement age but after accumulating 10 years of eligibility service is eligible for a vested retirement allowance. An individual who is a member of the Judges' Retirement System on or before June 30, 2013, has no minimum service requirements prior to vesting. However, individuals who join the Judges' Retirement System on or after July 1, 2013, and terminate employment before attaining retirement age will have to accrue five years of eligibility service in order to receive a vested retirement allowance. Legislators become eligible for a vested retirement allowance upon accumulating eight years of eligibility services. A member, who terminates employment prior to attaining retirement age and before vesting, receives a refund of all member contributions and interest.

### **Early Service Retirement**

A member of either the Teachers' or Employees' Retirement System may retire with reduced benefits after completing 25 years of eligibility service. Benefits are reduced by 0.5% per month for each month remaining until the retiree either attains age 60 or would have accumulated 30 years of creditable service, whichever is less. The maximum reduction for a Teachers' or Employees' Retirement System member is 30%.

An individual who is a member of either the Teachers' or Employees' Pension System on or before June 30, 2011, may retire with reduced benefits upon attaining age 55 with at least 15 years of eligibility service. Benefits are reduced by 0.5% per month for each month remaining until the retiree attains age 62. The maximum reduction for these members of the Teachers' or Employees' Pension System is 42%. An individual who becomes a member of either the Teachers' or Employees' Pension System on or after July 1, 2011, may retire with reduced benefits upon attaining age 60 with at least 15 years of eligibility service. Benefits are reduced by 0.5% per month for each month remaining until the retiree attains age 65. The maximum reduction for these members of the Teachers' or Employees' Pension System is 30%.

Members of the State Police, Judges', Law Enforcement Officers' and Local Fire and Police Systems are not eligible for early service benefits.

### **Disability and Death Benefits**

Generally, a member covered under retirement plan provisions who is permanently disabled after five years of service receives a service allowance based on a minimum percentage (usually 25%) of the member's AFC. A member covered under pension plan provisions who is permanently disabled after accumulating five years of eligibility service receives a service allowance computed as if service had continued with no change in salary until the retiree attained age 62. A member (other than a member of the Maryland General Assembly or a judge, both of which are ineligible for accidental disability benefits) who is permanently and totally disabled as the result of an accident occurring in the line of duty receives  $\frac{2}{3}$  (66.7%) of the member's AFC plus an annuity based on all member contributions and interest. Death benefits are equal to a member's annual salary as of the date of death plus all member contributions and interest.

### **Adjusted Retirement Allowances**

Retirement and pension allowances are increased annually to provide for changes in the cost of living according to prescribed formulae. Such adjustments for retirees are based on the annual change in the CPI. For the Teachers' and Employees' Retirement Systems (TRS/ERS) the method by which the annual COLA's are computed depends upon elections made by members who were active on July 1, 1984 (or within 90 days of returning to service, for members who were inactive on July 1, 1984) enabling the member to receive either an unlimited COLA, a COLA limited to 5% or a two part combination COLA depending upon the COLA election made by the member.

For State Police and Correctional Officers' Retirement System retirees, prior to July 1, 2011, unlimited compounded COLAs are effective July 1 and are applied to all benefits which have been in payment for one year. With certain exceptions, effective July 1, 1998, for Teachers', Employees', and Law Enforcement Officers' Pension System retirees, the adjustment is capped at a maximum 3% compounded and is applied to all benefits which have been in payment for one year. The annual increases to pension allowances for Employees' Pension System retirees who were employed by a participating governmental unit that does not provide enhanced pension benefits are limited to 3% of the initial allowance.

However, beginning July 1, 2011, for benefits attributable to service earned on or after July 1, 2011, in all of the systems except the judges' and legislators' systems, the adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate. The adjustment is capped at the lesser of 1% or the increase in CPI if the market value return was less than the assumed rate of return. In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

Retirement allowances for legislators and judges are recalculated when the salary of an active member holding a comparable position is increased.

## **2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

### **A. Basis of Accounting**

The System's financial statements are prepared on the accrual basis of accounting principles generally accepted in the United States of America. Accordingly, investment purchases and sales are recorded as of their respective trade dates.

Employer and Member contributions are recognized in the period when due, pursuant to statutory or contractual requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

## **B. Investment Limitations**

The State Personnel and Pensions Article of the Annotated Code of Maryland authorizes the System to invest plan assets in stocks, bonds, notes, certificates of indebtedness, mortgage notes, real estate, debentures or other obligations, subject to the terms, conditions, limitations and restrictions imposed by the Board of Trustees of the State Retirement and Pension System of Maryland.

## **C. Portfolio Valuation Method**

The System's investments are reported at fair value. For fixed income securities, fair value is based on quoted market prices provided by independent pricing services. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgages and mortgage related securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. Fair value for alternative investments and mutual funds (other than those funds traded on a national or international exchange) is based on information provided by the applicable fund managers (generally the most recent independently audited financial statements adjusted for cash flows). Alternative investments generally value their funds in accordance with Generally Accepted Accounting Principles using a hierarchy process whereby level 1 represents price available from active markets, level 2 relies on observation, models or other valuation methodologies and level 3 is based on management judgement and estimations. Investment amounts presented in the accompanying Statements of Plan Net Position represent the fair value of the respective portfolios as of the fiscal year-end. Similarly, investment income amounts reported in the accompanying Statements of Changes in Plan Net Position represent the income or loss derived for the year then ended. Accordingly, significant market fluctuations could periodically occur subsequent to the financial statement valuation date, which are not reflected in either the fair value of investments or the related investment income presented in these financial statements.

## **D. Derivatives**

As permitted by guidelines established by the Board of Trustees the System may invest in derivatives. Compliance with these guidelines is monitored by Agency staff. Pursuant to such authority, the System invests in foreign currency forward contracts, options, futures, and swaps. The Agency does not purchase rights and warrants; however, can accrue ownership through corporate actions. No derivatives were purchased with borrowed funds.

Derivatives are generally used to hedge against foreign currency risk and changes in interest rates, improve yield, and adjust the duration of the System's fixed income portfolio. These securities are subject to changes in value due to changes in currency valuations or interest rates. Credit risk for derivatives results from the same considerations as other counterparty risk assumed by the System, which is the risk that the counterparty might be unable to meet its obligations.

The System enters into forward foreign currency exchange contracts for hedging purposes to minimize the short-term impact of foreign currency fluctuations. Foreign currency exchange contracts are reported at fair value based on published market prices and quotations from major investment firms. The System could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. The System seeks to minimize risk from counterparties by establishing minimum credit quality standards.

## **E. Administrative and Investment Expenses**

All of the System's administrative and investment expenses (e.g., salaries of Agency employees, investment advisory fees) are incurred centrally and charged to each individual retirement or pension system on the basis of its active membership and percentage ownership in the System's net position, respectively. The System's investment expenses are funded from investment income. The System's administrative expenses are funded from administrative fees assessed to each participating employer. See pages 52 and 53 for detailed Schedules of Administrative and Investment Expenses, respectively.

## **F. Federal Income Tax Status**

During the fiscal years ended June 30, 2015 and 2014, the System qualifies under Section 401(a) of the Internal Revenue Code (the Code) and was exempt from Federal income taxes under Section 501(a) of the Code.



## 3. CASH, CASH EQUIVALENTS, AND INVESTMENTS

**A. Legal Provisions**

The Board of Trustees is required by Section 21-116 (c), State Personnel and Pensions Article, Annotated Code of Maryland (SPP), to establish and maintain an Investment Policy Manual (IPM), which is available on the Agency's web site. The IPM authorizes investing in all major sectors of the capital market in order to diversify and minimize total investment program risk. Such sectors include, but are not limited to:

Type	Description	As of June 30, 2015	
		Strategic Target	Actual
<b>Public Equity</b>	Investments in securities, known as shares or stocks, that represent an ownership interest in corporations and are generally traded on a stock exchange.	35.0%	37.6%
<b>Fixed Income</b>	Investments in securities, known as bonds, that represent an ownership interest in the debt of governments and corporations that are generally not traded on an exchange. They generally pay interest on a regular schedule and repay principal or face value at maturity.	10.0%	12.9%
<b>Credit/Debt Related Strategies</b>	Debt issued by corporations and other non-government sectors of the fixed income market such as distressed debt, convertibles, corporate and mortgage related credit strategies, mezzanine debt, bank loans, high yield, emerging markets and preferred securities.	10.0%	9.7%
<b>Alternative Investment:</b> Absolute Return	Investments whose performance is expected to deliver absolute returns in any market conditions. The System's program may include strategies such as hedge fund of funds, multi-strategy, global tactical asset allocation, event driven, relative value, macro, insurance and equity hedged.	10.0%	10.7%
Private Equity	Investments in companies that are not registered with the SEC and are not traded in the public markets. Private equity may also be referred to as venture capital or buy-outs.	10.0%	8.0%
Real Estate	Investment in real property including office buildings, shopping centers, industrial property, warehouses, and apartments. Investment vehicles may include direct investments, REITS, and private partnerships.	10.0%	7.4%
Real Return	Investments whose performance is expected to exceed the rate of inflation over an economic cycle. The System's Real Return program may include the following investment vehicles in both public and private investments: treasury inflation protected, global inflation linked bonds, commodities, energy related, infrastructure, timber and other natural resources, and multi-asset class portfolios with a real return mandate.	14.0%	13.2%
<b>Cash Portfolio</b>	Short term investments such as money market funds, U.S. treasury bills and currency.	1.0%	0.5%

The above listed strategic targets have been in effect since July 1, 2013. All asset classes are within the approved target ranges, which have been identified within the Chief Financial Officer's Report in the Investment Section of this report. The System is also authorized by its Board of Trustees to operate a securities lending program, and has contracted with its custodian bank to reinvest cash collateral received from the transfer of securities investment instruments authorized by the investment policy. The System's Board of Trustees has established a policy that determines collateralization percentages necessary for both foreign and domestic demand deposits. The policy requires collateral equal to 105% for international equity securities and 102% for all other securities, which is marked to market daily. See section G for additional information.

## B. Cash and Cash Equivalents

For cash deposits and cash equivalents, custodial credit risk is the risk that, in the event of a bank failure, the System's deposits may not be returned to it.

The System does not have any funds or deposits that are not covered by depository insurance, that are uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution's trust department or agent, but not in the System's name and there are no legal or contractual provisions for deposits and investments. Nor does the System have any investments that are not registered in its name and are either held by the counterparty or the counterparty's trust department or agent, but not in the System's name.

The amount of the System's total cash and cash equivalents as of June 30, 2015 and June 30, 2014, was \$1,134,336 and \$2,054,181 (in thousands), respectively.

## C. Investments

These investments are accounted for as the System and are allocated to Teachers' Retirement and Pension, Employees' Retirement and Pension, Judges' Retirement, State Police Retirement and Law Enforcement Officers' Pension.

All investments are governed by the Prudent Person Rule as described in SPP Section 21-203 which states: A fiduciary shall discharge the fiduciary's duties with respect to the several systems solely in the interest of the participants and as follows: (1) for the exclusive purposes of providing benefits to the participants and for reasonable expenses of administering the several systems; (2) with the care, skill, prudence, and diligence under the circumstances then prevailing, that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims; (3) by diversifying the investments of the several systems so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so; (4) in accordance with the laws governing the several systems; and (5) in accordance with the documents and instruments governing the several systems to the extent that the documents and instruments are consistent with this subtitle.

## D. Interest Rate Risk

As of June 30, 2015, the System had the following fixed income investments allocated by year of maturity with the exception of the Commingled Funds, which are based on their average maturity:

Investment Type:	Fair Value (in thousands)	Investment Maturities (in years)			
		Less than 1	1 thru 5	5+ thru 10	More than 10
Asset backed securities	\$ 426,930	\$ 1,510	\$ 143,538	\$ 63,609	\$ 218,273
Bank loans	358,564	19,084	144,794	194,686	-
Collateralized mortgage backed securities	707	-	-	-	707
Collateralized mortgage obligations	599,984	-	9,578	42,152	548,254
Credit/debt commingled funds	1,935,645	93,649	1,343,149	427,134	71,713
Convertible bonds	50,905	1,600	25,356	14,717	9,232
Domestic corporate obligations	2,197,663	55,479	733,359	1,092,138	316,687
International obligations	1,452,966	54,966	264,489	575,049	558,462
Mortgage pass-throughs	1,308,913	-	9,167	42,468	1,257,278
Municipals	50,882	2,001	19,112	11,054	18,715
Options	(2,567)	(2,250)	(213)	(2)	(102)
Short-term	992,672	992,672	-	-	-
Swaps	11,886	5,132	(1,129)	1,028	6,855
U.S. government agency	425,801	1,071	396,514	20,516	7,700
U.S. treasury inflation linked	3,054,426	59,684	1,426,205	1,568,537	-
U.S. treasury notes/bonds	1,028,861	-	12,762	28,918	987,181
U.S. treasury strips	12,455	-	1,550	-	10,905
Yankee bonds	512,487	33,862	199,768	185,950	92,907
<b>Total</b>	<b>\$ 14,419,180</b>	<b>\$ 1,318,460</b>	<b>\$ 4,727,999</b>	<b>\$ 4,267,954</b>	<b>\$ 4,104,767</b>

Market or interest rate risk is the greatest risk faced by an investor in the fixed income market. The price of a fixed income security typically moves in the opposite direction of the change in interest rates. Derivative securities, variable rate investments with coupon multipliers greater than one, and securities with long terms to maturity are examples of investments whose fair values may be highly sensitive to interest rate changes. These securities are reported at fair value in the Statements of Plan Net Position.

Examples of securities that would qualify as “highly interest rate sensitive” include interest only, principal only, and inverse floaters, of which the System had no significant holdings as of June 30, 2015 and 2014.

As of June 30, 2015, the System had \$1,308,913 invested in mortgage pass-through securities issued by the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, and Government National Mortgage Association. These investments are moderately sensitive to changes in interest rates because they are backed by mortgage loans in which the borrowers have the option of prepaying.

Investment guidelines developed for each mandate determines the amount of interest rate risk allowable for each manager.

Derivatives held as of June 30, 2015, are identified in greater detail in Note 4.

## E. Credit Risk

The System’s exposure to credit risk as of June 30, 2015 and 2014, is shown below:

<b>Credit Quality Distribution for Securities with Credit Exposure as a Percentage of Total Investments</b>				
<i>(Expressed in Thousands)</i>				
<b>Rating</b>	<b>2015 Fair Value</b>	<b>Percentage Total Investments</b>	<b>2014 Fair Value</b>	<b>Percentage Total Investments</b>
AAA	\$ 531,255	1.160%	\$ 766,342	1.690%
AA	912,092	1.992%	1,201,044	2.649%
A	1,738,962	3.798%	2,550,887	5.626%
BAA	507,701	1.109%	559,154	1.233%
BA	22,904	0.050%	21,361	0.047%
BBB	1,297,771	2.834%	1,316,746	2.904%
BB	369,044	0.806%	372,866	0.822%
B	370,986	0.810%	241,736	0.533%
CAA	32,950	0.072%	53,322	0.118%
CA	4,164	0.009%	1,821	0.004%
CCC	110,722	0.242%	115,727	0.255%
CC	9,813	0.021%	15,081	0.033%
C	567	0.001%	3,016	0.007%
D	15,149	0.033%	15,592	0.034%
NR	2,352,764	5.138%	2,207,752	4.869%
	<b><u>\$ 8,276,844</u></b>		<b><u>\$ 9,442,447</u></b>	

The current policy regarding credit risk is determined by each investment manager’s mandate. The above listed ratings are based on the most conservative rating when multiple ratings were offered. NR represents securities not rated; primarily made up of commingled funds, alternative investments and swaps, which by nature do not have credit quality ratings.

**F. Foreign Currency Risk**

The System's exposure to foreign currency risk as of June 30, 2015 is shown below:

**International Investment Securities – At Fair Value as of June 30, 2015**  
(U.S. Dollars in Thousands)

Currency	Equity	Fixed Income	Cash	Alternative Investments	Total
Australian Dollar	\$ 209,350	\$ 8,972	\$ 2,013	\$ 104,799	\$ 325,134
Brazilian Real	31,317	25,276	976	6,630	64,199
Canadian Dollar	310,532	22,430	4,518	40,558	378,038
Czech Koruna	5,984	-	1	-	5,985
Danish Krone	96,403	93	376	8,018	104,890
Egyptian Pound	3,149	-	106	-	3,255
Euro Currency	1,554,077	442,419	19,059	887,969	2,903,524
Hong Kong Dollar	354,169	-	3,475	53,242	410,886
Hungarian Forint	1,469	-	18	-	1,487
Indonesian Rupiah	10,606	-	240	-	10,846
Japanese Yen	989,957	63,338	11,753	86,190	1,151,238
Malaysian Ringgit	15,046	-	374	-	15,420
Mexican Peso	19,172	35,577	1,604	10,846	67,199
New Israeli Sheqel	14,472	-	148	291	14,911
New Russian Ruble	-	97	4	-	101
New Taiwan Dollar	38,108	-	219	-	38,327
New Zealand Dollar	3,528	4,885	282	16,232	24,927
Norwegian Krone	61,883	446	765	1,399	64,493
Philippine Peso	2,210	-	14	-	2,224
Polish Zloty	7,798	9,592	349	-	17,739
Pound Sterling	1,041,374	137,437	12,021	596,047	1,786,879
Qatari Rial	357	-	-	-	357
Singapore Dollar	62,009	-	781	14,949	77,739
South African Rand	41,875	944	549	-	43,368
South Korean Won	109,688	-	555	-	110,243
Swedish Krona	130,284	7,593	926	18,198	157,001
Swiss Franc	454,868	10,360	506	5,596	471,330
Thailand Baht	18,400	-	377	-	18,777
Turkish Lira	16,728	-	237	-	16,965
Uae Dirham	2,683	-	-	-	2,683
Multiple	-	-	81	-	81
<b>Total Holdings Subject to Foreign Currency Risk</b>	<b>\$ 5,607,496</b>	<b>\$ 769,459</b>	<b>\$ 62,327</b>	<b>\$ 1,850,964</b>	<b>\$ 8,290,246</b>

The majority of foreign currency-denominated investments are in non-US stocks. The Agency has an overlay program to help minimize its currency risk.

Note: This schedule does not agree with the total International obligations and International equities as listed on the Statement of Plan Net Assets due to American Depository Receipts and International obligations valued in U.S. dollars but classified as International. Mutual Funds listed have exposure to multiple currencies, however, are valued in U.S. dollars.

## G. Security Lending Transactions

The System accounts for securities lending transactions in accordance with GASB Statement No. 28 *Accounting and Financial Reporting for Securities Lending Transactions*.

The following table details the net income from securities lending for the periods ending June 30, 2015 and 2014 (in thousands):

	<b>2015</b>	<b>2014</b>
Interest income	<u>\$ 9,656</u>	<u>\$ 10,945</u>
Less:		
Interest expense	<b>390</b>	174
Program fees	<u>1,444</u>	<u>1,688</u>
Expenses from securities lending	<u>1,834</u>	<u>1,862</u>
Net income from securities lending	<u><b>\$ 7,822</b></u>	<u><b>\$ 9,083</b></u>

The Board of Trustees has authorized the System to lend its securities to broker-dealers with a simultaneous agreement to return the collateral for the same securities in the future. The System's custodian, pursuant to a written agreement, is permitted to lend long-term securities to authorized broker-dealers subject to the receipt of acceptable collateral. The System lends securities for collateral in the form of either cash or other securities. The types of securities on loan as of June 30, 2015 were long-term U.S. government obligations, domestic and international equities, as well as domestic and international obligations. At the initiation of a loan, borrowers are required to provide collateral amounts of 102 percent (domestic equities and bonds) and 105 percent (international equities) of the fair value of the securities lent. In the event the collateral fair value falls below the respective collateral percentages, the borrower is required to provide additional collateral by the end of the next business day. The contractual agreement with the System's custodian provides indemnification in the event the borrower fails to return the securities lent or fails to pay the System income distributions by the securities' issuers while the securities are on loan. There have been no violations of the provisions of the agreement during the period of these financial statements.

The System maintains the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment pool. As of June 30, 2015, such investment pool had an average duration of 34.19 days and an average final maturity of 103.23 days for U.S. dollar collateral. 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 (and until) a borrower defaults. As of June 30, 2015, the System had no credit risk exposure to borrowers because the amount the System owed the borrowers exceeded the amount the borrowers owed the System. The market value of collateral held and the market value of securities on loan for the System as of June 30, 2015 (in thousands) was \$1,343,489 and \$1,308,762 respectively.

The following table presents the fair values of the underlying securities, and the value of the collateral pledged at June 30, 2015 (in thousands):

<b>Securities Lent</b>	<b>Fair Value Loaned Securities</b>	<b>Collateral Fair Value</b>	<b>Percent Collateralized</b>
<b>Lent for cash collateral</b>			
U.S. government and agency	\$ 291,151	\$ 296,958	102.0%
Domestic bond & equity	597,231	608,539	101.9%
International fixed	13,561	13,885	102.4%
International equity	188,550	200,749	106.5%
<b>Lent for noncash collateral</b>			
U.S. government and agency	54,867	56,022	102.1%
Domestic bond & equity	158,501	162,158	102.3%
International equity	4,901	5,178	105.7%
<b>Total securities lent</b>	<u><b>\$ 1,308,762</b></u>	<u><b>\$ 1,343,489</b></u>	102.7%

The securities collateral value is based on the System's pro rata share of the value of the securities collateral maintained in a pool at the custodian bank for all lending clients participating in the lending program. Collateral value listed above includes all collateral for securities on loan.

#### 4. DERIVATIVES

Each investment manager's guidelines determine the extent to which derivatives are permissible. Futures and other derivatives are permitted to the extent that they are used in a manner that does not materially increase total portfolio volatility or relate to speculative activities. Unleveraged derivatives are permitted for the purpose of hedging investment risk, to replicate an investment that would otherwise be made directly in the cash market, or to modify asset exposure in tactical portfolio shifts. Use of derivatives is not permitted to materially alter the characteristics, including the investment risk, of each investment manager's account. The investment managers are to have in place, and use, procedures that subject derivative based strategies to rigorous scenario and volatility analysis. Futures and short option positions must be hedged with cash, cash equivalents, or current portfolio security holdings.

**List of Derivatives Aggregated by Investment Type**  
(in Thousands)

Currency	Changes in Fair Value(4)		Fair Value at June 30,2015		
	Classifications	Amount(1)	Classification	Amount(2)	Notional(3)
Commodity Futures Long	Revenue	\$ (111,816)	Futures	\$ -	\$ 231,643
Commodity Futures Short	Revenue	7,292	Futures	-	(13)
Credit Default Swaps	Revenue	-	Swaps	-	(0)
Credit Default Swaps Bought	Revenue	191	Swaps	(219)	18,941
Credit Default Swaps Written	Revenue	(1,319)	Swaps	418	34,213
Currency Swaps	Revenue	(6,465)	Swaps	6,645	88,380
Fixed Income Futures Long	Revenue	19,570	Futures	-	612,773
Fixed Income Futures Short	Revenue	(54,992)	Futures	-	(1,945,475)
Fixed Income Options Bought	Revenue	(401)	Options	58	19,400
Fixed Income Options Written	Revenue	1,588	Options	(708)	(211,249)
Foreign Currency Options Bought	Revenue	(363)	Options	-	-
Foreign Currency Options Written	Revenue	444	Options	(634)	(40,574)
Futures Options Bought	Revenue	(2,694)	Options	29	873
Futures Options Written	Revenue	13,729	Options	(1,149)	(3,876)
FX Forwards	Revenue	603,166	Instruments	101,115	21,037,078
Index Futures Long	Revenue	1,624	Futures	-	458
Pay Fixed Interest Rate Swaps	Revenue	(19,403)	Swaps	(260)	550,733
Receive Fixed Interest Rate Swaps	Revenue	4,207	Swaps	(366)	75,724
Rights	Revenue	1,083	Common Stock	335	696
Total Return Swaps Bond	Revenue	(93)	Swaps	(93)	3,617
Warrants	Revenue	(179)	Common Stock	7,338	3,469
		\$ 455,169		\$ 112,509	

Note: Includes assets invested on behalf of the Maryland Transit Administration.

1. Negative values (in brackets) refer to losses
2. Negative values refer to liabilities
3. Notional may be a dollar amount or size or underlying for futures and options, negative values refer to short positions
4. Excludes futures margin payments

## A. Credit Risk

The System is exposed to credit risk on derivative instruments that are in asset positions. To minimize its exposure to losses related to credit risk, the investment managers use counterparty collateral in their non-exchange-traded derivative instruments. Netting arrangements are also used when entering into more than one derivative instrument transaction with counterparty. At the present time, the Agency does not have a formal policy relating to counterparty collateral or netting arrangements.

The aggregate fair value of derivative instruments in asset positions at June 30, 2015, was \$513,665. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform. The maximum loss would, however, be reduced by the counterparty collateral and the liabilities included in netting arrangements with counterparties.

The following table lists the market value of credit exposure per ratings of the Standard & Poor's (S&P), Moody's and Fitch.

### Counterparty Ratings

The following tables list the market value of credit exposure per ratings of Standard & Poor's (S&P), Moody's and Fitch (in thousands):

Market Value	S&P Rating	Market Value	Moody's Rating	Market Value	Fitch Rating
\$ 206,384	AA-	\$ 86,815	Aa1	\$ 32,513	AA
145,017	A+	88,394	Aa2	375,004	AA-
96,914	A	71,208	Aa3	16,730	A+
62,606	A-	110,158	A1	89,378	A
2,744	BBB+	152,261	A2	12	BBB+
		4,800	A3	28	NR
		29	Baa1		
<u>\$ 513,665</u>	<u>(1)</u>	<u>\$ 513,665</u>	<u>(1)</u>	<u>\$ 513,665</u>	<u>(1)</u>

(1) Total aggregate market value

### Risk Concentrations

The following tables list the counter party risk concentration and credit ratings per ratings of Standard & Poor's (S&P), Moody's and Fitch:

Counterparty Name	Percentage of Net Exposure	S&P Rating	Fitch Rating	Moody's Rating
TORONTO DOMINION BANK	17%	AA-	AA-	Aa1
HSBC BANKPLC	14%	A	AA-	A1
BARCLAYS BANK PLC WHOLESALE	12%	A-	A	A2
STANDARD CHARTERED BANK	9%	A+	AA-	Aa2
NORTHERN TRUST COMPANY, THE	9%	AA-	AA-	A2
WESTPAC BANKING CORPORATION	8%	AA-	AA-	Aa2
JPMORGAN CHASE BANK NA LONDON	7%	A+	AA-	Aa3
ROYAL BANK OF CANADA (UK)	6%	AA-	AA	Aa3
STATE STREET BANK LONDON	5%	A+	AA-	A2
UBS AG LONDON	4%	A	A	A2
BANK OF NEW YORK	3%	A+	AA-	A1
BNP PARIBAS SA	3%	A+	A+	A1



**B. Interest Rate Risk**

During Fiscal year 2015 the Agency was exposed to interest rate risk. For more details refer to the Interest Rate Risk Note 3.D. (GASB Statement No. 40).

**C. Foreign Currency Risk**

The System's derivatives exposed it to foreign currency risk. For more details refer to the Foreign Currency Risk Note 3.F. (GASB Statement No. 40).

**5. CONTRIBUTIONS**

The State Personnel and Pensions Article requires both active members and their respective employers to make contributions to the System. Rates for required contributions by active members are established by law. Members of the Teachers' and Employees' Retirement Systems are required to contribute 7% or 5% of earnable compensation depending upon the retirement option selected. Members of the State Police and Judges' Retirement Systems are required to contribute 8% and 6% of earnable compensation, respectively, and beginning July 1, 2014, members of the Judges Retirement System are required to make contributions of 8% of earnable compensation. Members of the Teachers' and Employees' Pension System, Alternate Contributory Pension Selection (ACPS), are required to contribute 7% of earnable compensation.

However, members of the Employees' Pension System who are employed by a participating governmental unit that elected to remain in the Contributory Pension System are required to contribute 2% of earnable compensation. The members of the Employees' Pension System who are employed by participating governmental units who elected to remain in the Non-Contributory Pension System are only required to contribute 5% of earnable compensation in excess of the social security taxable wage base.

Contribution rates for employer and other "nonemployer" contributing entities are established by annual actuarial valuations using the Individual Entry Age Normal Cost method with projection and other actuarial assumptions adopted by the Board of Trustees. These contribution rates have been established as the rates necessary to fully fund normal costs and amortize the unfunded actuarial accrued liability.

The unfunded actuarial liability was being amortized in distinct layers. The unfunded actuarial accrued liability which existed as of the June 30, 2000, actuarial valuation was being amortized over a 40-year period (as provided by law) from July 1, 1980 and as provided by law, any new unfunded liabilities or surpluses arising during the fiscal year ended June 30, 2001, or any fiscal year thereafter, was being amortized over a 25-year period from the end of the fiscal year in which the liability or surplus arose. However, in the 2014 legislative session, the Legislature changed the method used to fund the System. The unfunded liability for each System is being amortized over a single closed 25-year period.

Effective July 1, 2002, the law provides that employer contribution rates may be more or less than the actuarially determined rates as described above for the Employees' Retirement and Pension Systems and the Teachers' Retirement and Pension Systems. When the funding ratio for each of the combined Systems is at least 90% but not more than 110%, the contribution rate will be the rate certified by the Board of Trustees for the previous fiscal year, adjusted to reflect legislative changes that result in changes to the normal cost. If the funding ratio is below 90%, the contribution rate will be the sum of the contribution rate for the previous fiscal year and 20% of the difference between the full funding rate for the current fiscal year and the contribution rate for the previous fiscal year. If the funding ratio is above 110%, the contribution rate will be the difference between the contribution rate for the previous fiscal year and 20% of the difference between the contribution rate for the previous fiscal year and the full funding rate for the current fiscal year.

The State of Maryland (which is also a non-employer contributor to the Teachers' Retirement and Pension Systems and the Judges' Retirement System), the Maryland Automobile Insurance Fund, the Injured Workers' Insurance Fund, and more than 150 participating governmental units make all of the employer and other (non-employer) contributions to the System.

**6. LONG-TERM CONTRIBUTIONS RECEIVABLE**

In addition to actuarially determined contributions, certain withdrawn employers also make annual installment payments, including interest at the actuarially assumed rate of return in effect at the time of withdrawal (7% or 7.5% per year), for liabilities associated with employees that have elected to stay in the System when their employer elected to withdraw. As of

June 30, 2015 and 2014, the outstanding balances were \$31,254 and \$34,806 (expressed in thousands), respectively. These payments are due over various time periods, based on the date of the employer's withdrawal.

## 7. REFUNDS

Member contributions plus interest may be refunded to a member who withdraws from the System, or to the designated beneficiary following a member's death. Employer contributions may also be refunded with interest to any participating governmental unit electing to withdraw from the System. For the fiscal years ended June 30, 2015 and 2014, refunds to members and withdrawing employers were \$48,245 and \$42,922 (expressed in thousands), respectively.

## 8. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

For the fiscal years ended June 30, 2015 and 2014, accounts payable and accrued expenses consisted of the following components (expressed in thousands):

	<b>2015</b>	<b>2014</b>
Administrative expenses	<b>\$ 1,602</b>	\$ 1,374
Investment management fees	<b>23,849</b>	25,790
Tax and other withholdings	<b>35,821</b>	33,800
<b>Total</b>	<b><u>\$ 61,272</u></b>	<b><u>\$ 60,964</u></b>

## 9. NET PENSION LIABILITY

The components of the net pension liability of the participating employers as of June 30, 2014 were as follows:  
(expressed in thousands)

	<b>2015</b>	<b>2014</b>
Total Pension Liability (TPL)	\$ 66,571,552	\$ 63,086,719
Plan Fiduciary Net Position	45,789,840	45,339,988
Net Pension Liability	<u>\$ 20,781,712</u>	<u>17,746,731</u>
Ratio - Fiduciary Net Position/TPL	<u>68.78%</u>	<u>71.87%</u>

### A. Actuarial Assumptions

Actuarial	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	In the 2012 actuarial valuation: eight years remaining as of June 30, 2012 for prior UAAL existing on June 30, 2000 and 25 years from each subsequent valuation date for each year's additional UAAL for the State systems and ECS Muni. 27 years for LEOPS Muni, and 34 years for CORS Muni. In the 2013 actuarial valuation: 25 years for the State Systems, 26 years for LEOPS Muni, and 32 years for CORS Muni. For ECS Muni: seven years remaining for prior UAAL existing on June 30, 2000. 25 years from each subsequent valuation date for each year's additional UAAL.
Asset Valuation Method	five-year smoothed market; 20% collar
Inflation	In the 2012 actuarial valuation, 3.00% general, 3.50% wage. In the 2013 actuarial valuation, 2.95% general, 3.45% wage.
Salary Increases	In the 2012 actuarial valuation, 3.50% to 10.75% including inflation. In the 2013 actuarial valuation, 3.45% to 10.70% including inflation.
Investment Rate of Return	In the 2012 actuarial valuation, 7.75%. In the 2013 actuarial valuation, 7.70%.
Discount Rate	7.55%
Investment Rate of Return	7.55%
Retirement Age	Experienced-based table of rates that are specific to the type of eligibility condition. Last updated for the 2015 valuation pursuant to an experience study of the period 2010-2014.
Mortality	RP-2014 Mortality Tables with generational mortality projections using scale MP-2014, calibrated to MSRPS experience.

**B. Investments**

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return were adopted by the Board after considering input from the System's investment consultant(s) and actuary(s). For each major asset class that is included in the System's target asset allocation as of June 30, 2015, these best estimates are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Public Equity	35%	6.30%
Fixed Income	10%	0.60%
Credit Opportunity	10%	3.20%
Real Return	14%	1.80%
Absolute Return	10%	4.20%
Private Equity	10%	7.20%
Real Estate	10%	4.40%
Cash	1%	0.00%
<b>Total</b>	<u>100%</u>	

The above was the Board of Trustees adopted asset allocation policy and best estimate of geometric real rates of return for each major asset class as of June 30, 2015.

For the year ended June 30, 2015, the annual money-weighted rate of return on pension plan investments, net of the pension plan investment expense, was 2.71%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

**C. Discount Rate**

A single discount rate of 7.55% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.55%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**D. Sensitivity of the Net Pension Liability**

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.55%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

*(Expressed in thousands)*

<u>System</u>	<u>1% Decrease to 6.55%</u>	<u>Current Discount</u>	<u>1% Increase to 8.55%</u>
Teachers	\$ 16,644,282	\$ 11,475,111	\$ 7,195,377
Employees	10,783,267	7,896,975	5,487,375
State Police	1,099,538	808,268	573,758
Judges	150,900	96,070	49,557
LEOPS	689,960	504,575	354,597
CORS	3,816	714	(1,816)
<b>Total System Net Pension Liability</b>	<u><b>\$ 29,371,763</b></u>	<u><b>\$ 20,781,713</b></u>	<u><b>\$ 13,658,848</b></u>

## REQUIRED SUPPLEMENTARY INFORMATION

**MARYLAND STATE RETIREMENT**

## SCHEDULE OF CHANGES IN

for the Fiscal Year Ended

*(Expressed in Thousands)*

	<b>Teachers' Retirement and Pension Systems</b>	<b>Employees' Retirement and Pension Systems</b>	<b>State Police Retirement System</b>
Total pension liability			
Service cost	\$ 783,603	\$ 461,524	\$ 30,556
Interest	2,811,261	1,663,866	147,839
Changes of benefit terms	-	-	-
Difference between expected and actual experience	(476,190)	(19,591)	(10,512)
Changes in assumptions	753,521	375,148	86,689
Benefit payments, including refunds of employee contributions	(1,958,092)	(1,170,116)	(119,804)
Net change in total pension liability	<u>1,914,103</u>	<u>1,310,831</u>	<u>134,768</u>
Total pension liability, beginning of year	<u>37,324,936</u>	<u>22,097,648</u>	<u>1,976,338</u>
Total pension liability, end of year (a)	<u>\$ 39,239,039</u>	<u>\$ 23,408,479</u>	<u>\$ 2,111,106</u>
Plan fiduciary net position			
Contributions - employer	\$ 1,063,763	\$ 643,219	\$ 76,056
Contributions - members	454,770	280,133	7,205
Net investment income	727,858	405,846	33,035
Benefit payments, including refunds and administrative expenses	(1,973,827)	(1,182,886)	(120,006)
Net Change in Plan Fiduciary Net Position	<u>272,564</u>	<u>146,312</u>	<u>(3,710)</u>
Plan fiduciary net position - beginning of year	<u>27,491,055</u>	<u>15,365,014</u>	<u>1,306,547</u>
Plan fiduciary net position - end of year (b)	<u>\$ 27,763,619</u>	<u>\$ 15,511,326</u>	<u>\$ 1,302,837</u>
Employer net pension liability (a) - (b)	<u>\$ 11,475,420</u>	<u>\$ 7,897,153</u>	<u>\$ 808,269</u>

*\*This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, pension plans should present information for those years for which the information is available.*

**AND PENSION SYSTEM****EMPLOYERS' NET PENSION LIABILITY**

June 30, 2015

<b>Judges' Retirement System</b>	<b>Law Enforcement Officers' Pension System</b>	<b>Total</b>
\$ 16,306	\$ 33,934	\$ 1,325,923
34,735	93,085	4,750,786
-	-	-
(843)	(5,846)	(512,982)
27,072	11,471	1,253,901
(28,899)	(55,884)	(3,332,795)
<u>48,371</u>	<u>76,760</u>	<u>3,484,833</u>
460,230	1,227,567	63,086,719
<u>\$ 508,601</u>	<u>\$ 1,304,327</u>	<u>\$ 66,571,552</u>
\$ 19,028	\$ 56,546	\$ 1,858,612
2,813	10,523	755,444
10,759	20,173	1,197,671
(28,945)	(56,211)	(3,361,875)
<u>3,655</u>	<u>31,031</u>	<u>449,852</u>
408,883	768,489	45,339,988
<u>\$ 412,538</u>	<u>\$ 799,520</u>	<u>\$ 45,789,840</u>
<u>\$ 96,063</u>	<u>\$ 504,807</u>	<u>\$ 20,781,712</u>

## REQUIRED SUPPLEMENTARY INFORMATION

**MARYLAND STATE RETIREMENT**  
**SCHEDULE OF CHANGES IN**  
for the Fiscal Year Ended  
*(Expressed in Thousands)*

	<b>Teachers' Retirement and Pension Systems</b>	<b>Employees' Retirement and Pension Systems</b>	<b>State Police Retirement System</b>
Total pension liability			
Service cost	\$ 796,354	\$ 469,747	\$ 28,508
Interest	2,694,942	1,597,397	141,875
Changes of benefit terms	-	-	-
Difference between expected and actual experience	-	-	-
Changes in assumptions	182,000	86,638	33,418
Benefit payments, including refunds of employee contributions	(1,878,801)	(1,121,293)	(109,964)
Net change in total pension liability	<u>1,794,495</u>	<u>1,032,489</u>	<u>93,837</u>
Total pension liability, beginning of year	<u>35,530,441</u>	<u>21,065,159</u>	<u>1,882,501</u>
Total pension liability, end of year (a)	<u>\$ 37,324,936</u>	<u>\$ 22,097,648</u>	<u>\$ 1,976,338</u>
Plan fiduciary net position			
Contributions - employer	\$ 1,000,193	\$ 592,185	\$ 56,243
Contributions - members	441,559	267,139	6,592
Net investment income	3,458,512	1,940,319	165,097
Benefit payments, including refunds and administrative expenses	(1,878,801)	(1,121,293)	(109,964)
Other	(33)	(210)	16
Net Change in Plan Fiduciary Net Position	<u>3,021,430</u>	<u>1,678,140</u>	<u>117,984</u>
Plan fiduciary net position - beginning of year	<u>24,469,625</u>	<u>13,686,874</u>	<u>1,188,563</u>
Plan fiduciary net position - end of year (b)	<u>\$ 27,491,055</u>	<u>\$ 15,365,014</u>	<u>\$ 1,306,547</u>
Employer net pension liability (a) - (b)	<u>\$ 9,833,881</u>	<u>\$ 6,732,634</u>	<u>\$ 669,791</u>

*\*This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, pension plans should present information for those years for which the information is available.*

**AND PENSION SYSTEM**

**EMPLOYERS' NET PENSION LIABILITY**

June 30, 2014

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<b>Judges' Retirement System</b>	<b>Law Enforcement Officers' Pension System</b>	<b>Total</b>
\$ 15,309	\$ 31,927	\$ 1,341,845
33,337	87,207	4,554,758
-	-	-
-	-	-
46	18,798	320,900
(27,298)	(53,519)	(3,190,875)
<u>21,394</u>	<u>84,413</u>	<u>3,026,628</u>
438,836	1,143,154	60,060,091
<u>\$ 460,230</u>	<u>\$ 1,227,567</u>	<u>\$ 63,086,719</u>
\$ 21,110	\$ 63,922	\$ 1,733,653
2,566	9,870	727,726
50,173	92,166	5,706,267
(27,298)	(53,519)	(3,190,875)
-	227	-
<u>46,551</u>	<u>112,666</u>	<u>4,976,771</u>
362,332	655,823	40,363,217
<u>\$ 408,883</u>	<u>\$ 768,489</u>	<u>\$ 45,339,988</u>
<u>\$ 51,347</u>	<u>\$ 459,078</u>	<u>\$ 17,746,731</u>

SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS  
for the Fiscal Year Ended June 30, 2015  
(Expressed in Thousands)

	<b>Teachers' Retirement and Pension Systems</b>	<b>Employees' Retirement and Pension Systems</b>	<b>State Police Retirement System</b>	<b>Judges' Retirement System</b>	<b>Law Enforcement Officers' Pension System</b>	<b>Total</b>
Total pension liability	\$ 39,239,039	\$ 23,408,479	\$ 2,111,106	\$ 508,601	\$ 1,304,327	\$ 66,571,552
Plan fiduciary net position	(27,763,619)	(15,511,326)	(1,302,837)	(412,538)	(799,520)	(45,789,840)
Employer net pension liability	<u>\$ 11,475,420</u>	<u>\$ 7,897,153</u>	<u>\$ 808,269</u>	<u>\$ 96,063</u>	<u>\$ 504,807</u>	<u>\$ 20,781,712</u>
Plan fiduciary net position as a percentage of the total pension liability	70.76%	66.26%	61.71%	81.11%	61.30%	68.78%
Covered employee payroll	\$ 6,470,706	\$ 4,305,637	\$ 91,050	\$ 44,613	\$ 151,955	\$ 11,063,961
Employer net pension liability as a percent of covered-employee payroll	177.34%	183.41%	887.72%	215.33%	332.21%	187.83%

SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS  
for the Fiscal Year Ended June 30, 2014  
(Expressed in Thousands)

	<b>Teachers' Retirement and Pension Systems</b>	<b>Employees' Retirement and Pension Systems</b>	<b>State Police Retirement System</b>	<b>Judges' Retirement System</b>	<b>Law Enforcement Officers' Pension System</b>	<b>Total</b>
Total pension liability	\$ 37,324,936	\$ 22,097,648	\$ 1,976,338	\$ 460,230	\$ 1,227,567	\$ 63,086,719
Plan fiduciary net position	(27,491,055)	(15,365,014)	(1,306,547)	(408,883)	(768,489)	(45,339,988)
Employer net pension liability	<u>\$ 9,833,881</u>	<u>\$ 6,732,634</u>	<u>\$ 669,791</u>	<u>\$ 51,347</u>	<u>\$ 459,078</u>	<u>\$ 17,746,731</u>
Plan fiduciary net position as a percentage of the total pension liability	73.65%	69.53%	66.11%	88.84%	62.60%	71.87%
Covered employee payroll	\$ 6,310,253	\$ 4,219,732	\$ 85,660	\$ 42,313	\$ 145,673	\$ 10,803,631
Employer net pension liability as a percent of covered-employee payroll	155.84%	159.55%	781.92%	121.35%	315.14%	164.27%



SCHEDULE OF EMPLOYERS' CONTRIBUTIONS AND RELATED RATIOS  
for the Fiscal Year Ended June 30, 2015  
(Expressed in Thousands)

	<b>Teachers' Retirement and Pension Systems</b>	<b>Employees' Retirement and Pension Systems</b>	<b>State Police Retirement System</b>	<b>Judges' Retirement System</b>	<b>Law Enforcement Officers' Pension System</b>	<b>Total</b>
Actuarially determined contribution	\$ 1,189,318	\$ 766,782	\$ 76,056	\$ 19,028	\$ 56,546	\$ 2,107,730
Actual contribution	(1,063,763)	(643,219)	(76,056)	(19,028)	(56,546)	(1,858,612)
Contribution deficiency (excess)	<u>\$ 125,555</u>	<u>\$ 123,563</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 249,118</u>
Covered employee payroll	\$ 6,470,706	\$ 4,305,637	\$ 91,050	\$ 44,613	\$ 151,955	\$ 11,063,961
Actual contribution as a percent of covered payroll	16.44%	14.94%	83.53%	42.65%	37.21%	16.80%

SCHEDULE OF EMPLOYERS' CONTRIBUTIONS AND RELATED RATIOS  
for the Fiscal Year Ended June 30, 2014  
(Expressed in Thousands)

	<b>Teachers' Retirement and Pension Systems</b>	<b>Employees' Retirement and Pension Systems</b>	<b>State Police Retirement System</b>	<b>Judges' Retirement System</b>	<b>Law Enforcement Officers' Pension System</b>	<b>Total</b>
Actuarially determined contribution	\$ 1,358,991	\$ 812,643	\$ 64,325	\$ 21,110	\$ 63,922	\$ 2,320,991
Actual contribution	(1,000,193)	(592,185)	(56,243)	(21,110)	(63,922)	(1,733,653)
Contribution deficiency (excess)	<u>\$ 358,798</u>	<u>\$ 220,458</u>	<u>\$ 8,082</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 587,338</u>
Covered employee payroll	\$ 6,310,253	\$ 4,219,732	\$ 85,660	\$ 42,313	\$ 145,673	\$ 10,803,631
Actual contribution as a percent of covered payroll	15.85%	14.03%	65.66%	49.89%	43.88%	16.05%

SCHEDULE OF INVESTMENT RETURNS

<b>Fiscal Year Ended</b>	<b>Annual money-weighted rate of return, net of investment expenses</b>
2014	14.38%
2015	2.68%

*\*These schedules are presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, pension plans should present information for those years for which the information is available.*

*\*\*This disclosure is intended to capture performance net of pension plan investment expense, which has been adjusted for changing amounts actually invested; taking into consideration benefit payments and contributions. Currently, the Agency is experiencing net outflows resulting in contributions being used to pay benefits rather than flowing through invested funds; therefore, there is minimal variation between this schedule and the time-weighted rates of return presented in the Investment Section of this report.*

## NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

### Changes in Benefit Terms

There were no benefit changes during the year.

### Changes in Assumptions

Adjustments to the roll-forward liabilities were made to reflect the following assumptions changes in the 2015 valuation:

- Investment return assumption changed from 7.65% to 7.55%
- Inflation assumption changed from 2.90% to 2.70%

### Method and Assumptions used in Calculations of Actuarially Determined Contributions

Actuarial Entry	Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	In the 2012 actuarial valuation: eight years remaining as of June 30, 2012 for prior UAAL existing on June 30, 2000 and 25 years from each subsequent valuation date for each year's additional UAAL for the State systems and ECS Muni. 27 years for LEOPS Muni, and 34 years for CORS Muni. In the 2013 actuarial valuation: 25 years for the State Systems, 26 years for LEOPS Muni, and 32 years for CORS Muni. For ECS Muni: seven years remaining for prior UAAL existing on June 30, 2000. 25 years from each subsequent valuation date for each year's additional UAAL.
Asset Valuation Method	Five-year smoothed market; 20% collar.
Inflation	In the 2012 actuarial valuation, 3.00% general, 3.50% wage. In the 2013 actuarial valuation, 2.95% general, 3.45% wage.
Salary Increases	In the 2012 actuarial valuation, 3.50% to 10.75% including inflation. In the 2013 actuarial valuation, 3.45% to 10.70% including inflation.
Investment Rate of Return	In the 2012 actuarial valuation, 7.75%. In the 2013 actuarial valuation, 7.70%.
Retirement Age	Experienced-based table of rates that are specific to the type of eligibility condition. Last updated for the 2015 valuation pursuant to an experience study of the period 2010-2014.
Mortality	RP-2014 Mortality Tables with generational mortality projections using scale MP-2014, calibrated to MSRPS experience.

## OTHER SUPPLEMENTARY INFORMATION

## SCHEDULE OF FUNDING PROGRESS

*(Expressed in Thousands)*

<b>Actuarial Valuation Date June 30,</b>	<b>Actuarial Value of Assets a</b>	<b>Actuarial Accrued Liability (AAL) b</b>	<b>Unfunded AAL (UAAL) (b - a)</b>	<b>Funded Ratio (a / b)</b>	<b>Covered Payroll c</b>	<b>UAAL as a Percentage of Covered Payroll [(b - a) / c]</b>
2006	\$ 35,795,025	\$ 43,243,492	\$ 7,448,467	82.78%	9,287,576	80%
2007**	37,886,936	47,144,354	9,257,418	80.36%	9,971,012	93%
2008	39,504,284	50,244,047	10,739,763	78.62%	10,542,806	102%
2009	34,284,569	52,729,171	18,444,602	65.02%	10,714,241	172%
2010	34,688,346	54,085,081	19,396,735	64.14%	10,657,944	182%
2011	36,177,656	55,917,543	19,739,887	64.70%	10,478,800	188%
2012	37,248,401	57,869,145	20,620,744	64.37%	10,336,537	199%
2013	39,350,969	60,060,091	20,709,122	65.52%	10,478,800	198%
2014	42,996,957	62,610,194	19,613,237	68.67%	10,803,632	182%
2015	46,170,624	66,281,781	20,111,157	69.66%	11,063,961	182%

\*\* Beginning July 1, 2006, the system changed its funding method from the Aggregate Entry Age Normal method to the Individual Entry Age Normal method. Due to an actuarial error, the Schedule of Funding Progress presented in the June 30, 2007 Comprehensive Annual Financial Report overstated the Actuarial Accrued Liability. The 2007 funding results have been restated above to reflect the corrected actuarial valuation results.

SCHEDULE OF CONTRIBUTIONS FROM  
EMPLOYERS AND OTHER CONTRIBUTING ENTITY*(Expressed in Thousands)*

<b>Fiscal Year Ended June 30,</b>	<b>Annual Required Contributions</b>	<b>Percentage Contributed</b>
2006	\$ 874,079	82% *
2007	1,025,972	81%
2008	1,183,765	89%
2009	1,313,560	84%
2010	1,519,980	86%
2011	2,035,401	74%
2012	2,146,624	71%
2013	2,149,985	76%
2014	2,320,991	75%
2015	2,107,730	88%

\* Implementation of the statutory corridor funding method in fiscal year 2003 set the contribution made by the State into the Employees' and Teachers' Combined Systems at the contribution rates generated by the June 30, 2000 valuation which are adjusted when the funded ratio for the Employees' Systems and/or for the Teacher's systems falls below 90% or exceeds 110% and/or when the benefits for the Employees' or Teachers' Systems are enhanced

## OTHER SUPPLEMENTARY INFORMATION

### FUND BALANCE ACCOUNTS

As provided by law, all System assets must be credited, according to the purpose for which they are held, to either the Annuity Savings Fund, the Accumulation Fund, or the Expense Fund. These funds are classified as accounts for financial reporting purposes and are further explained as follows:

#### **A. Annuity Savings Fund**

Members' contributions together with interest thereon, at statutory interest rates, are credited to the Annuity Savings Fund. Upon retirement, members' accumulated contributions and interest are transferred from the Annuity Savings Fund to the Accumulation Fund.

#### **B. Accumulation Fund**

Contributions made by employers, other contributions and investment income are credited to the Accumulation Fund. All retirement, disability, and death benefits are paid from this Fund.

#### **C. Expense Fund**

All of the System's administrative and investment management expenses are recorded in the Expense Fund. During the year, the System's investment expenses are covered by funds transferred from the Accumulation Fund and the System's administrative expenses are covered by administrative fees assessed and collected in to the Expense Fund from each participating employer to cover annual operating and administrative expenses of the System.

**MARYLAND STATE RETIREMENT AND PENSION SYSTEM****SCHEDULE OF FUND BALANCES**

for the Fiscal Year Ended June 30, 2015 (with Comparative 2014 Totals)

*(Expressed in Thousands)*

	<b>Annuity Savings Fund</b>	<b>Accumulation Fund</b>	<b>Expense Fund</b>	<b>Totals</b>	
				<b>2015</b>	<b>2014</b>
<b>Fund Balances, Beginning of Year</b>	\$ <u>5,864,301</u>	\$ <u>39,472,401</u>	\$ <u>3,286</u>	\$ <u>45,339,988</u>	\$ <u>40,363,217</u>
<b>Additions</b>					
Net investment income (loss)	-	1,544,751	(347,080)	1,197,671	5,706,267
Contributions (Note 5):					
Employers	-	1,099,810	28,078	1,127,888	1,016,653
Members	755,444	-	-	755,444	727,726
State contributions on behalf of local governments	-	728,931	-	728,931	714,974
Contribution interest	-	1,793	-	1,793	2,026
<b>Deductions</b>					
Benefit payments	-	(3,284,550)	-	(3,284,550)	(3,121,823)
Refunds (Note 7)	(48,245)	-	-	(48,245)	(42,922)
Administrative expenses (Note 2)	-	27	(29,107)	(29,080)	(26,130)
<b>Transfers</b>					
From the Accumulation Fund to the Annuity Savings Fund for interest credited to members' accounts	288,639	(288,639)	-	-	-
To the Accumulation Fund from the Annuity Savings Fund for contributions of retiring members	(379,945)	379,945	-	-	-
From the Accumulation Fund to the Expense Fund for administrative and investment expenses	-	(347,080)	347,080	-	-
Net changes in fund balances	<u>615,893</u>	<u>(165,012)</u>	<u>(1,029)</u>	<u>449,852</u>	<u>4,976,771</u>
<b>Fund Balances, End of Year</b>	\$ <u><u>6,480,194</u></u>	\$ <u><u>39,307,389</u></u>	\$ <u><u>2,257</u></u>	\$ <u><u>45,789,840</u></u>	\$ <u><u>45,339,988</u></u>

**MARYLAND STATE RETIREMENT AND PENSION SYSTEM**

## SCHEDULE OF ADMINISTRATIVE EXPENSES

for the Fiscal Years Ended June 30, 2015 and 2014

*(Expressed in Thousands)*

	<b>2015</b>	<b>2014</b>
<b>Personnel services</b>		
Staff salaries	<b>\$12,999</b>	\$12,172
Fringe benefits	<b>5,552</b>	4,786
Total personnel services	<b><u>18,551</u></b>	<u>16,958</u>
<b>Professional and contractual services</b>		
Actuarial	<b>472</b>	375
Legal and financial	<b>1,878</b>	1,733
Consulting services	<b>858</b>	1,007
Data processing	<b>1,379</b>	1,449
Other contractual services	<b>1,565</b>	838
Total professional and contractual services	<b><u>6,152</u></b>	<u>5,402</u>
<b>Miscellaneous</b>		
Communications	<b>834</b>	538
Rent	<b>1,431</b>	1,740
Equipment and supplies	<b>994</b>	385
Other	<b>1,118</b>	1,107
Total miscellaneous	<b><u>4,377</u></b>	<u>3,770</u>
<b>Total Administrative Expenses</b>	<b><u>\$29,080</u></b>	<u>\$26,130</u>

## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### SCHEDULE OF INVESTMENT EXPENSES for the Fiscal Years Ended June 30, 2015 and 2014 (Expressed in Thousands)

	Management Fees for 2015	Incentive Fees for 2015	Total
<b>Investment advisors</b>			
Public equity	\$ 73,832	\$ 21,764	\$ 95,596
Fixed income	10,710	-	10,710
Credit opportunity	40,080	12,259	52,339
Real return	26,151	7,623	33,774
Absolute return	43,006	15,192	58,198
Private equity	62,374	-	62,374
Real estate	25,045	1,159	26,204
Total investment advisory fees	<u>281,198</u>	<u>57,997</u>	<u>339,195</u>
<b>Other investment service fees</b>			
Currency overlay	5,034	-	5,034
Other investment expenses	2,851	-	2,851
Total other investment service fees	<u>7,885</u>	<u>-</u>	<u>7,885</u>
<b>Total Investment Expenses</b>	<b><u>\$ 289,083</u></b>	<b><u>\$ 57,997</u></b>	<b><u>\$347,080</u></b>
<hr/>			
	Management Fees for 2014	Incentive Fees for 2014	Total
<b>Investment advisors</b>			
Public equity	\$69,242	\$30,103	\$99,345
Fixed income	11,781	-	11,781
Credit Opportunity	40,020	22,836	62,856
Real Return	25,286	1,066	26,352
Absolute Return	30,138	3,008	33,146
Private Equity	59,124	-	59,124
Real Estate	26,311	2	26,313
Total investment advisory fees	<u>261,902</u>	<u>57,015</u>	<u>318,917</u>
<b>Other investment service fees</b>			
Currency overlay	6,943	-	6,943
Other investment expenses	3,739	-	3,739
Total other investment service fees	<u>10,682</u>	<u>-</u>	<u>10,682</u>
<b>Total Investment Expenses</b>	<b><u>\$272,584</u></b>	<b><u>\$57,015</u></b>	<b><u>\$329,599</u></b>

**MARYLAND STATE RETIREMENT**

## SCHEDULE OF PLAN NET

as of June 30, 2015

*(Expressed in Thousands)*

	<b>Teachers' Retirement and Pension Systems</b>	<b>Employees' Retirement and Pension Systems</b>	<b>State Police Retirement System</b>
<b>Assets:</b>			
<b>Cash &amp; cash equivalents</b> (note 3)	\$ 607,530	\$ 467,710	\$ 45,497
<b>Receivables:</b>			
Contributions:			
Employers	10,219	19,548	4,039
Employers - Long Term (Note 5)	-	31,254	-
Members	1,334	9,595	280
Accrued investment income	128,043	72,379	6,462
Investment sales proceeds	474,358	268,009	23,304
Due from other systems	-	806	-
Total receivables	<u>613,954</u>	<u>401,591</u>	<u>34,085</u>
<b>Investments, at fair value</b> (Notes 2 & 3)			
U.S. Government obligations	2,753,479	1,519,678	127,168
Domestic corporate obligations	2,245,937	1,239,560	103,727
International obligations	554,724	306,159	25,620
Domestic stocks	5,158,996	2,847,313	238,265
International stocks	4,759,778	2,626,979	219,827
Mortgages & mortgage related securities	1,154,536	637,204	53,320
Alternative investments	10,738,118	5,926,498	95,935
Collateral for loaned securities	982,860	344,556	(10,052)
Total investments	<u>28,348,428</u>	<u>15,447,947</u>	<u>1,253,810</u>
<b>Total assets</b>	<u>29,569,912</u>	<u>16,317,248</u>	<u>1,333,392</u>
<b>Liabilities:</b>			
Accounts payable & accrued expenses	37,987	19,923	1,796
Investment commitments payable	784,752	441,541	38,788
Obligation for collateral for loaned securities	982,860	344,556	(10,052)
Due to other systems	385	437	23
Total liabilities	<u>1,805,984</u>	<u>806,457</u>	<u>30,555</u>
<b>Net position held in trust for pension benefits</b>	<u>\$ 27,763,928</u>	<u>\$ 15,510,791</u>	<u>\$ 1,302,837</u>

\* Intersystem due from/to have been eliminated in the financial statements



**AND PENSION SYSTEM**

## POSITION BY SYSTEM

<b>Judges' Retirement System</b>	<b>Law Enforcement Officers' Pension System</b>	<b>Subtotal</b>	<b>Eliminations*</b>	<b>Combined Total</b>
\$ (18,751)	\$ 32,350	\$ 1,134,336	\$ -	\$ 1,134,336
(334)	2,140	35,612	-	35,612
-	-	31,254	-	31,254
3,314	11,526	-	11,526	-
1,886	3,344	212,114	-	212,114
6,922	11,962	784,555	-	784,555
-	149	955	(955)	-
<u>8,477</u>	<u>17,909</u>	<u>1,076,016</u>	<u>(955)</u>	<u>1,075,061</u>
43,737	77,481	4,521,543	-	4,521,543
35,675	63,199	3,688,098	-	3,688,098
8,811	15,610	910,924	-	910,924
81,947	145,171	8,471,692	-	8,471,692
75,606	133,937	7,816,127	-	7,816,127
18,340	32,487	1,895,887	-	1,895,887
170,568	302,164	17,633,283	-	17,633,283
9,854	16,271	1,343,489	-	1,343,489
<u>444,538</u>	<u>786,320</u>	<u>46,281,043</u>	<u>-</u>	<u>46,281,043</u>
<u>434,264</u>	<u>836,579</u>	<u>48,491,395</u>	<u>(955)</u>	<u>48,490,440</u>
659	907	61,272	-	61,272
11,218	19,540	1,295,839	-	1,295,839
9,854	16,271	1,343,489	-	1,343,489
1	109	955	(955)	-
<u>21,732</u>	<u>36,827</u>	<u>2,701,555</u>	<u>(955)</u>	<u>2,700,600</u>
<u>\$ 412,532</u>	<u>\$ 799,752</u>	<u>\$ 45,789,840</u>	<u>\$ -</u>	<u>\$ 45,789,840</u>

**MARYLAND STATE RETIREMENT**  
**SCHEDULE OF CHANGES IN**  
for the Fiscal Year Ended  
*(Expressed in Thousands)*

	<b>Teachers' Retirement and Pension Systems</b>	<b>Employees' Retirement and Pension Systems</b>	<b>State Police Retirement System</b>
<b>Additions:</b>			
<b>Contributions</b>			
Employers	\$ 334,832	\$ 641,426	\$ 76,056
Members	454,770	280,133	7,205
State contributions on behalf of local governments	728,931	-	-
Contribution interest	-	1,793	-
Total Contributions	<u>1,518,533</u>	<u>923,352</u>	<u>83,261</u>
<b>Investment Income</b>			
Net (depreciation) in fair value of investments	(76,618)	(42,922)	(3,839)
Interest	146,950	82,504	6,835
Dividends	861,291	482,776	39,991
<b>Income Before Securities Lending Activity</b>	<u>931,623</u>	<u>522,358</u>	<u>42,987</u>
Gross income from securities lending activity:	5,835	3,285	245
Securities lending borrower rebates	(224)	(148)	(8)
Securities lending agent fees	(880)	(480)	(38)
Net income from securities lending activity	<u>4,731</u>	<u>2,657</u>	<u>199</u>
<b>Total Investment Income</b>	<u>936,354</u>	<u>525,015</u>	<u>43,186</u>
Less investment expenses:			
Investment advisory fees	(208,496)	(119,169)	(10,151)
Net investment income	<u>727,858</u>	<u>405,846</u>	<u>33,035</u>
<b>Transfers from other systems</b>	-	-	-
<b>Total Additions</b>	<u>2,246,391</u>	<u>1,329,198</u>	<u>116,296</u>
<b>Deductions:</b>			
Benefit payments	1,933,456	1,147,453	119,468
Refunds (Note 7)	24,636	22,663	336
Administrative expenses (Note 2)	15,735	12,770	202
Transfers to other systems	(309)	535	-
<b>Total Deductions</b>	<u>1,973,518</u>	<u>1,183,421</u>	<u>120,006</u>
<b>Net increase in plan assets</b>	<u>272,873</u>	<u>145,777</u>	<u>(3,710)</u>
<b>Net Position Held in Trust for Pension Benefits:</b>			
Beginning of the fiscal year	<u>27,491,055</u>	<u>15,365,014</u>	<u>1,306,547</u>
<b>End of the Fiscal Year</b>	<u>\$ 27,763,928</u>	<u>\$ 15,510,791</u>	<u>\$ 1,302,837</u>

\* Intersystem due from/due to have been eliminated in the financial statements

**AND PENSION SYSTEM**

## PLAN NET POSITION BY SYSTEM

June 30, 2015

<b>Judges' Retirement System</b>	<b>Law Enforcement Officers' Pension System</b>	<b>Total</b>
\$ 19,028	\$ 56,546	\$ 1,127,888
2,813	10,523	755,444
-	-	728,931
<u>-</u>	<u>-</u>	<u>1,793</u>
<u>21,841</u>	<u>67,069</u>	<u>2,614,056</u>
(1,124)	(2,166)	(126,669)
2,155	4,167	242,611
<u>12,686</u>	<u>24,243</u>	<u>1,420,987</u>
<u>13,717</u>	<u>26,244</u>	<u>1,536,929</u>
91	200	9,656
(2)	(8)	(390)
<u>(15)</u>	<u>(31)</u>	<u>(1,444)</u>
<u>74</u>	<u>161</u>	<u>7,822</u>
<u>13,791</u>	<u>26,405</u>	<u>1,544,751</u>
<u>(3,032)</u>	<u>(6,232)</u>	<u>(347,080)</u>
<u>10,759</u>	<u>20,173</u>	<u>1,197,671</u>
<u>-</u>	<u>-</u>	<u>-</u>
<u>32,600</u>	<u>87,242</u>	<u>3,811,727</u>
28,874	55,299	3,284,550
25	585	48,245
46	327	29,080
<u>6</u>	<u>(232)</u>	<u>-</u>
<u>28,951</u>	<u>55,979</u>	<u>3,361,875</u>
<u>3,649</u>	<u>31,263</u>	<u>449,852</u>
<u>408,883</u>	<u>768,489</u>	<u>45,339,988</u>
<u>\$ 412,532</u>	<u>\$ 799,752</u>	<u>\$ 45,789,840</u>



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The logo for the SRPS Investment Section is centered on the page. It features the letters "SRPS" in a large, bold, serif font. Below "SRPS" is the text "Investment Section" in a smaller, elegant, italicized serif font. The entire logo is set against a light gray rectangular background that has a subtle, larger-scale version of the "SRPS" text and a decorative graphic of overlapping circles and lines.

SRPS  
*Investment Section*

## CHIEF INVESTMENT OFFICER'S REPORT

### INVESTMENT OVERVIEW

The Maryland State Retirement and Pension System returned 2.68 percent net of fees in fiscal year 2015. After the payment of benefits, the market value of assets increased by approximately \$418 million, from \$45.42 billion on June 30, 2014 to \$45.83 billion on June 30, 2015. While the fund did not meet the actuarial return target of 7.55 percent, it did outperform its policy benchmark of 0.86 percent.

Private markets provided the best returns for the year with private equity and private real estate, producing 13.2 percent and 14.4 percent, respectively. In public markets, for the third consecutive fiscal year, public equity was the best-performing asset class, with a return of 3.7 percent.

The public equity program has three components: U.S. equities, international equities and global equities. The U.S. public equity portfolio returned 6.4 percent, trailing the return of the Russell 3000 Index, which returned 7.3 percent. The international equity portfolio returned -0.3 percent compared to -5.3 percent for its benchmark, the Morgan Stanley Capital International (MSCI) All Country World ex-U.S. Index. The global equity portfolio returned 4.8 percent compared to 0.7 percent for its benchmark, the MSCI All Country World Index, a broad measure of stock performance in the developed and emerging markets. The outperformance of the international and global equity programs relative to their respective benchmarks can be attributed to excess returns produced by active managers, gains from the System's currency overlay program as a result of a strengthening U.S. dollar relative to foreign currencies, as well as the long/short equity strategies in the global equity program.

The fixed income portfolio returned 2.0 percent, compared to 1.9 percent for its blended benchmark: 80 percent Barclays Capital (BC) Intermediate Aggregate Index and 20 percent BC Global Bond 1 – 10 year Index. The credit/debt strategies portfolio returned -0.8 percent compared to -3.1 percent for its blended benchmark: 50 percent BC U.S. High Yield Index, 20 percent BC US Credit Index, 20 percent JP Morgan GBI EM Global Diversified, and 10 percent S&P/LSTA Leveraged Loan Index. This portfolio was established in 2009 to take advantage of the dislocation in the credit markets, and is expected to provide near equity-like returns at a reduced level of risk.

The real return portfolio returned -5.2 percent, compared to -6.6 percent for its blended benchmark, which consists of three components:

- 30 percent Dow Jones UBS Commodities Index (total return);
- 10 percent Consumer Price Index + 5 percent, with this second component having a maximum total benchmark return of 8 percent; and
- 60 percent inflation linked bonds (consisting of 50 percent BC U.S. Treasury Inflation-Protected Securities (TIPS) Index and 50 percent BC World Govt Inflation-Linked Bond (U.S. dollar hedged) Index).

The absolute return portfolio returned 0.7 percent, compared to the 2.7 percent return for its benchmark: Hedge Funds Research, Inc. (HFRI) Fund of Funds Index: Conservative. The real estate portfolio returned 12.1 percent versus 10.4 percent for its blended benchmark: NCREIF Fund Index - Open End Diversified Core Equity (NCREIF ODCE (one quarter lag)) and the Financial Times Stock Exchange European Public Real Estate Association/NAREIT Developed REIT Index (Net) (FTSE EPRA NAREIT).

The private equity program returned 13.2 percent, compared to the 7.6 percent return of its benchmark, the State Street Private Equity Index (one quarter lag).

The public market Terra Maria program for the System returned 1.8 percent, compared to 2.2 percent for its customized benchmark. As more fully described below, the program is comprised of smaller investment management firms focusing primarily on equity and fixed income investments.

### INVESTMENT POLICY AND OBJECTIVES

The Board of Trustees is charged with the responsibility of managing the assets of the System. In doing so, the Board is required to exercise its fiduciary duties solely in the interest of the participants with the care, skill, and diligence that a prudent person would exercise under similar circumstances. This standard of care encourages diversifying investments across various asset classes.

Investment objectives are designed to support the fulfillment of the Board's mission to optimize risk-adjust-

ed returns to ensure that sufficient assets are available to pay benefits to members and beneficiaries when due. As a long-term investor, the Board understands that short-term market returns will fluctuate.

These investment objectives are implemented in accordance with investment policies developed by the Board. The “prudent person standard”, as outlined in both the Maryland Annotated Code and the Board’s investment policies, allows for the Board to set investment policies and delegate authority to investment professionals employing active and passive strategies. Firms retained generally have a demonstrated performance record and a clearly defined and consistently applied investment process.

The Board manages the assets for the System with the goal of achieving an annualized investment return that over a long-term time frame: (1) meets or exceeds the investment policy benchmark for the System; (2) in nominal terms, equals or exceeds the actuarial investment return assumption adopted by the Board; and (3) in real terms, exceeds the U.S. inflation rate by at least 3 percent. A more detailed discussion of each of these goals follows below.

- 1. Meeting or exceeding the Investment Policy Benchmark for the System.** The Investment Policy Benchmark is calculated by using a weighted average of the Board-established benchmarks for each asset class. This benchmark enables the comparison of the actual performance of the System to a passively managed proxy, and provides a measure of the contribution of active management and policy implementation to overall fund returns.
- 2. In nominal terms, equaling or exceeding the actuarial investment return assumption of the System.** The Board adopts the actuarial rate of interest, which was set at 7.55 percent for fiscal year 2015. The actuarial investment return assumption functions as an estimate of the long-term rate of growth of the assets for the System. In adopting an actuarial return assumption, the Board anticipates that the investment portfolio will achieve higher or lower returns each year but will trend toward 7.55% over time.
- 3. In real terms, exceeding the U.S. inflation rate by at least 3 percent.** The inflation related objective compares the investment performance against a rate of inflation measured by the Consumer Price Index (CPI) plus 3 percent. The inflation measure provides a link to the liabilities of the System,

which have an embedded sensitivity to changes in the inflation rate.

The Board is also responsible for establishing the asset allocation policy for the System. It does this by weighing three liability-oriented objectives when making asset allocation determinations. These objectives include:

1. achieving and maintaining a fully funded pension plan;
2. minimizing contribution volatility year to year; and
3. realizing surplus assets.

Asset allocation policy targets are determined by recognizing that liabilities (future benefit payments to the participants and beneficiaries of the System) must be paid in full and on time. The mix of asset classes is chosen to provide sufficient growth to meet the long term return objective of the System, while providing sufficient diversification to moderate the volatility of that return. For example, a portfolio of equities will likely provide the required return over a long time horizon, but will subject the market value of the portfolio to unacceptable levels of volatility such that the goals of minimizing contribution volatility and realizing surplus assets would be difficult to achieve. Combining other asset classes with equities will provide differentiated return sources, reduce the volatility of returns and help realize those liability oriented objectives.

The Board’s long-term asset class targets and ranges as of June 30, 2015 are shown below.

ASSET CLASS	LONG-TERM POLICY TARGET	RANGE
Domestic Equity		
International Equity		
Global Equity		
<b>Total Public Equity</b>	<b>35%</b>	<b>+/-4%</b>
Private Equity	10%	+/-4%
Fixed Income	10%	+/-4%
Credit / Debt Strategies	10%	+/-4%
Real Estate	10%	+/-4%
Real Return	14%	+/-4%
Absolute Return	10%	+/-4%
Cash	1%	0-5%
<b>TOTAL ASSETS</b>	<b>100%</b>	

For private market investments in the real estate and private equity asset classes, additional risk reduction may be achieved through temporal diversification, making investments over time to take advantage of varying opportunities. To reflect the desirability of investing over time in accordance with a prudent pacing schedule, transitional allocations are implemented. Assets not yet deployed to private equity are assigned to the public equity transitional target. Assets not yet deployed to real estate and real return are assigned to the fixed income transitional target.

## INVESTMENT PERFORMANCE

Investment performance is calculated using time-weighted rates of total return. Total return includes interest and dividends, as well as capital appreciation.

The investment program realized a return of 2.7 percent for fiscal year 2015. Annualized returns for the 3-, 5-, 10-, 20- and 25-year periods ending June 30, 2015 were 9.1 percent, 9.4 percent, 5.8 percent, 6.6 percent and 7.5 percent, respectively.

	<b>FY 2015 SRPS Performance</b>	<b>FY 2015 Benchmark Performance</b>	<b>SRPS Exposure June 30, 2015</b>
<b>Public Equity</b>			
Custom Benchmark	3.7%	0.6%	37.6%
<b>U.S. Equity</b>	6.4%		10.2%
S&P 500		7.4%	
Russell 3000		7.3%	
<b>International Equity</b>	-0.3%		11.0%
MSCI ACWI ex. U.S.		-5.3%	
MSCI EAFE		-4.2%	
MSCI Emerging Markets		-5.1%	
MSCI World ex U.S.		-5.3%	
<b>Global Equity</b>	4.8%		16.4%
MSCI AC World		0.7%	
<b>Private Equity</b>	13.2%		8.0%
Custom State Street PE		7.6%	
<b>Fixed Income</b>	2.0%		12.9%
Custom Benchmark		1.9%	
BC Intermediate Aggregate		1.9%	
BC Global Bond Agg		2.1%	
<b>Credit / Debt Strategies</b>	-0.8%		9.7%
Custom Benchmark		-3.1%	
BC High Yield		-0.4%	
BC Credit		0.9%	
JP Morgan GBI EM GD		-15.4%	
S&P LSTA Leverage Loan		0.4%	
<b>Real Estate</b>	12.1%		7.4%
Custom Benchmark		10.4%	
NCREIF ODCE		13.5%	
FTSE EPRA NAREIT		-0.4%	
<b>Real Return</b>	-5.2%		13.2%
Custom Benchmark		-6.6%	
<b>Absolute Return</b>	0.7%		10.7%
Custom Benchmark		2.7%	
<b>TOTAL FUND</b>	<b>2.7%</b>	<b>0.9%</b>	



The allocation as of June 30, 2015 reflects the ranges and transitional targets of the System's described in the previous section.

## ECONOMIC AND CAPITAL MARKET OVERVIEW

For fiscal year 2015, the System produced its sixth consecutive year of positive performance. The period since the 2008 financial crisis has been good for financial markets and the global economy. This was a year characterized by modest investment returns from a portfolio perspective, but widely varied returns within the underlying investments of the fund. Overall, the assets for the System produced a net return of 2.7 percent, representing a modest absolute return, but an attractive return relative to the policy benchmark portfolio return of 0.9 percent.

This moderate return belies the large movements in financial markets that produced it. Interestingly, when observing the major allocations within the investment portfolio, it might have seemed like returns would be higher. Domestic stocks produced a return in excess of 7 percent. Developed non-U.S. stocks produced a return of more than 11 percent in local currencies and emerging market stocks produced about 3 percent in local terms. Domestic bonds also produced a positive return of nearly 2 percent as measured by the Barclays Aggregate Bond index.

Most of the market volatility during fiscal year 2015 can be attributed to currencies and commodities, as both markets experienced extreme volatility. Currency volatility versus the dollar was broad, ranging from emerging market currencies such as Russia (-62%) and Brazil (-40%), to developed market currencies like the Japanese Yen (-21%) and the Euro (-19%). To the extent investors had exposure to non-dollar investments, returns were negatively impacted by the broad based strength in the dollar. Currency movements were driven by changes and anticipated changes in monetary policy. The Euro weakened after the ECB announced a quantitative easing policy in an effort to stimulate growth and inflation. Emerging market currencies began to weaken when the Federal Reserve signaled the impending end to the zero interest rate policy regime. Emerging economy central banks were forced to decide whether to defend their currency by selling hard currency reserves or allowing the currency to devalue to improve the balance of payments. These movements in currencies had a big impact on investment results depending on your local currency. In U.S. dollar terms, developed market stocks outside the U.S. fell 5.3 percent, while emerging market stocks fell 5.1 percent.

Commodities were another source of extreme volatility. From an economic impact perspective, oil led the way

with a decline from \$95 to \$60 per barrel of West Texas Intermediate crude for the year ending June 30, 2015. The surge in productive capacity from the U.S. shale boom helped create a supply and demand imbalance in crude. Other commodities such as copper (-18%) and iron ore (-32%) were impacted by a slowdown in China economic growth. Overall, the Bloomberg commodity index fell 24 percent.

Commodity prices impacted the high yield bond markets. Metals, mining and energy companies make up a significant portion of the Barclays High Yield index at 19.1 percent as of June 30, 2015. The prodigious drop in commodity prices, combined with the rapid growth in borrowing in these sectors over the past several years, put significant pressure on yield spreads. Higher default risk was not the only source of pressure on spreads. The Dodd-Frank Act curtailed the willingness of banks to hold corporate bond inventory. The deteriorating fundamentals and poor technical condition of the market drove high yield spreads wider by over 140 basis points (1.4%). During this fiscal year, this widening in spreads, combined with a modest increase in treasury yields, drove high yield bond returns into negative territory for the year (-0.4%). Commodity prices and currencies also impacted the expectations for inflation. Lower commodity prices and a stronger dollar reduced inflation in the U.S. during the fiscal year. Lower inflation was a drag on inflation-protected securities both in terms of current income and the forecast for future inflation.

Fiscal year 2015 saw a continuation of the recent pattern of outperformance of U.S. stocks. For the five-year period ending June 30, 2015, the Russell 3000 index produced 8% more return than the MSCI EAFE index on an annualized basis, and nearly 14 percent more than emerging market equities as measured by the MSCI Emerging Markets Index. Asset allocations with a bias to U.S. equities have had a significant return advantage over this time frame.

## PUBLIC EQUITIES

As of June 30, 2015, approximately \$17.2 billion of the total assets of the System were invested in public equities, representing 37.6 percent of total assets. The public equity program has three components: U.S. equities, international equities and global equities. The program is constructed without a home country bias. Accordingly, the weightings of the three components are adjusted from time to time, reflecting the investable global public equity opportunity set.

The Terra Maria program for the System, which seeks to identify promising smaller or developing management firms, is an integral part of the public equities asset class. As of June 30, 2015, 74.3 percent of the Terra Maria program was invested in public equities, with 47.0 percent in U.S. equities. Each of the managers in the Terra Maria program has an active management mandate. A more detailed discussion of the Terra Maria program follows below.

#### A. U.S. Equities

As of June 30, 2015, approximately \$4.7 billion, or 10.2 percent of total assets, were invested in U.S. public equities. Passively and enhanced passively managed equities totaled \$3.2 billion, while actively managed assets outside of the Terra Maria program totaled \$191 million and Terra Maria program assets were \$1.3 billion, representing 6.9 percent, 0.4 percent, and 2.9 percent of total assets, respectively.

U.S. Equity	\$ Millions	% of Total Plan
<b>Passively Managed</b>	<b>\$3,145.4</b>	<b>6.9%</b>
<b>Actively Managed</b> (exclude T.M.)	<b>\$191.1</b>	<b>0.4%</b>
<b>Terra Maria Program</b>	<b>\$1,347.5</b>	<b>2.9%</b>
<b>Total U.S. Equity</b>	<b>\$4,684.0</b>	<b>10.2%</b>

For fiscal year 2015, U.S. equities returned 6.4 percent, compared to 7.3 percent for its benchmark, the Russell 3000 Index.

#### B. International Equities

As of June 30, 2015, approximately \$5.1 billion, or 11.0 percent of total assets, were invested in international equities. Passively managed assets totaled approximately \$2.5 billion, while actively managed assets outside of the Terra Maria program totaled approximately \$1.8 billion and Terra Maria assets were \$0.8 billion, representing 5.4 percent, 3.9 percent and 1.7 percent of total assets, respectively. As more fully described below, in 2009 the System instituted a currency overlay program which is designed to protect the value of some foreign equities in a rising dollar environment.

International Equity	\$ Millions	% of Total Plan
<b>Passively Managed</b>	<b>\$2,460.8</b>	<b>5.4%</b>
<b>Actively Managed</b> (exclude T.M.)	<b>\$1,779.8</b>	<b>3.9%</b>
<b>Terra Maria Program</b>	<b>\$761.2</b>	<b>1.7%</b>
<b>Currency Overlay</b>	<b>\$61.2</b>	<b>0.1%</b>
<b>Total International Equity</b>	<b>\$5,063.0</b>	<b>11.0%</b>

For fiscal year 2015, international equities, including the impact of the currency overlay program, returned -0.3 percent compared to -5.3 percent for its benchmark, the MSCI All Country World ex-U.S. Index.

#### C. Global Equities

As of June 30, 2015, approximately \$7.5 billion, or 16.4 percent of total assets were invested in global equities. Actively managed long-only assets outside of the Terra Maria program totaled \$5.3 billion; Terra Maria assets were \$22.5 million, and actively managed long-short assets totaled \$1.8 billion, representing 11.5 percent, 0.0 percent, and 3.8 percent of total assets, respectively. The currency overlay program is also applied to the global equity program.

Global Equity	\$ Millions	% of Total Plan
<b>Passively Managed</b>	<b>\$418.4</b>	<b>0.9%</b>
<b>Actively Managed</b> (exclude T.M.)	<b>\$5,269.8</b>	<b>11.5%</b>
<b>Terra Maria Program</b>	<b>\$22.5</b>	<b>0.0%</b>
<b>Long/Short Funds</b>	<b>\$1,754.3</b>	<b>3.8%</b>
<b>Currency Overlay</b>	<b>\$35.0</b>	<b>0.1%</b>
<b>Total Global Equity</b>	<b>\$7,500.0</b>	<b>16.4%</b>

For fiscal year 2015, global equities returned 4.8 percent compared to 0.7 percent for the MSCI All Country World Index.

#### CURRENCY OVERLAY PROGRAM

The currency overlay program was implemented in May of 2009. An objective of the program is to provide insurance against a strengthening dollar, which could negatively impact returns from foreign currency denominated equities. Managers in this program use a systematic currency overlay strategy and generally, do not make fundamental currency valuation assessments. The strategy is also dynamic in that the degree to which currency hedging is applied changes depending on currency market conditions. Managers in this program tend to use low hedge ratios when the dollar is weak and high hedge ratios when the dollar is strong.

During fiscal year 2015, the currency program added significant value in the international and global public equity programs as the U.S. dollar strengthened relative to other currencies. The value generated by the currency overlay program during the fiscal year was \$368.9 million. In addition to generating substantial value during fiscal year 2015, the currency hedging program has also served to

reduce volatility and improve the risk/return profile of the international and global equity programs since its inception.

### PRIVATE EQUITY

As of June 30, 2015, private equity totaled \$3.7 billion, or 8.0 percent of total assets. This asset class includes buyouts, growth equity, venture capital, secondaries and funds-of-funds.

In fiscal year 2015, commitments were made to 20 private equity funds, totaling \$1.7 billion. Since the inception of the private equity program in fiscal year 2005, \$8.6 billion in commitments have been made to 151 different funds. In fiscal year 2015, the private equity program returned 13.2 percent, compared to 7.6 percent for its benchmark, the State Street Private Equity Index.

In fiscal year 2016, the Board expects that exposure to private equity will continue to increase toward its long-term targeted levels as unfunded commitments of \$4.1 billion are drawn down by the fund managers. Future commitments will follow a pacing model designed to approach the 10 percent allocation target for invested assets. This allocation will be maintained with distributions from mature partnerships, providing the funds to invest in new partnerships.

### FIXED INCOME

As of June 30, 2015, the fixed income portfolio represented \$5.9 billion, or 12.9 percent of total assets. The absolute and relative performance of the portfolio was modest, returning 2.0 percent for the fiscal year, versus 1.9 percent for its benchmark. The portfolio has a blended benchmark of 80 percent Barclays Capital US Aggregate Intermediate Index and 20 percent Barclays Capital Global Bond 1-10 year Hedged Index.

### CREDIT/DEBT STRATEGIES

The credit/debt strategies portfolio totaled approximately \$4.5 billion, representing 9.7 percent of total plan assets as of June 30, 2015. Investments in this asset class are held in both liquid and illiquid structures. Asset types in the portfolio include: mezzanine and distressed debt, high yield and investment grade bonds, bank loans and emerging market debt. The portfolio has a blended benchmark of 50 percent Barclays U.S. High Yield Index, 20 percent

Barclays U.S. Credit Index, 20 percent JP Morgan GBI EM Global Diversified Index and 10 percent S&P LSTA Leveraged Loan Index. The portfolio returned -0.8 percent for the fiscal year, versus -3.1 percent for its benchmark. This outperformance relative to the benchmark was primarily due to the stronger performance of the alternative credit investments of the System.

### REAL ESTATE

In fiscal year 2015, the real estate portfolio returned 12.1 percent versus 10.4 percent for its custom benchmark, a blend of the NCREIF ODCE and FTSE-EPRA NAREIT. At the end of the fiscal year, real estate was valued at \$3.4 billion and accounted for 7.4 percent of total assets. The program includes private investment funds and publicly-traded securities.

The NCREIF ODCE index returned 13.5 percent for the twelve months ending March 31, 2015. (Because of lags in the valuation of private real estate investments, performance is reported with a one quarter lag.) Through June 30, 2015, public real estate securities, as measured by the Financial Times Stock Exchange European Public Real Estate Association/NAREIT Developed REIT Index (Net), had one-year return of -0.4%.

### REAL RETURN

The real return portfolio totaled approximately \$6.0 billion, representing 13.2 percent of total assets as of June 30, 2015. The objectives of this asset class are to provide a level of protection against inflation and event risk, and to enhance diversification for the total fund. As of June 30, 2015, the largest components of the asset class were Treasury Inflation Protected Securities (TIPS) and global inflation-linked bonds totaling \$3.6 billion, or 7.8 percent of total assets. Combined, these two components had a return of 0.6 percent. There was also an allocation to commodities, representing \$1.7 billion, or 3.6 percent of total assets and the remaining assets consisted of publicly-traded Master Limited Partnerships (MLPs) and private investments in infrastructure, timber and energy-related assets.

The real return portfolio returned -5.2 percent in fiscal 2015 versus -6.6 percent for its custom benchmark. The main driver of outperformance for this portfolio relative to the benchmark was the commodity portfolio, which had investments that benefited from falling oil prices.

**ABSOLUTE RETURN**

The absolute return portfolio totaled approximately \$4.9 billion, representing 10.7 percent of total assets as of June 30, 2015. The portfolio consists of four global macro funds, one risk parity strategy, two fund-of-funds, five relative value multi-strategy funds, and one insurance fund. Its goal is to provide diversification for the total plan through its low correlation to the broad financial markets. This portfolio underperformed its benchmark in fiscal 2015, returning 0.7 percent versus 2.8 percent for the HFRI Fund of Funds: Conservative Index.

**TERRA MARIA PROGRAM**

As previously mentioned, the Terra Maria program seeks to identify promising smaller or developing managers. The seven existing public market program managers serve as an extension of staff to source investment managers, perform manager due diligence, monitor managers and prepare manager "hire/fire" and funding recommendations. The managers include Attucks Asset Management, Bivium Capital Partners, Capital Prospects, FIS Group, Leading Edge Investment Advisors, Northern Trust Global Advisors and Progress Investment Management Company.

Terra Maria publicly-traded assets totaled approximately \$2.9 billion, or 6.3 percent of total assets at June 30, 2015. The program returned 1.8 percent for the fiscal year, compared to the custom benchmark return of 2.2 percent. The relative performance results have remained positive since the April 2007 inception of the program.

During fiscal year 2011, the Terra Maria program was expanded to include investments in private equity partnerships. Since January 2011, \$5.2 billion has been committed globally to 70 private equity funds. Of this, \$3.0 billion has been committed to 39 domestic funds, which includes \$510 million to 14 Terra Maria emerging managers.

Additionally, at the end of fiscal year 2015, \$5.2 billion, or 11.3 percent of the System's total assets, were managed by minority and women-owned firms.

In the Terra Maria program, as well as in other parts of the fund's portfolio, the Chief Investment Officer has the ultimate responsibility for making manager selection and termination decisions, and for determining funding allocations.

**CONCLUSION**

Fiscal year 2015 was a transition period for investments. While returns were low, they were within the expected range of variability for the asset allocation of the System. Effective manager selection and risk management programs improved the System's experience. Asset classes that had been strong performers in recent years were challenged by large swings in commodity and currency values, with the performance leadership moving to private market investments. Fiscal year 2015 demonstrated the importance of having a diversified set of investments that minimize the dominance of any single asset class and the value of proactively identifying strategies to mitigate portfolio level risks.

I begin my association with the System in fiscal year 2016 and am submitting this report on behalf of the Board and investment staff that worked together to produce these results. I look forward to working alongside these groups to continue to provide investment results that meet the specific objectives of the MSRPS and its beneficiaries. I also take this opportunity to thank Robert Burd, who served in the role of Interim Chief Investment Officer, for his stewardship over the last year.

Respectfully submitted,



Andrew C. Palmer CFA  
Chief Investment Officer



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## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### INVESTMENT PORTFOLIO SUMMARY as of June 30, 2015 and 2014 (Expressed in Thousands)

	2015		2014	
	Fair Value	% of Fair Value	Fair Value	% of Fair Value
<b>Fixed Income</b>				
Fixed Income	\$ 6,195,853	13.5	\$ 6,665,867	14.7 %
Credit Opportunity	4,219,953	9.2	4,292,793	9.5
(2) Net cash & cash equivalents (manager)	(24,713)	(0.1)	339,556	0.6
<b>Total Fixed Income</b>	<b>10,391,093</b>	<b>22.6</b>	<b>11,298,216</b>	<b>24.8</b>
<b>Public Equity</b>				
Domestic stocks	4,599,465	10.0	4,601,678	10.2
Global stocks	7,386,829	16.1	7,424,509	16.3
International stocks	4,907,783	10.7	5,416,324	11.9
(2) Net cash & cash equivalents (manager)	352,908	0.8	228,746	0.5
<b>Total Equity</b>	<b>17,246,985</b>	<b>37.6</b>	<b>17,671,257</b>	<b>38.9</b>
<b>Absolute Return</b>	<b>4,873,922</b>	<b>10.7</b>	<b>4,252,178</b>	<b>9.4</b>
<b>Private Equity</b>	<b>3,675,473</b>	<b>8.0</b>	<b>3,184,976</b>	<b>7.0</b>
<b>Real Estate (includes private)</b>	<b>3,361,700</b>	<b>7.4</b>	<b>3,074,722</b>	<b>6.8</b>
<b>Real Return</b>	<b>5,949,023</b>	<b>13.0</b>	<b>5,073,620</b>	<b>11.2</b>
(2) Net cash & cash equivalents (manager)	108,667	0.2	360,622	0.8
(1) Cash (non-manager)	226,580	0.5	499,960	1.1
<b>Total Portfolio</b>	<b>\$45,833,443</b>	<b>100.0</b>	<b>\$45,415,551</b>	<b>100.0 %</b>

(1) Security Lending collateral payable has been netted against the actual collateral. The amounts net to zero.

(2) Includes investment receivables and payables.

Note: This schedule includes assets invested on behalf of the Maryland Transit Administration.

## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### INVESTMENT PORTFOLIOS BY MANAGER

as of June 30, 2015

(Expressed in Thousands)

	Fair Value	Investment Advisory Fees		Fair Value	Investment Advisory Fees
<b>Public Equity</b>			<b>Fixed Income Manager</b>		
State Street Global Advisors	\$ 3,475,710	\$ 2,155	Western Asset Management	\$ 1,889,628	\$ 2,984
Equity Long Short (1)	1,754,318	36,851	Pacific Investment Management Company	776,803	1,787
RhumbLine Advisors	1,560,952	153	Aberdeen Asset Management, Inc.	612,944	1,064
AQR Capital Management, LLC	1,197,443	4,184	State Street Global Advisors	438,700	71
D E Shaw & Co., LP	1,188,728	3,883	Dodge & Cox	428,618	484
T. Rowe Price Associates, Inc.	718,929	2,055	Pyramis Global Advisors	426,929	628
Templeton Investment Counsel, Inc.	621,462	1,995	Principal Global Investors	420,738	583
Acadian Asset Management	512,738	1,905	Goldman Sachs Asset Management	417,822	791
Artisan Partners Limited Partnership	506,816	2,572	Progress Investment Management (1)	312,151	1,202
Baillie Gifford & Company	498,564	2,307	Northern Trust Global Advisors, Inc.(1)	164,993	375
Brown Capital Management	471,642	2,705	Attucks Asset Management, LLC (1)	125,248	472
Schroders Investment Management	455,016	1,416	Capital Prospects, LLC (1)	69,539	145
GMO Global All Country	451,773	851	Leading Edge Invest. Advisors, LLC (1)	44,940	225
Northern Trust Global Advisors, Inc.(1)	434,443	1,995	Bivium Capital Partners (1)	21,148	116
Dimensional Fund Advisors, Inc.	415,043	1,630	Other (2)	0	1,062
Capital Prospects, LLC (1)	390,211	1,944		<u>\$ 6,150,200 (3)</u>	<u>\$ 11,989 (4)</u>
FIS Group, Inc.(1)	364,323	1,809			
Leading Edge Invest. Advisors, LLC (1)	332,284	2,483	<b>Real Return (1)</b>	\$ 6,002,535	\$ 33,670
Attucks Asset Management, LLC (1)	307,026	2,032	<b>Absolute Return (1)</b>	4,881,869	55,856
Longview Partners Ltd.	304,557	1,858	<b>Credit/Debt Related (1)</b>	4,276,667	51,287
Bivium Capital Partners(1)	302,837	2,016	<b>Private Equity Funds (1)</b>	3,675,473	62,639
UBS Global Asset Management, Inc.	260,530	1,056	<b>Real Estate</b>		
Genesis Asset Management	221,146	1,868	Private Real Estate (1)	2,710,867	26,323
Earnest Partners	212,134	1,233	Morgan Stanley Investment Management	414,205	2,316
Zevenbergen Capital Investment LLC	101,692	586	SSGA Global Liquid RE Securities	242,520	220
Record Currency Management	96,221	4,816	Record Currency Management	5,397	218
Relational Investors, LLC	89,472	6,213	<b>Other (2)</b>	144	5,975
Other (2)	975	3,870	<b>Cash - Internally Managed</b>	226,580	N/A
	<u>\$ 17,246,985 (3)</u>	<u>\$ 98,440 (4)</u>		<u>\$ 22,436,257 (3)</u>	<u>\$ 238,504 (4)</u>

(1) Sub-managers separately listed on the following pages

(2) Consulting fees and/or investment managers no longer under contract as of 6/30/15

(3) Includes assets invested on behalf of the Maryland Transit Administration.

(4) Includes management fees allocated to the Maryland Transit Administration.

## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### ALTERNATIVE INVESTMENTS RELATIONSHIP LISTING

as of June 30, 2015

#### Private Equity

.406 Ventures II	Crescent Capital Partners V	Longitude Venture Partners II LP
Abbott Capital Private Equity Fund III	CVC European Equity Partners V-B LP	Madison Dearborn Capital Partners V LP
ABS Capital Partners VI LP	Dover Street VII LP	Madison Dearborn Capital Partners VI LP
ABS Capital Partners VII LP	ECI 8 LP	MBK Partners Fund III
Adams Street Partners LLC	ECI 9 LP	MD Asia Investors, LP
Advent Central & Eastern Europe IV LP	Equistone Partners Europe IV	MD Asia Investors II, LP
Advent International GPE V-D LP	Equistone Partners Europe V	Navis Asia Fund VI
Advent International GPE VI-A LP	Everstone Capital Partners II LLC	New Mainstream Capital II
AIF Capital Asia IV	Fort Point Capital I	New Mountain Partners III LP
Alchemy Partners LP	Frazier Healthcare V LP	New Mountain Partners IV LP
Apax Europe VI-A LP	Frazier Healthcare VI LP	North Sky Clean Tech Fund IV LP
Apax Europe VII-A LP	Frazier Healthcare VII LP	Northstar Equity Partners IV
Apax France VIII	Frontier Fund	Orchid Asia V
Apollo Investment Fund VII (AIF) LP	Frontier Fund IV	Orchid Asia VI
Apollo Investment Fund VIII (AIF) LP	Goldman Sachs Vintage Fund V LP	Partners Group Secondary 2008 LP
Arcadia II Beteiligungen BT GmbH & Co	Graphite Capital Partners VII	Partners Group Secondary 2011 LP
Audax Private Equity Fund II LP	Graphite Capital Partners VII Top Up	Partners Group Emerging 2011 LP
Audax Private Equity Fund III LP	Graphite Capital Partners VIII	Permira IV LP 2
Audax Private Equity Fund IV LP	Great Hill Equity Partners III	Private Equity Partners Fund IV
Azure Capital Partners II LP	Great Hill Equity Partners IV	Quaker BioVentures II
Azure Capital Partners III LP	Great Hill Equity Partners V	Riverside Asia Pacific Fund II
Bain Capital European Fund IV	Hancock Park Capital III	Riverside Capital Appreciation V LP
Bain Capital Fund IX LP	HarbourVest Partners VI Buyout Fund	Riverside Capital Appreciation VI LP
Bain Capital IX Coinvestment Fund LP	HarbourVest Partners VI Partnership Fund	Riverside Europe Fund IV LP
Bain Capital Fund X LP	Hellman & Friedman Investors VI LLC	RLH Investors II LP
Bain Capital X Coinvestment Fund LP	Hellman & Friedman Investors VII LLC	RLH Investors III LP
Bain Capital Fund XI LP	Hg Capital 5 LP	Siris Partners II
BC European Capital VIII LP	Hg Capital 6A LP	SSG Capital Partners III
BC European Capital IX LP	Hg Capital 7 LP	Summer Street Capital Fund II LP
Black River Capital Partners Fund (Agr. A) LP	Hg Mercury	Summer Street Capital Fund III LP
Blackstone Capital Partners VI	Hg Capital 7 LP	Symmetric Partners LP
Blue Wolf III	Institutional Venture Partners XV	TA X LP
Brazos Equity Advisors III LP	ICV Partners III	TA XI LP
Bunker Hill Capital II LP	KKR European Fund III LP	TDR Capital III
Calvert Street Capital Partners III	Landmark Equity Partners XIV	TPG Partners VI LP
Camden Partners Strategic Fund IV	Landmark Equity Partners XV	Triton Fund III
Carlyle Partners V LP	Lexington Capital Partners VII	Triton Fund IV
Carlyle Partners VI LP	Lexington Middle Market	Valhalla Partners II LP
CDH Fund V	Lion Capital Fund I LP	Vector Capital IV LP
Charterhouse Capital Partners VIII LP	Lion Capital Fund II LP	Vestar Capital Partners V LP
Charterhouse Capital Partners IX LP	Lion Capital Fund III	Vista Equity Partners IV
Clayton, Dubilier & Rice Fund VIII	Littlejohn Fund III LP	Vista Equity Partners V
Clayton, Dubilier & Rice Fund IX	Littlejohn Fund IV LP	Vista Foundation
Collar Capital Partners VI	Littlejohn Fund V LP	Vistria I
Commonwealth Capital Ventures IV LP	LLR Equity Partners IV	Wind Point Partners VII LP
Court Square	Lombard Asia	Yucaipa American Alliance Fund II LP
Crescent Capital Partners IV	Longitude Venture Partners LP	

#### Private Real Estate

AEW Senior Housing Fund II	Lone Star Real Estate Fund III
Blackrock Asia Property Fund III	Lubert Adler Real Estate Fund III
CBRE Strategic Partners Europe Fund III	Lubert Adler Real Estate Fund VI
CBRE Strategic Partners UK Fund III	Lubert Adler Real Estate Fund VI-A
CBRE Strategic Partners US Value 5 LP	Morgan Stanley Prime Property Fund
CBRE Strategic Partners US Value 6 LP	PRISA II (Prudential Real Estate Investors)
CBRE Strategic Partners US Value 7 LP	Realty Associates Fund IX
Chesapeake Maryland Limited Partnership	Realty Associates Fund X
Covenant Apartment Fund VII	Rockwood Capital R E Partners Fund VIII LP
Europe Fund III LP	Rockwood Capital R E Partners Fund IX LP
Federal Capital Partners II	Secured Capital Japan R E Partners Asia LP
Frogmore Real Estate Partners II	Secured Capital Japan R E Partners IV LP
GI Partners Fund III LP	Starwood Debt Fund II LP
GI Partners Fund IV LP	Starwood Hospitality Fund II
JP Morgan Investment Management Inc	Tristan Cap- European Special Opps 3
Lion Industrial Trust	UBS Trumbull Property Fund
Lone Star Real Estate Fund II	



## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### ALTERNATIVE INVESTMENTS RELATIONSHIP LISTING

as of June 30, 2015

(continued)

#### Real Return

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Alinda Infrastructure Fund II	Natural Gas Partners XI LP
Astenbeck Commodities Fund	NGP Midstream & Resources LP
Black River Commodity Trading Fund	PIMCO Global Inflation Linked Bonds
Core Commodity Management Diversified I	Quantum Energy Partners IV LP
Edesia Comm Dynamic Agriculture Fund	Quantum Energy Partners V LP
EIF Power Fund IV	Quantum Energy Partners VI LP
First Reserve Fund XII LP	RMS Forest Growth III
Global Timber Investors 9	State Street Global Advisors US Tips
Gresham Investment Management LLC	State Street Global Advisors Global Linkers
Hancock Timber X LP	Taylor Woods Partners
Harvest Fund Advisors	Timbervest Partners III LP
Koppenberg Macro Commodity Fund	Tortoise Capital Advisors
Natural Gas Partners VIII LP	Vermillion/Celadon Commodities Fund
Natural Gas Partners IX LP	Western Global Inflation Linked Bonds
Natural Gas Partners X LP	White Deer Energy

#### Absolute Return

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Aristeia Capital	Hudson Bay Fund
BlackRock Global Ascent	Hutchin Hill Diversified Alpha
Bridgewater All Weather	Mellon Global Alpha II
Bridgewater Pure Alpha	Nephia Palmetto Fund
Carlson Double Black Diamond	Pine River Fund
DGAM Diversified Strategies Fund	Rock Creek Potomac Fund
Graham Tactical Trend	

### FIXED INCOME RELATIONSHIP LISTING

as of June 30, 2015

#### Credit/Debt Related

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Alchemy Special Opps Fund II	Merit Mezzanine Fund V
Alchemy Special Opps Fund III	Neuberger Berman Flexible Credit
Anchorage Capital Group	Oaktree Capital Management
Apollo Credit Opps Fund III	Oaktree European Principal Fund III
CarVal Credit Value Fund A LP	Oaktree Opportunity Fund VIII
CarVal Credit Value Fund II	Oaktree Opportunity Fund VIII B
CarVal Credit Value Fund III	Oaktree Principal Fund V
Castle Lake III	Park Square Capital Partners II
Clearlake Capital Group	Partners Group European Mezzanine 2008 LP
Crescent Capital Mezzanine Partners VI	Peninsula Fund V
EIG Energy Fund XV	Perella Weinberg Partners
EIG Energy Fund XVI	Prudential Capital Partners III
Falcon Strategic Partners III	Prudential Capital Partners IV
Falcon Strategic Partners IV	Shoreline China Val Fund III
King Street Capital	SSGA Emerging Markets Debt
KKR Flexible Credit	Stone Harbour Emerging Debt
KKR Mezzanine Partners 1	TA Subordinated Debt Fund III
LBC Credit Partners II LP	Varde Fund X
Mackay Shields	Wayzata Investment Partners III

## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### TERRA MARIA PROGRAM

as of June 30, 2014

#### Terra Maria Program

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##### Attucks Asset Management

Advent Capital Management  
Apex Capital Management  
Brown Investment Advisory  
Campbell Newman Asset Management  
Chicago Equity Partners  
Globeflex Capital LP  
GW Capital Inc  
Hanseatic Management Services Inc  
LM Capital Group LLC  
Lombardia Capital Partners LLC  
Mar Vista Investment Partners  
Nicholas Investment Partners  
Opus Capital Management  
Paradigm Asset Management Co.  
Seizert Capital Partners  
The Edgar Lomax Company  
Thomas White International LTD

##### Bivium Capital Partners

ARGA Investment Management LP  
Aristotle Capital Management  
Bailard Inc  
Chautauqua Capital Management LLC  
Cheswold Lane Asset Management LLC  
Cornerstone Capital Management Inc  
Cupps Capital Management  
Phocas Financial Corporation  
SW Asset Management LLC  
Vulcan Value Partners  
WCM Investment Management

##### Capital Prospects LLC

AH Lisanti Capital Growth LLC  
Bernzott Capital Advisors  
Geneva Capital Management Ltd  
Inview Investment Management LLC  
Lesa Sroufe & Co.  
Matrix Asset Advisors Inc  
Next Century Growth Investors LLC  
Paradigm Asset Management Co LLC  
Piedmont Investment Advisors LLC  
Profit Investment Management  
Redwood Investment LLC  
Twin Capital Management Inc

*Bold denotes Program Manager for the Terra Maria Program*

Valley Forge Asset Management  
Walthausen & Co LLC

##### FIS Group

Arbor Capital Management  
Ativo Capital Management  
Ativo Capital Management - Emerging  
Black Creek Investment Management, Inc.  
Channing Capital Management LLC  
Greenfield Seitz Capital Management LLC  
Hanoverian Capital Management  
Martin Investment Management  
Seizert Capital Partners

##### Leading Edge Investment Advisors

Apex Capital Management  
Driehaus Capital Management LLC  
Gratry & Company Inc  
Herndon Capital Management  
Kirr, Marbach & Co.  
Markston International LLC  
New Century Investment Management Inc  
Penn Capital Management Co Inc  
Reed, Conner & Birdwell  
SIT Investment Associates Inc  
Westwood Global Investments

##### Northern Trust

ClariVest Asset Management LLC  
Cornerstone Investment Partners  
Dolan McEniry Capital Management  
Herndon Capital Management  
Hexavest Inc.  
Longfellow Investment Management  
Magee Thompson Investment Partners  
New Century Advisors  
Profit Investment Management  
Riverbridge Partners  
Strategic Global Advisors  
Summit Creek Advisors

##### Progress Investment Management

Garcia Hamilton  
New Century Advisors  
Pugh Capital Management Inc

## EQUITY RELATIONSHIP LISTING

as of June 30, 2015

#### Equity Long Short

---

Amici Qualified Associates  
Criterion Capital  
Hoplite OnShore  
Indus-Pacific Opportunities Fund  
Marshall Wace Eureka Fund

Neon Liberty Capital Management  
Scopia Capital Management  
Stelliam Fund

## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### EQUITY COMMISSIONS TO BROKERS

for the Fiscal Year Ended June 30, 2015

*(Expressed in Thousands)*

<b>Brokers (1)</b>	<b>Total Shares</b>	<b>Total Commission</b>
Credit Suisse Securities	139,463	\$ 350
Merrill Lynch	88,810	345
Goldman Sachs	90,378	340
Morgan Stanley	67,254	311
J P Morgan Securities	41,710	294
Instinet	80,798	279
UBS	37,534	253
State Street Bank and Trust	63,149	270
Citigroup Global Markets	29,283	202
Deutsche Bank	49,191	182
Investment Technology Group	13,488	130
HSBC	47,551	125
Barclays Capital, Inc.	22,279	124
G Trade Securities	13,165	111
Jefferies & Company	9,880	106
Sanford C. Bernstein	7,773	105
ITG Inc.	14,286	103
Other Broker Fees	<u>225,275</u>	<u>2,095</u>
Total broker commissions	<u><u>1,041,267</u></u>	<u><u>\$ 5,725</u></u>

*(1) Proceeds from the sale and disbursements for the purchase of securities are reported net of brokers' commissions. As such, brokers' commissions are not included as investment expenses on the Statement of Changes in Plan Net Assets. Other broker fees include 278 brokers each receiving less than \$100,000 in total commissions.*

*For the fiscal year ended June 30, 2015, total domestic equity commissions averaged .56 cents per share, and total international equity commissions averaged 8.37 basis points per share.*

## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### LARGEST STOCK & BOND HOLDINGS AT MARKET as of June 30, 2015

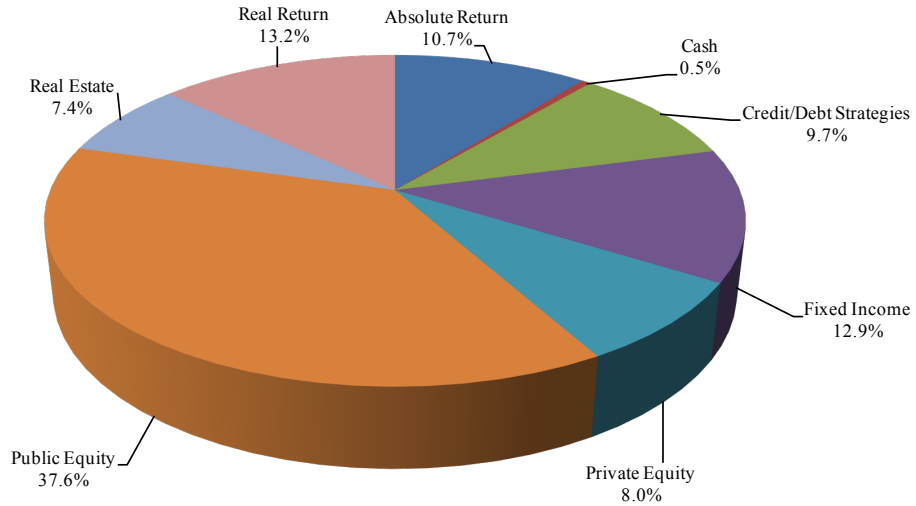
<b>EQUITY INCOME SECURITIES:</b>	<b>Shares</b>	<b>Market Value</b>
Apple Inc.	1,439,915	\$ 180,601,339
Amazon.Com Inc.	281,216	122,073,053
Microsoft Corporation	2,201,517	97,196,976
Gilead Sciences Inc.	708,641	82,967,688
Roche Holdings AG Genusschein	294,744	82,631,136
Exxon Moble Corporation	974,762	81,100,198
Nestle SA Reg	1,014,561	73,278,977
Facebook Inc. A	839,530	72,002,290
JP Morgan Chase & Co	1,060,031	71,827,701
Johnson & Johnson	735,617	71,693,233
Pfizer Inc.	2,087,230	69,984,822
Novartis AG Reg	663,963	65,469,146
Toyota Motor Corporation	963,125	64,565,148
Citigroup Inc.	1,048,582	57,923,670
Merck & Co Inc.	994,002	56,588,534

<b>FIXED INCOME SECURITIES:</b>	<b>Par Value</b>	<b>Market Value</b>
United States Treasury Inflation Linked, 0.125%, due Jan 15, 2023	\$ 166,166,635	\$ 163,232,132
United States Treasury Inflation Linked, 0.125%, due Apr 15, 2019	147,445,610	149,357,980
United States Treasury Inflation Linked, 0.125%, due Apr 15, 2018	139,831,996	142,027,358
United States Treasury Inflation Linked, 0.125%, due Jul 15, 2022	135,543,375	134,515,956
United States Treasury Inflation Linked, 2.375%, due Jan 15, 2025	112,368,682	132,191,641
United States Treasury Inflation Linked, 0.125%, due Jul 15, 2024	134,831,979	131,492,191
United States Treasury Inflation Linked, 0.25%, due Jan 15, 2025	129,135,399	126,663,747
United States Treasury Inflation Linked, 0.375%, due Jul 15, 2023	123,587,479	124,032,429
United States Treasury Inflation Linked, 0.625%, due Jan 15, 2024	119,373,943	121,410,570
United States Treasury Inflation Linked, 0.125%, due Jan 15, 2022	109,539,515	108,557,092
United States Treasury Inflation Linked, 0.125%, due Apr 15, 2017	100,817,353	102,187,461
United States Treasury Inflation Linked, 1.125%, due Jan 15, 2021	86,431,245	91,420,921
United States Treasury Inflation Linked, 3.875%, due Apr 15, 2029	64,431,005	91,260,720
United States Treasury Inflation Linked, 1.375%, due Feb 15, 2044	84,556,303	90,264,709
United States Treasury Inflation Linked, 2.375%, due Jan 15, 2027	69,560,061	83,227,222

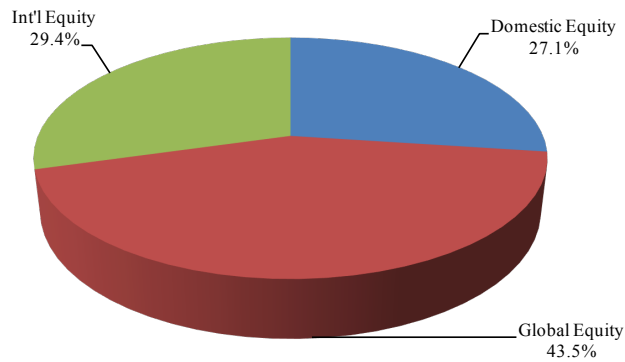
*A complete list of portfolio holdings is available upon request.*

**MARYLAND STATE RETIREMENT AND PENSION SYSTEM**

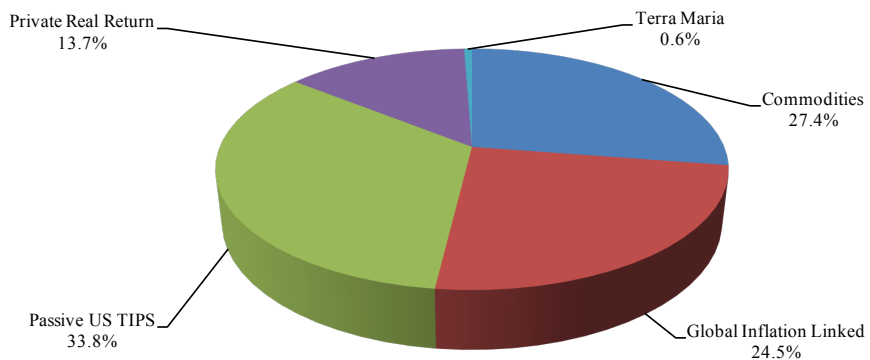
**INVESTMENT PORTFOLIO ALLOCATION  
as of June 30, 2015**



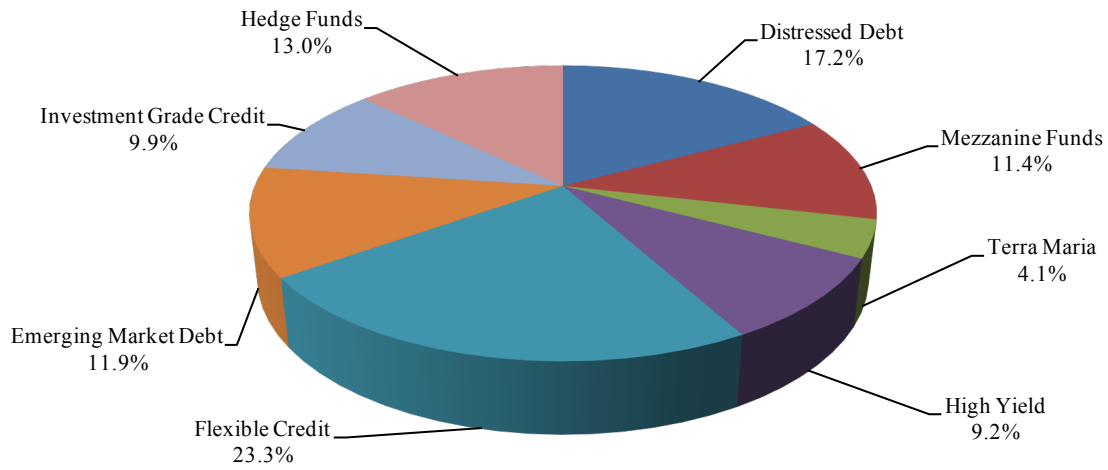
**PUBLIC EQUITY DISTRIBUTION BY TYPE  
as of June 30, 2015**



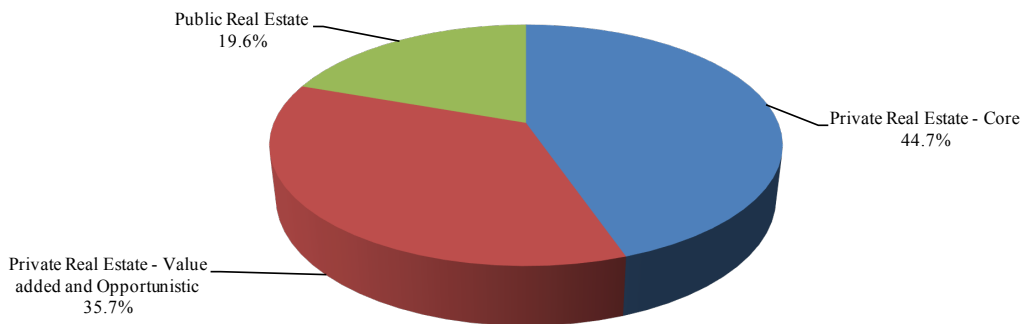
**REAL RETURN DISTRIBUTION BY TYPE  
as of June 30, 2015**



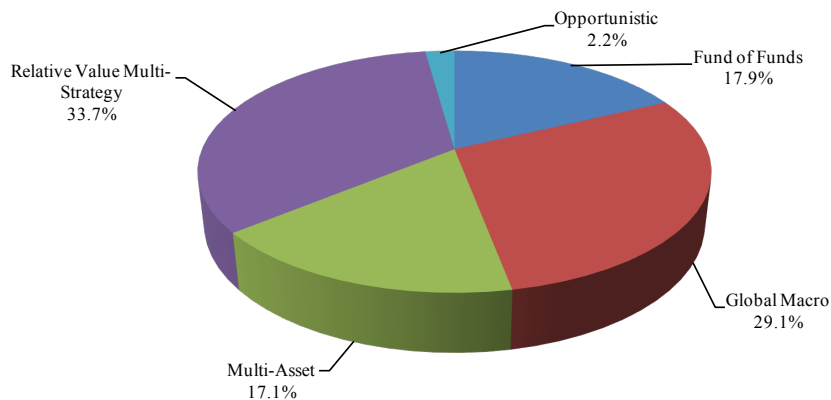
**MARYLAND STATE RETIREMENT AND PENSION SYSTEM**  
**CREDIT/DEBT STRATEGIES DISTRIBUTION BY TYPE**  
as of June 30, 2015



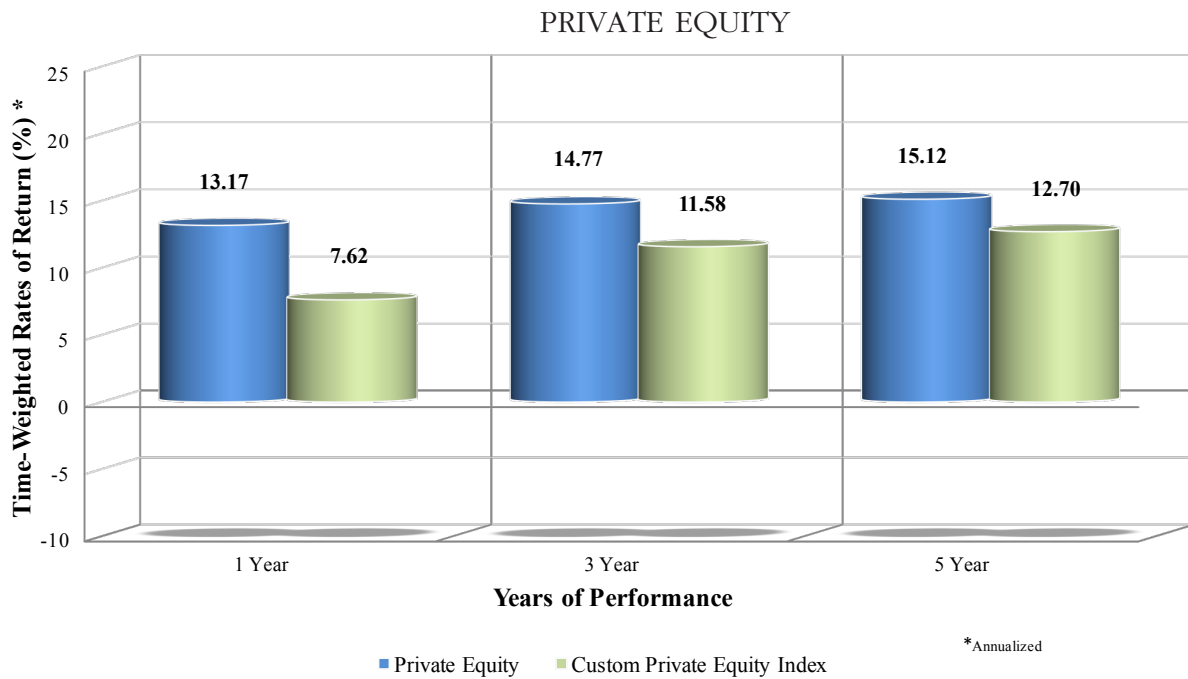
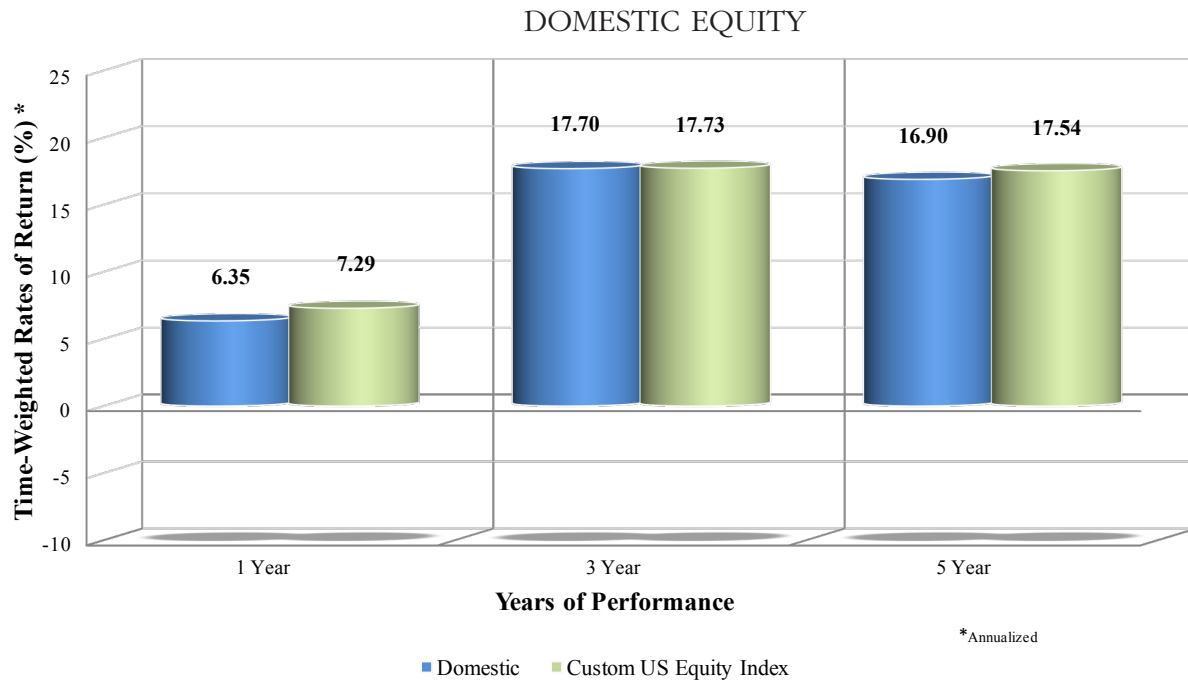
**REAL ESTATE DISTRIBUTION BY TYPE**  
as of June 30, 2015



**ABSOLUTE RETURN DISTRIBUTION BY TYPE**  
as of June 30, 2015



**MARYLAND STATE RETIREMENT AND PENSION SYSTEM**  
 COMPARATIVE INVESTMENT RETURNS ENDING JUNE 30, 2015

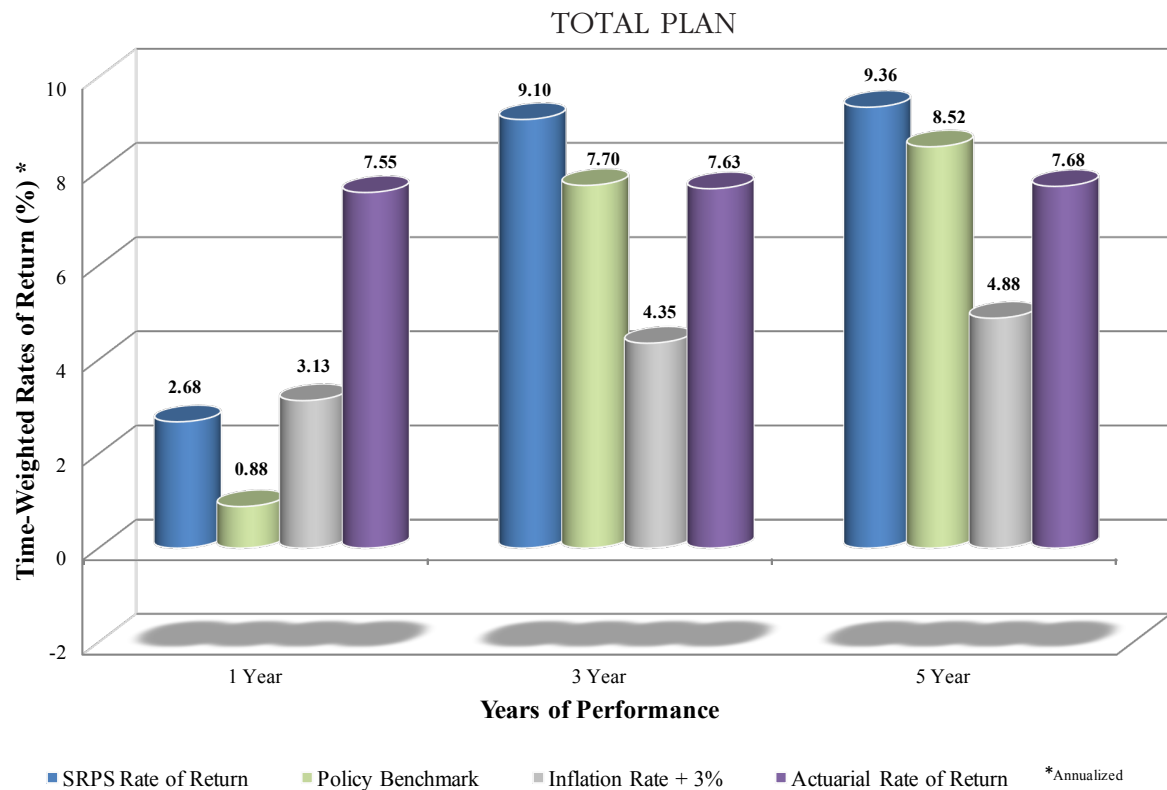
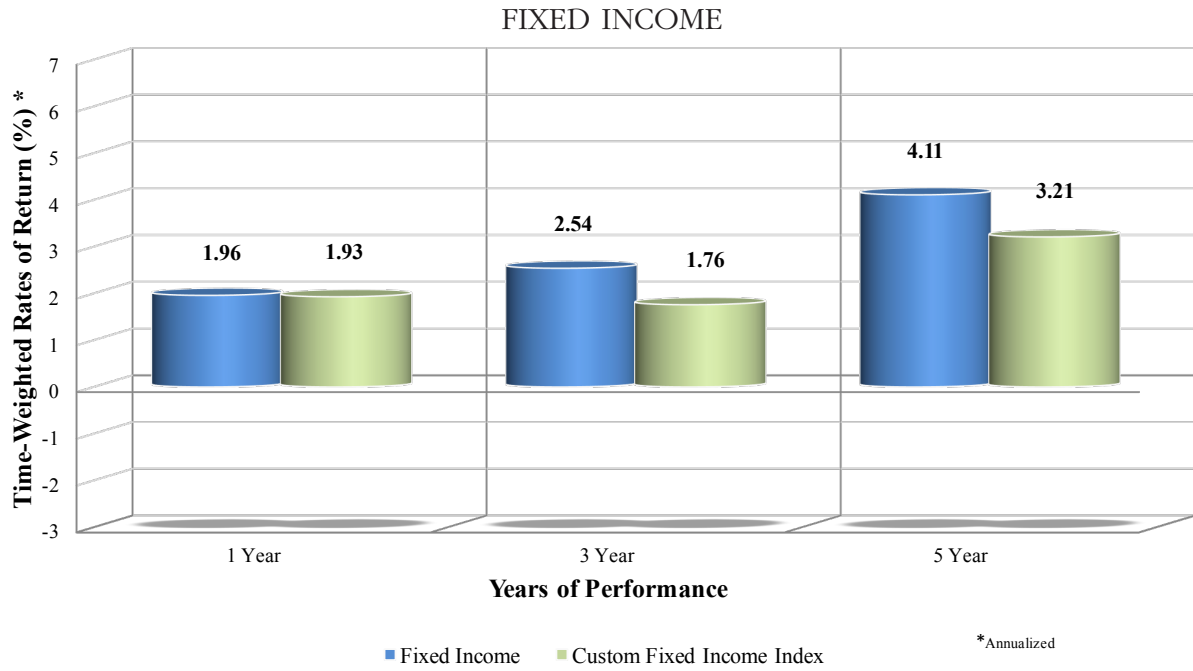


**MARYLAND STATE RETIREMENT AND PENSION SYSTEM**  
 COMPARATIVE INVESTMENT RETURNS ENDING JUNE 30, 2015



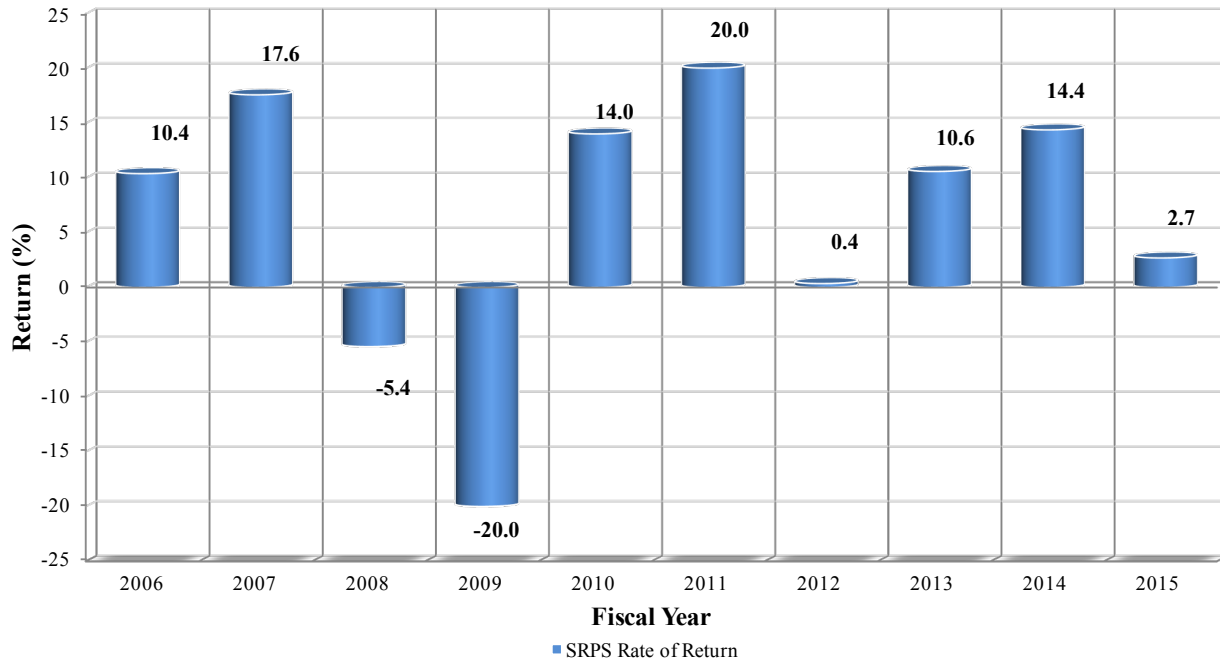


**MARYLAND STATE RETIREMENT AND PENSION SYSTEM**  
**COMPARATIVE INVESTMENT RETURNS ENDING JUNE 30, 2015**

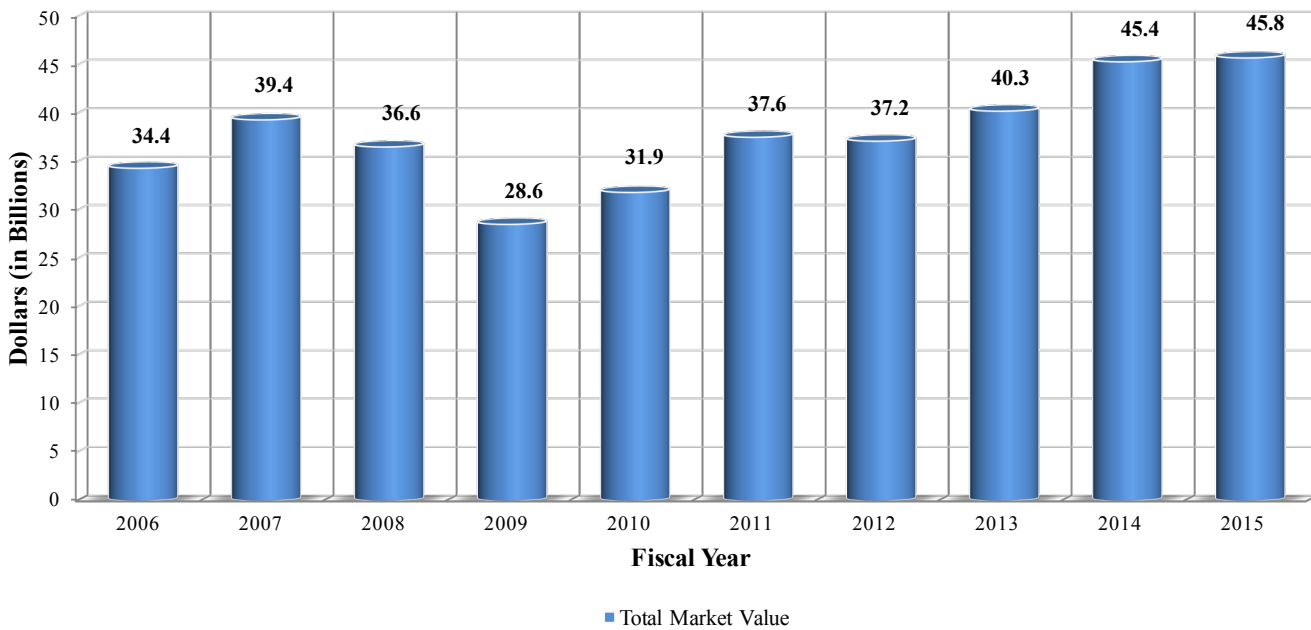


## MARYLAND STATE RETIREMENT AND PENSION SYSTEM

### TEN-YEAR HISTORY OF TIME-WEIGHTED ANNUAL RETURNS



### TEN-YEAR GROWTH OF INVESTMENT PORTFOLIO



The logo for the SRPS Actuarial Section is centered on the page. It features the letters "SRPS" in a large, bold, serif font. Below "SRPS" is the text "Actuarial Section" in a smaller, elegant, cursive script font. The entire logo is set against a light gray background that has a faint, stylized pattern of vertical bars and horizontal lines, resembling a grid or a set of data points.

SRPS  
*Actuarial Section*



Gabriel Roeder Smith & Company  
Consultants & Actuaries

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Southfield, MI 48076-3723

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www.gabrielroeder.com

October 1, 2015

Board of Trustees  
Maryland State Retirement and Pension System  
120 East Baltimore Street  
Baltimore, MD 21202

Dear Members of the Board:

The results of the June 30, 2015 annual actuarial valuation of the Maryland State Retirement and Pension System ("MSRPS") are presented in this report.

This report was prepared at your request and is intended for use by the Maryland State Retirement Agency (SRA) and the Board of Trustees of the MSRPS and those designated or approved by the SRA or the Board. This report may be provided to other parties only in its entirety and only with the permission of the SRA or the Board.

The purposes of the valuation are as follows:

- Measure the financial position of MSRPS with regard to funding,
- Provide the Board with State and PGU contribution rates for certification,
- Determine actuarial and statutory contribution rates with reinvested savings,
- Analyze the aggregate experience of the System over the past year.

Information required by Statements No. 67 and No. 68 of the Governmental Accounting Standards Board ("GASB") that is for fiscal year 2015 is provided in a separate report.

The individual member data required for the valuations was furnished by the SRA, together with pertinent data on financial operations (unaudited). The cooperation and collaboration of SRA staff in furnishing these materials is acknowledged with appreciation. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by SRA.

Actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rates of investment return and payroll growth, eligibility for the various classes of benefits, and longevity among retired lives. The Board adopts these assumptions after considering the advice of the actuary and other professionals.

Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed. GRS performed an experience study of MSRPS for the period 2010-2014 after completion of the June 30, 2014 valuations. Assumptions from the experience study including investment return, inflation, COLA increases, mortality rates, retirement rates, withdrawal rates, disability rates, and rates of salary increase were adopted by the Board for first use in the actuarial valuation as of June 30, 2015. As a result, an investment return assumption of 7.55% and an inflation assumption of 2.70% were used for the June 30, 2015 valuation. It is our opinion that the actuarial assumptions used for the valuation are reasonable.

New funding methodology set forth by Maryland legislation was first reflected in the June 30, 2015 valuation. The legislation removed the corridor funding method effective with the June 30, 2015 valuation.

The benefit provisions valued in the actuarial valuation as of June 30, 2015, are the same as the provisions from the last actuarial valuation as of June 30, 2014. Portions of the savings from the 2011 pension reforms passed by the General Assembly are to be reinvested as additional contributions into the Systems. Legislation enacted in 2015 reduced the amount of reinvested savings to \$75 million per year beginning in fiscal year 2016 until the combined funded ratio of the Systems reaches 85%.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The actuary did not perform an analysis of the potential range of such future measurements in this actuarial valuation report.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. We certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with Maryland's Annotated Code and generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice as promulgated by the Actuarial Standards Board.

This report should not be relied on for any purpose other than the purposes previously described.  
The signing actuaries are independent of the plan sponsor.

This is one of multiple documents comprising the actuarial report. The other documents comprising the actuarial report are the Power Point presentation presented to the Board on October 20, 2015 and the PowerPoint presentation presented to the Joint Committee on Pensions on November 4, 2015.

Brian B. Murphy, Brad L. Armstrong and Amy Williams are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.  
Respectfully submitted,

Sincerely,

Brad L. Armstrong, ASA, MAAA  
Consulting Actuary

Brian B. Murphy, FSA, MAAA  
Consulting Actuary

Amy Williams, ASA, MAAA  
Consulting Actuary

## BOARD SUMMARY

The funding valuation report presents the results of the June 30, 2015 annual actuarial valuation of the Maryland State Retirement and Pension System (MSRPS). The purposes of the annual funding valuations are as follows:

- Measure the financial position of MSRPS,
- Assist the Board in determining employer contribution rates (including reinvested savings) necessary to fund the benefits provided by MSRPS, as well as establishing statutory employer contribution rates,
- Indicate trends in the financial progress of the fund, and
- Analyze the experience of the System over the past year.

A summary of the primary funding valuation results as of June 30, 2015 is presented on the following page.

The Governmental Accounting Standards Board (GASB) 67 and 68 valuation report presents the results of the June 30, 2015 annual accounting valuation of the Maryland State Retirement and Pension System (MSRPS). The purpose of the annual accounting valuations is as follows:

- Provide actuarial reporting and disclosure information for the System's financial report.

A summary of the primary accounting valuation results as of June 30, 2015 is presented in a separate report.

**SUMMARY OF VALUATION RESULTS**  
**JUNE 30, 2015**  
**(\$ IN MILLIONS)**  
**(STATE AND MUNICIPAL)**

	2015						2014		% Change
	TCS	ECS	State Police	Judges	LEOPS	CORS <sup>1</sup>	Total	Total	
<b>A. Demographic Information</b>									
1. Active Number Counts	105,526	83,794	1,394	307	2,488	91	193,600	193,522	0.0%
2. Active Payroll	\$ 6,471	\$ 4,301	\$ 91	\$ 45	\$ 152	\$ 5	\$ 11,064	\$ 10,804	2.4%
3. Retired Number Counts	71,176	72,031	2,508	397	1,711	27	147,850	142,887	3.5%
4. Annual Benefits for Retired Members <sup>2</sup>	\$ 1,942	\$ 1,177	\$ 116	\$ 30	\$ 58	\$ 1	\$ 3,323	\$ 3,148	5.6%
5. Deferred / Inactive Number Counts	24,541	27,846	81	8	293	0	52,769	52,133	1.2%
6. Total Number Counts	201,243	183,671	3,983	712	4,492	118	394,219	388,542	1.5%
<b>B. Assets</b>									
1. Market Value (MV)	\$ 27,764	\$ 15,490	\$ 1,303	\$ 413	\$ 800	\$ 20	\$ 45,790	\$ 45,340	1.0%
2. Rate of Return on MV <sup>3</sup>							2.66 %	14.27 %	
3. Funding Value (FV)	\$ 27,995	\$ 15,615	\$ 1,314	\$ 417	\$ 808	\$ 21	\$ 46,171	\$ 42,997	7.4%
4. Rate of Return on FV							9.20 %	11.22 %	
5. Ratio of FV to MV							100.8%	94.8%	
<b>C. Actuarial Results</b>									
1. Normal Cost as a % of Payroll	11.55%	10.35%	32.42%	38.68%	21.74%	13.93%	11.51%	11.97%	
2. Actuarial Accrued Liability (AAL)									
a. Active	\$ 15,791	\$ 9,176	\$ 389	\$ 173	\$ 421	\$ 10	\$ 25,960	\$ 24,931	4.1%
b. Retired	22,333	13,347	1,702	336	859	11	38,588	36,077	7.0%
c. Deferred/Inactive	811	880	12	3	28	0	1,733	1,602	8.2%
d. Total	\$ 38,934	\$ 23,403	\$ 2,103	\$ 511	\$ 1,309	\$ 21	\$ 66,282	\$ 62,610	5.9%
3. Unfunded AAL (UAAL)	\$ 10,939	\$ 7,788	\$ 789	\$ 95	\$ 500	\$ 1	\$ 20,111	\$ 19,613	2.5%
4. Funded Ratio	71.90 %	66.72 %	62.49 %	81.45 %	61.78 %	96.29 %	69.66 %	68.67 %	
<b>D. Contribution Rates<sup>4</sup></b>									
	<b>STATE PORTION ONLY</b>								
	<b>FY 2017</b>						<b>FY 2016<sup>5</sup></b>	<b>FY 2015<sup>6</sup></b>	
1. Pension Contributions									
a. Employer Normal Cost	4.56%	3.94%	24.42%	32.22%	15.07%		4.77%	5.25%	5.72%
b. Member Contribution Rate	6.99%	6.73%	8.00%	6.46%	7.00%		6.74%	6.72%	6.70%
c. UAAL Contribution Rate	<u>11.23%</u>	<u>14.34%</u>	<u>56.98%</u>	<u>14.34%</u>	<u>24.53%</u>		<u>12.81%</u>	<u>12.36%</u>	<u>13.19%</u>
d. Total	22.78%	25.01%	89.40%	53.02%	46.60%		24.32%	24.33%	25.61%
2. Total Actuarial Employer Rate (1.a + 1.c)	15.79%	18.28%	81.40%	46.56%	39.60%		17.58%	17.61%	18.91%
3. Total Employer Budgeted Rate									
a. Employer Budgeted Rate	15.79%	18.28%	81.40%	46.56%	39.60%		17.58%	16.83%	16.41%
b. Reinvested Savings Rate	<u>0.76%</u>	<u>0.65%</u>	<u>1.10%</u>	<u>0.00%</u>	<u>1.12%</u>		<u>0.74%</u>	<u>0.75%</u>	<u>1.03%</u>
c. Total Employer Budgeted Rate	16.55%	18.93%	82.50%	46.56%	40.72%		18.32%	17.58%	17.44%

<sup>1</sup>Includes CORS Municipal only. State CORS included in ECS.

<sup>2</sup>Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2015 and July 1, 2014, respectively.

<sup>3</sup>Actuarial estimation method shown is expected to differ modestly from figures reported by State Street

<sup>4</sup>Contribution rates shown in the "Total" column are for informational purposes only and are not used for funding purposes.

<sup>5</sup>Reflects the reduction of reinvested savings from \$150 million to \$75 million passed by the General Assembly.

<sup>6</sup>Reflects the reduction of reinvested savings from \$300 million to \$100 million passed by the General Assembly.

Totals may not add due to rounding.

ACTUARY'S COMMENTS

The System's assets earned 2.66%<sup>1</sup> for the year ended June 30, 2015, which is less than the 7.65% assumed rate of investment return. Recognized asset gains from fiscal years 2011, 2013 and 2014 offset recognized asset losses from fiscal years 2012 and 2015 in the actuarial value of assets as of June 30, 2015. This resulted in a gain under the asset smoothing method.

			Total
	State	Municipal	SRPS
Unfunded Actuarial Accrued Liability (UAAL) as of June 30, 2014	\$18,750	\$863	\$19,613
Expected UAAL as of June 30, 2015 before changes	18,923	855	19,778
Changes in benefit provisions:	-	-	-
Changes in methods and assumptions:	1,392	85	1,477
Expected UAAL as of June 30, 2015 after changes	20,315	940	21,255
Actual UAAL as of June 30, 2015	19,260	851	20,111
Net actuarial gain (loss)	1,055	89	1,144
Actuarial gain (loss) by source:			
Actuarial investment experience	605	55	660
Actuarial accrued liability experience	450	34	484

In relative terms, the overall System funded ratio of actuarial value of assets to liabilities increased from 68.67% in 2014, to 69.66% this year. If market value of assets were the basis for the measurements, the funded ratio would have decreased from 72.42% to 69.08% funded.

The market value of assets exceeds the retiree liabilities by about 19% in total, a decrease from 26% last year. This is referred to as a short condition test and is demonstrated in the chart at the bottom of this page. It is looking at the current retiree liabilities as the benefits that will be paid the soonest since these benefits are already in pay status. Active liabilities and deferred vested liabilities do not have associated immediate cash flow requirements. Although the market value of assets exceeds the current retiree liabilities in total, this is not true for two of the smaller systems. For State Police and LEOPS, the market value of assets is less than the retiree liabilities.

	TCS	ECS	State Police	Judges	LEOPS	CORS	Total
Market Value of Assets (MVA)	\$27,764	\$15,490	\$ 1,303	\$ 413	\$ 800	\$ 20	\$45,790
Retiree Liability	22,333	13,347	1,702	336	859	11	38,588
MVA as % of Retiree Liability	124%	116%	77%	123%	93%	178%	119%

<sup>1</sup> Actuarial calculations may differ from figures reported by State Street.

In the 2013 legislative session, the Legislature changed the method used to fund the State Systems of the MSRPS. The unfunded liability for each State System is being amortized over a single closed 25-year period beginning July 1, 2014 and ending June 30, 2039 (23 years remaining as of the June 30, 2015 valuation, which determines the fiscal year 2017 contribution). In addition, the corridor method used by the Teachers' Combined System and the State portion of the Employees' Combined System, which was established in 2001, was being phased-out over a 10-year period. In 2015, the Legislature removed the corridor funding method effective with the June 30, 2015 valuation.

The Teachers' Combined System (TCS) remained out of the corridor since the June 30, 2005 valuation and the State portion of the Employees Combined System (ECS) remained out of the corridor since the June 30, 2004 valuation resulting in contribution rates for TCS and ECS that are less than actuarial rates. With the elimination of the corridor effective with the June 30, 2015 valuation report, TCS and ECS will begin to contribute based on the actuarially determined rate beginning in fiscal year 2017.

In 2011, the General Assembly enacted pension reforms which were effective July 1, 2011, and affected both current actives and new hires. The member contribution rate was increased for members of the Teachers' Pension System and Employees' Pension System from 5% to 7%, and from 4% to 6% in fiscal year 2012 and to 7% in fiscal year 2013 and beyond for LEOPS. In addition, the benefit attributable to service on or after July 1, 2011, is subject to different cost-of-living adjustments (COLAs) that are based on the increase in the Consumer Price Index and capped at 2.5% or 1.0% based on whether the market value investment return from the preceding calendar year was higher or lower than the investment return assumption used in the valuation (currently 7.55%). There were also changes to the provisions for members hired on or after July 1, 2011. The valuation as of June 30, 2012, was the first valuation which included members covered under the Reformed Benefit Plans applicable to members hired on or after July 1, 2011.

In addition to the benefit provision changes, a portion of the savings from the pension reforms is to be reinvested in certain State Systems (TCS, ECS, State Police, and LEOPS). Legislation enacted in 2014 reduced the amount of reinvested savings from \$300 million each year beginning in fiscal year 2014, to \$100 million each year for fiscal years 2014 and 2015, \$150 million for fiscal year 2016, \$200 million for fiscal year 2017, \$250 million for fiscal year 2018, and \$300 million each year beginning in fiscal year 2019 and thereafter until the later of the combined funded ratio of the Systems reaching 85% and the corridor funding method being fully phased out. Legislation enacted in 2015 further reduced the amount of reinvested savings to \$75 million per year beginning in fiscal year 2016 until the combined funded ratio of the Systems reaches 85%. The allocation of reinvested savings by System is in proportion to the savings from the pension reforms as measured in the actuarial valuation as of June 30, 2011.

The actuarially determined rates are equal to the employer normal cost plus the unfunded actuarial accrued liability contribution rate. The unfunded actuarial contribution rate is equal to the payment resulting from amortizing the current unfunded liability as a level percentage of pay over a single 25-year closed period as of June 30, 2013 (23 years remaining as of June 30, 2015).

The fiscal year 2017 budgeted rates for TCS and ECS are equal to the actuarially determined rate. The budgeted rates with reinvested savings are based on a projection of payroll. It is our understanding that the Retirement Agency will monitor contributions to ensure that the System receives the proper amount of reinvested dollar savings during fiscal year 2017.

Beginning in fiscal year 2013, local employers contributed a portion of the statutory normal cost contribution for the Teachers Combined System. Normal cost contribution amounts for local employers for fiscal years 2013 through 2016 are defined by the Maryland statutes. Beginning in fiscal year 2017, local employers will contribute the full normal cost contribution on behalf of their employees.

The schedules required under Government Accounting Standards Board Statement (GASB) No. 67 (beginning with fiscal year 2014) and No. 68 (beginning with fiscal year 2015) are provided in a separate report.

## **OTHER OBSERVATIONS**

### **General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected System Contributions and Funded Status**

Given the System's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the System earning 7.55% on the actuarial value of assets), it is expected that:

1. The employer normal cost as a percentage of pay will decrease to the level of the Reformed Benefit Plan's (i.e., plans for members hired after July 1, 2011) normal cost as time passes as the majority of the active population is comprised of Reformed Plan members,



2. The unfunded actuarial accrued liabilities will be fully amortized after 23 years (June 30, 2039), and
3. The funded status of the plan will increase gradually towards a 100% funded ratio.

**Limitations of Funded Status Measurements**

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

1. The measurement is inappropriate for assessing the sufficiency of System assets to cover the estimated cost of settling the System’s benefit obligations, for example: transferring the liability to an unrelated third party in a market value type transaction.
2. The measurement is dependent upon the actuarial cost method which, in combination with the System’s amortization policy, affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. A funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the System would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).
3. The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets, unless the market value of assets is used in the measurement.

**PRIOR YEAR EXPERIENCE**

**Assets (State and Municipal)**

Plan assets for this System are measured on both a market value and an actuarial or smoothed value basis. The actuarial smoothing method, described in detail in Appendix A, annually recognizes 20% of the difference between (a) the expected investment return if the market value of assets had earned the assumed rate of 7.65% during FY 2015, and (b) the actual investment return. In addition, there is a market value collar that constrains the actuarial value to be within 20% of the market value of assets. In periods of high returns, this method defers the amount of asset gains above the assumed return (7.65% for FY 2015 and 7.55% for FY 2016). Conversely, in periods of returns below the assumed rate, recognition of the losses is deferred. The primary advantage of this smoothing technique is contribution stability. The System does not immediately feel the full impact of lower ( or higher) costs when asset values fluctuate dramatically.

For the plan year ending June 30, 2015, the System’s assets earned 2.66%<sup>1</sup> on a market value basis and 9.20% on a smoothed or actuarial basis. The System experienced an investment loss of \$2,243 million on a market value basis and a gain of \$660 million on an actuarial basis. A reconciliation of market value and actuarial value of assets are presented below.

**(STATE AND MUNICIPAL)**  
**(\$ in Millions)**

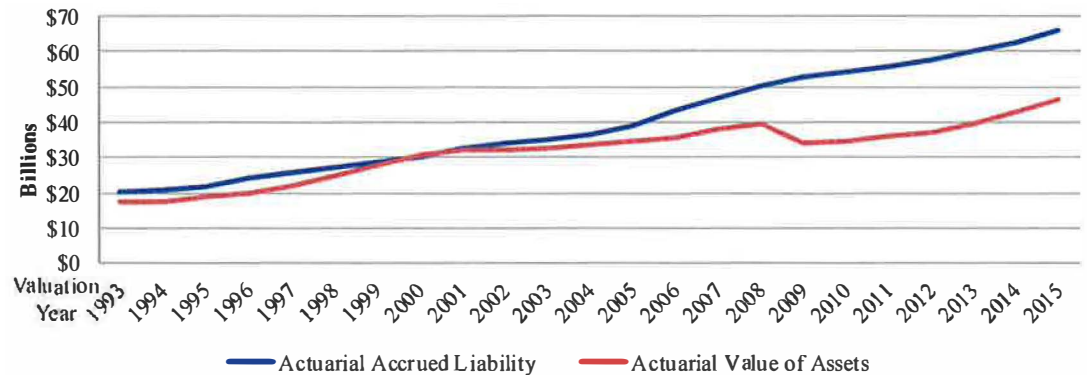
Item (In Millions)	Market Value	Actuarial Value
June 30, 2014 Value	\$ 45,340	\$ 42,997
Employer Contributions	1,859	1,859
Member Contributions	755	755
Benefit Payments and Other Disbursements	(3,362)	(3,362)
Expected Investment Earnings (7.70% in FY2014)	<u>3,440</u>	<u>3,261</u>
Expected Value June 30, 2014	\$ 48,033	\$ 45,510
<b>INVESTMENT GAIN (LOSS)</b>	<b>(2,243)</b>	<b>660</b>
June 30, 20124 Value	\$ 45,790	\$ 46,171
Figures may not add correctly due to rounding		

<sup>1</sup> Actuarial estimation method shown is expected to differ modestly from figures reported by State Street.

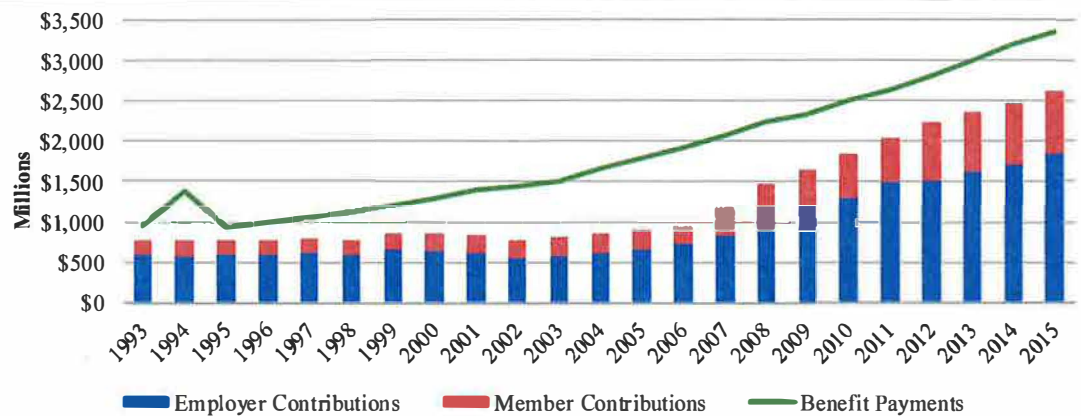
### Trends (State and Municipal)

One of the best ways to measure or evaluate the financial condition of a pension plan is to examine the historical trends that are evolving. Below are three charts which illustrate trend information from 1993 through the end of 2015, on the System's assets and liabilities, annual cash flows in and out of the fund, and the State contribution rate. Our comments on each follow.

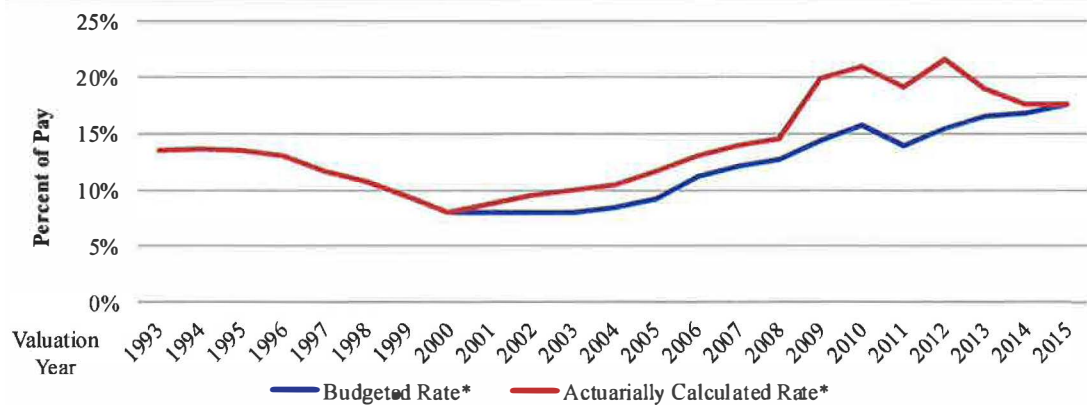
**Chart A:**  
Assets/Liabilities



**Chart B:**  
Benefits vs Contributions



**Chart C:**  
State Contribution Rate



\* Excludes reinvested savings in valuation years 2011- 2015. 2010 rates are prior to the 2011 GA Reforms.

## Comments

**Chart A** displays a comparison of the actuarial value of assets and the actuarial accrued liability. The difference between the actuarial value of assets and the actuarial accrued liability is the unfunded actuarial accrued liability. The unfunded actuarial accrued liability is about \$20 billion as of June 30, 2015, and increased by about \$500 million since the last valuation as of June 30, 2014. As of June 30, 2015, the actuarial value of assets under the 5-year asset smoothing method is 101% of the market value of assets, compared with 95% as of June 30, 2014.

**Chart B** presents non-investment cash flow trend information that can have investment implications. Many statewide retirement systems, with the aging and retirements of the baby boom generation, are seeing payments to retirees on the increase. This is expected for mature retirement systems. Benefit payments, which is the total amount below the green line, exceeds the total contributions, which is the total amount below the top of the red bar. The amount needed to pay excess benefit payments over total contributions comes from investment return or current assets. If the difference between the total benefit payments and total contributions increases, a larger portion of investment return will be needed to pay benefits and may require a change in asset allocation. As long as cash into the fund from employer and employee contributions is increasing in a similar manner to benefit payments, the financial objectives of the System will continue to be met. The budgeted rates under the corridor funding method first became less than the actuarial rates in FY 2006 for ECS and in FY 2007 for TCS. The corridor method increased the extent of negative cash flows. The corridor funding method was eliminated first effective with the June 30, 2015 valuation. The budgeted rates will equal the actuarial rates beginning in fiscal year 2017.

Finally, **Chart C**, looks at the composite actuarially determined and budgeted State contribution rates. The budgeted contribution rates by System determine the fiscal year State appropriation. It shows the impact of the 1990's decade sustained investment gains, a continuous lowering of the rate until 2000. Effective with the 2001 valuation, the State appropriations were performed under

a corridor funding method for the two largest plans. The appropriation remained essentially level for a few years before increasing with the 2004 valuation. Legislation enacted in 2015 has removed the corridor funding method for TCS and ECS beginning with the valuation as of June 30, 2015. The budgeted rate is now equal to the actuarial rate for TCS and ECS.

Chart C further illustrates that, since inception, the corridor method has consistently acted to reduce the State's contributions calculated in valuations between 2000 and 2015.

SUMMARY OF UNFUNDED ACTUARIAL  
(STATE AND

Valuation Date June 30,	Actuarial Liabilities For			Total Liabilities	Actuarial Value of Assets
	Active Member Contributions	Retirees, Term Vested and Inactives	Active Members Employer Fin. Portion		
2006	\$ 2,217,897,868	\$ 22,086,452,920	\$ 18,939,141,669	\$ 43,243,492,457	\$ 35,795,025,134
2007	2,489,643,667	25,790,846,645	18,863,863,688	47,144,354,000	37,886,935,596
2008	2,787,163,875	27,224,603,428	20,232,279,697	50,244,047,000	39,504,284,202
2009	2,959,415,829	28,914,824,184	20,854,931,317	52,729,171,330	34,284,568,617
2010	3,389,265,622	29,900,015,751	20,795,799,745	54,085,081,118	34,688,345,696
2011	3,732,934,034	31,901,090,890	20,283,517,888	55,917,542,812	36,177,655,993
2012	4,274,269,025	34,208,190,190	19,386,686,257	57,869,145,472	37,248,400,780
2013	4,818,674,217	36,001,888,558	19,239,528,603	60,060,091,378	39,350,969,353
2014	5,369,806,786	37,679,277,545	19,561,109,243	62,610,193,574	42,996,956,526
2015	5,908,597,531	40,321,760,550	20,051,422,798	66,281,780,879	46,170,624,066

SUMMARY OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS  
(STATE AND MUNICIPAL)

Fiscal Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		% Increase in Annual Allowances	Average Annual Allowance
	Number	Annual Allowance	Number	Annual Allowances	Number	Annual Allowances		
2006	6,822	\$ 164,369,688	3,247	\$ 34,799,179	103,831	\$ 1,859,904,684	7.49%	\$ 17,913
2007	5,967	177,884,598	1,443	17,852,392	108,355	2,019,936,890	8.60%	18,642
2008	7,310	205,072,079	3,243	48,851,264	112,422	2,176,157,700	7.73%	19,357
2009	6,700	218,347,411	3,115	56,523,577	116,007	2,337,981,534	7.44%	20,154
2010	6,908	147,419,991	2,668	50,510,952	120,247	2,434,890,574	4.14%	20,249
2011	8,639	226,843,465	1,715	55,062,716	127,171	2,606,671,323	7.05%	20,497
2012	7,936	264,562,994	2,614	58,769,603	132,493	2,812,464,714	7.89%	21,227
2013	7,874	238,239,133	2,442	62,081,371	137,925	2,988,622,476	6.26%	21,668
2014	7,698	217,542,920	2,736	58,512,733	142,887	3,147,652,663	5.32%	22,029
2015	8,459	239,724,802	3,496	64,129,306	147,850	3,323,248,158	5.58%	22,477

Notes: Members added to rolls were estimated based on a retirement date/change date after June 30, 2014.

Annual allowances added to rolls include COLA increases for continuing members.

COLA increases were estimated based on the benefits for the continuing members.

LIABILITIES / SOLVENCY TEST  
MUNICIPAL)

Ratio of Assets to Actuarial Liabilities			Funded Ratio (Assets/Liab. Coverage)	Unfunded Actuarial Accrued Liability (UAAL)	Covered Payroll	UAAL as % of Covered Payroll
Active Member Contributions	Retirees Term Vested and Inactives	Active Members Employer Fin. Portion				
100.00%	100.00%	60.67%	82.78%	7,448,467,323	9,287,575,596	80%
100.00%	100.00%	50.93%	80.36%	9,257,418,404	9,971,012,066	93%
100.00%	100.00%	46.92%	78.62%	10,739,762,798	10,542,806,018	102%
100.00%	100.00%	11.56%	65.02%	18,444,602,713	10,714,167,517	172%
100.00%	100.00%	6.73%	64.14%	19,396,735,421	10,657,943,561	182%
100.00%	100.00%	2.68%	64.70%	19,739,886,819	10,478,799,565	188%
100.00%	96.39%	0.00%	64.37%	20,620,744,692	10,336,536,835	199%
100.00%	95.92%	0.00%	65.52%	20,709,122,025	10,477,544,241	198%
100.00%	99.86%	0.00%	68.67%	19,613,237,049	10,803,632,045	182%
100.00%	99.85%	0.00%	69.66%	20,111,156,814	11,063,961,664	182%

MARYLAND STATE RETIREMENT  
ACCOUNTING STATEMENT  
AS OF  
(STATE AND

	<b>Teachers' Combined System</b>	<b>Employees' Combined System</b>
1. Actuarial Accrued Liability		
a. Employee Contributions	\$ 3,578,789,150	\$ 2,141,654,530
b. Retirees, Term Vesteds & Inactives	23,143,828,858	14,226,546,698
c. Active Members	12,211,841,128	7,034,649,208
2. Total Actuarial Accrued Liability (1(a)+1(b)+1(c))	\$ 38,934,459,136	\$23,402,850,436
3. Actuarial Value of Assets	<u>27,995,476,456</u>	<u>15,615,326,568</u>
4. Unfunded Actuarial Accrued Liability (2-3)	<u>\$ 10,938,982,680</u>	<u>\$ 7,787,523,868</u>
5. Funded Ratio	71.90%	66.72%
6. Annual Payroll	\$ 6,470,706,276	\$ 4,300,747,731
7. UAAL as % of Payroll	169%	181%

AND PENSION SYSTEM  
INFORMATION  
JUNE 30, 2015  
MUNICIPAL)

State Police	Judges	LEOPS	CORS	Total MSRPS
\$ 79,875,662	\$ 29,697,255	\$ 76,756,561	\$ 1,824,372	\$ 5,908,597,531
1,713,919,567	338,746,569	887,255,740	11,463,119	40,321,760,551
309,339,155	142,946,625	344,620,733	8,025,950	20,051,422,798
\$ 2,103,134,384	\$ 511,390,449	\$ 1,308,633,034	\$ 21,313,441	\$66,281,780,880
<u>1,314,315,006</u>	<u>416,546,609</u>	<u>808,435,955</u>	<u>20,523,472</u>	<u>46,170,624,066</u>
<u>\$ 788,819,378</u>	<u>\$ 94,843,840</u>	<u>\$ 500,197,079</u>	<u>\$ 789,969</u>	<u>\$20,111,156,814</u>
62.49%	81.45%	61.78%	96.29%	69.66%
\$ 91,049,875	\$ 44,612,624	\$ 151,955,067	\$ 4,890,091	\$11,063,961,664
866%	213%	329%	16%	182%

REPORT OF THE ACTUARY ON THE VALUATION OF THE  
TEACHERS' COMBINED SYSTEM OF THE STATE OF MARYLAND  
*Summary of Principal Plan Results*

	<b>Actuarial Valuation Performed</b>		<b>% Change</b>
	<b>June 30, 2015</b> <b>(for FY2017)</b>	<b>June 30, 2014</b> <b>(for FY2016)</b>	
<b>A. Demographic Information</b>			
Active Member Count	105,526	104,470	1.0%
Retired Member and Beneficiary Count	71,176	68,929	3.3%
Vested Former Member Count	24,541	24,220	1.3%
Total Member Count	201,243	197,619	1.8%
Active Payroll	\$ 6,470,706,276	\$6,310,253,394	2.5%
Annual Benefits for Retired Members	\$ 1,941,845,919	\$1,850,897,041	4.9%
<b>B. Actuarial Results</b>			
Actuarial Accrued Liability	\$38,934,459,136	\$36,882,586,657	5.6%
Actuarial Value of Assets	27,995,476,456	26,067,576,669	7.4%
Unfunded Actuarial Accrued Liability (UAAL)	\$10,938,982,680	\$10,815,009,988	1.1%
Funded Ratio	71.90%	70.68%	
<b>C. Contribution Rates (State Portion Only)</b>			
Employer Normal Cost Rate	4.56%	5.12%	
UAAL Amortization Rate	11.23%	11.03%	
Total Actuarial Employer Contribution Rate	15.79%	16.15%	
<b>D. Corridor Contribution Rate (State Portion Only)</b>			
Prior Year Corridor Rate	NA	15.47%	
36% for FY2016 (28% for FY2015) of Difference between Preliminary Funding Rate and Prior year Corridor Rate	NA	0.24%	
Employer Corridor Contribution Rate	NA	15.71%	
Estimated Employer Rate after Reinvestment of Saving,*	16.55%	16.49%	

\*FY2016 Employer Rate was 17.27% before the reduction of reinvested savings from \$150 million to \$75 million.



REPORT OF THE ACTUARY ON THE VALUATION OF THE  
EMPLOYEES' COMBINED SYSTEM OF THE STATE OF MARYLAND  
(STATE AND MUNICIPAL)

**Summary of Principal Plan Results**

	<b>Actuarial Valuation Performed</b>		<b>% Change</b>
	<b>June 30, 2015</b> <b>(for FY2017)</b>	<b>June 30, 2014</b> <b>(for FY2016)</b>	
<b>A. Demographic Information</b>			
Active Member Count	83,794	84,825	-1.2%
Retired Member and Beneficiary Count	72,031	69,459	3.7%
Vested Former Member Count	<u>27,846</u>	<u>27,538</u>	1.1%
Total Member Count	183,671	181,822	1.0%
Active Payroll	\$ 4,300,747,731	\$ 4,214,980,653	2.0%
Annual Benefits for Retired Members	\$ 1,176,657,042	\$ 1,100,490,089	6.9%
<b>B. Actuarial Results</b>			
Actuarial Accrued Liability	\$ 23,402,850,436	\$ 22,059,764,681	6.1%
Actuarial Value of Assets	<u>15,615,326,568</u>	<u>14,547,389,616</u>	7.3%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 7,787,523,868	\$ 7,512,375,065	3.7%
Funded Ratio	66.72%	65.95%	
<b>C. Contribution Rates (State Portion Only)</b>			
Employer Normal Cost Rate	3.94%	4.32%	
UAAL Amortization Rate	14.34%	13.57%	
Total Actuarial Employer Contribution Rate	<u>18.28%</u>	<u>17.89%</u>	
<b>D. Corridor Contribution Rate (State Portion Only)</b>			
Prior Year Corridor Rate	NA	15.53%	
36% for FY2016 (28% for FY2015) of Difference between Preliminary Funding Rate and Prior year Corridor Rate	NA	0.85%	
Employer Corridor Contribution Rate	<u>NA</u>	<u>16.38%</u>	
Estimated Employer Rate after Reinvestment of Saving,*	18.93%	17.04%	

\*FY 2016 Employer Rate was 17.70% before the reduction of reinvested savings from \$150 million to \$75 million.

REPORT OF THE ACTUARY ON THE VALUATION OF THE  
STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND

**Summary of Principal Plan Results**

	<b>June 30, 2015</b> <b>(for FY2017)</b>	<b>June 30, 2014</b> <b>(for FY2016)</b>	<b>% Change</b>
<b>A. Demographic Information</b>			
Active Member Count	1,394	1,351	3.2%
Retired Member and Beneficial <sup>1</sup> Count	2,508	2,468	1.6%
Vested Former Member Cmmt	<u>81</u>	<u>82</u>	-1.2%
Total Member Count	3,983	3,901	2.1%
Active Payroll	\$ 91,049,875	\$ 85,660,006	6.3%
Annual Benefits for Retired Members	\$ 116,339,773	\$ 113,133,192	2.8%
<b>B. Actuarial Results</b>			
Actuarial Accrued Liability	\$2,103,134,384	\$1,966,572,422	6.9%
Actuarial Value of Assets	<u>1,314,315,006</u>	<u>1,241,758,473</u>	5.8%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 788,819,378	\$ 724,813,949	8.8%
Funded Ratio	62.49%	63.14%	
<b>C. Contribution Rates (State Portion Only)</b>			
Employer Normal Cost Rate	24.42%	25.56%	
UAAL Amortization Rate	<u>56.98%</u>	<u>53.35%</u>	
Total Actuarial Employer Contribution Rate	81.40%	78.91%	
Estimated Employer Rate after Reinvestment of Savings*	82.50%	80.08%	

\*FY 2016 Employer Rate was 81.24% before the reduction of reinvested savings from \$150 million to \$75 million.

REPORT OF THE ACTUARY ON THE VALUATION OF THE  
PENSION PLAN OF JUDGES AND THEIR SURVIVING SPOUSES

*Summary of Principal Plan Results*

	<b>June 30, 2015</b> <b>(for FY2017)</b>	<b>June 30, 2014</b> <b>(for FY2016)</b>	<b>% Change</b>
<b>A. Demographic Information</b>			
Active Member Count	307	301	2.0%
Retired Member and Beneficiary Count	397	395	0.5%
Vested Former Member Count	<u>8</u>	<u>8</u>	0.0%
Total Member Count	712	704	1.1%
Active Payroll	\$ 44,612,624	\$ 42,313,395	5.4%
Annual Benefits for Retired Members	\$ 29,995,284	\$ 28,712,353	4.5%
<b>B. Actuarial Results</b>			
Actuarial Accrued Liability	\$ 511,390,449	\$ 459,447,222	11.3%
Actuarial Value of Assets	<u>416,546,609</u>	<u>389,071,868</u>	7.1%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 94,843,840	\$ 70,375,354	34.8%
Funding Ratio	81.45%	84.68%	
<b>C. Contribution Rates (State Portion Only)</b>			
Employer Normal Cost Rate	32.22%	30.27%	
UAAL Amortization Rate	<u>14.34%</u>	<u>10.43%</u>	
Total Actuarial Employer Contribution Rate	46.56%	40.70%	

REPORT OF THE ACTUARY ON THE VALUATION OF THE  
LAW ENFORCEMENT OFFICERS' PENSION SYSTEM OF THE STATE OF MARYLAND  
(STATE AND MUNICIPAL)

**Summary of Principal Plan Results**

	<b>June 30, 2015</b>	<b>June 30, 2014</b>	<b>% Change</b>
	<b>(for FY2017)</b>	<b>(for FY2016)</b>	
<b>A. Demographic Information</b>			
Active Member Count	2,488	2,484	0.2%
Retired Member and Beneficiary Count	1,711	1,613	6.1%
Vested Former Member Count	<u>293</u>	<u>283</u>	3.5%
Total Member Count	4,492	4,380	2.6%
Active Payroll	\$ 151,955,067	\$ 145,672,538	4.3%
Annual Benefits for Retired Members	\$ 57,653,994	\$ 53,739,964	7.3%
<b>B. Actuarial Results</b>			
Actuarial Accrued Liability	\$1,308,633,034	\$1,222,137,287	7.1%
Actuarial Value of Assets	<u>808,435,955</u>	<u>732,333,113</u>	10.4%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 500,197,079	\$ 489,804,174	2.1%
Funded Ratio	61.78%	59.92%	
<b>C. Contribution Rates (State Portion Only)</b>			
Employer Normal Cost Rate	15.07%	15.63%	
UAAL Amortization Rate	<u>24.53%</u>	<u>24.14%</u>	
Total Actuarial Employer Contribution Rate	39.60%	39.77%	
Estimated Employer Rate after Reinvestment of Savings*	40.72%	40.95%	

\*FY 2016 Employer Rate was 42.14% before the reduction of reinvested savings from \$150 million to \$75 million.

REPORT OF THE ACTUARY ON THE VALUATION OF THE  
CORRECTIONAL OFFICERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND  
(MUNICIPAL)

*Summary of Principal Plan Results*

	<b>June 30, 2015</b> <b>(for FY2017)</b>	<b>June 30, 2014</b> <b>(for FY2016)</b>	<b>% Change</b>
<b>A. Demographic Information</b>			
Active Member Count	91	91	0.0%
Retired Member and Beneficiary Count	27	23	17.4%
Vested Former Members Count	<u>0</u>	<u>2</u>	-100.0%
Total Member Count	118	116	1.7%
Active Payroll	\$ 4,890,091	\$ 4,752,059	2.9%
Annual Benefits for Retired Members	\$ 756,146	\$ 680,025	11.2%
<b>B. Actuarial Results</b>			
Actuarial Accrued Liability	\$ 21,313,441	\$ 19,685,305	8.3%
Actuarial Value of Assets	<u>20,523,472</u>	<u>18,826,786</u>	9.0%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 789,969	\$ 858,519	-8.0%
Funding Ratio	96.29%	95.64%	

## SCHEDULE OF ACTIVE MEMBERSHIP VALUATION DATA BY PLAN

**Teachers' Retirement**

<b>Valuation Date As of June 30,</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase Avg. Pay</b>
2006	5,449	\$ 413,849,937	\$ 75,950	2.23 %
2007	4,788	383,619,438	80,121	5.49
2008	4,125	352,954,397	85,565	6.79
2009	3,554	306,096,545	86,127	0.66
2010	3,111	269,775,400	86,717	0.68
2011	2,589	225,118,122	86,952	0.27
2012	2,040	178,541,246	87,520	-0.65
2013	1,630	145,207,003	89,084	1.79
2014	1,276	116,356,416	91,188	2.36
2015	986	91,396,562	92,694	1.65

**Teachers' Pension**

<b>Valuation Date As of June 30,</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase Avg. Pay</b>
2006	94,869	\$ 4,855,335,579	\$ 51,179	2.04 %
2007	98,789	5,326,145,893	53,914	5.34
2008	101,836	5,764,636,027	56,607	4.99
2009	102,553	5,888,637,495	57,420	1.44
2010	103,162	5,984,872,410	58,014	1.03
2011	102,939	5,971,858,330	58,014	0.00
2012	101,654	5,902,062,066	58,060	0.08
2013	102,398	6,039,968,791	58,985	1.59
2014	103,194	6,193,896,978	60,022	1.76
2015	104,540	6,379,309,714	61,023	1.67

**Employees' Retirement**

(State and Municipal)

<b>Valuation Date As of June 30,</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase Avg. Pay</b>
2006	10,121	\$ 467,808,791	\$ 46,222	7.66 %
2007	9,980	472,525,475	47,347	2.44
2008	9,740	472,800,066	48,542	2.52
2009	9,962	483,871,203	48,572	0.06
2010	9,665	463,375,639	47,944	-1.29
2011	9,189	432,469,190	47,064	-1.84
2012	9,113	421,320,077	46,233	-1.77
2013	8,976	417,020,134	46,459	0.49
2014	8,741	423,960,682	48,503	4.40
2015	8,566	429,223,262	50,108	3.31

SCHEDULE OF ACTIVE MEMBERSHIP VALUATION DATA BY PLAN  
(continued)

**Employees' Pension**  
(State and Municipal)

<b>Valuation Date As of June 30,</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase Avg. Pay</b>
2006	76,979	\$ 3,325,316,541	\$ 43,198	4.07 %
2007	78,719	3,543,695,246	45,017	4.21
2008	79,462	3,692,212,569	46,465	3.22
2009	79,418	3,765,664,905	47,416	2.05
2010	77,660	3,674,098,155	47,310	-0.22
2011	76,264	3,595,340,448	47,143	-0.35
2012	76,061	3,577,154,799	47,030	-0.24
2013	75,701	3,613,240,787	47,730	1.49
2014	76,084	3,791,019,971	49,827	4.39
2015	75,228	3,871,524,469	51,464	3.29

**Judges' Retirement**

<b>Valuation Date As of June 30,</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase Avg. Pay</b>
2006	296	\$ 35,939,104	\$ 121,416	1.01 %
2007	297	37,638,491	126,729	4.38
2008	286	37,943,327	132,669	4.69
2009	297	40,266,330	135,577	2.19
2010	294	39,960,883	135,921	0.25
2011	286	38,810,261	135,700	-0.16
2012	294	39,955,368	135,903	0.15
2013	288	40,000,518	138,891	2.20
2014	301	42,313,395	140,576	1.21
2015	307	44,612,624	145,318	3.37

**State Police Retirement**

<b>Valuation Date As of June 30,</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase Avg. Pay</b>
2006	1,441	\$ 80,648,855	\$ 55,967	3.77 %
2007	1,416	83,190,937	58,751	4.97
2008	1,426	86,464,247	60,634	3.21
2009	1,408	85,585,708	60,785	0.25
2010	1,354	81,705,369	59,946	0.71
2011	1,295	75,551,283	58,341	-3.32
2012	1,332	77,689,914	58,326	-0.03
2013	1,320	79,848,029	60,491	3.71
2014	1,351	85,660,006	63,405	4.82
2015	1,394	91,049,875	65,316	3.01

SCHEDULE OF ACTIVE MEMBERSHIP VALUATION DATA BY PLAN  
(continued)

**Law Enforcement Officers' Pension**

(STATE AND MUNICIPAL)

<b>Valuation Date As of June 30,</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase Avg. Pay</b>
2006	2,063	\$ 106,668,684	\$ 51,706	6.17 %
2007	2,217	122,015,164	55,036	6.44
2008	2,327	133,445,391	57,347	4.20
2009	2,445	140,071,292	57,289	-0.10
2010	2,474	140,199,243	56,669	-1.08
2011	2,411	135,176,780	56,067	-1.06
2012	2,410	135,185,336	56,094	0.05
2013	2,407	137,612,972	57,172	1.92
2014	2,484	145,672,538	58,644	2.58
2015	2,488	151,955,067	61,075	4.15

**Correctional Officers' Retirement System**

(MUNICIPAL)

<b>Valuation Date As of June 30,</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase Avg. Pay</b>
2009	68	\$ 4,047,633	\$ 59,524	N/A
2010	66	3,956,462	59,946	0.71 %
2011	86	4,475,151	52,037	-13.19
2012	90	4,628,029	51,423	-1.18
2013	90	4,646,007	51,622	0.39
2014	91	4,752,059	52,220	1.16
2015	91	4,890,091	53,737	2.90





SRPS  
*Statistical Section*

**The Maryland State Retirement and Pension System (MSRPS)** has implemented GASB Statement 44, Economic Condition Reporting: The Statistical Section. This statement establishes standardized reporting requirements relative to the supplementary information provided in this section in an effort to improve the understandability and usefulness of the information presented. GASB Statement 44 further states that the purpose of the Statistical Section is to provide historical perspective, context, and detail to assist readers in using the information in the financial statements and the notes to the financial statements to better understand and assess the System's overall economic condition. The schedules within the Statistical Section are classified into the following four categories: Financial Trends, Revenue Capacity, Demographic and Economic Information, and Operating Information.

The schedules beginning on page 105 show financial trend information to assist users in understanding and assessing how the MSRPS's financial position has changed over the past 10 years. The financial trend schedules presented are:

- Changes in Net Assets
- Benefits Expense by Type

The schedules beginning on page 106 show demographic and economic information and operating information. The demographic and economic information is intended to assist users in understanding the environment in which MSRPS operates. The operating information is intended to provide contextual information about MSRPS's operations to assist readers in using financial statement information. The demographic and economic information and the operating information presented include:

- Schedule of Average Benefit Payments .
- Funding Progress
- Contribution Rates by Plan
- Schedule of Retired Members by Type
- Schedule of Active Membership by Plan
- Schedule of Retirees and Beneficiaries by Plan
- Revenues by Source and Expenses by Type
- Revenues vs. Expenses
- Principal Participating Employers

TEN-YEAR HISTORY OF CHANGES IN NET ASSETS  
for the Years Ended June 30,  
(Expressed in thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Additions</b>										
Employer contributions	\$ 720,876	\$ 833,782	\$ 1,047,963	\$ 1,109,563	\$ 1,308,921	\$ 1,512,472	\$ 1,595,761	\$ 1,643,101	\$ 1,733,653	\$ 1,858,612
Members contributions	215,077	319,274	420,461	532,100	535,581	528,028	703,256	710,856	727,726	755,444
Net Investment income	3,225,649	5,924,070	(2,139,662)	(7,355,906)	4,016,359	6,273,337	104,084	3,845,795	5,706,267	1,197,671
Total Additions	4,161,602	7,077,126	(671,238)	(5,714,243)	5,860,861	8,313,837	2,403,101	6,199,752	8,167,646	3,811,727
<b>Deductions</b>										
Benefit payments	1,829,468	1,965,872	2,120,463	2,279,170	2,445,540	2,580,392	2,755,106	2,950,700	3,121,823	3,284,550
Refunds	16,455	16,021	16,223	22,325	33,531	33,369	33,819	38,281	42,922	48,245
Administrative expenses	18,579	21,271	23,147	27,499	28,627	30,961	28,201	26,280	26,130	29,080
Total Deductions	1,864,502	2,003,164	2,159,833	2,328,994	2,507,698	2,644,722	2,817,126	3,015,261	3,190,875	3,361,875
<b>Changes in Net Assets</b>	<b>\$ 2,297,100</b>	<b>\$ 5,073,962</b>	<b>\$(2,831,071)</b>	<b>\$(8,043,237)</b>	<b>\$ 3,353,162</b>	<b>\$ 5,669,115</b>	<b>\$(414,025)</b>	<b>\$ 3,184,491</b>	<b>\$ 4,976,771</b>	<b>\$ 449,852</b>

SCHEDULE OF BENEFIT EXPENSE BY TYPE  
(Expressed In Thousands)

Fiscal Year	Age & Service Benefits		Death In Service	Disability Benefits			Death After Retirement	Total
	Retirees	Survivors	Pre-Retirement Benefits	Retirees		Post-Retirement Benefits		
				Accidental	Ordinary		Survivors	
2006	\$ 1,479,107	\$ 101,395	\$ 8,655	\$ 48,351	\$ 152,900	\$ 24,036	\$ 15,124	\$ 1,829,568
2007	1,597,722	102,972	10,133	52,505	166,561	24,695	11,284	1,965,872
2008	1,714,059	118,215	8,908	59,908	176,802	28,052	14,519	2,120,463
2009	1,907,483	94,654	18,133	95,933	148,098	14,845	—	2,279,146
2010	2,045,795	100,953	18,857	102,032	161,836	16,068	—	2,445,541
2011	2,164,368	104,884	18,758	105,493	170,267	16,623	—	2,580,393
2012	2,318,614	109,674	19,232	109,996	179,914	17,677	—	2,755,107
2013	2,484,792	118,044	20,027	116,636	192,440	18,761	—	2,950,700
2014	2,633,852	124,807	20,514	120,829	202,147	19,672	—	3,121,823
2015	2,777,136	130,215	21,005	124,090	211,373	20,731	—	3,284,550

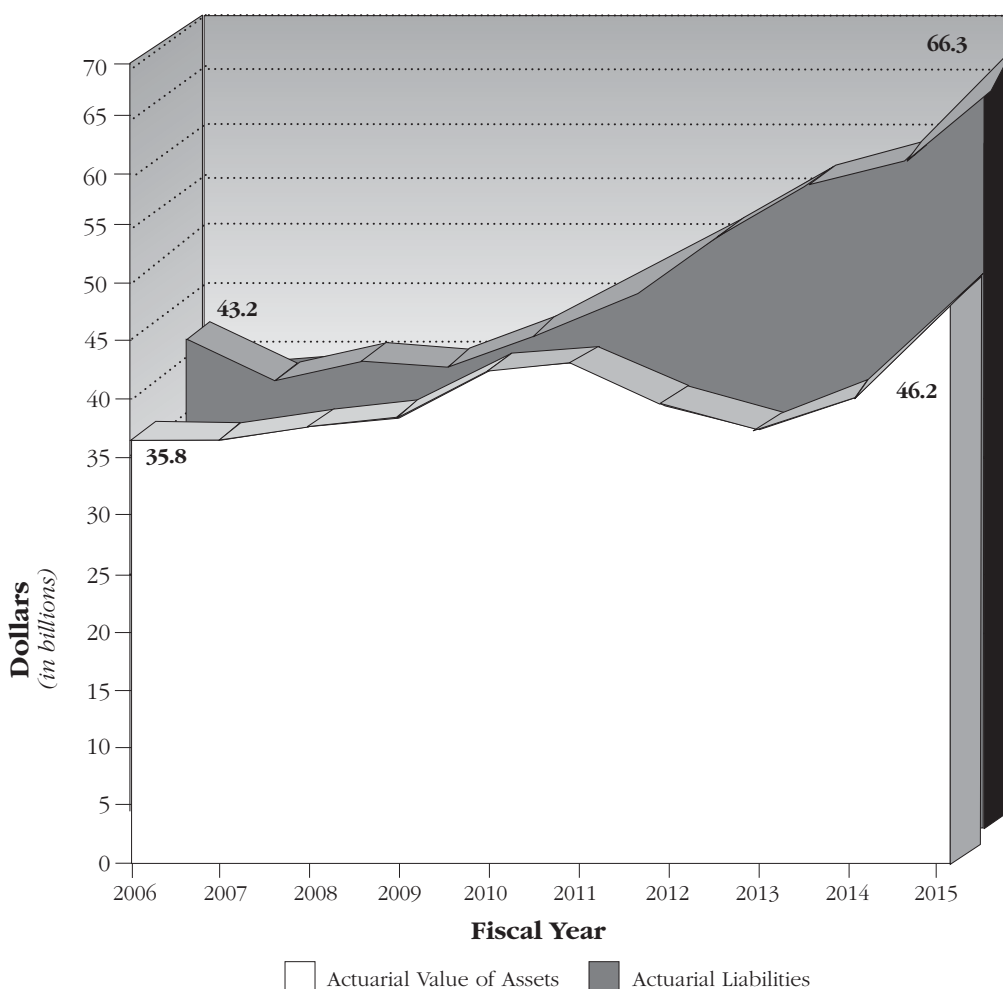
SCHEDULE OF REFUND EXPENSE BY TYPE  
(Expressed in thousands)

Fiscal Year	Separation	Death	Misc.	Total
2006	\$ 13,338	\$ 2,688	\$ 429	\$ 16,455
2007	13,270	2,546	205	16,021
2008	13,526	2,507	190	16,223
2009	18,712	3,472	140	22,324
2010	29,320	4,029	182	33,531
2011	29,041	4,108	220	33,369
2012	29,521	4,142	156	33,819
2013	33,348	4,834	99	38,281
2014	36,835	5,955	132	42,922
2015	40,966	7,126	153	48,245

MARYLAND STATE RETIREMENT AND PENSION SYSTEM  
Average Benefit Payments – Last Ten Years

	Years Credited Service						
	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30+
Period 7/1/2005 to 6/30/2006							
Average monthly benefit	\$ 303	\$ 525	\$ 819	\$ 1,360	\$ 1,555	\$ 2,426	\$ 2,439
Monthly final average salary	\$ 2,409	\$ 2,852	\$ 3,425	\$ 4,031	\$ 4,183	\$ 5,147	\$ 4,782
Number of retired members	261	713	702	850	872	1,454	1,319
Period 7/1/2006 to 6/30/2007							
Average monthly benefit	\$ 457	\$ 637	\$ 868	\$ 1,253	\$ 1,696	\$ 2,499	\$ 2,256
Monthly final average salary	\$ 3,202	\$ 3,425	\$ 3,733	\$ 4,249	\$ 4,524	\$ 5,435	\$ 5,052
Number of retired members	275	750	701	983	937	1,256	1,383
Period 7/1/2007 to 6/30/2008							
Average monthly benefit	\$ 419	\$ 603	\$ 993	\$ 1,367	\$ 1,732	\$ 2,594	\$ 2,727
Monthly final average salary	\$ 2,811	\$ 3,172	\$ 3,825	\$ 4,510	\$ 4,617	\$ 5,478	\$ 5,224
Number of retired members	275	750	701	983	937	1,256	1,383
Period 7/1/2008 to 6/30/2009							
Average monthly benefit	\$ 534	\$ 577	\$ 868	\$ 1,232	\$ 1,657	\$ 1,973	\$ 2,925
Monthly final average salary	\$ 2,604	\$ 3,273	\$ 3,638	\$ 4,222	\$ 4,781	\$ 4,924	\$ 5,679
Number of retired members	191	751	625	757	872	678	2,171
Period 7/1/2009 to 6/30/2010							
Average monthly benefit	\$ 505	\$ 542	\$ 838	\$ 1,246	\$ 1,670	\$ 1,971	\$ 2,933
Monthly final average salary	\$ 2,902	\$ 3,425	\$ 3,636	\$ 4,392	\$ 4,814	\$ 5,097	\$ 5,811
Number of retired members	271	834	662	690	873	698	2,266
Period 7/1/2010 to 6/30/2011							
Average monthly benefit	\$ 435	\$ 541	\$ 851	\$ 1,211	\$ 1,800	\$ 2,161	\$ 3,100
Monthly final average salary	\$ 2,884	\$ 3,373	\$ 3,734	\$ 4,309	\$ 4,984	\$ 5,395	\$ 5,970
Number of retired members	306	951	901	950	1,164	900	2,856
Period 7/1/2011 to 6/30/2012							
Average monthly benefit	\$ 351	\$ 437	\$ 806	\$ 1,296	\$ 1,745	\$ 2,175	\$ 3,358
Monthly final average salary	\$ 2,878	\$ 3,483	\$ 3,788	\$ 4,645	\$ 5,128	\$ 5,520	\$ 6,310
Number of retired members	254	931	844	817	989	837	2,662
Period 7/1/2012 to 6/30/2013							
Average monthly benefit	\$ 435	\$ 473	\$ 802	\$ 1,317	\$ 1,712	\$ 2,231	\$ 3,297
Monthly final average salary	\$ 2,810	\$ 3,577	\$ 3,907	\$ 4,686	\$ 5,028	\$ 5,548	\$ 6,217
Number of retired members	234	972	860	910	978	917	2,389
Period 7/1/2013 to 6/30/2014							
Average monthly benefit	\$ 405	\$ 472	\$ 832	\$ 1,324	\$ 1,794	\$ 2,234	\$ 3,383
Monthly final average salary	\$ 2,475	\$ 3,508	\$ 4,064	\$ 4,699	\$ 5,222	\$ 5,673	\$ 6,380
Number of retired members	218	918	873	964	910	938	2,304
Period 7/1/2014 to 6/30/2015							
Average monthly benefit	\$ 454	\$ 459	\$ 888	\$ 1,304	\$ 1,804	\$ 2,275	\$ 3,246
Monthly final average salary	\$ 2,338	\$ 3,515	\$ 4,139	\$ 4,679	\$ 5,124	\$ 5,571	\$ 6,134
Number of retired members	201	911	972	1,089	968	1,042	2,621

TEN-YEAR HISTORY OF FUNDING PROGRESS



TEN-YEAR HISTORY OF EMPLOYER CONTRIBUTION RATES BY PLAN

Fiscal Year	State					Participating Governmental Units (PGU)						
	Combined State Rate	Teachers' Combined Rate	Employees' Combined Rate	Judges' Retirement	State Police Retirement	Law Enforcement Officers' Pension	Combined PGU Rate	Law Enforcement Officers' Pension	Employees' Retirement	Employees' Pension	Correctional Officers' Retirement	
2006	8.46%	9.35%	5.76%	41.12%	8.22 %	38.47%	5.36%	32.67%	9.80%	4.80%	– %	
2007	9.18	9.71	6.83	42.43	13.83	40.60	N/A	33.18	10.68	5.68	–	
2008	11.10	11.60	8.86	44.12	15.44	41.74	N/A	36.80	10.27	5.27	–	
2009	11.14	11.70	8.73	43.61	20.53	36.99	N/A	30.53	8.87	3.87	–	
2010	12.62	13.15	9.93	49.89	30.79	38.63	N/A	30.03	9.05	4.05	8.41	
* 2011	14.33	14.34	11.69	59.07	57.03	47.67	N/A	32.74	12.30	7.30	9.69	
* 2012	15.67	15.45	13.40	60.37	61.01	49.26	N/A	33.09	12.41	7.41	8.87	
2013	13.85	13.29	12.29	61.18	61.21	46.81	N/A	28.71	10.46	5.46	7.96	
2014	15.43	14.71	14.05	50.92	66.71	52.47	N/A	31.76	11.47	6.47	9.41	
2015	16.41	15.47	15.53	42.74	83.06	41.37	N/A	30.45	11.20	6.20	11.43	

\*Rates for Municipal Systems only include basic employee cost rate.

Does not include reduction of \$120 Million in contributions for State Systems due to 2011 General Assembly reforms.

SCHEDULE OF RETIRED MEMBERS BY TYPE  
as of June 30, 2015

Amount of Monthly Benefit	Number of Retirees	Type of Retirement						
		NR(4)	ER(3)	SP	SPD	ADR	ODR	SPDR
1- 300	17,701	15,061	1,039	921	17	13	397	253
301- 600	16,011	10,730	2,489	1,030	50	27	1,270	415
601- 900	14,049	8,437	2,442	945	94	62	1,748	321
901- 1,200	12,982	7,933	2,161	847	91	121	1,594	235
1,201- 1,500	12,118	7,661	1,681	806	88	258	1,452	172
1,501- 1,800	11,133	7,380	1,393	607	73	360	1,191	129
1,801- 2,100	9,856	6,709	1,196	469	68	386	961	67
2,101- 2,400	9,112	6,358	1,044	394	64	403	791	58
2,401- 2,700	8,036	5,856	786	314	68	405	580	27
2,701- 3,000	7,056	5,307	683	224	66	315	441	20
Over 3000	29,796	24,983	1,359	850	176	1,318	1,056	54
	<u>147,850</u>	<u>106,415</u>	<u>16,273</u>	<u>7,407</u>	<u>855</u>	<u>3,668</u>	<u>11,481</u>	<u>1,751</u>

**Type of Retirement:**

- 1 – Normal retirement for age and service
- 2 – Early retirement
- 3 – Survivor payment – normal or early retirement
- 4 – Survivor payment – death in service
- 5 – Accidental disability retirement
- 6 – Ordinary disability retirement
- 7 – Survivor payment – disability retirement

OF RETIREMENT AND OPTION SELECTED

<b>#Option Selected</b>							
<b>MAX(3)</b>	<b>Opt. 1(1)</b>	<b>Opt. 2</b>	<b>Opt. 3(2)</b>	<b>Opt. 4(1)</b>	<b>Opt. 5</b>	<b>Opt. 6</b>	<b>Opt. A0</b>
9,110	3,786	1,924	901	860	633	475	12
7,258	2,881	1,852	1,499	1,157	577	779	8
5,949	2,171	1,678	1,517	1,314	482	930	8
5,272	1,736	1,598	1,528	1,427	474	942	5
4,466	1,564	1,852	1,449	1,288	605	892	2
3,924	1,514	1,690	1,340	1,275	519	865	6
3,456	1,270	1,484	1,195	1,194	456	797	4
3,240	1,164	1,378	1,107	1,113	394	713	3
2,922	960	1,178	992	1,010	304	664	6
2,720	770	996	798	957	266	547	2
<u>11,067</u>	<u>2,946</u>	<u>3,986</u>	<u>3,989</u>	<u>4,824</u>	<u>837</u>	<u>2,116</u>	<u>31</u>
<u>59,384</u>	<u>20,762</u>	<u>19,616</u>	<u>16,315</u>	<u>16,419</u>	<u>5,547</u>	<u>9,720</u>	<u>87</u>

**Option Selected:**

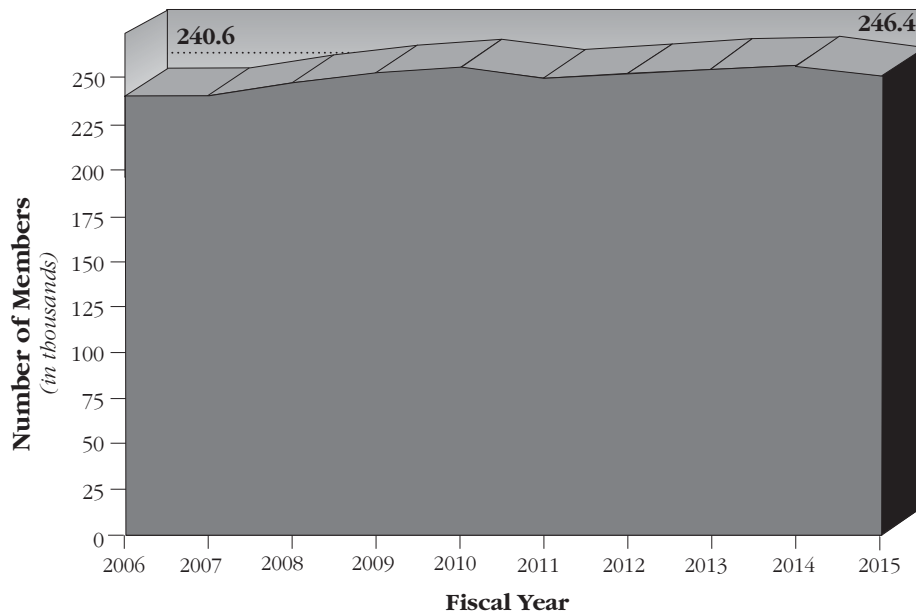
- Basic – The standard benefit if no option is selected. Generally, at retiree’s death, all payments cease. However, the basic allowance for the State Police, Law Enforcement Offices (LEOPS), Judges and Legislators provides a continuing benefit for spouses or children under 18.
- Opt. 1 – Guarantees return of the present value of the retirement benefit less the total payments already paid to the member.
- Opt. 2 – Guarantees the same payment to the designated beneficiaries for their lifetime.
- Opt. 3 – Guarantees one half the member’s payment to the designated beneficiaries for their lifetime.
- Opt. 4 – Guarantees return of the member’s accumulated contributions and interest less the member’s accumulated reserves already paid.
- Opt. 5 – Guarantees the same payment to the designated beneficiaries for their lifetime, unless the beneficiaries predecease the respective members. Allowance then increases to the basic.
- Opt. 6 – Guarantees one half the member’s payment to the designated beneficiaries for their lifetime, unless the beneficiaries predecease the respective members. Allowance then increases to the basic.
- Opt. 7 – Special option calculation performed by actuary.

TEN-YEAR HISTORY OF MEMBERSHIP BY PLAN

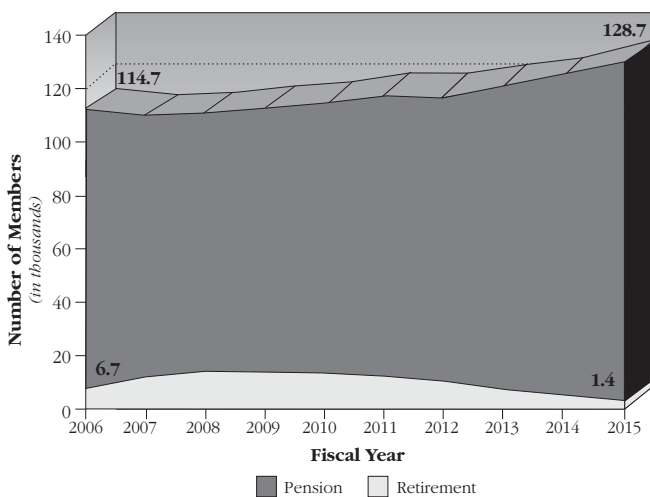
Fiscal Year	Total	Teachers' Retirement	Teachers' Pension	Employees' Retirement*	Employees' Pension	Judges' Retirement	State Police Retirement	Law Enforcement Officers' Pension	Local Correctional Officers' Retirement
2006	240,583	6,678	114,693	11,398	103,784	310	1,499	2,178	–
2007	248,289	5,963	120,333	11,240	106,566	310	1,470	2,344	–
2008	251,050	5,217	123,562	10,906	107,021	294	1,487	2,501	–
2009	251,571	4,550	124,552	11,027	106,961	365	1,414	2,634	68
2010	249,561	4,012	125,278	10,664	105,138	300	1,431	2,672	66
2011	245,970	3,339	124,806	10,139	103,292	297	1,386	2,625	86
2012	244,224	2,663	124,064	10,011	103,038	304	1,417	2,637	90
2013	244,362	2,154	125,429	9,865	102,463	298	1,404	2,658	91
2014	245,655	1,718	126,972	9,572	102,791	309	1,433	2,767	93
2015	246,369	1,372	128,695	9,370	102,270	315	1,475	2,781	91

Note: Includes vested former members. \*Includes members of the Maryland General Assembly and State correctional officers.

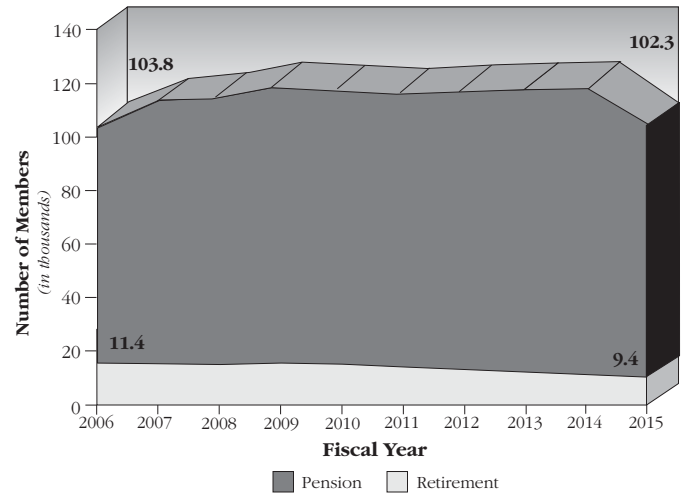
TOTAL SYSTEM MEMBERSHIP



MEMBERSHIP IN TEACHERS' PLANS



MEMBERSHIP IN EMPLOYEES' PLANS



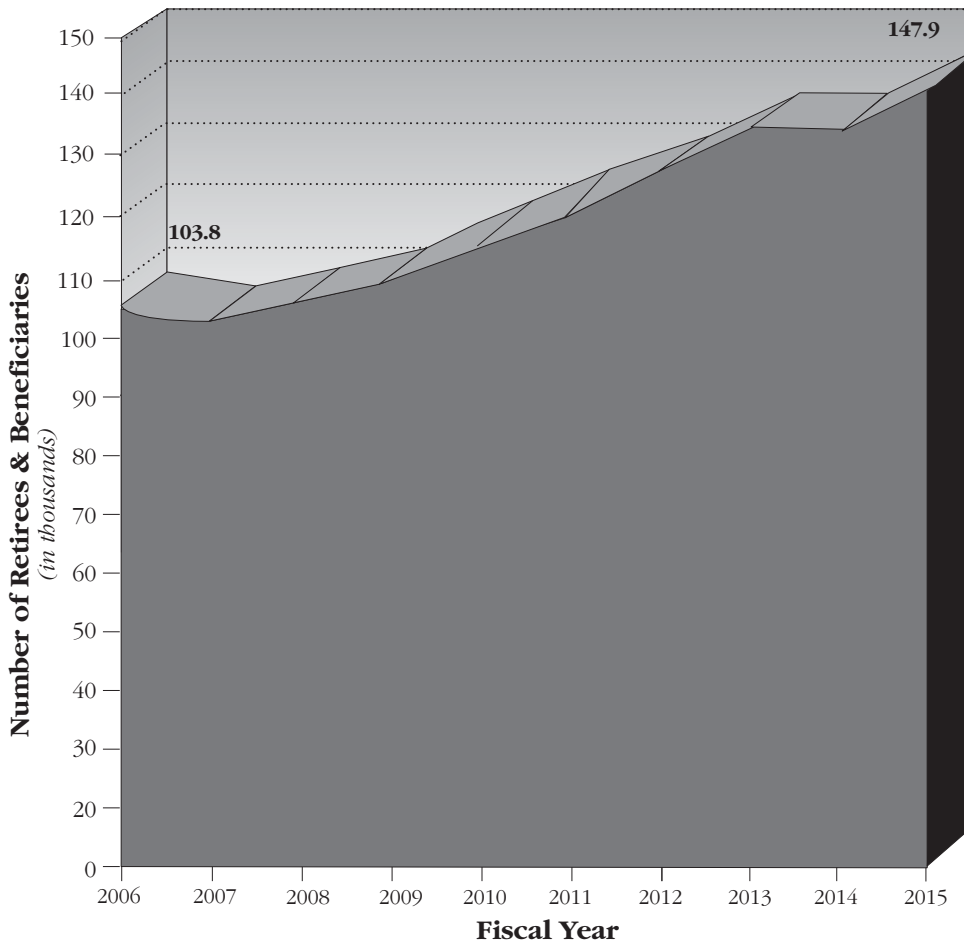


TEN-YEAR HISTORY OF RETIREES AND BENEFICIARIES BY PLAN

Fiscal Year	Total	Teachers' Retirement	Teachers' Pension	Employees' Retirement*	Employees' Pension	Judges' Retirement	State Police Retirement	Law Enforcement Officers' Pension	Correctional Officers' Retirement System
2006	103,831	31,138	19,144	24,271	26,216	330	1,937	782	
2007	108,355	31,023	21,016	24,408	28,631	335	2,063	863	
2008	112,422	30,955	23,030	24,197	30,723	342	2,149	958	
2009	116,007	30,598	25,158	23,778	32,832	348	2,226	1,067	
2010	120,247	30,270	27,269	23,475	35,418	351	2,282	1,182	
2011	127,171	30,012	30,553	23,230	39,339	358	2,371	1,302	6
2012	132,493	29,705	33,994	22,796	41,840	365	2,387	1,396	10
2013	137,925	29,247	37,143	22,368	44,825	378	2,428	1,518	18
2014	142,887	28,762	40,167	22,013	47,446	395	2,468	1,613	23
2015	147,850	28,131	43,045	21,571	50,460	397	2,508	1,711	27

\* Includes members of the Maryland General Assembly and correctional officers.

TOTAL SYSTEM RETIREES AND BENEFICIARIES



TEN-YEAR HISTORY OF REVENUES BY SOURCE AND EXPENSES BY TYPE  
(Expressed in Thousands)

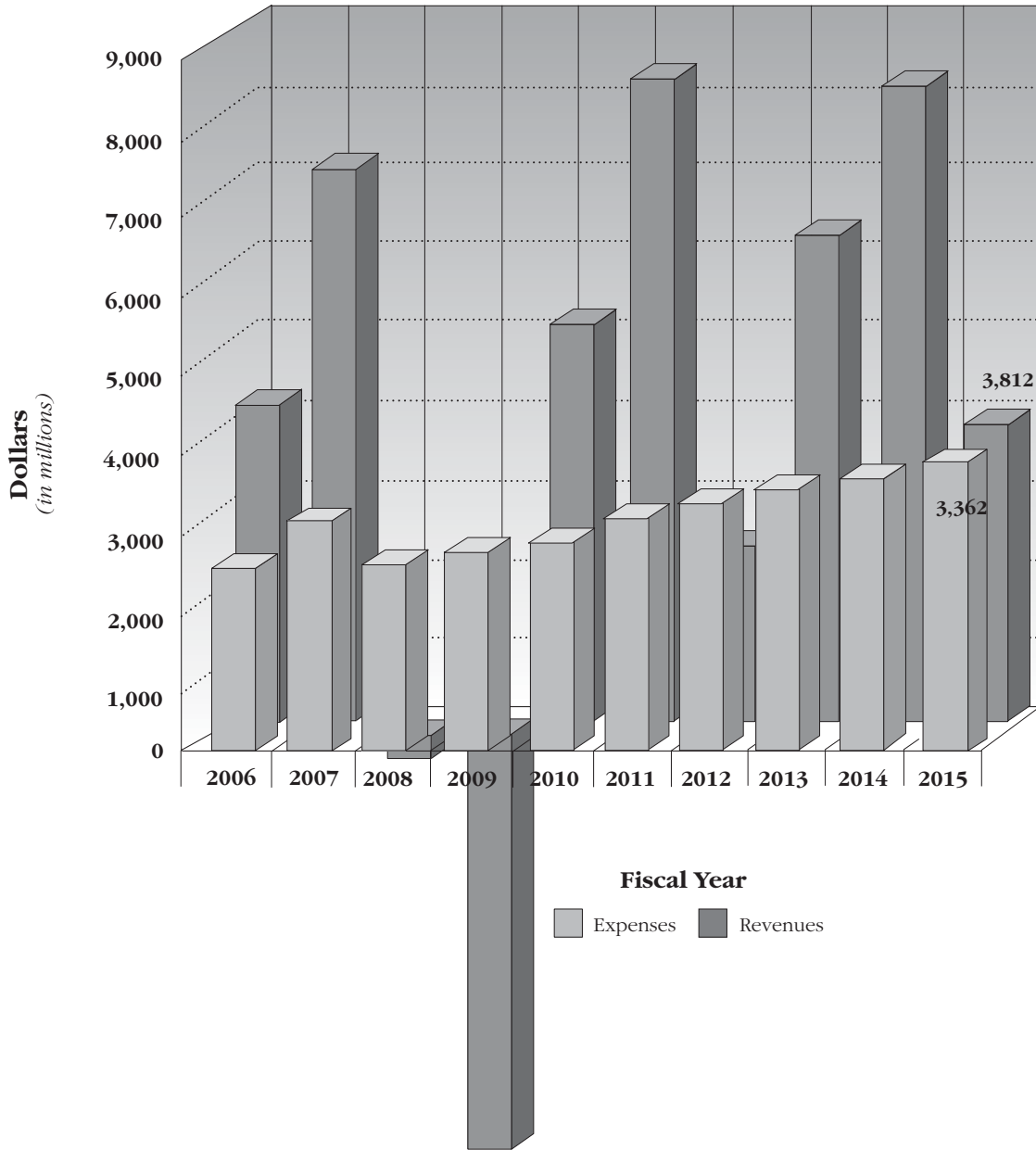
**REVENUES**

<b>Fiscal Year</b>	<b>Members' Contributions</b>	<b>Employers' and Other Contributions</b>	<b>Annual Covered Payroll</b>	<b>Employers' and Other Contributions as a Percent of Covered Payroll</b>	<b>Net Investment Income</b>	<b>Total Revenues</b>
2006	\$ 215,077	\$ 720,876	\$ 9,089,951	7.93 %	\$ 3,225,649	\$ 4,161,602
2007	319,274	833,782	9,971,012	8.36	5,924,070	7,077,126
2008	420,461	1,047,962	10,542,806	9.94	(2,139,661)	(671,238)
2009	532,100	1,109,563	10,714,167	10.36	(7,355,906)	(5,714,243)
2010	535,581	1,308,921	10,657,944	12.28	4,016,359	5,860,861
2011	528,028	1,512,472	10,478,800	14.43	6,273,337	8,313,837
2012	703,256	1,595,761	10,336,536	15.44	104,084	2,403,100
2013	710,856	1,643,101	10,477,544	15.68	3,845,795	6,199,752
2014	727,726	1,733,653	10,803,631	16.05	5,706,267	8,167,646
2015	755,444	1,858,612	11,063,961	16.80	1,197,671	3,811,727

**EXPENSES**

<b>Fiscal Year</b>	<b>Benefits</b>	<b>Administrative Expenses</b>	<b>Refunds</b>	<b>Total</b>
2006	\$ 1,829,468	\$ 18,579	\$ 16,455	\$ 1,864,502
2007	1,965,872	21,271	16,021	2,003,164
2008	2,120,463	23,147	16,223	2,159,833
2009	2,279,170	27,499	22,325	2,328,994
2010	2,445,540	28,627	33,531	2,507,698
2011	2,580,392	30,961	33,369	2,644,722
2012	2,755,106	28,201	33,819	2,817,126
2013	2,950,700	26,280	38,281	3,015,261
2014	3,121,823	26,130	42,922	3,190,875
2015	3,284,550	29,080	48,245	3,361,875

TEN-YEAR HISTORY OF REVENUES VS. EXPENSES



PRINCIPAL PARTICIPATING EMPLOYERS  
CURRENT YEAR AND NINE YEARS AGO

	2015			2006		
	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System
<b>Participating Government</b>						
State of Maryland	344,918	1	87%	297,091	1	86%
All other (Participating Municipalities)	49,301	2	13%	47,323	2	14%
Total System	394,219			344,414		

**Governmental Units Participating in the Systems**

as of June 30, 2015

Allegany Community College	Feddersburg, Town of	Pocomoke, City of
Allegany County Board of Education	Frederick County Board of Education	Preston, Town of
Allegany County Commission	Frostburg, City of	Prince Georges Community College
Allegany County Housing Authority	Fruitland, City of	Prince Georges County Board of Education
Allegany County Library	Garrett County Board of Education	Prince Georges County Crossing Guards
Allegany County Transit Authority	Garrett County Community Action Committee	Prince Georges County Government
Annapolis, City of	Garrett County Roads Board	Prince Georges County Memorial Library
Anne Arundel County Board of Education	Greenbelt, City of	Princess Anne, Town of
Anne Arundel County Community College	Greensboro, Town of	Queen Anne's County Board of Education
Berlin, Town of	Hagerstown, City of	Queen Anne's County Commission
Berwyn Heights, Town of	Hagerstown Community College	Queenstown, Town of
Bladensburg, Town of	Hampstead, Town of	Ridgely, Town of
Bowie, City of	Hancock, Town of	Rock Hall, Town of
Brunswick, City of	Harford Community College	St. Mary's County Board of Education
Calvert County Board of Education	Harford County Board of Education	St. Mary's County Commission
Cambridge, City of	Harford County Government	St. Mary's County, Housing Authority
Caroline County Board of Education	Harford County Library	St. Mary's County Metropolitan Commission
Caroline County Sheriff Deputies	Harford County Liquor Board	St. Michaels, Town of
Carroll County Board of Education	Housing Authority of Cambridge	Salisbury, City of
Carroll County Public Library	Howard Community College	Shore Up!
Carroll Soil Conservation District	Howard County Board of Education	Snow Hill, Town of
Catoctin & Frederick Soil Conservation District	Howard County Community Action Committee	Somerset County Board of Education
Cecil County Board of Education	Hurlock, Town of	Somerset County Commission
Cecil County Commission	Hyattsville, City of	Somerset County Economic Development Commission
Cecil County Library	Kent County Board of Education	Somerset County Sanitary District, Inc.
Centreville, Town of	Kent County Commissioners	Southern MD. Tri-County Community Action Committee
Chesapeake Bay Commission	Kent Soil and Water Conservation District	Sykesville, Town of
Chestertown, Town of	Landover Hills, Town of	Takoma Park, City of
Cheverly, Town of	LaPlata, Town of	Talbot County Board of Education
College of Southern Maryland	Manchester, Town of	Talbot County Council
College Park, City of	Maryland Health & Higher Education Facilities Authority	Taneytown, City of
Crisfield, City of	Maryland Transit Administration	Thurmont, Town of
Crisfield Housing Authority	Middletown, Town of	Tri-County Council of Western Maryland
Cumberland, City of	Montgomery College	Tri-County Council for Lower Eastern Shore
Cumberland, City of - Police Department	Morningside, Town of	University Park, Town of
Denton, Town of	Mount Airy, Town of	Upper Marlboro, Town of
District Heights, City of	Mount Rainier, City of	Walkersville, Town of
Dorchester County Board of Education	New Carrollton, City of	Washington County Board of Education
Dorchester County Commission	North Beach, Town of	Washington, Board of License Commission
Dorchester County Roads Board	Northeast Maryland Waste Disposal Authority	Washington County Library
Eastern Shore Regional Library	Oxford, Town of	Westminster, City of
Edmonston, Town of		Worcester County Board of Education
Emmitsburg, Town of		Worcester County Commission
		Wor-Wic Community College

**\*Withdrawn Governmental Units**

Allegany County Government (WMHPA)	Lexington Market Authority	Washington County Commissioners
Anne Arundel County Economic Opportunity Commission	Maryland National Capital Park & Planning Commission	Washington County License Commissioners
Anne Arundel County Government	Montgomery County Board of Education	Washington County Roads Board
Bethesda Fire Department	Montgomery County Government	Washington County Sanitary District
Caroline County Roads Board	Montgomery County Public Library	Wicomico County Department of Recreation and Parks
Chevy Chase Fire Department	Oakland, Town of	Wicomico County Roads Board
Frederick County Commissioners (WMHPA)	St. Mary's Nursing Home	
Garrett County Commissioners (WMHPA)	University of Maryland Medical System	
Harford County Liquor Board	Washington County Commissioners (WMHPA)	

*\*List reflects withdrawn governmental units with a withdrawal liability balance.*

A large, semi-transparent graphic in the center of the page. It features the letters 'SRPS' in a large, serif font at the top. Below the letters is a stylized, abstract design consisting of several overlapping shapes, including circles and rectangles, arranged in a way that suggests a network or a complex structure. The entire graphic is rendered in shades of gray.

# SRPS

## *Plan Summary*

## TEACHERS' RETIREMENT SYSTEM

## A COMPOSITE PICTURE

	2015	2014
<b>Total Membership</b>		
Active Vested	986	1,276
Active Non-vested	—	—
Vested Former Members	386	442
Retired Members	28,131	28,762
<b>Active Members</b>		
Number	986	1,276
Average Age	64.5	63.6
Average Years of Service	39.3	38.4
Average Annual Salary	\$ 92,694	\$ 91,188
<b>Retirees &amp; Beneficiaries</b>		
Number	28,131	28,762
Average Age	76.3	75.9
Average Monthly Benefit	\$ 3,067	\$ 2,985

**THE TEACHERS' RETIREMENT SYSTEM (TRS)** was established on August 1, 1927 and is administered in accordance with the State Personnel and Pensions Article of the Annotated Code of Maryland. Prior to January 1, 1980, membership in the TRS was a condition of employment for State and local teachers and certain board of education, public library and community college employees, unless those who were eligible elected to participate in an optional retirement program. Effective July 1, 1971 Baltimore City teachers and retired teachers were included in the TRS.

Effective January 1, 1980, the TRS was effectively closed to new membership when the Teachers' Pension System (TPS) was established. Individuals who were members of the TRS on December 31, 1979, continue their TRS membership unless, and until, they elected to transfer to the TPS prior to January 1, 2005.

### Member Contributions

All member contributions to the TRS are based on a specified percentage of annual earnable compensation. Members who elected in 1984 to receive unlimited future cost-of-living adjustments (COLA) contribute 7% if enrolled after June 30, 1973. Members enrolled before July 1, 1973 contribute the lesser of 7% or 2% more than the rate of contribution in effect on the date of their enrollment. This option is referred to as Selection A (Unlimited COLA).

Members who elected in 1984 to receive limited future COLA's contribute 5% if enrolled after June 30, 1973. Members enrolled before July 1, 1973 contribute the lesser of 5% or the rate of contribution in effect on the date of their enrollment. This option is referred to as Selection B (Limited COLA).

All other TRS members contribute **in accordance with the provisions of the Teachers' Pension System**. This option is referred to as Selection C (Combination Formula), that provides a two-part benefit calculation upon retirement. The employee contribution for Section C, Part 2 is 5%.

Members who are in Selection A, B, or C will remain in these until their retirement. As of January 1, 2005, they were no longer permitted to change selections.

### Service Retirement Allowances

**Eligibility** — TRS members are eligible for full service retirement allowances upon attaining age 60 or upon accumulating 30 years of eligibility service regardless of age.

**Allowances** — Full service retirement allowances equal 1/55 (1.818%) of the highest three years' average final **compensation** (AFC) multiplied by the number of years and months of accumulated creditable service. Allowances for members who fail to make all required contributions are reduced by the actuarial equivalent of the total unpaid contributions plus interest to date of retirement. Service is accrued based on a full normal school year (ten months).

### Early Retirement Allowances

**Eligibility** — TRS members are eligible for early service retirement allowances upon accumulating at least 25 years of eligibility service prior to attaining age 60.

**Allowances** — Early service retirement allowances equal the amount payable for a full service retirement reduced by 0.5% for each month by which the retirement date precedes the earlier of the date on which the member reaches age 60, or the date on which the member would have completed 30 years of service. The maximum reduction for a TRS member is 30 percent. The maximum reduction for a TRS member who elected Selection C is 30% on the first part and 42% on the second part of the benefit calculation.

### Ordinary Disability Retirement Allowances

**Eligibility** — TRS members are eligible for ordinary disability retirement allowances upon completing five years of eligibility service and receiving certification from the Medical Board that they are permanently incapable of performing their necessary job functions.

**Allowances** — Ordinary disability retirement allowances generally equal 1/55 (1.818%) of the highest three years' AFC multiplied by the number of years of accumulated creditable service. However, the ordinary disability benefits can be no greater than 1.818% of AFC for each year of creditable service the members would have received had they continued to work until age 60.

### **Accidental Disability Retirement Allowances**

**Eligibility** — TRS members are eligible for accidental disability benefits if the Medical Board certifies that, in the course of job performance and as the direct result of an accidental injury, they became totally and permanently disabled.

**Allowances** — Accidental disability allowances equal the sum of an annuity determined as the actuarial value of the members' accumulated contributions, plus 2/3 (66.7%) of AFC. Allowances may not exceed the members' AFC.

### **Death Benefits**

**Eligibility** — To be eligible for death benefits, TRS members must have either accumulated at least one year of eligibility service prior to the date of death or died in the line of duty.

**Benefits** — The benefit provided upon death for TRS members equals the members' annual earnable compensation at the time of death plus accumulated contributions. Under certain circumstances, surviving spouses who were named as sole primary beneficiaries may elect to receive either the aforementioned lump sum payment, or a monthly allowance calculated under Option 2 (100% survivor option).

**Special Death Benefit** - Provides a special death benefit to the surviving spouse, dependent children, or dependent parents of employees killed in the line of duty equal to 2/3 of the deceased member's average final compensation.

### **Vested Retirement Allowances**

**Eligibility** — TRS members are eligible for vested retirement allowances after separation from service and upon reaching normal retirement age, provided that at least five years of eligibility service was accumulated prior to separation.

**Allowances** — Vested allowances equal the normal service retirement allowances computed on the basis of the members' accumulated creditable service and AFC at the point of separation.

If members do not withdraw their contributions, and die before attaining age 60, their accumulated contributions are returned to the designated beneficiary.

### **Cost-of-Living Adjustments**

Retirement allowances are adjusted each year based on the Consumer Price Index(CPI). Cost-of-living adjustments (COLAs) are effective July 1st of each year and are applied to all allowances payable for the year. However, the method by which the annual COLAs are computed depends upon elections made by members who were active on July 1, 1984 (or within 90 days of returning to service, for members who were inactive on July 1, 1984). Each option is explained in the following column.

**Selection A (Unlimited COLA)** — TRS members who elected Selection A, agreed to contribute no more than 7% of earnable

compensation in return for unlimited annual COLAs after retirement.

**Selection B (Limited COLA)** — TRS members who elected Selection B, agreed to contribute at the required TPS employee contribution rate of earnable compensation in return for COLAs that are limited to 5% annually after retirement.

**Selection C (Combination Formula)** — TRS members who elected Selection C, agreed to contribute at the required TPS employee contribution rate of earnable compensation in return for COLAs that, similar to the retirement benefit, are divided into two parts.

**Part 1:** The COLAs are unlimited unless the member elected Selection B prior to electing Selection C, in which case COLAs are limited to 5%.

**Part 2:** The COLAs are limited to 3%.

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

### **Optional Forms of Payment**

**Option 1:** Payment guarantees a cash reserve equal to the excess of the present value of the retirement allowance at the date of retirement minus the total amount of payments (less COLAs) made to the date of death.

**Option 2:** 100% joint and survivor annuity.

**Option 3:** 50% joint and survivor annuity.

**Option 4:** Payment guarantees a minimum return of the members' accumulated contributions.

**Option 5:** 100% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

**Option 6:** 50% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Except for a spouse or disabled child, the beneficiary designated under Option 2 or 5 cannot be more than 10 years younger than the retiree (IRS Regulation).

### **Workers' Compensation Benefits Reduction**

Disability retirement allowances are generally reduced by workers' compensation benefits paid after retirement if, and to the extent that, such benefits are for the same injury and the same period of time for which the retirement benefits are payable. The workers' compensation benefit reduction cannot reduce any retirement allowance to less than the amount necessary to cover the retiree's monthly health insurance premiums.

## TEACHERS' PENSION SYSTEM

## A COMPOSITE PICTURE

	2015	2014
<b>Total Membership</b>		
Active Vested	79,707	80,319
Active Non-vested	24,833	22,875
Vested Former Members	24,155	23,778
Retired Members	43,045	40,167
<b>Active Members</b>		
Number	104,540	103,194
Average Age	44.9	44.9
Average Years of Service	11.7	11.7
Average Annual Salary	\$ 61,023	\$ 60,022
<b>Retirees &amp; Beneficiaries</b>		
Number	43,045	40,167
Average Age	69.5	69.1
Average Monthly Benefit	\$ 1,755	\$ 1,702

**THE TEACHERS' PENSION SYSTEM (TPS)** was established on January 1, 1980 and is administered in accordance with the State Personnel and Pensions Article of the Annotated Code of Maryland. Membership in the TPS is a condition of employment for all State and local teachers and certain board of education, public library and community college employees (unless those who are eligible elect to participate in an optional retirement program).

All individuals who are members of the Teacher's Pension System on or before June 30, 2011, participate in the Alternate Contributory Pension Selection (ACPS) except for the few members who transferred from the Teachers' Retirement System after April 1, 1998 or former vested members who terminated employment prior to July 1, 1998.

All individuals who enroll in the Teachers' Pension System on or after July 1, 2011, participate in the Reformed Contributory Pension Benefit (RCPB).

### Member Contributions

All ACPS members are required to contribute 7% of earnable compensation during FY2010.

### Service Pension Allowances

**ACPS Eligibility** — Members are eligible for full service pension allowances upon accumulating 30 years of eligibility service regardless of age. Absent 30 years of eligibility service, members must meet one of the following conditions to be eligible for full service pension allowances:

- age 62, & five years of eligibility service
- age 63, & four years of eligibility service
- age 64, & three years of eligibility service
- age 65 or older, & two years of eligibility service

**RCPB Eligibility** — Members are eligible for full service pension allowances when their combined age and eligibility service equals at least 90 years or they attain age 65 after 10 years of eligibility service.

**ACPS Allowances** — Service pension allowances equal 1.2% of AFC for the three highest consecutive years as an employee for each year of creditable service accrued prior to July 1, 1998, plus 1.8% of AFC for the three highest consecutive years as an employee for each year of creditable service accrued on and after July 1, 1998.

**RCPB Allowances** — Service pension allowances equal 1.5% of AFC for the five highest consecutive years as an employee for each year of creditable service on or after July 1, 2011.

### Early Service Pension Allowances

**ACPS Eligibility** — Members are eligible for early service pension allowances upon attaining age 55 with at least 15 years of eligibility service.

**ACPS Allowances** — Early service pension allowances equal the amount payable for a full service pension reduced by 0.5% for each month by which the retirement date precedes the date on which the members reach age 62. The maximum reduction is 42 percent.

**RCPB Eligibility** — Members are eligible for early service pension allowances upon attaining age 60 with at least 15 years of eligibility service.

**RCPB Allowances** — Early service pension allowances equal the amount payable for a full service pension reduced by 0.5% for each month by which the retirement date precedes the date on which the members reach age 65. The maximum reduction is 30%.

### Ordinary Disability Pension Allowances

**Eligibility** — ACPS and RCPB members are eligible for ordinary disability pension allowances upon completing five years of eligibility service and receiving certification from the Medical Board that they are permanently incapable of performing their necessary job functions.

**Allowances** — Ordinary disability pension allowances equal the full service pension allowances if the members are at least age 62 on the date of retirement. Otherwise, the allowances equal the full service pension allowances computed as though the members had continued to accrue service credits until age 62 without any change in the rate of earnable compensation.

### Accidental Disability Pension Allowances

**Eligibility** — ACPS and RCPB members are eligible for accidental disability pension allowances if the Medical Board certifies that, in the course of their job performance and as the direct result of an accidental injury, they became totally and permanently disabled.

**Allowances** — Accidental disability pension allowances equal the sum of an annuity determined as the actuarial value of the mem-



bers' accumulated contributions, and 2/3 (66.7%) of AFC. Allowances may not exceed the members' AFC.

### **Death Benefits**

**Eligibility** — To be eligible for death benefits, ACPS and RCPB members must have either accumulated at least one year of eligibility service prior to the date of death or died in the line of duty.

**Benefits** — The benefit provided upon death of ACPS members equals the members' annual earnable compensation on the date of death plus accumulated contributions. Under certain circumstances, surviving spouses who were named as sole primary beneficiaries may elect to receive either the aforementioned lump sum payment, or a monthly allowance calculated under Option 2 (100% survivor option). If at the time of death, the members had:

- accrued at least 25 years of eligibility service, or
- attained age 55 with at least 15 years of eligibility service, or
- attained age 62, then

the survivor's allowance is determined as if the members had been eligible to retire, and had in fact retired.

**Special Death Benefit** - Provides a special death benefit to the surviving spouse, dependent children, or dependent parents of employees killed in the line of duty equal to 2/3 of the deceased member's average final compensation.

### **Vested Pension Allowances**

**ACPS Eligibility** — Members are eligible for vested pension allowances after separation from service and upon reaching age 62, provided that at least five years of eligibility service was accumulated prior to separation. Members may be eligible for reduced vested pension allowances upon attaining age 55 with at least 15 years of eligibility service. Vested allowances are reduced by 0.5% for each month by which the allowance commencement date precedes the date on which the members attain age 62.

**ACPS Allowances** — Vested allowances equal the normal service pension allowances computed on the basis of the members' accumulated creditable service and AFC at the point of separation. If members do not withdraw their contributions, and die before attaining age 62, their accumulated contributions are returned to the designated beneficiary.

**RCPB Eligibility** — Members are eligible for vested pension allowances after separation from service and upon reaching age 65, provided that at least 10 years of eligibility service was accumulated prior to separation. Members may be eligible for reduced vested pension allowances upon attaining age 60 with at least 15 years of eligibility service. Vested allowances are reduced by 0.5% for each month by which the allowance commencement date precedes the date on which the members attain age 65.

**RCPB Allowances** — Vested allowances equal the normal service pension allowances computed on the basis of the members' accumulated creditable service and AFC at the point of separation. If members do not withdraw their contributions, and die before attaining age 65, their accumulated contributions are returned to the designated beneficiary.

### **Cost-of-Living Adjustments**

Retirement allowances for ACPS members are adjusted each year based on the Consumer Price Index. COLAs are effective July 1st of each year and, are compounded annually. Effective July 1, 1998, the adjustment is capped at a maximum 3% and is applied to all benefits which have been in payment for one year.

For ACPS and RCPB retirement allowances attributable to service earned on or after July 1, 2011, the adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate. For fiscal year 2013, the assumed rate of return is 7.75%, as approved by the Board of Trustees. The adjustment is capped at the lesser of 1% or the increase in CPI if, for fiscal year 2013, the market value return was less than the assumed rate of 7.75%.

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

### **Optional Forms of Payment**

**Option 1:** Payment guarantees a cash reserve equal to the excess of the present value of the pension allowance at the date of retirement minus the total amount of payments (less COLAs) made to the date of death.

**Option 2:** 100% joint and survivor annuity.

**Option 3:** 50% joint and survivor annuity.

**Option 4:** Payment guarantees a minimum return of the members' accumulated contributions.

**Option 5:** 100% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

**Option 6:** 50% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Except for a spouse or disabled child, the beneficiary designated under Option 2 or 5 cannot be more than 10 years younger than the retiree (IRS regulation).

### **Workers' Compensation Benefits Reduction**

Disability retirement allowances are generally reduced by workers' compensation benefits paid after retirement if, and to the extent that, such benefits are for the same injury and the same period of time for which the retirement benefits were paid. The workers' compensation benefit reduction cannot reduce any retirement allowance to less than the amount necessary to cover the retiree's monthly health insurance premiums.

## EMPLOYEES' RETIREMENT SYSTEM

**A COMPOSITE PICTURE**

	2015	2014
<b>Total Membership</b>		
Active Vested	6,268	6,439
Active Non-vested	2,298	2,302
Vested Former Members	804	831
Retired Members	21,571	22,013
<b>Active Members</b>		
Number	8,566	8,741
Average Age	44.0	44.0
Average Years of Service	12.8	12.9
Average Annual Salary	\$ 50,108	\$ 48,503
<b>Retirees &amp; Beneficiaries</b>		
Number	21,571	22,013
Average Age	73.3	73.2
Average Monthly Benefit	\$ 1,851	\$ 1,794

**THE EMPLOYEES' RETIREMENT SYSTEM (ERS)** was established on October 1, 1941 and is administered in accordance with the State Personnel and Pensions Article of the Annotated Code of Maryland. Prior to January 1, 1980, membership in the ERS was a condition of employment for all State employees (other than those eligible for participation in another system) and employees of participating governmental units. For certain elected and appointed officials, participation in ERS was optional.

Effective January 1, 1980, the ERS was effectively closed to new membership when the Employees' Pension System (EPS) was established. Individuals who were members of the ERS on December 31, 1979, continue their ERS membership unless, and until, they elect to transfer to the EPS, prior to January 1, 2005.

**Member Contributions**

All member contributions to the ERS are based on a specified percentage of annual earnable compensation. Members who elected in 1984 to receive unlimited future COLAs contribute 7% if enrolled after June 30, 1973. Members enrolled before July 1, 1973 contribute the lesser of 7% or 2% more than the rate of contribution in effect on their date of enrollment. This option is referred to as Selection A (Unlimited COLA).

Members who elected in 1984 to receive limited future COLAs contribute 5% if enrolled after June 30, 1973. Members enrolled before July 1, 1973 contribute the lesser of 5% or the rate of contribution in effect on the date of their enrollment. This option is referred to as Selection B (Limited COLA).

Members who are State employees as well as members whose employer elected to participate in the Employees' Pension System contribute in accordance with the provisions of the Employees' Pension System elected by the employer. This option is referred

to as Selection C (Combination Formula). The employee contribution for Section C, Part 2 is 5%.

Members who are in Selection A, B, or C will remain in these until their retirement. As of January 1, 2005, they were no longer permitted to change selections.

**Service Retirement Allowances**

**Eligibility** — ERS members are eligible for full service retirement allowances upon attaining age 60 or upon accumulating 30 years of eligibility service regardless of age.

**Allowances** — Full service retirement allowances equal 1/55 (1.818%) of the highest three years' AFC multiplied by the number of years and months of accumulated creditable service. Allowances for members who fail to make all required contributions are reduced by the actuarial equivalent of the total unpaid contributions plus interest to date of retirement.

**Early Retirement Allowances**

**Eligibility** — ERS members are eligible for early service retirement allowances upon accumulating at least 25 years of eligibility service prior to attaining age 60.

**Allowances** — Early service retirement allowances equal the amount payable for a full service retirement reduced by 0.5% for each month by which the retirement date precedes the earlier of the date on which the member reaches age 60, or the date on which the member would have completed 30 years of service. The maximum reduction for an ERS member is 30 percent. The maximum reduction for an ERS member who elected Selection C is 30% on the first part and 42% on the second part of the benefit calculation.

**Ordinary Disability Retirement Allowances**

**Eligibility** — ERS members are eligible for ordinary disability retirement allowances upon completing five years of eligibility service and receiving certification from the Medical Board that they are permanently incapable of performing their necessary job functions.

**Allowances** — Ordinary disability retirement allowances generally equal 1/55 (**1.818%**) of the highest three years' AFC multiplied by the number of years of accumulated creditable service. However, the ordinary disability benefits can be no greater than **1.818%** of AFC for each year of creditable service the members would have received had they continued to work until age 60.

**Accidental Disability Retirement Allowances**

**Eligibility** — ERS members are eligible for accidental disability benefits if the Medical Board certifies that, in the course of job performance and as the direct result of an accidental injury, they became totally and permanently disabled.

**Allowances** — Accidental disability allowances equal the sum of an annuity determined as the actuarial value of the members' accumulated contributions, plus 2/3 (66.7%) of AFC. Allowances may not exceed the members' AFC.

### **Death Benefits**

**Eligibility** — To be eligible for death benefits, ERS members must have either accumulated at least one year of eligibility service prior to the date of death or died in the line of duty.

**Benefits** — The benefit provided upon death for ERS members equals the members' annual earnable compensation at the time of death plus accumulated contributions. Under certain circumstances, surviving spouses who were named sole primary beneficiaries may elect to receive either the aforementioned lump sum payment, or a monthly allowance calculated under Option 2 (100% survivor option).

**Special Death Benefit** - Provides a special death benefit to the surviving spouse, dependent children, or dependent parents of employees killed in the line of duty equal to 2/3 of the deceased member's average final compensation.

### **Vested Retirement Allowances**

**Eligibility** — ERS members are eligible for vested retirement allowances after separation from service and upon reaching normal retirement age, provided that at least five years of eligibility service was accumulated prior to separation.

**Allowances** — Vested allowances equal the normal service retirement allowances computed on the basis of the members' accumulated creditable service and AFC at the point of separation.

If members do not withdraw their contributions, and die before attaining age 60, their accumulated contributions are returned to the designated beneficiary.

### **Cost-of-Living Adjustments**

Retirement allowances are adjusted each year based on the Consumer Price Index. COLAs are effective July 1st of each year and are applied to all allowances payable for the year. However, the method by which the annual COLAs are computed depends upon elections made by members who were active on July 1, 1984 (or within 90 days of returning to service for members who were inactive on July 1, 1984). Each option is explained below.

**Selection A (Unlimited COLA)** — ERS members who elected Selection A, agreed to contribute no more than 7% of earnable compensation in return for unlimited annual COLAs after retirement.

**Selection B (Limited COLA)** — ERS members who elected Selection B, agreed to contribute no more than 5% of earnable compensation in return for COLAs that are limited to 5% annually after retirement.

**Selection C (Combination Formula)** — ERS members who elected Selection C, agreed to contribute at the required EPS employee contribution rate of earnable compensation in return for

COLAs that, similar to the retirement benefit, are divided into two parts:

**Part 1:** The COLAs are unlimited unless the members elected Selection B prior to electing Selection C, in which case COLAs are limited to 5%.

**Part 2:** Generally, the COLAs are limited to 3%; however, if the employers participate in the Non-Contributory Pension System, the COLA's are limited to 3% of the initial allowance.

### **Optional Forms of Payment**

**Option 1:** Payment guarantees a cash reserve equal to the excess of the present value of the retirement allowance at the date of retirement minus the total amount of payments (less COLA's) made to the date of death.

**Option 2:** 100% joint and survivor annuity.

**Option 3:** 50% joint and survivor annuity.

**Option 4:** Payment guarantees a minimum return of the members' accumulated contributions.

**Option 5:** 100% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

**Option 6:** 50% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Except for a spouse or disabled child, the beneficiary designated under Option 2 or 5 cannot be more than 10 years younger than the retiree (IRS regulation).

### **Workers' Compensation Benefits Reduction**

Disability retirement allowances, except for employees of participating governmental units, are generally reduced by workers' compensation benefits paid after retirement if, and to the extent that, such benefits are for the same injury and the same period of time for which the retirement benefits are payable. The workers' compensation benefit reduction cannot reduce any retirement allowance to less than the amount necessary to cover the retiree's monthly health insurance premiums.

### **Miscellaneous Provisions for Members of the Maryland General Assembly**

For individuals who are members of the Legislative Pension Plan on or before December 31, 2014, the retirement allowance is equal to 3.00% of current legislative salary for each year of creditable service (maximum 22 years, 3 months) upon attainment of age 60 and at least eight years of creditable service. Reduced benefits are payable upon attainment of age 50 and completion of 8 years of creditable service. The benefit is reduced by .005 for each month between ages 50 and 60 that the early retirement date precedes age 60.

An individual who is a member of the Legislative Pension Plan on or before December 31, 2014, with eight years of creditable service who has not attained age 60 may leave contributions in the

system and receive a retirement allowance at age 60, or a reduced benefit on or after age 50. If termination occurs before the completion of eight years of creditable service, the member may make contributions equal to the member's and the State's required contributions until the member would have completed eight years of eligibility service, (and receive 24% of creditable compensation at age 60 or a reduced benefit on or after age 50).

For individuals who join the Legislative Pension Plan on or after January 1, 2015, the retirement allowance is equal to 3.00% of current legislative salary for each year of creditable service (maximum 22 years 3 months) upon attainment of age 62 and at least eight years of creditable service. Reduced benefits are payable upon attainment of age 55 and completion of 8 years of creditable service. The benefit is reduced by .005 for each month between ages 55 and 62 that the early retirement date precedes age 62.

An individual who joins the Legislative Pension Plan on or after January 1, 2015, accrues eight years of creditable service, and who has not attained age 62 may leave contributions in the system and receive a retirement allowance at age 62, or a reduced benefit on or after age 55. If termination occurs before the completion of eight years of creditable service, the member may make contributions equal to the member's and the State's required contributions until the member would have completed eight years of eligibility service, (and receive 24% of creditable compensation at age 62 or a reduced benefit on or after age 55).

A member who is certified as disabled by the Medical Board and approved by the Board of Trustees for a disability retirement benefit after attaining at least 8 years of creditable service may resign from the General Assembly and immediately receive a retirement allowance based on their creditable service.

The member's surviving spouse receives 50% of the member's retirement allowance if the member i) is retired, ii) is eligible for a deferred vested benefit, or iii) is active and has eight years of creditable service. The surviving spouse of a member who had accrued less than eight years of creditable service and dies in office shall receive a lump sum death benefit of accumulated contributions plus an amount equal to the deceased's annual earnable compensation at the time of death.

Beginning January 1, 2015, members contribute 7% of their earnable compensation during their first 22 years, 3 months of service with contributions earning interest at 4% per year.

All retirement allowances are recalculated each time the salaries for current members of the General Assembly are increased.

### **Miscellaneous Provisions for State Correctional Officers**

Correctional officers serving in the first six job classifications, maximum security attendants at Clifton T. Perkins Hospital Center, a Correctional Dietary, Maintenance or Supply Officer, Maryland

Correctional Enterprise Officers and Trainees, Plant Supervisors, Plant Managers, and Regional Managers; and Laundry Officers participate under this System. Effective July 1, 2006, Maryland counties may elect to participate on behalf of their detention center officers. Additionally, beginning July 1, 2014, individuals serving as a security chief, a facility administrator, an assistant warden or a warden will participate in this System.

The retirement allowance for an individual who is a correctional officer on or before June 30, 2011, is 1/55th of average final compensation for the three highest years as a member for each year of creditable service. The retirement allowance for an individual who is a correctional officer on or after July 1, 2011, is 1/55th of average final compensation for the five highest years as a member for each year of creditable service.

An immediate service retirement allowance is payable to a correctional officer if, on or before the retirement, the officer has completed 20 years of eligibility service. For individuals who are correctional officers on June 30, 2011, the vested retirement allowance of a correctional officer who has accrued at least 5 years of eligibility service in the first six job classifications commences at age 55; for the security attendant it commences at age 60. For individuals who become correctional officers on or after July 1, 2011, the vested retirement allowance for a correctional officer who has accrued at least 5 years of eligibility services in the first six job classifications commences at age 55; for the security attendant it commences at age 60.

For benefits attributable to service on or after July 1, 2011, the Cost-of-living adjustment for Correctional Officers is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate of investment return from the most recent actuarial valuation. The adjustment is capped at the lesser of 1% or the increase in CPI if the most recent calendar year market value rate of return was less than the assumed rate of investment return from the most recent actuarial valuation.

## EMPLOYEES' PENSION SYSTEM

**A COMPOSITE PICTURE**

	2015	2014
<b>Total Membership</b>		
Active Vested	54,458	56,250
Active Non-vested	20,770	19,834
Vested Former Members	27,042	26,707
Retired Members	50,460	47,446
<b>Active Members</b>		
Number	75,228	76,084
Average Age	48.5	48.6
Average Years of Service	12.1	12.3
Average Annual Salary	\$ 51,464	\$ 49,827
<b>Retirees &amp; Beneficiaries</b>		
Number	50,460	47,446
Average Age	69.0	68.7
Average Monthly Benefit	\$ 1,152	\$ 1,101

**THE EMPLOYEES' PENSION SYSTEM (EPS)**

The Employees' Pension System (EPS) is administered in accordance with the State Personnel and Pension Article of the Annotated Code. The EPS consists of four parts:

**Non-Contributory Pension System (NCPS)**

The NCPS was established on January 1, 1980 and consists only of those participating employers that did not elect membership in the Employees' Contributory Pension System (ECPS) or the Alternate Contributory Pension Selection (ACPS).

**Employees' Contributory Pension System (ECPS)**

The ECPS was established as of July 1, 1998 and consists of those participating employers that elected participation in the ECPS effective July 1, 1998 through July 1, 2005 and did not elect membership in the ACPS as of July 1, 2006. Employees who transferred from the ERS to the EPS after April 1, 1998 were not eligible for the benefits of the ECPS.

**Alternate Contributory Pension Selection (ACPS)**

The ACPS was established as of July 1, 2006 and consists of all eligible State employees and those participating employers that elected participation in the ACPS effective July 1, 2006. Employees who transferred from the ERS to the EPS after April 1, 1998 were not eligible for the benefits of the ACPS.

**Reformed Contributory Pension Benefit (RCPB)**

The RCPB was established as of July 1, 2011 and consists of all State employees and, employees of participating governmental units enrolling in the EPS on or after July 1, 2011. It does not apply to employees of participating governmental units participating in the NCPS or ECPS who in enroll in the Employees' Pension System on or after July 1, 2011.

**Member Contributions**

**NCPS** — Members were required to contribute 5% of earnable compensation in excess of the social security wage base.

**ECPS** — Members are required to contribute 2% of earnable compensation.

**ACPS** — Members were required to contribute 7% of earnable compensation.

**RCPB** — Members were required to contribute 7% of earnable compensation.

**Service Pension Allowances**

**NCPS, ECPS, and ACPS Eligibility** — Members are eligible for full service pension allowances upon accumulating 30 years of eligibility service regardless of age. Absent 30 years of eligibility service, members must meet one of the following conditions to be eligible for full service pension allowances:

- age 62, & five years of eligibility service
- age 63, & four years of eligibility service
- age 64, & three years of eligibility service
- age 65 or older, & two years of eligibility service

**RCPB Eligibility** - Members are eligible for full service pension allowances when their combined age and eligibility service equals at least 90 years or they attain age 65 after 10 years of eligibility service.

**Allowances**

**NCPS** - Full service pension allowance equals .8% of the highest three consecutive years AFC up to the SSIL, plus 1.5% of the AFC in excess of the SSIL, multiplied by the number of years of accumulated creditable service. For purposes of computing pension allowances, the SSIL is the average of the social security wage bases for the 35 years immediately prior to the year of retirement.

**ECPS** - Full service pension allowance equals 1.2% of AFC for the three highest consecutive years as an employee for each year of creditable service accrued prior to July 1, 1998 plus 1.4% of the AFC for the three highest consecutive years as an employee for each year of creditable service accrued on or after July 1, 1998.

**ACPS** - Full service pension allowance equals 1.2% of AFC for the three highest consecutive years as an employee for each year of creditable service accrued prior to July 1, 1998 plus 1.8% of the AFC for the three highest consecutive years as an employee for each year of creditable service accrued on or after July 1, 1998.

**RCPB** - Full service pension allowance equals 1.5% of AFC for the five highest consecutive years as an employee for each year of creditable service accrued on or after July 1, 2011.

**Early Service Pension Allowances**

**NCPS, ECPS, and ACPS Eligibility** — Members are eligible for early service pension allowances upon attaining age 55 with at least 15 years of eligibility service.

**NCPS, ECPS, and ACPS Allowances** — Early service pension allowances equal the amount payable for a full service pension reduced by 0.5% for each month by which the retirement date precedes the date on which the member reaches age 62. The maximum reduction is 42 percent.

**RCPB Eligibility** — Members are eligible for early service pension allowances upon attaining age 60 with at least 15 years of eligibility service.

**RCPB Allowances** — Early service pension allowances equal the amount payable for a full service pension reduced by .5% for each month by which the retirement date precedes the date on which the members reach age 65. The maximum reduction is 30%.

### **Ordinary Disability Pension Allowances**

**Eligibility** — All EPS members are eligible for ordinary disability pension allowances upon completing five years of eligibility service and receiving certification from the Medical Board that they are permanently incapable of performing their necessary job functions.

**Allowances** — Ordinary disability pension allowances equal the full service pension allowances if the members are at least age 62 on the date of retirement. Otherwise, the allowances equal the full service pension allowances computed as though the members had continued to accrue service credits until age 62 without any change in the rate of earnable compensation.

### **Accidental Disability Pension Allowances**

**Eligibility** — All EPS members are eligible for accidental disability pension allowances if the Medical Board certifies that, in the course of their job performance and as the direct result of an accidental injury, they became totally and permanently disabled.

**Allowances** — Accidental disability pension allowances equal the sum of an annuity determined as the actuarial value of the members' accumulated contributions, and 2/3 (66.7%) of AFC.

### **Death Benefits**

**Eligibility** — To be eligible for death benefits, EPS members must have either accumulated at least one year of eligibility service prior to the date of death or died in the line of duty.

**Benefits** — The benefit provided upon death of all EPS members equals the members' annual earnable compensation on the date of death plus accumulated contributions. Under certain circumstances, surviving spouses who were named sole primary beneficiaries may elect to receive either the aforementioned lump sum payment, or a monthly allowance calculated as payment under Option 2 (100% survivor option).

If at the time of death, the members had:

- accrued at least 25 years of eligibility service, or
- attained age 55 with at least 15 years of eligibility service, or
- attained age 62, then

the survivor's allowance is determined as if the members had been eligible to retire.

**Special Death Benefit** - Provides a special death benefit to the surviving spouse, dependent children, or dependent parents of employees killed in the line of duty equal to 2/3 of the deceased member's average final compensation.

### **Vested Pension Allowances**

**NCPS, ECPS, and ACPS Eligibility** — Members are eligible for

vested pension allowances after separation from service and upon reaching age 62, provided that at least five years of eligibility service was accumulated prior to separation. Members may be eligible for reduced vested pension allowances upon attaining age 55 with at least 15 years of eligibility service. Vested allowances are reduced by 0.5% for each month by which the allowance commencement date precedes the date on which the members attain age 62.

**NCPS, ECPS, and ACPS Allowances** — Vested allowances equal the normal service pension allowances computed on the basis of the members' accumulated creditable service and AFC at the point of separation. Members who elect to withdraw their accumulated contributions, remain eligible to receive the employer-provided share of the vested benefit. If members do not withdraw their contributions, and die before attaining age 62, their accumulated contributions are returned to the designated beneficiary.

**RCPB Eligibility** — Members are eligible for vested pension allowances after separation from service and upon reaching age 65, provided that at least 10 years of eligibility service was accumulated prior to separation. Members may be eligible for reduced vested pension allowances upon attaining age 60 with at least 15 years of eligibility service. Vested allowances are reduced by 0.5% for each month by which the allowance commencement date precedes the date on which the members attain age 65.

**RCPB Allowances** — Vested allowances equal the normal service pension allowances computed on the basis of the members' accumulated creditable service and AFC at the point of separation. If members do not withdraw their contributions, and die before attaining age 65, their accumulated contributions are returned to the designated beneficiary.

### **Cost of Living Adjustments**

Retirement allowances for all EPS members are adjusted each year based on the Consumer Price Index. The Cost of Living Adjustments (COLA) are effective July 1st of each year.

For retirement allowances attributable to service earned on or before June 30, 2011:

**NCPS** - Limits the increase the retiree may receive to a maximum of 3% of the initial allowance annually.

**ECPS** - Limits the increase the retiree may receive to a maximum of 3%, compounded annually

**ACPS** - Limits the increase the retiree may receive to a maximum of 3%, compounded annually

For any EPS retirement allowance attributable to service earned on or after July 1, 2011, the adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate. For fiscal year 2013, the assumed rate of return is 7.75%, as approved by the Board of Trustees. The adjustment is capped at the lesser of 1% or the increase in CPI if, for fiscal 2013, the market value return was less than the assumed rate of 7.75%.

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference

between the negative COLA that would have applied and the zero COLA is fully recovered.

**Optional Forms of Payment**

- Option 1:** Payment guarantees a cash reserve equal to the excess of the present value of the pension allowance at the date of retirement minus the total amount of payments (less COLAs) made to the date of death.
- Option 2:** 100% joint and survivor annuity.
- Option 3:** 50% joint and survivor annuity.
- Option 4:** Payment guarantees a minimum return of the members' accumulated contributions.
- Option 5:** 100% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.
- Option 6:** 50% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Except for a spouse or disabled child, the beneficiary designated under Option 2 or 5 cannot be more than 10 years younger than the retiree (IRS regulation).

**Workers' Compensation Benefits Reduction**

Disability retirement allowances, except for retirees of a participating governmental unit, are generally reduced by workers' compensation benefits paid after retirement if, and to the extent that, such benefits are for the same injury and the same period of time for which the retirement benefits were paid.

The workers' compensation benefit reduction cannot reduce any retirement allowance to less than the amount necessary to cover the retiree's monthly health insurance premiums.

JUDGES' RETIREMENT SYSTEM

**A COMPOSITE PICTURE**

	2015	2014
<b>Total Membership</b>		
Active Vested	243	254
Active Non-vested	64	47
Vested Former Members	8	8
Retired Members	397	395
<b>Active Members</b>		
Number	307	301
Average Age	58.1	57.7
Average Years of Service	8.9	8.9
Average Annual Salary	\$ 145,318	\$ 140,576
<b>Retirees &amp; Beneficiaries</b>		
Number	397	395
Average Age	77.0	76.7
Average Monthly Benefit	\$ 6,296	\$ 6,057

**THE JUDGES' RETIREMENT SYSTEM (JRS)** was established on June 30, 1969 and is administered in accordance with the State Personnel and Pensions Article of the Annotated Code of Maryland. Membership is a condition of employment for all District Court, Circuit Court, Court of Appeals and Court of Special Appeals judges. Full-time masters in chancery and masters in juvenile causes appointed prior to June 30, 1989 and Workers' Compensation Commission judges are also members of the JRS.

**Member Contributions**

Beginning July 1, 2012, all members contribute 8% of annual earnable compensation during the first 16 years of service. After accruing 16 years of credit, no member contributions are required.

**Service Retirement Allowances**

**Eligibility** — JRS members who are members before July 1, 2012, are eligible for full service retirement allowances upon attaining age 60 or upon retirement by order of the Court of Appeals, with at least 16 years of eligibility service.

Individuals who become JRS members on or after July 1, 2012, are eligible for full service retirement allowances upon attaining age 60 and accruing at least five years of eligibility service, or upon retirement by order of the Court of Appeals, with at least 16 years of eligibility service.

All JRS members must retire at age 70.

**Allowances** — Full service retirement allowances equal 2/3 (66.7%) of the current salary for an active judge holding a comparable position. If members retire with less than 16 years of eligibility service, the annual retirement allowance is prorated accordingly.

**Early Retirement Allowances**

**Eligibility** — JRS members are not eligible for early service retirement allowances.

**Disability Retirement Allowances**

**Eligibility** — JRS members are eligible for disability retirement allowances upon receiving certification from the Medical Board that they are permanently incapable of performing their necessary job functions.

**Allowances** — The disability retirement allowances for JRS members generally equal the full service retirement allowance based on the members' actual length of service. However, for members completing at least three years of eligibility service, the disability benefit will be no less than 1/3 (33.3%) of the members' annual earnable compensation at the time of retirement.

**Death Benefits**

**Eligibility** — All JRS members, and former members, are eligible for death benefits regardless of age or length of service.

**Benefits** — The benefit provided upon death for JRS members, former members or retirees equals 50% of a service retirement allowance payable to the surviving spouse.

Special provisions apply in circumstances where deceased JRS members, former members or retirees have no surviving spouses, but are survived by a minor child (under age 18). In the event that deceased JRS members or former members are not survived by spouses or minor children, then all accumulated contributions are refunded to the estate.

**Vested Retirement Allowances**

**Eligibility** — JRS members who are members before July 1, 2012, are immediately vested. Members leaving the bench before attaining age 60 are eligible to receive their service retirement allowances commencing upon attaining age 60.

Individuals who become JRS members on or after July 1, 2012, are eligible for vested retirement allowances after separation from service and upon reaching age 60, provided that at least five years of eligibility service was accumulated prior to separation. For individuals joining the JRS on or after July 1, 2012 who are required to retire due to mandatory retirement and have less than 5 years of service at the time, these individuals are eligible for vested retirement allowances if they have accrued eligibility service equal to 70 minus their age when the individuals first became members of the JRS.

**Allowances** — Vested allowances equal the normal service retirement allowances computed on the basis of the members' accumulated creditable service and the **salary** of active judges holding comparable positions. JRS members may elect to withdraw their accumulated contributions in lieu of receiving vested retirement allowances following their termination of service on the bench.

**Optional Forms of Payment**

Generally, JRS retirement allowances are paid as a 50% joint and survivor annuity to the retirees' surviving spouse, or if there is no spouse, to any child under age 18. If the retirees have neither a living spouse nor children under 18 at retirement, retirees may select any one of the following six payment options.

**Option 1:** Payment guarantees a cash reserve equal to the excess of the present value of the retirement allowance at the date of retirement minus the total amount of payments made to the date of death.

**Option 2:** 100% joint and survivor annuity.

**Option 3:** 50% joint and survivor annuity.

**Option 4:** Payment guarantees a minimum return of the members' accumulated contributions.

**Option 5:** 100% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

**Option 6:** 50% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Once retired, neither the option nor designated beneficiary(ies) may be changed. Except for a spouse or disabled child, the beneficiary designated under Option 2 or 5 cannot be more than 10 years younger than the retiree (IRS regulation).

**Pension Changes**

Effective July 1, 2012, the member contribution for all members of the JRS increases to 8%.

Effective July 1, 2012, for new members of the JRS vesting will require five years of eligibility service.

STATE POLICE RETIREMENT SYSTEM

**A COMPOSITE PICTURE**

	2015	2014
<b>Total Membership</b>		
Active Vested	988	998
Active Non-vested	406	353
Vested Former Members	81	82
Retired Members	2,508	2,468
<b>Active Members</b>		
Number	1,394	1,351
Average Age	35.3	35.5
Average Years of Service	10.9	11.0
Average Annual Salary	\$ 65,316	\$ 63,405
<b>Retirees &amp; Beneficiaries</b>		
Number	2,508	2,468
Average Age	62.4	61.9
Average Monthly Benefit	\$ 3,866	\$ 3,820

**THE STATE POLICE RETIREMENT SYSTEM (SPRS)** was established on July 1, 1949 and is administered in accordance with the State Personnel and Pensions Article of the Annotated Code of Maryland. Membership is a condition of employment for all uniformed officers of the Maryland State Police. The Superintendent of the Maryland State Police may elect membership in either the SPRS or the EPS.

**Member Contributions**

All SPRS members contribute 8% of annual earnable compensation during employment.

**Service Retirement Allowances**

**Eligibility** — SPRS members who are members on or before June 30, 2011, are eligible for full service retirement allowances upon attaining age 50 or upon accumulating 22 years of eligibility service regardless of age. Individuals who become members on or after July 1, 2011, are eligible for full service retirement allowances upon accumulating 25 years of eligibility service or attainment of age 50. Except for the Superintendent, all SPRS members must retire at age 60.



**Allowances** — For individuals who are members on or before June 30, 2011, a full service retirement allowance equals 2.55% of AFC for the five highest years as a member for each year of creditable service, up to a maximum 71.4% of AFC (28 years). Individuals who become members on or after July 1, 2011, will receive a full service retirement allowance equal to 2.55% of AFC for the five highest years as a member for each of the first 29 years of creditable service. Allowances for members who fail to make all required contributions are reduced by the actuarial equivalent of the total unpaid contributions plus interest to date of retirement.

### **Early Retirement Allowances**

**Eligibility** — SPRS members are not eligible for early service retirement allowances.

### **Ordinary Disability Retirement Allowances**

**Eligibility** — SPRS members are eligible for ordinary disability retirement allowances upon completing five years of eligibility service and receiving certification from the Medical Board that they are permanently incapable of performing their necessary job functions.

**Allowances** — Ordinary disability retirement allowances generally equal 2.55% of the AFC multiplied by the number of years of creditable service up to a maximum of 28 years. The minimum ordinary disability retirement allowance is 35% of AFC.

### **Special Disability Retirement Allowances**

**Eligibility** — SPRS members are eligible for special disability benefits if the Medical Board certifies that they became totally and permanently incapacitated for duty arising out of or in the actual performance of duty.

**Allowances** — Special disability allowances equal the sum of an annuity determined as the actuarial value of the members' accumulated contributions, and 2/3 (66.7%) of AFC. Allowances may not exceed the members' AFC.

### **Ordinary Death Benefits**

**Eligibility** — To be eligible for ordinary death benefits, SPRS members must have accumulated at least one but less than two years of eligibility service prior to the date of death.

**Benefits** — The ordinary death benefit equals the members' annual earnable compensation at time of death plus accumulated contributions.

### **Special Death Benefits**

#### **Members in Service**

**Eligibility** — To be eligible for special death benefits, SPRS members in service must have accumulated at least two years of eligibility service prior to the date of death or died in the line of duty.

**Benefits** — The special benefit provided upon the death of SPRS members in service equals 50% of the members' annual earnable compensation at time of death paid as an annuity plus return of accumulated contributions. In cases where the deceased members

are not survived by a spouse, the decedents' children or dependent parents, if any, will continue to receive an annuity equal to 50% of the members' annual earnable compensation until the youngest child reaches age 18, or for the life of each dependent parent. The special death benefit for troopers killed in the line of duty is 2/3 (66.7%) of AFC.

#### **Survivor Benefit**

**Eligibility** — To be eligible for survivor benefits, SPRS retirees must have retired on either a service retirement allowance or a disability allowance.

**Benefits** — The survivor benefit provided upon the death of an SPRS retiree equals 80% of the retirees' retirement allowance, paid as an annuity. In cases where the deceased members are not survived by a spouse, the decedents' children, if any, will continue to receive 80% of the retirees' allowance until the youngest child reaches age 18.

### **Vested Retirement Allowances**

**Eligibility** — Individuals who are SPRS members on or before June 30, 2011, are eligible for vested retirement allowances after separation from service and upon reaching age 50, provided that at least five years of eligibility service was accumulated prior to separation. Individuals who are SPRS members on or after July 1, 2011, are eligible for vested retirement allowances after separation from service and upon reaching age 50, provided that at least 10 years of eligibility service was accumulated prior to separation.

**Allowances** — Vested allowances equal the normal service retirement allowances computed on the basis of the members' accumulated creditable service and AFC at the point of separation. SPRS members may elect to withdraw their accumulated contributions within two years of separation in lieu of receiving vested retirement allowances. If members do not withdraw their contributions, and die before attaining age 50, their accumulated contributions are returned to the designated beneficiary.

### **Cost-of-Living Adjustments**

Retirement allowances attributable to service earned on or before June 30, 2011, are adjusted each year based on the Consumer Price Index.

For retirement allowance attributable to service earned on or after July 1, 2011, the adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate. For fiscal year 2013, the assumed rate of return is 7.75%, as approved by the Board of Trustees. The adjustment is capped at the lesser of 1% or the increase in CPI if, for fiscal year 2013, the market value return was less than the assumed rate of 7.75%.

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

COLAs are effective July 1st of each year and are applied to all allowances payable for the year.

**Optional Forms of Payment**

Generally, SPRS retirement allowances are paid as an 80% joint and survivor annuity to the retirees' spouse, or if there is no spouse, to any child under age 18. If the retirees have neither a living spouse nor children under 18 at retirement, the retirees may select any one of the following six payment options.

**Option 1:** Payment guarantees a cash reserve equal to the present value of the retirement allowance at the date of retirement minus the total amount of payments (less COLAs) made to the date of death.

**Option 2:** 100% joint and survivor annuity.

**Option 3:** 50% joint and survivor annuity.

**Option 4:** Payment guarantees a minimum return of the members' accumulated contributions.

**Option 5:** 100% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

**Option 6:** 50% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Except for a spouse or disabled child, the beneficiary designated under Option 2 or 5 cannot be more than 10 years younger than the retiree (IRS regulation).

**Workers' Compensation Benefits Reduction**

Disability retirement allowances are generally reduced by workers'

compensation benefits paid after retirement if, and to the extent that, such benefits are for the same injury and the same period of time for which the retirement benefits are payable. The workers' compensation benefit reduction cannot reduce any retirement allowance to less than the amount necessary to cover the retiree's monthly health insurance premiums.

**Deferred Retirement Option Program**

SPRS members are eligible to participate in a Deferred Retirement Option Program (DROP). For SRPS members who enter DROP on or before June 30, 2011, they must have at least 22 years of creditable service, but less than 28 years, and be under age 60. For SRPS members who enter DROP on or after July 1, 2011, they must have at least 22 years of creditable service, but less than 29 years, and be under age 60. The maximum period of participation is 4 years.

For members who enter the DROP on or before June 30, 2011, the SPRS member is deemed retired and the retirement allowance is placed in an account earning 6% interest per year, compounded monthly. For members who enter the DROP on or after July 1, 2011, the SPRS member is deemed retired and the retirement allowance is placed in an account earning 4% interest per year, compounded annually. At the end of the DROP period, the lump sum held in the DROP account is paid to the SPRS retiree. The SPRS member must end employment and fully retire at the end of the DROP period.

LAW ENFORCEMENT OFFICERS' PENSION SYSTEM

**A COMPOSITE PICTURE**

	2015	2014
<b>Total Membership</b>		
Active Vested	1,840	1,832
Active Non-vested	648	652
Vested Former Members	293	283
Retired Members	1,711	1,613
<b>Active Members</b>		
Number	2,488	2,484
Average Age	40.9	40.8
Average Years of Service	10.6	10.5
Average Annual Salary	\$ 61,075	\$ 58,644
<b>Retirees &amp; Beneficiaries</b>		
Number	1,711	1,613
Average Age	59.0	58.6
Average Monthly Benefit	\$ 2,808	\$ 2,776

**THE LAW ENFORCEMENT OFFICERS PENSION SYSTEM (LEOPS)**

was established on July 2, 1990 and is administered in accordance with the State Personnel and Pensions Article of the Annotated Code of Maryland. Membership in the LEOPS is a condition of employment for all uniformed law enforcement officers of the Maryland State Department of Natural Resources; the Maryland Investigative Services Unit; the Maryland Transportation Authority Police Force; the Baltimore City Sheriff's Department; the State Fire Marshall's Office; the University System of Maryland Police Force; Morgan University Police Force; the BWI Airport Fire and Rescue Department; the Department of General Services Police Force; the Department of Health and Mental Hygiene; the Motor Vehicle Administration; and the Department of Labor, Licensing, and Regulation; the State Department of Elections; Field Enforcement Bureau; and warrant apprehension unit of the Division of Parole and Probation. In addition, membership also includes firefighters for Martin's Airport Aviators employed by the Department of State Police. Finally, membership includes law enforcement officers, firefighters, and paramedics employed by a governmental unit that elects to participate in LEOPS.

The LEOPS consists of two separate components — a retirement plan (closed to new members January 1, 2005) and a pension plan. Retirement plan provisions are applicable to those officers

who, on the date they elected to participate in the LEOPS, were members of ERS (closed as of January 1, 2005). Pension plan provisions are applicable to all other LEOPS members.

### **Member Contributions**

All member contributions to the LEOPS are based on the members' annual earnable compensation. Members subject to retirement plan provisions that elected to receive unlimited future COLAs contribute 7%. This option is referred to as Selection A (Unlimited COLA).

Members subject to retirement plan provisions that elected to receive limited future COLAs contribute 5%. This option is referred to as Selection B (Limited COLA).

Beginning July 1, 2011, members subject to pension plan provisions contribute 6% of annual earnable compensation during employment. Beginning July 1, 2012, member contributions will increase to 7% of earnable compensation.

### **Service Retirement Allowances**

**Eligibility** — LEOPS members are eligible for full service retirement allowances upon attaining age 50 or upon accumulating 25 years of eligibility service regardless of age.

**Allowances** — For members subject to the retirement plan provisions, full service retirement allowances equal 2.3% of AFC for the first 30 years of creditable service, plus 1.0% of AFC for each additional year.

For members subject to the pension system provisions who became members of LEOPS on or before June 30, 2011, full service pension allowances equal 2.0% of AFC for the three highest consecutive years as an employee, up to a maximum benefit of 60% of AFC (30 years of credit). For members subject to the pension system provisions who become members of LEOPS on or after July 1, 2011, full service pension allowances equal 2.0% of AFC for the five highest consecutive years as an employee, up to a maximum benefit of 60% of AFC (30 years of credit)

Allowances for members who fail to make all required contributions are reduced by the actuarial equivalent of the total unpaid contributions plus interest to the date of retirement.

### **Early Retirement Allowances**

**Eligibility** — LEOPS members are not eligible for early service retirement allowances.

### **Ordinary Disability Retirement Allowances**

**Eligibility** — LEOPS members are eligible for ordinary disability retirement allowances upon completing five years of eligibility service and receiving Medical Board certification as to their permanent incapacity to perform their necessary job functions.

**Allowances** — Ordinary disability retirement allowances for LEOPS members subject to retirement plan provisions equal the greater of the normal service retirement allowance or 25% of AFC.

Ordinary disability retirement allowances for LEOPS members subject to pension plan provisions equal the full service pension allowance if the member is at least age 50 on the date of retirement. Otherwise, the allowances equal full service pension allowances computed as though the member had continued to work until age 50 without any change in the rate of earnable compensation.

### **Accidental Disability Retirement Allowances**

**Eligibility** — LEOPS members are eligible for accidental disability benefits if the Medical Board certifies that they became totally and permanently incapacitated for duty arising out of or in the actual performance of duty.

**Allowances** — Accidental disability allowances equal the sum of an annuity determined as the actuarial value of the members' accumulated contributions, and 2/3 (66.7%) of AFC. Allowances may not exceed the members' AFC.

### **Ordinary Death Benefits**

**Eligibility** — To be eligible for ordinary death benefits, LEOPS members must have accumulated at least one but less than two years of eligibility service prior to the date of death.

**Benefits** — The ordinary death benefit equals the members' annual earnable compensation at the time of death plus accumulated contributions.

### **Special Death Benefits**

#### **Members in Service**

**Eligibility** — To be eligible for special death benefits, LEOPS members in service must have accumulated at least two years of eligibility service prior to the date of death or died in the line of duty.

**Benefits** — The special death benefit provided upon death for LEOPS members in service equals 50% of the applicable ordinary disability allowance. In cases where the deceased members are not survived by a spouse, the decedents' children, if any, will continue to receive the special death benefit until the youngest child reaches age 18. The special death benefit for officers killed in the line of duty is 2/3 (66.7%) of AFC.

#### **Survivor Benefits**

**Eligibility** — To be eligible for survivor benefits, LEOPS retiree must have retired on either a service retirement allowance or a disability allowance.

**Benefits** — The survivor benefit provided upon death for LEOPS retiree equals 50% of the retiree' retirement allowance, paid as an annuity. In cases where the deceased members are not survived by a spouse, the decedents' children, if any, will continue

to receive 50% of the retiree' allowance until the youngest child reaches age 18.

### **Vested Pension Allowances**

**Eligibility** — Members who join LEOPS on or before June 30, 2011, are eligible for vested pension allowances after separation from service and upon attaining age 50, provided that they accumulated at least five years of eligibility service prior to separation. Members who join LEOPS on or after July 1, 2011, are eligible for vested pension allowances after separation from service and upon attaining age 50, provided that they accumulated at least 10 years of eligibility service prior to separation.

**Allowances** — Vested allowances equal the normal service retirement or pension allowances computed on the basis of the members' accumulated creditable service and AFC at the date of separation.

### **Cost-of-Living Adjustments**

Retirement allowances are adjusted each year based on the Consumer Price Index. COLAs are effective July 1st of each year and are applied to all allowances payable for the year. For LEOPS members subject to retirement plan provisions, annual COLAs are determined under the various methods applicable to ERS members. Each method is explained below:

**Selection A (Unlimited COLA)** —LEOPS members who elected Selection A (while enrolled in the ERS), agreed to contribute 7% of earnable compensation in return for unlimited annual COLAs after retirement.

**Selection B (Limited COLA)** — LEOPS members who elected Selection B (while enrolled in the ERS), agreed to contribute no more than 5% of earnable compensation in return for COLAs which are limited to 5% annually after retirement. For all other LEOPS members, the annual COLA for retirement allowances attributable to service earned on or before June 30, 2011, is limited to 3% of the annual allowance. For retirement allowances attributable to service earned on or after July 1, 2011, the adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate. For fiscal year 2013, the assumed rate of return is 7.75%, as approved by the Board of Trustees. The adjustment is capped at the lesser of 1% or the increase in CPI if, for fiscal year 2013, the market value return was less than the assumed rate of 7.75%.

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

### **Optional Forms of Payment**

Generally, LEOPS retirement allowances are paid as a 50% joint and survivor annuity to the retiree' spouse, or if there is no spouse, to any child under age 18. If the retiree have neither a living spouse nor children under 18 at retirement, the retiree may select any one of the following six payment options.

**Option 1:** Payment guarantees a cash reserve equal to the excess of the present value of the retirement allowance at the date of retirement minus the total amount of payments (less COLAs) made to the date of death.

**Option 2:** 100% joint and survivor annuity.

**Option 3:** 50% joint and survivor annuity.

**Option 4:** Payment guarantees a minimum return of the members' accumulated contributions.

**Option 5:** 100% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

**Option 6:** 50% joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Except for a spouse or disabled child, the beneficiary designated under Option 2 or 5 cannot be more than 10 years younger than the retiree (IRS regulation).

### **Workers' Compensation Benefits Reduction**

Disability retirement allowances are generally reduced by workers' compensation benefits paid after retirement if, and to the extent that, such benefits are for the same injury and the same period of time for which the retirement benefits are payable. The workers' compensation benefit reduction cannot reduce any retirement allowance to less than the amount necessary to cover the retiree' monthly health insurance premiums.

### **Deferred Retirement Option Program**

LEOPS members are eligible to participate in a Deferred Retirement Option Program (DROP). To participate, the LEOPS member must have at least 25 years of creditable service, but less than 30 years. The maximum period of participation is 5 years. For members who enter the DROP on or before June 30, 2011, the LEOPS member is deemed retired and the retirement allowance is placed in an account earning 6% interest per year, compounded monthly. For members who enter the DROP on or after July 1, 2011, the LEOPS member is deemed retired and the retirement allowance is placed in an account earning 4% interest per year, compounded annually. At the end of the DROP period, the lump sum held in the DROP account is paid to the LEOPS retiree. The LEOPS member must end employment and fully retire at the end of the DROP period..

STRIPS

