









Moving Forward, Together

Virginia Retirement System Comprehensive Annual Financial Report For the Year Ended June 30, 2013



#### VIRGINIA RETIREMENT SYSTEM FINANCIAL AND STATISTICAL HIGHLIGHTS - ALL PENSION TRUST FUNDS (DOLLARS IN THOUSANDS)

	2013	2012	% Change
Activity for the Year:			
Contributions	\$ 2,598,587	\$ 1,816,784	43.0%
Investment Income (Net of Investment Expenses)	\$ 6,078,336	\$ 637,237	853.9%
Retirement Benefits	\$ 3,672,541	\$ 3,401,775	8.0%
Refunds	\$ 81,538	\$ 88,923	-8.3%
Administrative and Other Expenses (Net of			
Miscellaneous Income)	\$ 35,035	\$ 23,056	52.0%
Increase (Decrease) in Net Assets Held in Trust for			
Pension Benefits	\$ 4,887,809	\$ (1,059,733)	-561.2%
Retirement Benefits as a Percentage of Contributions	141.3%	187.2%	
Retirement Benefits as a Percentage of Contributions and Investment Income	42.3%	138.6%	
Net Decision Destricted for Descriptor of Figure I Very Finds			
Net Position Restricted for Benefits at Fiscal Year End:	\$ 54,972,736	<u> </u>	9.4%
Virginia Retirement System (VRS) State Police Officers' Retirement System (SPORS)		\$ 50,266,721 \$ 575,468	8.7%
Virginia Law Officers' Retirement System (VaLORS)	\$ 625,562 \$ 992,031	\$ 575,468 \$ 894,916	10.9%
Judicial Retirement System (JRS)	\$ 388,835	\$ 354,250	9.8%
Investment Performance:			
One-Year Return on Investments	11.8%	1.4%	
Three-Year Return on Investments	10.5%	11.3%	
Five-Year Return on Investments	4.0%	0.8%	
Participating Employers:			
Counties/Cities/Towns	255	255	
Special Authorities	198	199	
School Boards	145	144	
State Agencies	228	236	
Total Employers	826	834	-1.0%
Members/Retirees:			
Active Members	340,751	341,826	-0.3%
Retired Members	169,588	162,751	4.2%

Investment return calculations were prepared using a time-weighted return methodology based on market value and net of investment expenses.



# Virginia Retirement System

# Comprehensive Annual Financial Report

For the Year Ended June 30, 2013

#### VRS STANDARDS OF CONDUCT

#### RESPONSIBILITY

We are loyal to members, beneficiaries and participants, discharging our duties for the exclusive purpose of administering benefits and providing customer services.

#### **FAIRNESS**

We work for all members, beneficiaries and participants, not for any one individual or group of individuals.

#### COMPETENCE

We strive to maintain and improve our skills and knowledge.

#### INTEGRITY

We conduct ourselves in a professional and ethical manner befitting the high level of trust bestowed upon us by our members, beneficiaries and participants.

#### AN INDEPENDENT AGENCY OF THE COMMONWEALTH OF VIRGINIA

This report was prepared by the financial, administrative and investment staff of the Virginia Retirement System.



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

#### Virginia Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2012





**Public Pension Coordinating Council** 

## Public Pension Standards Award For Funding and Administration 2012

Presented to

# Virginia Retirement System

In recognition of meeting professional standards for plan funding and 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)

llow Hllinkle

Alan H. Winkle

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

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Virginia Retirement System for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2012. This was the 31st consecutive year that VRS achieved this prestigious recognition.

To be awarded the certificate, a government unit must publish an easily readable and efficiently organized comprehensive annual report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. The certificate is valid for a period of one year. The VRS *Comprehensive Annual Financial Report for FY 2013* continues to conform to the Certificate of Achievement Program requirements and will be submitted to GFOA to determine its eligibility for another certificate.

#### Public Pension Coordinating Council Recognition Award for Administration

VRS received the 2012 Recognition Award for Administration from the Public Pension Coordinating Council (PPCC) in recognition of the agency's fulfillment of the Public Pension Standards. Developed by PPCC, these standards are the benchmark for measuring excellence in defined benefit plan administration. This is the System's ninth award from PPCC.

The purpose of the PPCC's awards program is to promote high professional standards for public employee retirement systems and publicly commend systems that adhere to these standards. The PPCC is a coalition of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS) and the National Council on Teacher Retirement (NCTR).

# Table of Contents

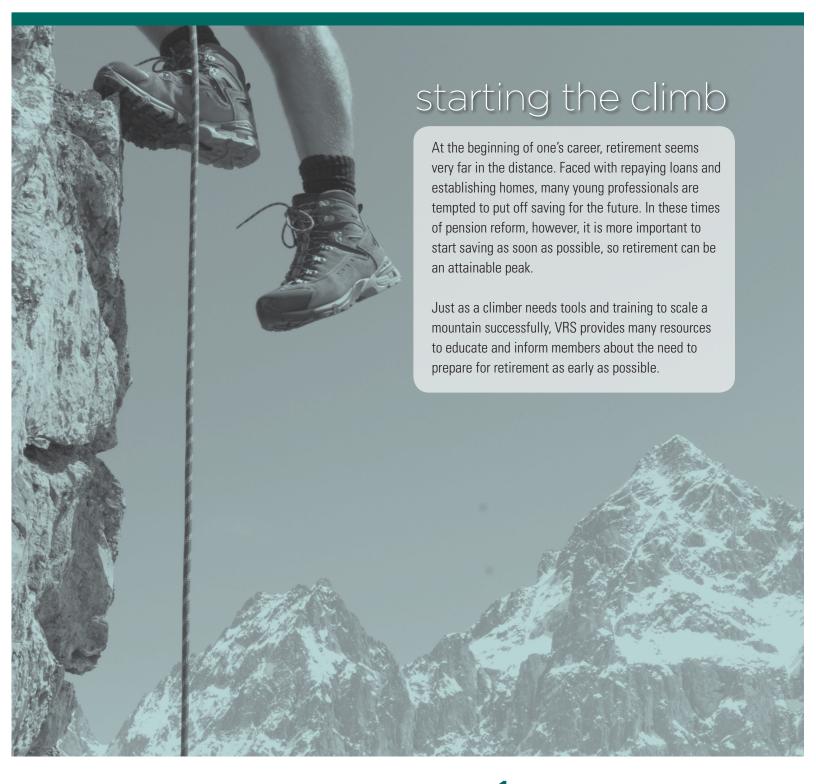
1.	INTRODUCTORY SECTION			Summary of Actuarial Assumptions and Methods	
	Chairman's Letter			Summary of Pension Plan Provisions	
	Board of Trustees			Summary of Pension Plan Changes	140
	VRS Organization			Other Post-Employment Benefit (OPEB) Plan Funds:	
	Investment Advisory Committee			Actuary's Certification Letter–OPEB Plans	142
	Executive Administrative Team			Actuary's Certification Letter—OPEB Plans-VSDP	
	Executive Investment Team			Long-Term Care Plan	144
	Professional Consultants			Actuary's Certification Letter-OPEB Plans-Line of Duty	
	Letter of Transmittal	14		Act Fund	
_				Summary of Actuarial Assumptions and Methods	150
2.	FINANCIAL SECTION			Solvency Test-OPEB Plans	150
	Independent Auditor's Report			Schedule of Active Member Valuation Data-	
	Management's Discussion and Analysis	29		OPEB Plans	152
	Basic Financial Statements:			Schedule of Retiree and Beneficiary Valuation Data-	
	Statement of Plan Net Position			OPEB Plans	153
	Statement of Changes in Plan Net Position			Summary of OPEB Plan Provisions	166
	Notes to Financial Statements			Summary of OPEB Plan Changes	
	Schedule of Funding Progress—Pension Plans	53			
	Schedule of Actuarial Methods and Significant		5.	STATISTICAL SECTION	
	Assumptions-Pension Plans	54		Pension Trust Funds:	
	Schedule of Funding Progress-Other Post-			Schedule of Retirement Contributions by System	176
	Employment Benefit Plans	60		Schedule of Pension Trust Fund Additions by Source	17
	Schedule of Actuarial Methods and Significant			Schedule of Pension Trust Fund Deductions by Type	178
	Assumptions—Other Post-Employment			Schedule of Retirement Benefits by System	
	Benefit Plans	61		Schedule of Retirement Benefits by Type	
	Required Supplemental Schedule of Funding Progress—			Schedule of Refunds by Type	
	Pension Plans	86		Schedule of Retirees and Beneficiaries by Type	
	Required Supplemental Schedule of Employer			of Retirement	180
	Contributions—Pension Plans	87		Schedule of Retirees and Beneficiaries by Type of	
	Required Supplemental Schedule of Funding Progress—			Retirement and Plan	180
	Other Post-Employment Benefit Plans	88		Schedule of Retirees and Beneficiaries by Payout	
	Required Supplemental Schedule of Employer			Option Selected	18′
	Contributions—Other Post-Employment Benefit Plans	89		Schedule of Average Benefit Payments	
	Schedule of Administrative Expenses			Schedule of Funding Progress–VRS Pension Plans	
	Schedule of Professional and Consulting Services			Schedule of Funding (Market Value Basis)–	100
	Schedule of Investment Expenses			All Pension Plans	100
	ochedule of investment Expenses	JZ		Schedule of Funding (Market Value Basis)–	100
3.	INVESTMENT SECTION			VRS Pension Plans	10
	Chief Investment Officer's Letter	95		Other Employee Benefit Trust Funds:	10
	Investment Account			Schedule of Group Life Insurance Additions by Source	100
	Portfolio Highlights			Schedule of Group Life Insurance Deductions by Type	
	VRS Money Managers			Schedule of Retiree Health Insurance Credit Additions	103
	Public Equity Commissions				100
	Schedule of Investment Management Fees			by Source	
	and Expenses	109		Schedule of Retiree Health Insurance Credit Deductions	
	Investment Summary			by Type	19
	mvostmont outilitary	110		Schedule of Disability Insurance Trust Fund Additions	4.04
4.	ACTUARIAL SECTION			by Source	192
	Pension Trust Funds:			Schedule of Disability Insurance Trust Fund Deductions	
	Actuary's Certification Letter–Pension Plans	113		by Type	
	Solvency Test–Pension Plans			Schedule of Retired Members and Beneficiaries by Plan	
	Schedule of Active Member Valuation Data—Pension Plan			Schedule of Average Benefit Payments by Plan	
	Schedule of Retiree and Beneficiary Valuation Data—			VRS-Participating Employers	19
	Pension Plans	119		Commonwealth of Virginia 457 Deferred	
				Compensation and Cash Match Plans	201

# Figures

FINANCIA	L SECTION		ACTUARIAL	_ SECTION	
Manager	nent's Discussion and Analysis		Pension Tru	ust Funds	
Figure 2.1	Summary of Plan Net Position	31	Figure 4.1	Analysis of Actuarial Gains and Losses	120
Figure 2.2	Summary of Changes in Plan Net Position	31	Figure 4.2	Actuarial Assumptions and Methods	121
Figure 2.3	Distribution of Active Members	32	Figure 4.3	Retirement Rates—Pension Plans	121
Figure 2.4	Distribution of Retirees and Beneficiaries	32	Figure 4.4	Disability Rates-Pension Plans	124
Figure 2.5		33	Figure 4.5	Termination Rates—Pension Plans	
Figure 2.6	Summary of Pension Contributions,		Figure 4.6	Salary Increase Rates—Pension Plans	
9	Investment Earnings and		•		
	Miscellaneous Revenues	34		-Employment Benefit (OPEB) Plans	454
Figure 2.7	Summary of Pension Plan Primary Expenses		Figure 4.7	Retirement Rates—OPEB Plans	
Figure 2.8	Summary of Pension Plan Reserve Balances		Figure 4.8	Disability Rates—OPEB Plans	
ga. o 2.o	cannaly or consist ran risserve balances illinin	00	Figure 4.9	Termination Rates-OPEB Plans	
Notes to	Financial Statements		Figure 4.10	Salary Increase Rates—OPEB Plans	
Figure 2.9	Active, Retired and Terminated Members		Figure 4.11	Employment Termination Rates—Long-Term Care	
	and Beneficiaries		Figure 4.12	Porting Rates—Long-Term Care	164
Figure 2.1	O Defined Benefit Plan Provisions	50			
Figure 2.1	1 Member and Employer Contributions	52	STATISTICA		
Figure 2.1	2 Other Employee Benefit and		Pension Tru		
	Post-Employment Benefit Plan Provisions	57	Figure 5.1	Analysis of Changes and Growth in Plan Net	
Figure 2.1				Position—All Pension Trust Funds	
Figure 2.1	4 Deposits	63	Figure 5.2	Number of Active Members	173
Figure 2.1	·		Figure 5.3	Analysis of Changes and Growth in Plan Net	
Figure 2.1				Position by Pension Trust Fund	174
3.	Investment Type	64	Figure 5.4	Number of Retirees and Beneficiaries	176
Figure 2.1	**		Figure 5.5	Retirement Benefits Paid	176
	Nongovernment Guaranteed Securities	65	Figure 5.6	Distribution of Retirees by Payout	
Figure 2.1	•			Option Selected	182
Figure 2.1			Figure 5.7	Distribution of Retirees by Years of	
Figure 2.2				Service	183
Figure 2.2			Figure 5.8	Distribution of Retirees by Age at Retirement	184
Figure 2.2			Figure 5.9	Distribution of Retirees by Average	
Figure 2.2	·		-	Final Compensation	184
Figure 2.2	•	, _	Other Empl	loyee Benefit Trust Funds	
riguio 2.2	and Intangible Assets	82		Analysis of Changes and Growth in Plan Net	
Figure 2.2	_		Ü	Position—Group Life Insurance Fund	188
rigure 2.2	o operating Loudes Tatare Layments	02	Figure 5.11	Analysis of Changes and Growth in Plan Net	
INVESTM	ENT SECTION		Ü	Position—Retiree Health Insurance	
	nt Account			Credit Fund	190
Figure 3.1	Asset Allocation Mix	100	Figure 5.12	Analysis of Changes and Growth in Plan Net	
Figure 3.1			J	Position—Disability Insurance Trust Fund	191
		. 100	Figure 5.13		
	Highlights		Ü		
Figure 3.3	· ·			ipating Employers	000
Figure 3.4			Figure 5.14	VRS Employer Ranking	200
Figure 3.5	Fixed Income Portfolio by Sector Allocation	. 103	0	4	
Figure 3.6	Fixed Income Portfolio by Credit			ealth of Virginia 457 Deferred Compensation	
	Quality Breakdown	. 103		Match Plans	
Figure 3.7	Fixed Income: Top 10 Holdings by Market Value	. 104	Figure 5.15	Statement of Changes in Plan	004
Figure 3.8	Private Equity Program	. 105	E'	Accumulation Assets	
Figure 3.9	Real Assets by Sector	. 105		457(b) Active and Inactive Plan Participants	
Figure 3.1	O Real Assets by Geographic Region	. 105		401(a) Active and Inactive Plan Participants	202
Figure 3.1	1 Credit Strategies	. 106	Figure 5.18	Total Participant Accounts in Each	000
			<b>F</b> . <b>F</b> . <b>F</b> . <b>F</b> .	Fund Option	
			Figure 5 19	Accumulation Plan Assets by Fund	204

# 1 introductory section

Chairman's Letter
Board of Trustees
VRS Organization
Investment Advisory Committee
Executive Administrative Team
Executive Investment Team
Professional Consultants
Letter of Transmittal



Fast Fact 1: CEM Benchmarking Inc., in its evaluation of costs and service delivery for fiscal year 2012, found that VRS maintains high levels of customer service while keeping administrative costs low. Facts from the CEM evaluation will be highlighted on the divider pages of this report.

## Chairman's Letter



Diana F. Cantor, Chairman Robert P. Schultze, Director Ronald D. Schmitz, Chief Investment Officer

P.O. Box 2500 • 1200 East Main Street Richmond, Virginia 23218-2500 Toll Free: 1-888-VARETIR (827-3847) • TDD: 804-289-5919

December 5, 2013

The Honorable Robert F. McDonnell, Governor of Virginia, and Members of the General Assembly:

I am pleased to present to you the Virginia Retirement System (VRS) Comprehensive Annual Financial Report for the fiscal year 2013.

The Virginia Retirement System (VRS) achieved an 11.8 percent net return on its investment portfolio for fiscal year 2013, ending the year with \$58.4 billion in assets.

During fiscal year 2013, the public equity program returned 18.6 percent, the private equity program returned 11.7 percent, the real assets program returned 10.7 percent, the credit strategies program returned 10.5 percent and the fixed income program returned -0.1 percent.

The portfolio included \$25.2 billion in public equity, \$10.4 billion in fixed income, \$10.6 billion in credit strategies, \$5.0 billion in private equity and \$5.5 billion in real assets, as of June 30, 2013.

The strong return on VRS' investment portfolio resulted in \$6.2 billion of added resources for the trust fund. As the market remained volatile after the 2008 financial crisis, the Board continued to focus on the appropriate asset allocation and risk profile of the trust fund.

The VRS Board appreciates the skills of the professional investment staff, which has provided superior investment management during very difficult economic times and has generated strong returns that will help secure the stability of the portfolio for members of the system. By expanding our internal investment team to manage more than one-third of the portfolio, VRS saved more than \$11 million this year in investment management fees.

Good news on the investment front was matched by a technological step forward, as VRS rolled out a new online reporting system for employers. After extensive pre- and post-launch training, employers across Virginia began using *my*VRS Navigator in November 2012 for reporting and submission of contributions and reviewing their employee's VRS account information. An Employer Transition Team assisted employers in accessing

myVRS Navigator, updating employee data and producing reports. This new web-based platform provides a stable foundation for additional functionality in the future, including further improvements in both efficiency and customer service. In the next phase of Modernization, myVRS Navigator will be expanded in a number of areas like benefit calculations and distributions.

At the same time, VRS staff spent much of the year preparing to implement the new VRS Hybrid Retirement Plan for most employees hired on or after January 1, 2014. Communications, education and outreach to employers were a major focus of the year, as staff produced a variety of print and electronic resources to explain the new plan; held forums and presentations for employers; developed internal systems to meet the plan's requirements; and provided answers to frequently asked questions about the plan and its features. Pension reform communication and systems development are on target for the plan's rollout in early 2014.

The VRS Board offers its thanks to VRS' administrative staff members for the time and effort they have expended on the launch of *my*VRS Navigator and in preparation for the Hybrid Retirement Plan. These major agency-wide initiatives have required "all hands on deck," and staff members have demonstrated VRS' core values of teamwork, integrity, agility and accountability in their work throughout the year.

To support the Hybrid Retirement Plan and the Commonwealth of Virginia Defined Contribution Plans, VRS selected ICMA-RC as our third-party record keeper. Founded in 1972, ICMA-RC is a U.S.-based, non-profit corporation and an established provider of public-sector retirement plans, serving approximately 9,100 public-sector plans and more than 1 million participant accounts, with \$45.6 billion in assets under administration as of June 30, 2013. The transition from the current record keeper for the defined contribution plans, ING, will begin in late December 2013 and should be completed in January 2014. Because the changeover will be completely electronic, current plan participants will enjoy a seamless transition with no action required from them. In addition, they will see a decrease in the plans' management fees, while the fund lineup will remain the same.

Another achievement this year was the development of a written funding policy. In June 2012, the Governmental Accounting Standards Board (GASB) issued Statement No. 67, Financial Reporting for Pension Plans, which addresses financial reporting for state and local pension administrators, and Statement No. 68, Accounting and Financial Reporting for Pensions, which establishes new accounting and financial reporting requirements for governments that provide their employees with pensions. The guidance outlined in these statements changes how governments calculate and report the costs and obligations associated with pensions in important ways. These statements make a definitive separation between funding for and accounting of pensions and move away from defining an "annual required contribution" that was used by VRS and other public sector employers as a de facto "funding policy."

As a result, the VRS Benefits and Actuarial Committee began reviewing the VRS funding policy for defined benefit plans in February 2013 and recommended a written VRS funding policy that was approved by the Board at its October meeting. These approved funding principles include use of the Entry Age Normal actuarial cost method; use of the five-year asset smoothing method; amortization of legacy unfunded liability over a 30-year closed period, with new sources of unfunded liability explicitly amortized over 20-year closed periods; and the 10-year payback of the retirement contribution payments deferred for the 2010-12 biennium will remain as a separate 10-year closed amortization period, ending in fiscal year 2020.

VRS continued to work toward its goal of reaching full funding of the recommended contribution rates. Although encouraging, market returns are unlikely to make up the amount needed to support the system. Pension reform will help, but associated cost reductions will be slow to appear, since most benefit changes apply to future generations of employees. Pension reform by itself will not restore our funded status to prudent levels, unless it is also accompanied by contribution increases. In order to sustain VRS over the long term, we must continue to follow a three-point strategy in the coming years: pension plan design changes that will produce significant cost reductions within the next decade; reasonable investment returns; and legislative action to increase contribution rates to actuarially required levels.

A funding rate of 80 percent of the Board's certified levels has been approved as a critical second step in the schedule by which contribution rates will gradually reach 100 percent of the Board's certified levels by fiscal year 2019. We appreciate your continuing commitment, and that of future governors and legislators, to increasing contribution rates as we move forward toward our goal of full funding for these rates.

On behalf of the Board of Trustees and the VRS staff, I would like to express our gratitude to you for your continued support and leadership. The Board stands ready to assist you in fully implementing pension reform in Virginia.

Sincerely,

Diana F. Cantor

Chairman

Virginia Retirement System

( Vantos)

#### COMPOSITION OF THE BOARD

Nine members serve on the VRS Board of Trustees. Their appointment is shared between the executive and legislative branches of state government. The Governor appoints five members, including the chairman. The Joint Rules Committee of the Virginia General Assembly appoints four members. The General Assembly confirms all appointments.

Of the nine Board members, four must be investment experts; one must be experienced in employee benefit plans; one must be a local government employee; one must be an employee of a Virginia public institution of higher education; one must be a state employee; and one must be a public school teacher. The public employee members may be either active or retired.

TRUSTEE	BOARD SEAT HELD	APPOINTED BY	TERM EXPIRES	COMMITTEE ASSIGNMENTS
<b>Diana F. Cantor Chairman</b> Alternative Investment Management	Investment Professional	Governor	2/28/2015 As Chair: 5/4/2015	Administration & Personnel (Chairman)  Audit & Compliance  Investment Policy Committee (Chairman)
<b>Robert L. Greene</b> Syncom Venture Partners	Employee Benefit Plans Professional	Governor	2/28/2017	Administration & Personnel Committee (Vice Chair)  Audit & Compliance Committee (Chair)  Investment Policy Committee (Vice Chair)
A. Marshall Acuff, Jr. Cary Street Partners	Investment Professional	Governor	2/28/2016	Administration & Personnel Investment Policy Committee
Edwin T. Burton III, Ph.D. University of Virginia	Investment Professional	Joint Rules Committee	2/28/2014	Administration & Personnel  Investment Policy Committee

#### BOARD OF TRUSTEES, cont.

TRUSTEE	BOARD SEAT HELD	APPOINTED BY	TERM EXPIRES	COMMITTEE ASSIGNMENTS
Wallace G. "Bo" Harris, Ph.D. University of Richmond	State Employee (Retired)	Joint Rules Committee	2/28/2016	Benefits & Actuarial Committee (Vice Chair) Investment Policy Committee
<b>W. Brett Hayes</b> Wells Fargo	Investment Professional	Joint Rules Committee	2/28/2018	Defined Contribution Plans Advisory Committee (Vice Chair) Investment Policy Committee
Mitchell L. Nason Prince William County Department of Fire and Rescue	Local Government Employee	Governor	2/28/2018	Administration & Personnel Committee  Benefits & Actuarial Committee (Chair)  Investment Policy Committee
Troilen Gainey Seward, Ed.S. Dinwiddie County Public Schools (Retired)	School Superintendent (Retired)	Joint Rules Committee	2/28/2017	Benefits & Actuarial Committee Investment Policy Committee
<b>Colette Sheehy</b> University of Virginia	Higher Education Representative	Governor	2/28/2014	Audit & Compliance Committee (Vice Chairman)  Defined Contribution Plans Advisory Committee (Chairman)  Investment Policy Committee

# VRS Organization.

#### **BOARD OF TRUSTEES**

#### ADMINISTRATION



Robert P. Schultze Director

#### INVESTMENTS



Ronald D. Schmitz Chief Investment Officer

#### INTERNAL AUDIT



Franklin O. Berry Internal Audit Director

# Investment Advisory Committee

MEMBER	TERM EXPIRES
Rod Smyth Chairman	06/20/2015
Chief Investment Strategist	As Chair:
Riverfront Investment Group	06/20/2015
Hance West	12/17/2013
Vice Chairman	
Managing Director	
Investure	
Deborah Allen Hewitt, Ph.D.	10/17/2014
Clinical Professor	
The College of William and Mary	
Michael Beasley	06/20/2015
Retired Chairman Emeritus	
Strategic Investment Solutions, Inc.	
Theodore Economou	09/13/2014
CERN Pension Fund	
Thomas S. Gayner	02/19/2015
President and Chief Investment Officer	
Markel Corporation	
Joe Grills	06/17/2014
Former Chief Investment Officer	
IBM Retirement Funds	



Seated: Hance West; Michael Beasley; Rod Smyth, Chairman; Lawrence Kochard Standing: Thomas Gayner; Joe Grills; Donald Lindsey

MEMBER	TERM EXPIRES
Lawrence E. Kochard, Ph.D. Chief Executive Officer and Chief Investment Officer University of Virginia Investment Management Company	02/17/2015
<b>Donald W. Lindsey</b> Chief Investment Officer The George Washington University	03/31/2014

#### Executive Administrative Team

Robert P. Schultze

Director

L. Farley Beaton, Jr.

Chief Technology Officer

Franklin O. Berry

Internal Audit Director

Patricia S. Bishop

Deputy Director for Customer Relationships

Jeanne L. Chenault

Director of Public Relations

Cynthia W. Comer

Director of Policy, Planning and Compliance Barry C. Faison

Chief Financial Officer

LaShaunda B. King

**Executive Assistant** 

Kenneth C. Robertson, Jr.

Director of Human Resources

## Executive Investment Team

Ronald D. Schmitz

Chief Investment Officer

John P. Alouf, CFA

Director of Private Equity

Charles W. Grant, CFA

Managing Director, Internal Asset Management

John T. Grier, CFA

Director of Internal Equity

Management

Field H. Griffith, CFA

Director of Real Assets

Bryan Gardiner, CFA

Director of Fixed Income
Management

Kenneth C. Howell, CFA

Managing Director of Global Equity

Curtis M. Mattson, CPA

Chief Administrative Officer

Stephen R. McClelland, CFA

Director of Credit Strategies

Steven P. Peterson, Ph.D.

Managing Director of Research, Risk Management & Operations

**Daniel Whitlock** 

Director of Global Equity

# **Professional Consultants**

ACTUARY

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA

Chief Executive Officer Cavanaugh Macdonald Consulting, LLC

AUDITOR

Martha S. Mavredes, CPA

Auditor of Public Accounts Commonwealth of Virginia COMMONWEALTH OF VIRGINIA DEFERRED COMPENSATION PLAN

Wendy Young-Carter ING

COMMONWEALTH OF VIRGINIA VOLUNTARY GROUP LONG TERM CARE INSURANCE PROGRAM

Rhonda Todd

Genworth Life

MASTER CUSTODIAN

**BNY Mellon** 

LEGAL COUNSEL

Office of the Attorney General

Commonwealth of Virginia

VIRGINIA SICKNESS AND DISABILITY PROGRAM

Michelle Jackson

Unum

LIFE INSURANCE CARRIER

Joseph K. W. Chang

Minnesota Life Insurance Company

## Letter of Transmittal



Robert P. Schultze, Director Barry C. Faison, Chief Financial Officer

P.O. Box 2500 • 1200 East Main Street Richmond, Virginia 23218-2500 Toll Free: 1-888-VARETIR (827-3847) • TDD: (804) 289-5919

December 5, 2013

#### To the Members of the Board of Trustees:

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the Virginia Retirement System (the System) for the fiscal year ended June 30, 2013. In addition to the Introductory Section, the System's CAFR contains a Financial Section, Investment Section, Actuarial Section and Statistical Section.

VRS' Comprehensive Annual Report for FY 2013 has been prepared in accordance with Section 51.1-1003 of the *Code of Virginia* (1950), as amended, which requires every retirement system to publish an annual report, and Section 4-10.00 of Chapter 2 of the 2012 Special Session I Virginia Acts of Assembly, which requires an annual detailed statement of financial condition. The report has been mailed to the Governor, the members of his Cabinet and the members of the Virginia General Assembly. The report also is available on the VRS website at *www.varetire.org*.

## **VRS Overview**

VRS administers benefits and services for approximately 600,000 members, retirees and beneficiaries covered under the following systems:

- Virginia Retirement System (VRS) for teachers, state employees and employees of participating
  political subdivisions, including full-time local law enforcement officers, firefighters, emergency medical
  technicians and jail officers
- State Police Officers' Retirement System (SPORS)
- Virginia Law Officers' Retirement System (VaLORS)
- Judicial Retirement System (JRS)

#### Benefits administered by the System include:

- Plan 1 and Plan 2 defined benefit plans for members of VRS, SPORS, VaLORS and JRS
- Plan 1 and Plan 2 optional retirement defined contribution plans for political appointees, school superintendents and faculty members at Virginia's public colleges and universities, as elected by the participant
- Commonwealth of Virginia 457 Deferred Compensation and Cash Match Plans
- Group Life Insurance Program
- Retiree Health Insurance Credit Program
- Virginia Sickness and Disability Program (VSDP) and VSDP Long-Term Care Plan
- Commonwealth of Virginia (COV) Voluntary Group Long-Term Care Insurance Program

More than 800 employers participate in VRS on behalf of their employees. They include state agencies, public colleges and universities, school boards, political subdivisions and special authorities.

# Fiduciary Responsibility of the Board

The VRS Board of Trustees (the Board) has full power to invest and reinvest the trust funds of the System. To fulfill its responsibility, the Board has adopted various investment policies and guidelines. The Board's investment objective for the VRS portfolio is to maximize long-term investment returns while targeting an acceptable level of risk. Primary risk measures are volatility in the plan's assets, funded status and contribution rates. As set forth in Section 11 of Article X of the Constitution of Virginia, the funds of the retirement system shall be deemed separate and independent trust funds; shall be segregated from all other funds of the Commonwealth; and shall be invested and administered solely in the interests of members, retirees and beneficiaries. The Board retains a professional investment staff, as well as outside managers, to advise and assist in the implementation of these policies and objectives.

The assets of the System are invested in a prudent manner that is intended to provide for the anticipated growth of VRS' pension liability. Section 51.1-124.30(C) of the Code of Virginia states that "... the Board shall invest the assets of the Retirement System 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 like character and with like aims." Accordingly, the Board must sufficiently diversity the portfolio to minimize the risk of large losses unless, under the circumstances, it is clearly prudent not to do so.

# Accounting System and Internal Control

The financial statements included in the CAFR for FY 2013 are the responsibility of the System's management and have been prepared in accordance with generally accepted accounting principles (GAAP) for government accounting and reporting under the Governmental Accounting Standards Board (GASB) and the Financial Accounting Standards Board (FASB).

#### **VRS Milestones**

1908 Retired Teachers Fund created

**1942** Virginia Retirement System (VRS) created for teachers and state employees

**1944** Political subdivisions have the option to join VRS

1950 State Police Officers' Retirement System (SPORS) created

**1960** Group Life Insurance Program created

**1970** Cost-of-Living Adjustment (COLA) established; Judicial Retirement System (JRS) created

The accrual basis of accounting is used in the preparation of the financial statements. Revenues are taken into account when they are earned and become measurable; expenses are recorded when the liabilities are incurred. Investments are reported at fair value as determined by the System's master custodian. Capital assets are recorded at cost and depreciated over their estimated useful life. Contributions to the System are based on the principle of level cost funding and are developed using the entry age normal cost method with current service financed on a current basis and prior service amortized within a period of 30 years or less. In management's opinion, the financial statements fairly present the plan net position of the System at June 30, 2013, and the changes in its plan net position for the period then ended.

GASB Statement Number 34 requires the System to include additional information in the CAFR. This information is provided in Management's Discussion and Analysis (MD&A) and includes an introduction as well as an overview and analysis of the System's financial activities for the current fiscal year and the two preceding years. The Letter of Transmittal is designed to complement the MD&A and should be read in conjunction with it. The System's MD&A can be found in the Financial Section immediately following the report of the independent auditor.

The System's management is responsible for maintaining a system of adequate internal accounting controls designed to provide reasonable assurance that transactions are executed in accordance with management's general or specific authorization, and are recorded as necessary to maintain accountability for assets and to permit preparation of financial statements in accordance with GAAP. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits that are likely to be derived from that control. The internal control system includes the organization plan; the appropriate segregation of duties and responsibilities and sound practices in the performance of duties; and personnel with capabilities commensurate with their responsibilities. The System also has an internal audit program that reports to the Audit Committee of the Board of Trustees, and the budget for the System's administrative expenses is approved by the Board and appropriated by the General Assembly of Virginia.

The retirement funds held by the System are constitutionally established as independent trust funds dedicated to the exclusive benefit of its members, retirees and beneficiaries. In management's opinion, the internal controls in effect during the fiscal year ended June 30, 2013, adequately safeguard the System's assets and provide reasonable assurance regarding the proper recording of financial transactions.

# **Funding**

#### PENSION PLANS

The System's most recent actuarial valuation for the pension plans was prepared as of June 30, 2012. As expected, the report indicated a decline in the funded ratios for all of the plans. This decline resulted from the continued impact of the negative investment returns in FY 2009 on the Actuarial Value of Assets and the reduction in the assumption for the investment rate of return from 7.50% to 7.00%. The VRS, SPORS, VaLORS and JRS plans were actuarially funded at 65.8%, 57.9%, 51.9% and 62.0%, respectively, based on the actuarial valuation as of June 30, 2012. For the VRS, SPORS, VaLORS and JRS plans, this was a decrease from their funded ratios of 69.9%, 62.6%, 55.0% and 65.2%, respectively, based on the June 30, 2011, actuarial valuation. There were no changes in the primary actuarial assumptions for salary growth or inflation. Further information on this valuation is included in the Financial Section and the Actuarial Section of the CAFR.

Contributions for FY 2013 were based on the June 30, 2011, actuarial valuation. The rates certified by the VRS Board of Trustees for all state employee groups and for teachers were not fully funded by the Governor and General Assembly. However, the actual rates paid in FY 2013 for all groups reflected an increase over the FY 2012 levels. Retirement contribution rates are discussed in further detail in the Financial Section of the CAFR.

#### OTHER POST-EMPLOYMENT BENEFITS PLANS

The System's most recent actuarial valuation for the Other Post-Employment Benefit (OPEB) plans was prepared as of June 30, 2012. As expected, the funded ratios for these plans generally declined. This decline resulted from the continued impact of the negative investment returns in FY 2009 on the Actuarial Value of Assets and the reduction in the assumption for the investment rate of return from 7.50% to 7.00%.

#### **VRS Milestones**

**1990** Health Insurance Credit for state retirees established

1992 Health Insurance Credit for retired teachers and political subdivision employees established

**1995** Optional Group Life Insurance Program established

1999 Virginia Sickness and Disability Program (VSDP) for state employees established; Virginia Law Officers' Retirement System (VaLORS)

**2002** VSDP Long-Term Care Plan established

**2010** VRS Plan 2 created for members hired or rehired on or after July 1, 2010

2012 General Assembly passes legislation creating a hybrid retirement plan with implementation in 2014; Virginia Local Disability Program (VLDP) added as a benefit for political subdivisions and schools

#### PLAN NET POSITION RESTRICTED FOR BENEFITS



55,

FY 2008

FY 2009

\$ 47.7

FY 2010

FY 2011

\$ 53.3

FY 2012

\$ 58.4

FY 2013

58.3

FY 2007

The Group Life Insurance Fund, the Retiree Health Insurance Credit Fund and the Disability Insurance Trust Fund were actuarially funded at 30.7%, 5.8% and 116.6%, respectively, based on the actuarial valuation as of June 30, 2012. For the Group Life Insurance Fund, the Retiree Health Insurance Credit Fund and the Disability Insurance Trust Fund, there was a decrease from the June 30, 2011, funded ratios of 36.1%, 9.7% and 124.6% respectively. There were no changes in the primary actuarial assumptions for salary growth or inflation. Further information on this valuation is included in the Financial Section and the Actuarial Section of the CAFR.

Contributions for FY 2013 were based on the June 30, 2011, actuarial valuation. The rates certified by the VRS Board of Trustees for the OPEB plans were not fully funded by the Governor and General Assembly. Contribution rates for each of these OPEB plans are discussed in further detail in the Financial Section of the CAFR.

## Investments

34.7

FY 2003

FY 2004

FY 2005

FY 2006

At June 30, 2013, the total value of the VRS investment portfolio was \$59.9 billion, an increase from the investment balance of \$53.5 billion at June 30, 2012. The increase in the portfolio resulted from an increase in the investment return, which was 11.8% for FY 2013, and an increase in both member and employer contributions. The System's net position restricted for benefits at June 30, 2013, totaled \$58.4 billion, an increase from the net position of \$53.3 billion at June 30, 2012.

# Legislative Initiatives

During the 2013 session, the Virginia General Assembly enacted the following bills that affect public employees and retirees covered under VRS.

HOUSE BILL 1532 AND SENATE BILL 854: VIRGINIA RETIREMENT SYSTEM; BENEFITS FOR CERTAIN LOCAL EMPLOYEES. For political subdivisions that have not adopted enhanced benefits for all of their hazardous duty employees (law enforcement, emergency medical technicians and firefighters), this bill offers an opportunity for employers to make a one-time irrevocable election to provide Plan 1 age and service provisions for one, two or all three of these groups. Once an employer elects to provide enhanced benefits, the selected group of hazardous duty employees hired after January 1, 2014, will not be eligible for the Hybrid Retirement Plan and will be covered under Plan 2 with Plan 1 age and service provisions. If an employer elects this alternate coverage, its affected Plan 2 (and Plan 1 non-vested as of January 1, 2013) employees will retain all of their Plan 2 benefits, but will have Plan 1 age and service provisions.

SENATE BILL 995: VIRGINIA RETIREMENT SYSTEM; TECHNICAL CHANGES REGARDING RETIREMENT PLANS. Several technical corrections were made to retirement plan provisions enacted by the 2012 General Assembly. Examples include:

- Hybrid Retirement Plan participants are not subject to automatic enrollment in the supplemental 457 deferred compensation plan. The state's 457 and 401(a) accounts will be the vehicle for the defined contribution component of the Hybrid Retirement Plan.
- Hybrid Retirement Plan participants are not eligible to participate in the Commonwealth of Virginia Cash Match Plan until after meeting the maximum voluntary contribution in the defined contribution portion of the Hybrid Retirement Plan.
- State employees who previously opted out of the Virginia Sickness and Disability program (VSDP) and elect to transfer to the Hybrid Retirement Program must participate in VSDP. Judges appointed after January 1, 2014, also will participate in VSDP.
- Under the Virginia Local Disability Program or a comparable plan, school divisions and political subdivisions that provide health insurance coverage to employees also must provide health insurance to those on short-term disability and offer a group rate to employees on long-term disability.

#### BUDGET BILL (HOUSE BILL 1500 AND SENATE BILL 800)

- ITEM 468: Clarifies that employers will not pay a surcharge for employees who are in an Optional Retirement Plan (ORP). Employers will only pay the ORP contribution rate for these employees.
- ITEM 468: A state agency that involuntarily separates employees may be eligible for the contribution holiday under the Workforce Transition Act pending a review by the Department of Planning and Budget and the Department of Human Resource management. The state agency may be required to make a direct payment to VRS for 15% of the employees' creditable compensation if the involuntary separation does not meet certain requirements.

**31 Years of Excellence in Financial Reporting.** The VRS
Comprehensive Annual Financial
Report for FY 2012 marked the
31st year of recognition from the
Government Finance Officers
Association of the United States
and Canada (GFOA) for excellence
in financial reporting.

# Year in Review

MEMBER AND RETIREE HIGHLIGHTS. The total VRS membership increased from 616,009 members, retirees and beneficiaries in fiscal year 2012 to 630,316 in fiscal year 2013, representing an increase of 2.3%. The following are highlights from the fiscal year:

- The number of active VRS members increased .031%, from 341,826 to 340,751.
- The number of retirees and beneficiaries increased 4.2%, from 162,751 to 169,588.

- VRS paid \$3,672.5 million in retirement benefits in FY 2013, compared to \$3,401.8 million during FY 2012.
- The number of inactive and deferred members increased 7.66%, from 111,432 to 119,977.
- A total of 76,872 members held accounts through the Commonwealth of Virginia Deferred Compensation Plan at the end of the fiscal year. Of these participants, 72,074 received a cash match through the Virginia Cash Match Plan.

EXCEEDING BENCHMARKS. VRS personnel continued to satisfy or exceed benchmarks for operating standards, as the following highlights show:

BENCHMARK  100.0% of all monthly payrolls run no later than the first day of the month.  The averaged abandoned call rate is no greater than 10% for the first 6 months of the year and 8% for the last 6 months of the year.	FY 2013 RESULT  100.0% of monthly payrolls ran on time.  The average rate for the entire fiscal year was 10.82%.
than the first day of the month.  The averaged abandoned call rate is no greater than 10% for the first 6 months of the year and 8% for the last 6 months of the year.	The average rate for the entire fiscal year
greater than 10% for the first 6 months of the year and 8% for the last 6 months of the year.	,
Convice retirement applications are	
Service retirement applications are processed in an average of 60 days with a 95.0% accuracy rate.	Service retirement applications were processed in an average of 25 days with a 99.95% accuracy rate.
98.0% of disability retirement applications are processed within 40 days of approval by the VRS Medical Board.	98.51% of disability retirement applications were processed within 14.8 days of approval by the VRS Medical Board.
95.0% of requests for refunds of member contributions are processed within 60 days.	98.65% of refunds were processed within 7.96 days.
90.0% of requests for benefit estimates are completed within 30 days.	93.71% of estimates were completed within 14.0 days.
	are processed within 40 days of approval by the VRS Medical Board.  95.0% of requests for refunds of member contributions are processed within 60 days.  90.0% of requests for benefit estimates

OPERATING STANDARDS, cont.	BENCHMARK	FY 2013 RESULT
Workflow Imaging	95.0% of documents VRS receives are imaged and available to customer service and operations personnel within 24 hours.	98.87% of documents were imaged and available within 24 hours.
System Availability	99.5% of planned system availability for all critical systems, except for the 90 day period (November - January) after go-live.	The system was available 99.82% of the time.

In addition to these achievements, VRS staff provided counseling, education, workshops and training opportunities for members and employers throughout the state:

- The Member Counseling Team assisted 2,943 members in one-on-one counseling sessions and responded to 7,884 emails. Staff also conducted 194 retirement education and group counseling sessions, special presentations, videoconferences, webinars and benefit fairs, reaching 8,212 members around the state.
- The Employer Training Team provided four sessions for more than 445 human resource and payroll officers during FY 2013.
- In the spring of 2013, the Employer Representatives moved their focus from assisting with the implementation of *my*VRS Navigator to introducing employers to the Hybrid Retirement Plan in the "Spring Hybrid Roadshows." They provided plan highlights to employers in 34 sessions held across the state with 1,100 participants and more than 500 employers attending.
- In addition, the Employer Representatives assisted three new employers joining VRS; two employers adding enhanced coverage for hazardous duty employees; four employers adding an enhanced retirement multiplier for hazardous duty

- employees; three employers adopting defined contribution plans; three employers electing the Group Life Insurance Program; one employer picking up the Optional Retirement Plan for School Superintendents and two employers picking up the Virginia Law Officers Retirement System.
- During the fiscal year, there were approximately 1,275,726 visits to the VRS website at *www. varetire.org*, reflecting an increase of nearly 14% over the previous June 30. Except for the homepage, *my*VRS, the secure online system, led again in page views as a top destination.
- The number of subscribers to the online Employer Update newsletter increased 36%, from 2,215 in FY 2012 to 3,011 in FY 2013. The average "open rate" is 47.98%.



## **Innovations**

VRS LAUNCHES myVRS NAVIGATOR. In FY 2013, VRS continued the Modernization Program that will ensure the ongoing stability of the System and facilitate superior customer service.

VRS operational staff executed the agency and unit transition and readiness plans to prepare for go-live for myVRS Navigator in November 2012. They performed steps on the data conversion plan, including populating necessary missing data, cleaning up data and completing pending transactions. They also identified and documented defects with the new software solution during the warranty.

All VRS staff, and necessary employer and business partner staff, received training on the new applications that prepared them to perform their responsibilities. Modernization Team members completed all activities necessary to install the new system in production, including regular communications to staff and employers.

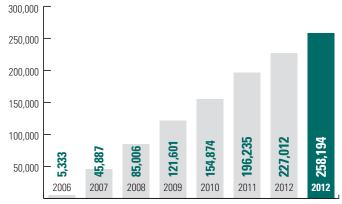
Following implementation, staff continued to manage and execute ramp-up and operational activities in a manner that maintained the integrity and quality of the system and ensured employers would be active in the system within a reasonable timeframe.

This first phase focused primarily on functionality for employers. The next phase will focus on functionality such as benefit calculations and distributions.

myVRS CONTINUES TO ATTRACT USERS. During the fiscal year, the secure online myVRS system continued to serve as a valuable resource for members, retirees and employers:

- By June 30, 2013, 29,164 members had registered for myVRS, bringing the total of registered members to 258,194 in FY 2013, an increase from the 227,021 registered members in FY 2012.
- Members put myVRS planning tools to good use during the fiscal year, creating more than 305,729 estimates through the myVRS Benefit Estimator and 42,207 Quick and Detailed Plans through the myVRS Retirement Planner.
- Since 2008, when myVRS was opened to retirees, there have been 54,560 retiree registrations. Retirees completed more than 14,555 income tax transactions through the myVRS retiree tax tool during the fiscal year.
- By June 30, 2013, more than 1,318 participating employer contacts authorized to access member information had registered for myVRS for Employers. During the fiscal year, employers created more than 81,224 benefit estimates to help counsel employees getting ready to retire.

## myVRS MEMBER USERS



# Acknowledgments

VRS' mission calls on us to provide the best service possible and to be responsible stewards of the funds in our care on behalf of our members, retirees and beneficiaries. This report provides complete and reliable information that supports management's decisions in carrying out this mission. Responsible stewardship, however, is more than sound management. It also encompasses the outstanding commitment of VRS staff to excellence, the support of VRS' affiliated employers and business partners and the guidance and dedication of the Board of Trustees. We would like to express our sincere thanks and appreciation to each of these exceptional individuals and representatives.

Finally, we wish to thank Governor Robert F. McDonnell and the members of the Virginia General Assembly for their continued commitment to the financial security of the members, retirees and beneficiaries of the Virginia Retirement System.

Respectfully submitted,

Robert P. Schultze

Director

Barry C. Faison Chief Financial Officer



Independent Auditor's Report Management's Discussion and Analysis **Basic Financial Statements:** 

Statement of Plan Net Position Statement of Changes in Plan Net Position Notes to Financial Statements:

Schedule of Funding Progress—Pension Plans Schedule of Actuarial Methods and Significant Assumptions—Pension Plans

Schedule of Funding Progress-Other Post-**Employment Benefit Plans** 

Schedule of Actuarial Methods and Significant Assumptions-Other Post-Employment **Benefit Plans** 

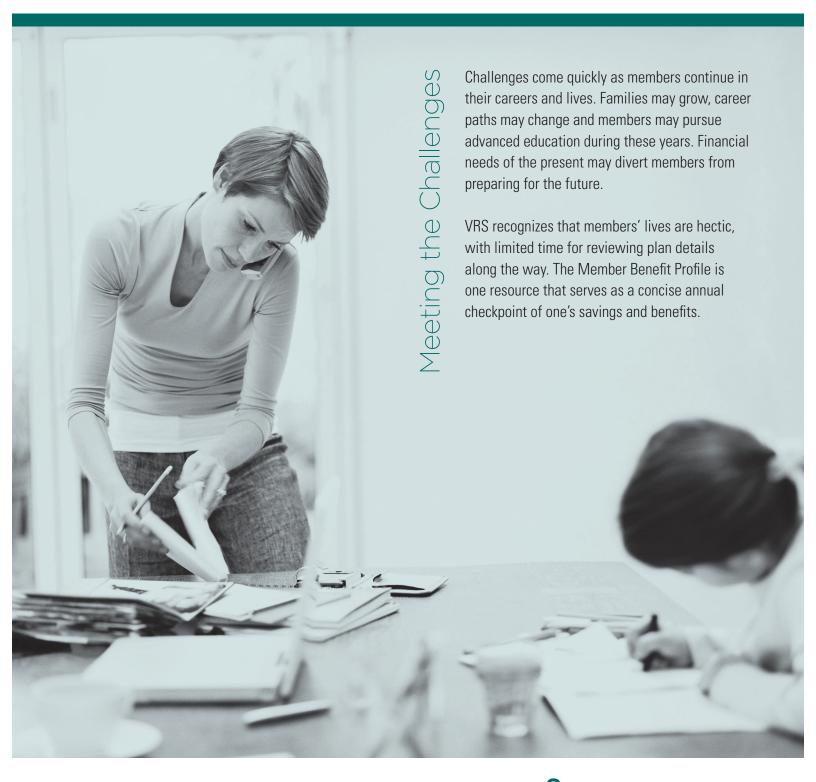
Required Supplemental Schedule of Funding Progress-Pension Plans

Required Supplemental Schedule of Employer Contributions—Pension Plans

Required Supplemental Schedule of Funding Progress—Other Post-Employment Benefit Plans

Required Supplemental Schedule of Employer Contributions—Other Post-Employment **Benefit Plans** 

Schedule of Administrative Expenses Schedule of Professional and Consulting Services Schedule of Investment Expenses



Fast Fact 2: VRS spent \$54 per active member and retiree on pension administration: \$37 less than the average for its peers and \$72 less than the average for all.

# Commonwealth of Virginia

Martha S. Mavredes, CPA Auditor of Public Accounts

Auditor of Public Accounts

P.O. Box 1295 Richmond, Virginia 23218

December 2, 2013

The Honorable Robert F. McDonnell Governor of Virginia

The Honorable John M. O'Bannon, III Chairman, Joint Legislative Audit And Review Commission

Board of Trustees Virginia Retirement System

#### INDEPENDENT AUDITOR'S REPORT

#### Report on Financial Statements

We have audited the accompanying financial statements of the Virginia Retirement System as of and for the year ended June 30, 2013, and the related notes to the financial statements, which collectively comprise the Virginia Retirement System's basic financial statements as listed in the table of contents.

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

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

#### Auditor's Responsibility

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

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

#### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net position of the Virginia Retirement System as of June 30, 2013, and the changes in plan net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Emphasis of Matter**

As discussed in Note 1, the basic financial statements of the System are intended to present the financial position and the changes in financial position of only that portion of the aggregate remaining fund information of the Commonwealth of Virginia that is attributable to the transactions of the Virginia Retirement System. They do not purport to, and do not, present fairly the Commonwealth of Virginia's overall financial position as of June 30, 2013, and the changes in its financial position and its cash flows, where applicable, for the year then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

#### OTHER MATTERS

#### **Prior Year Summarized Comparative Information**

We have previously audited the Virginia Retirement System's 2012 financial statements, and we expressed an unmodified audit opinion on the respective financial statements in our report dated November 26, 2012. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2012, is consistent, in all material respects, with the audited financial statements from which it has been derived.

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, funding progress schedules, and employer contributions schedules on pages 86 through 89 and 29 through 39 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 the 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 audit 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.

#### Supplementary and Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Virginia Retirement System's basic financial statements. The introductory, investment, actuarial, and statistical sections, and the schedules of administrative expenses, professional and consulting services, and investment expenses are presented for the purpose of additional analysis and are not a required part of the basic financial statements.

The schedules of administrative expenses, professional and consulting services, and investment expenses are the responsibility of management and were 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 audit 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 schedules of administrative expenses, professional and consulting services, and investment expenses are fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

The introductory, investment, actuarial, and statistical 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.

#### Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated December 2, 2013, on our consideration of the Virginia Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Virginia Retirement System's internal control over financial reporting and compliance.

AUDITOR OF PUBLIC ACCOUNTS

Martha S. Marcuela

he Virginia Retirement System administers pension and other employee benefit plans for approximately 600,000 members, retirees and beneficiaries. The purpose of the Financial Section is to present the plans' net position and changes in net position for the fiscal year through the audited Basic Financial Statements. In support of this information, the Financial Section includes Management's Discussion and Analysis of activity affecting the plans and the operations of the System during the current and previous fiscal years. It also includes the Notes to Financial Statements, providing additional detail about the statements, as well as required schedules regarding historical information and the administration of the plans.

# Management's Discussion and Analysis (Unaudited)

Management's Discussion and Analysis provides highlights of the funding of the plans and the performance and operations of the Virginia Retirement System (the System) for the fiscal year ended June 30, 2013. The information provided in the Introductory, Investment, Actuarial and Statistical sections complements this discussion.

The System administers two defined benefit retirement plans, Plan 1 and Plan 2, through the following systems. These are defined as pension trust funds:

- Virginia Retirement System (VRS) for state employees, teachers, other eligible school division employees, employees of participating political subdivisions and other qualifying employees;
- State Police Officers' Retirement System (SPORS) for state police officers;
- Virginia Law Officers' Retirement System (VaLORS) for Virginia law officers other than state police officers; and
- Judicial Retirement System (JRS) for judges of state courts of record, state district courts and other qualifying employees.

The System also administers the Group Life Insurance Fund, Retiree Health Insurance Credit Fund, Disability Insurance Trust Fund and the funding of the Line of Duty Act Trust Fund, which are defined as other employee benefit trust funds. Both the pension and other employee benefit trust funds are classified as fiduciary funds.

#### FINANCIAL HIGHLIGHTS

- The combined total net position of the trust funds restricted for benefits was \$58.4 billion at June 30, 2013, representing an increase of \$5,074.3 million, or 9.5%, from the net position as of June 30, 2012. The increase was due to higher contribution rates and improved investment returns; however, these were partially offset by increased expenses for benefit payments.
- The System's rate of return on investments during the fiscal year ended June 30, 2013, was 11.8% compared to a return of 1.4% for the fiscal year ended June 30, 2012. The increase was due primarily to the improved performance of the public equity investments in the portfolio.
- The VRS, SPORS, VaLORS and JRS plans were actuarially funded at 65.8%, 57.9%, 51.9% and 62.0%, respectively, based on the actuarial valuation as of June 30, 2012. For the VRS, SPORS, VaLORS and JRS plans, this was a decrease from their funded ratios of 69.9%, 62.6%, 55.0% and 65.2%, respectively, based on the June 30, 2011, actuarial valuation. There were no changes in the primary actuarial assumptions

for salary growth or inflation. The funded ratios of all the plans continue to reflect the impact of the investment losses recorded in FY 2009 on the Actuarial Value of Assets. The impact was lessened due to the positive impact of the net investment gains recorded in FY 2010 and FY 2011 because of the "five-year smoothing" asset valuation method used by the VRS actuary; however, this was partially offset by the poor investment performance recorded in FY 2012.

- The Group Life Insurance Fund, the Retiree Health Insurance Credit Fund and the Disability Insurance Trust Fund were actuarially funded at 30.7%, 5.8% and 116.6%, respectively, based on the actuarial valuation as of June 30, 2012. For the Group Life Insurance Fund, the Retiree Health Insurance Credit Fund and the Disability Insurance Trust Fund, there was a decrease from the June 30, 2011, funded ratios of 36.1%, 9.7% and 124.6%, respectively. There were no changes in the primary actuarial assumptions for salary growth or inflation. The funded ratios of all the plans continue to reflect the impact of the investment losses recorded in FY 2009 on the Actuarial Value of Assets. The impact was lessened due to the positive impact of the net investment gains recorded in FY 2010 and FY 2011 because of the "five-year smoothing" asset valuation method used by the VRS actuary; however, this was partially offset by the poor investment performance recorded in FY 2012.
- The Line of Duty Act Trust Fund was created effective July 1, 2010, as a new trust fund and has actuarial valuations prepared to determine the actuarial accrued liability and to establish the appropriate contribution rates for the program. The fund has a funded ratio of 2.7% at June 30, 2012, an improvement over the funded ratio of zero (0.0%) at June 30, 2011.

# Overview of the Financial Statements and Accompanying Information

BASIC FINANCIAL STATEMENTS. The System presents the Basic Financial Statements for the year ended June 30, 2013, with comparative information from the

previous fiscal year. The statements were prepared on the accrual basis of accounting and are used to account for the resources the System administers on behalf of plan members and beneficiaries. These statements include:

- Statement of Plan Net Position—Defined Benefit
  Pension Trust Funds and Other Employee Benefit
  Trust Funds. This statement reflects the balance of the
  resources available to pay benefits to members, retirees
  and beneficiaries at the end of the fiscal year.
- Statement of Changes in Plan Net Position—Defined Benefit Pension Trust Funds and Other Employee Benefit Trust Funds. This statement reflects the changes in the resources available to pay benefits to members, retirees and beneficiaries during the fiscal year.

A summary of the Basic Financial Statements is presented in Figures 2.1 and 2.2. The full statements follow Management's Discussion and Analysis.

NOTES TO FINANCIAL STATEMENTS. The Notes to Financial Statements provide detailed information and are integral to the Basic Financial Statements.

# REQUIRED SUPPLEMENTARY SCHEDULES. These schedules include:

- Required Supplemental Schedule of Funding Progress-Pension Plans
- Required Supplemental Schedule of Employer Contributions-Pension Plans
- Required Supplemental Schedule of Funding Progress-Other Post-Employment Benefit Plans
- Required Supplemental Schedule of Employer Contributions-Other Post-Employment Benefit Plans

ADDITIONAL FINANCIAL INFORMATION. The following schedules provide additional information not included in the Basic Financial Statements:

- Schedule of Administrative Expenses
- Schedule of Professional and Consulting Services
- Schedule of Investment Expenses

#### FIGURE 2.1 – SUMMARY OF PLAN NET POSITION

AT JUNE 30 (EXPRESSED IN MILLIONS)

	2013	Increase (Decrease)	2012	Increase (Decrease)	2011
Assets:					
Cash, Receivables and Capital Assets	\$ 1,728.3	\$ (106.6)	\$ 1,834.9	\$ (165.5)	\$ 2,000.4
Investments	59,899.1	6,378.6	53,520.5	(2,112.7)	55,633.2
Security Lending Collateral	3,967.6	1,806.3	2,161.3	(1,500.9)	3,662.2
Total Assets	\$ 65,595.0	\$ 8,078.3	\$ 57,516.7	\$ (3,779.1)	\$ 61,295.8
Liabilities:					
Accounts Payable	\$ 571.6	\$ 47.9	\$ 523.7	\$ (30.0)	\$ 553.7
Investment Purchases Payable	2,672.2	1,160.2	1,512.0	(1,000.0)	2,512.0
Obligations Under Securities Lending	3,967.7	1,795.9	2,171.8	(1,496.0)	3,667.8
Total Liabilities	\$ 7,211.5	\$ 3,004.0	\$ 4,207.5	\$ (2,526.0)	\$ 6,733.5
Total Net Position -					
Restricted for Benefits	\$ 58,383.5	\$ 5,074.3	\$ 53,309.2	\$ (1,253.1)	\$ 54,562.3

#### FIGURE 2.2 – SUMMARY OF CHANGES IN PLAN NET POSITION

FOR THE YEARS ENDED JUNE 30

(EXPRESSED IN MILLIONS)

	2013	Increase Decrease)	2012	Increase (Decrease)	2011
Additions:					
Member Contributions	\$ 714.9	\$ 483.9	\$ 231.0	\$ 203.4	\$ 27.6
Member Contributions Paid					
by Employer	291.6	(268.9)	560.5	(175.9)	736.4
Employer Contributions	1,961.7	826.9	1,134.8	245.3	889.5
Net Investment Income	6,221.1	5,574.5	646.6	(8,319.3)	8,965.9
Miscellaneous Revenue and Transfers	2.8	(1.8)	4.6	2.8	1.8
Total Additions	\$ 9,192.1	\$ 6,614.6	\$ 2,577.5	\$ (8,043.7)	\$ 10,621.2
Deductions:					
Retirement Benefits	\$ 3,672.6	\$ 270.8	\$ 3,401.8	\$ 137.9	\$ 3,263.9
Refunds of Member Contributions	81.5	(7.4)	88.9	(11.6)	100.5
Insurance Premiums and Claims	149.5	9.6	139.9	(5.1)	145.0
Retiree Health Insurance					
Credit Reimbursements	137.5	6.4	131.1	4.6	126.5
Disability Insurance Benefits	30.1	1.7	28.4	0.2	28.2
Line of Duty Act Reimbursements	6.7	(3.8)	10.5	0.5	10.0
Administrative and Other Expenses	39.9	9.9	30.0	(6.0)	36.0
Total Deductions	\$ 4,117.8	\$ 287.2	\$ 3,830.6	\$ 120.5	\$ 3,710.1
Net Increase (Decrease) in					
Net Position	\$ 5,074.3	\$ 6,327.4	\$ (1,253.1)	\$ (8,164.2)	\$ 6,911.1

# Analysis of Financial Activities – **Pension Plans**

The System's funding objective is to meet its longterm benefit obligations through investment income and contributions. Accordingly, the collection of contributions and the income from investments provide the reserves needed to finance the benefits provided under the plans.

#### MEMBERS, RETIREES, BENEFICIARIES AND EMPLOYERS

Approximately 340,751 active members were employed with 826 VRS-participating employers as of June 30, 2013. The number of retirees and other annuitants totaled approximately 169,588 at year end. The distribution of active members, retirees and beneficiaries, and employers is shown in Figures 2.3, 2.4 and 2.5.

FIGURE 2.3 - DISTRIBUTION OF ACTIVE MEMBERS

AT JUNE 30

	2013		2012	2	2011		
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	
State Employees (VRS)	78,534	23.0%	79,030	23.1%	78,392	23.1%	
Teachers (VRS)	145,945	42.9%	146,690	42.9%	145,707	42.9%	
Political Subdivision Employees (VRS)	104,563	30.7%	104,427	30.5%	103,902	30.6%	
State Police Officers (SPORS)	2,003	0.6%	1,886	0.6%	1,741	0.5%	
Virginia Law Officers (VaLORS)	9,324	2.7%	9,413	2.8%	9,604	2.8%	
Judges (JRS)	382	0.1%	380	0.1%	394	0.1%	
Total Members	340,751	100.0%	341,826	100.0%	339,740	100.0%	

Additional information about the membership is presented in Note 2 and in the Statistical Section.

FIGURE 2.4 - DISTRIBUTION OF RETIREES AND BENEFICIARIES

AT JUNE 30

	201	3	2012	2	2011		
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	
State Employees (VRS)	49,586	29.2%	48,431	29.8%	47,286	30.3%	
Teachers (VRS)	73,662	43.4%	70,392	43.2%	67,408	43.2%	
Political Subdivision Employees (VRS)	41,511	24.5%	39,443	24.2%	37,325	23.9%	
State Police Officers (SPORS)	1,175	0.7%	1,161	0.7%	1,137	0.7%	
Virginia Law Officers (VaLORS)	3,180	1.9%	2,872	1.8%	2,571	1.6%	
Judges (JRS)	474	0.3%	452	0.3%	438	0.3%	
Total Retirees and Beneficiaries	169,588	100.0%	162,751	100.0%	156,165	100.0%	

Additional information about retirees and beneficiaries is presented in the Statistical Section.

FIGURE 2.5 - DISTRIBUTION OF EMPLOYERS

AT JUNE 30

	2013	2012	2011
Cities and Towns	162	162	161
Counties	93	93	93
School Boards*	145	144	144
Special Authorities	198	199	195
State Agencies	228	236	236
<b>Total Employers</b>	826	834	829

<sup>\*</sup>Of the 145 school boards, 133 also provide coverage for non-professional employees and are treated as political subdivisions. A list of VRSparticipating employers and additional employer information is presented in the Statistical Section.

#### CONTRIBUTIONS AND INVESTMENT EARNINGS

The retirement benefits provided by the plans are funded from pension trust fund revenue. As shown in Figure 2.6, the primary sources of revenue are contributions for active members made by members or their employers, contributions from employers and investment income generated from the investment of plan assets.

Total contributions and investment earnings for the year ended June 30, 2013, amounted to \$8,678.5 million. This was an increase of \$6,220.6 million when compared with the activity for FY 2012; however, it was less than the contributions and investments earnings of \$10,261.1 million recorded in FY 2011.

Total member contributions increased by \$14.3 million. The portion members paid increased by \$364.3 million. This was due primarily to an increase in the member-paid contributions for Plan 2 and a continuation in implementation of the statutory shift from employer-paid to member-paid contributions.

For FY 2013, employer contributions increased by \$767.5 million due primarily to an increase in the employer contribution rate for all employer groups. The total of all contributions represented an increase of \$781.8 million from FY 2012. Employer contributions for pensions are discussed further in Notes 2 and 12.

During FY 2012, the System experienced an increase in total member contributions of \$27.4 million and an increase in employer contributions of \$241.3 million. The increase in employer contributions was related primarily to an increase in the employer contribution rate for teachers for the entire fiscal year and an increase in the employer contribution rate for state employees for the last quarter of the fiscal year. This increase also reflects some payroll growth, the addition of some new local government employers and the election of enhanced hazardous duty or other coverage by some local governments.



FIGURE 2.6 – SUMMARY OF PENSION CONTRIBUTIONS, INVESTMENT EARNINGS AND MISCELLANEOUS REVENUES

FOR THE YEARS ENDED JUNE 30 (EXPRESSED IN MILLIONS)

	2013	(	Increase Decrease)		2012	Increase (Decrease)		2011
Member Contributions	\$ 595.3	\$	364.3	,	\$ 231.0	\$ 203.3	\$	27.7
Member Contributions Paid by Employers	210.5		(350.0)		560.5	(175.9)		736.4
Employer Contributions	1,792.8		767.5		1,025.3	241.3		784.0
Net Investment Income	6,078.3		5,441.1		637.2	(8,074.4)		8,711.6
Miscellaneous Revenue and Transfers	1.6		(2.3)		3.9	2.5		1.4
Total Contributions, Investment Earnings and Miscellaneous Revenues	\$ 8,678.5	\$	6,220.6	:	\$ 2,457.9	\$ (7,803.2)	\$	10,261.1

#### INVESTMENTS

The System holds contributions from members and employers in a commingled pool, which is invested to provide for the payment of current and future benefits to members when they retire. Each plan–VRS, SPORS, VaLORS and JRS–owns an equity position in the pool and receives a proportionate share of the total investment income or loss from the pool.

As shown in Figure 2.6, there was net investment income for FY 2013 of \$6,078.3 million, which represented an increase of \$5,441.1 million from FY 2012. This compares with the net investment income decrease of \$8,074.4 million in FY 2012. Total pension trust fund investments were \$58,442.0 million at fair value at June 30, 2013. This was an increase of \$6,171.5 million from the fair value of \$52,270.5 million at June 30, 2012.

The total pension trust fund investments decreased in FY 2012 by \$1,890.9 million from their fair value of \$54,161.4 million at June 30, 2011. The total return on pension trust fund investments for the year

ended June 30, 2013, was 11.8%. This represents an annualized return of 10.5% over the past three years and 4.0% over the past five years. An explanation of investment policies and strategies as well as the portfolio's composition is included in the Investment Section. A review of investment activity and results for FY 2013 also is provided in that section.

# EXPENSES – DEDUCTIONS FROM PLAN NET POSITION

As shown in Figure 2.7, the primary expenses of the pension trust funds include annuity benefits for retirees and beneficiaries, refunds of contributions to former members and expenses associated with the administration of the retirement plans. Expenses for FY 2013 totaled \$3,790.7 million, an increase of \$273.1 million, or 7.8%, over the 2012 period.

Benefit payments were \$3,672.6 million in FY 2013. This is an increase of \$270.8 million compared to an increase of \$137.9 million for FY 2012. The increase in FY 2013 was due to continued growth in the number of retirees and beneficiaries receiving benefits. The FY 2013 benefit payments also reflect a 3.08% cost-of-living adjustment (COLA) effective July 1, 2012.

FIGURE 2.7 - SUMMARY OF PENSION PLAN PRIMARY EXPENSES

FOR THE YEARS ENDED JUNE 30 (EXPRESSED IN MILLIONS)

		Increase 2013 (Decrease)				2012	icrease ecrease)	2011		
Benefits	\$	3,672.6	\$	270.8	\$	3,401.8	\$ 137.9	\$ 3,263.9		
Refunds		81.5		(7.4)		88.9	(11.6)	100.5		
Administrative and Other Expenses		36.6		9.7		26.9	(5.7)	32.6		
Total Primary Expenses	\$	3,790.7	\$	273.1	\$	3,517.6	\$ 120.6	\$ 3,397.0		

Refunds of contributions to members who terminated employment during FY 2013 amounted to \$81.5 million (8,530 refunds), compared with \$88.9 million refunded (9,670 refunds) during FY 2012 and \$100.5 million refunded (13,221 refunds) during FY 2011. The change during FY 2013 reflects a decrease in the volume of refunds but an increase in the average refund amount compared to FY 2012.

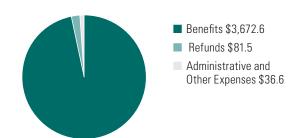
Administrative and other expenses for FY 2013 were \$36.6 million, compared with \$26.9 million for FY 2012 and \$32.6 million for FY 2011.

Administrative and other expenses increased by \$9.7 million for FY 2013. This compares to a decrease in FY 2012 of \$5.7 million. The increase for FY 2013 reflects an increase in both the administrative and the other expenses category. This increase in administrative expenses includes the System's ongoing costs associated with the Modernization Program, the initial depreciation of the capitalized software created as part of the Program and an increase in some of the other administrative expense categories. Other expenses increased because of larger investment income distributions to other accounts managed by the System. Further details are provided in the Schedule of Administrative Expenses following the Required Supplemental Schedules.

#### PENSION PLAN ACTIVITY

FISCAL YEAR 2013

(EXPRESSED IN MILLIONS)



#### FIGURE 2.8 - SUMMARY OF PENSION PLAN RESERVE BALANCES

AT JUNE 30 (EXPRESSED IN MILLIONS)

	2013	Increase (Decrease)	2012	Increase (Decrease)	2011		
Member Reserves Employer Reserves	\$ 11,771.6 45,207.6	\$ 429.7 4,458.1	\$ 11,341.9 40,749.5	\$ 470.2 (1,529.9)	\$ 10,871.7 42,279.4		
Total Reserve Balances	\$ 56,979.2	\$ 4,887.8	\$ 52,091.4	\$ (1,059.7)	\$ 53,151.1		

These balances also reflect transfers between the Member and Employer Reserves for interest credited to member accounts and member contributions transferred to the Employer Reserve upon a member's retirement. For FY 2013, the amount of interest credited to member accounts was \$430.9 million, and the amount of member balances transferred to the Employer Reserve for retirements was \$727.0 million. For FY 2012, the interest and retirement transfers were \$415.2 million and \$647.8 million, respectively.

#### RETIREMENT RESERVES

The funds accumulated by the pension plans to meet current and future obligations to retirees and beneficiaries are derived from the excess of revenues over expenses. The higher the level of funding a plan achieves, the larger the accumulation of assets and the greater the investment income potential. As shown in Figure 2.8, expenses exceeded revenues for FY 2013, leading to a net increase of \$4,887.8 million in the retirement reserves held by the plans. This follows a decrease of \$1,059.7 million in the retirement reserves in FY 2012. The increase for FY 2013 was related primarily to the improved investment performance for the year and higher employer contributions.

## ACTUARIAL VALUATIONS AND FUNDING PROGRESS – PENSION PLANS

The System's actuarial firm performs actuarial valuations of VRS, SPORS, VaLORS and JRS at least every two years to determine funding requirements. The funding policy provides for periodic employer contributions at actuarially determined rates that will remain relatively level over time as a percentage of payroll and will accumulate sufficient assets to meet the costs of all benefits when due.

According to the latest valuations of the pension plans performed by Cavanaugh Macdonald Consulting, LLC as of June 30, 2012, the ratio of assets accumulated by the plans to their total actuarial accrued liabilities for benefits was 65.8% for VRS, 57.9% for SPORS, 51.9% for VaLORS and 62.0% for JRS. The valuations reflect full prefunding of the statutory cost-of-living adjustment (COLA) for retirees.

Historical information for the pension plans is presented in the Required Supplemental Schedule of Funding Progress—Pension Plans following the Notes to Financial Statements. Additional information also is presented in Note 2 and in the Actuarial Section.

## Analysis of Financial Activities — Other **Employee Benefit Plans**

#### **GROUP LIFE INSURANCE PROGRAM**

The Group Life Insurance Program provides basic group life insurance coverage for natural death, accidental death, accidental dismemberment and other life insurance benefits to the majority of members covered under the pension plans, as well as to other qualifying employees. Employers and their covered employees pay the premiums for group life insurance coverage; many employers pay the employee's portion.

During FY 2013, the System remitted \$149.5 million to the insurer for claims and administrative costs. This is an increase over the \$139.9 million remitted for FY 2012. Approximately 357,053 active members were covered under the Group Life Insurance Program at June 30, 2013.

The difference between the amounts collected and paid by the System is added to the reserve established to pre-fund group life insurance coverage for retirees. The reserve had a net position restricted for benefits of \$887.8 million at June 30, 2013. Investment income, including net securities lending income, was \$90.2 million during the fiscal year. For FY 2012, this reserve had investment income of \$7.3 million and ended the year with a reserve balance of \$746.6 million, a decrease from the \$833.1 million at June 30, 2011.

For FY 2013, the increase in the reserve balance was primarily the result of higher contributions and improved investment income, which exceeded the program's claims, administrative expenses and other costs. Employer contributions for the Group Life Insurance Program are discussed further in Note 12. Approximately 149,926 retirees were covered under the Group Life Insurance Program at June 30, 2013.

Members covered under the Basic Group Life Insurance Program are eligible to elect additional coverage through the Optional Group Life Insurance Program. This program provides life insurance, accidental death and accidental dismemberment coverage as a supplement to the basic group plan. Members also may cover their spouses and dependent children. Members pay the premiums through payroll deduction. Approximately 66,482 active members and 2,469 retirees were enrolled in the Optional Group Life Insurance Program at June 30, 2013.

Additional information about the Group Life Insurance Program is provided in Note 3.

#### RETIREE HEALTH INSURANCE CREDIT PROGRAM

The Retiree Health Insurance Credit Program provides a tax-free reimbursement for the portion of health insurance premiums eligible retirees pay for single coverage under qualifying health insurance plans. During FY 2013, the System collected \$145.0 million in retiree health insurance credit contributions from participating employers and provided reimbursements to retirees of \$137.5 million. During FY 2012, the System collected \$51.4 million in retiree health insurance credit contributions from participating employers and provided reimbursements of \$131.1 million.

The increase in contributions reflects higher contribution rates for the state and teacher employer groups. Employer contributions for the Retiree Health Insurance Credit Program are discussed further in Note 12. The growth in health insurance credit reimbursements reflects an increase in the number of eligible retirees.

The Retiree Health Insurance Credit Fund reserve had a net position restricted for benefits of \$146.5 million at June 30, 2013. Investment income, including net securities lending income, was \$12.1 million for the fiscal year. The reserve balances at June 30, 2012, and June 30, 2010, were \$127.2 million and \$209.0 million, respectively.

Approximately 103,952 retirees were receiving the health insurance credit at June 30, 2013. Additional information is provided in Note 3.

#### VIRGINIA SICKNESS AND DISABILITY PROGRAM

The Virginia Sickness and Disability Program (VSDP), also known as the Disability Insurance Trust Fund, provides eligible state employees with sick, family and personal leave and short-term and long-term disability benefits for non-work related and work-related illnesses and injuries. The System is responsible for administering the disability program and the payment of long-term disability benefits. Employers are responsible for administering the leave program and the payment of short-term disability benefits.

During FY 2013, the System collected \$17.0 million in VSDP contributions from participating employers and paid disability premiums and benefits of \$30.1 million. This is an increase from the \$28.4 million in benefits paid in FY 2012. Administrative and other expenses increased slightly from FY 2012. Employer contributions for the Virginia Sickness and Disability Program are discussed further in Note 12.

The benefit costs reflect continued stability in the number of members receiving long-term disability benefits, the amount of these benefits, the costs of the long-term care benefits and the operating costs of the program. The Disability Insurance Trust Fund reserve had a net position restricted for benefits of \$370.1 million at June 30, 2013. Investment income, including net securities lending income, was \$39.6 million during the fiscal year. The reserve balances at June 30, 2012, and June 30, 2011, were \$344.0 million and \$369.1 million, respectively.

At June 30, 2013, approximately 74,378 active members were participating in the program and approximately 2,757 former members were receiving benefits. Additional information is provided in Note 3.

#### LINE OF DUTY ACT PROGRAM

The Line of Duty Act Program was a new program for the System in FY 2011. The System is responsible for identifying eligible individuals; having the VRS actuary prepare an actuarial valuation; collecting contributions; reimbursing the Commonwealth of Virginia's Department of Accounts (DOA) for claims and administrative costs; and managing the assets of the program. DOA is responsible for the administration of the benefits under the program and the payment of claims for death benefits and health insurance reimbursements for eligible state employees and local government employees, including volunteers, who die or become disabled as the result of the performance of their duties as a public safety officer.

During FY 2013, the cost for the benefits provided by this program was \$6.7 million. This is a decrease from the \$10.5 million in benefit costs for FY 2012 and reflects the impact of the employers who have elected to handle their own claims costs rather than participate in the program. Additional information is provided in Note 3.

### ACTUARIAL VALUATIONS AND FUNDING PROGRESS - OTHER EMPLOYEE BENEFIT PLANS

The System's actuarial firms perform actuarial valuations of other employee benefit plans administered by the System at least every two years to determine funding requirements. The funding policy provides for periodic employer contributions at actuarially determined rates that will remain relatively level over time as a percentage of payroll and will accumulate sufficient assets to meet the costs of all benefits when due.

According to the latest valuations of these plans performed by Milliman, Inc., for the long-term care component of the Disability Insurance Trust Fund and by Cavanaugh Macdonald Consulting, LLC, for all other programs as of June 30, 2012, the ratio of assets accumulated by the plans to their total actuarial accrued liabilities for benefits was 30.7% for the Group Life Insurance Fund, 5.8% for the Retiree Health Insurance Credit Fund, 116.6% for the Disability Insurance Trust Fund and 2.7% for the Line of Duty Act Trust Fund. Funding progress for these plans is presented in the Required Supplemental Schedule of Funding Progress-Other Post-Employment Benefit Plans.

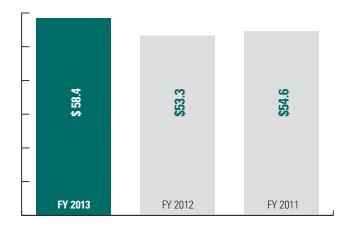
## Market Volatility

The System's investment performance for the fiscal year ended June 30, 2013, was 11.8%, resulting in an increase in the net position restricted for benefits. As noted in this section, in the Introductory Section and in the Chief Investment Officer's letter in the Investment Section, the investment markets continue to be extremely volatile. The amount of assets and reserves required to meet future obligations is based, in part, on estimated or expected long-term investment returns. While management cannot predict future market returns, the changes in assets reflect the volatility in the market.

#### SYSTEM NET ASSETS

AT JUNE 30

(EXPRESSED IN BILLIONS)



## Request for Information

This financial report is designed to provide an overview of the System's finances. Questions concerning the information provided in this report or requests for additional information should be addressed to the Chief Financial Officer of the Virginia Retirement System, P.O. Box 2500, Richmond, Virginia 23218-2500.

## VIRGINIA RETIREMENT SYSTEM STATEMENT OF PLAN NET POSITION – DEFINED BENEFIT PENSION TRUST FUNDS AND OTHER EMPLOYEE BENEFIT TRUST FUNDS

AS OF JUNE 30, 2013, WITH COMPARATIVE INFORMATION AS OF JUNE 30, 2012

#### Pension Trust Funds

	Virginia Retirement System	nent Retirement Retirement		Judicial Retirement System	Total Pension Trust Funds	
Assets:						
Cash (Note 5)	\$ 676	\$ 127	\$ 201	\$ 79	\$ 1,083	
Receivables:	0.40.404	4 000	0.110	4 000	045.004	
Contributions	240,121	1,362	3,119	1,202	245,804	
Interest and Dividends	180,594	2,062	3,270	1,282	187,208	
Receivable for Security Transactions Other Investment Receivables	992,262	11,331 1,469	17,968	7,044 913	1,028,605	
Other Receivables	128,601 2,566	1,409	2,329	4	133,312 2,572	
Total Receivables	1,544,144	16,226	26,686	10,445	1,597,501	
Investments (Note 5):						
Bonds and Mortgage Securities	17,097,626	195,251	309,608	121,383	17,723,868	
Stocks	20,663,147	235,968	374,173	146,697	21,419,985	
Fixed Income Commingled Funds	807,320	9,219	14,619	5,732	836,890	
Index and Pooled Funds	5,029,730	57,438	91,080	35,708	5,213,956	
Real Estate	4,602,105	52,555	83,336	32,672	4,770,668	
Private Equity	7,648,213	87,341	138,496	54,298	7,928,348	
Short-Term Investments	528,880	6,040	9,577	3,755	548,252	
Total Investments	56,377,021	643,812	1,020,889	400,245	58,441,967	
Collateral on Loaned Securities Property, Plant, Furniture and	3,734,282	42,645	67,621	26,511	3,871,059	
Equipment (Note 6)	33,697				33,697	
Total Assets	61,689,820	702,810	1,115,397	437,280	63,945,307	
Liabilities:						
Retirement Benefits Payable	276,692	3,975	7,125	2,937	290,729	
Refunds Payable	3,443	71	164	-	3,678	
Accounts Payable and Accrued Expenses	24,376	254	403	158	25,191	
Compensated Absences Payable	2,293	-	-	-	2,293	
Insurance Premiums and Claims Payable	-	-	-	-	-	
Payable for Security Transactions	2,516,293	28,496	45,186	17,715	2,607,690	
Other Investment Payables	158,193	1,806	2,865	1,123	163,987	
Other Payables	1,396	-	- 07.000	-	1,396	
Obligations Under Security Lending Program	3,734,398	42,646	67,623	26,512	3,871,179	
Total Liabilities	6,717,084	77,248	123,366	48,445	6,966,143	
Net Position - Restricted for Benefits (Note 4)	\$ 54,972,736	\$ 625,562	\$ 992,031	\$ 388,835	\$ 56,979,164	

The accompanying Notes to Financial Statements are an integral part of this statement.

Other Employe	e Benefit	Trust Funds
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Totals

\$ 887,773	\$	146,472	\$	370,121	\$ <u>-</u>	\$	1,404,366	\$	58,383,530	\$	53,309,180
 155,498		28,304		45,525	 16,052		245,379	_	7,211,522		4,207,533
 61,343		9,690		24,806	 681	_	96,520		3,967,699	_	2,171,803
		-			14,883		14,883		16,279		14,907
40,989 2,599		6,475 410		16,576 1,051	455 29		64,495 4,089		2,672,185 168,076		1,511,994 149,322
49,676		- C 47F		- 10 F70	- 4FF		49,676		49,676		45,502
-		-		-	-		-		2,293		2,038
365		11,400		2,938	4		14,707		39,898		39,455
- 526		329		- 154	-		1,009		290,729 4,687		267,763 4,749
 1,043,271		174,776		415,646	16,052		1,649,745	_	65,595,052		57,516,713
-		-		-	-		-		33,697		29,262
61,341		9,689		24,806	681		96,517		3,967,576		2,161,345
 926,070		146,281		374,500	 10,275		1,457,126		59,899,093	_	53,520,484
 8,688		1,372		3,513	 96		13,669		561,921	_	253,917
125,632		19,845		50,805	1,394		197,676		8,126,024		5,888,743
75,596		11,941		30,571	839		118,947		4,889,615		3,784,232
13,261 82,620		2,095 13,051		5,363 33,411	147 917		20,866 129,999		857,756 5,343,955		891,098 5,303,314
339,421		53,614		137,261	3,766		534,062		21,954,047		18,590,578
280,852		44,363		113,576	3,116		441,907		18,165,775		18,808,602
 55,678		18,778		16,266	 5,094		95,816		1,693,317		1,566,674
14,883		5		6,776	59		21,723		24,295		22,730
2,112		334		854	23		3,323		136,635		2,714
16,300		2,575		6,591	181		25,647		1,054,252		1,162,237
19,416 2,967		15,395 469		845 1,200	4,798 33		40,454 4,669		286,258 191,877		171,803 207,190
\$ 182	\$	28	\$	74	\$ 2	\$	286	\$	1,369	\$	238,948
 nsurance Fund	Ins	ee Health surance dit Fund	In	isability isurance ust Fund	Line of Duty Act Trust Fund	Uti	Benefit		2013		2012
Group Life	Dotin	oo Hoolth	D	ioohility	Line of	∩+l	Total ner Employee				

## VIRGINIA RETIREMENT SYSTEM STATEMENT OF CHANGES IN PLAN NET POSITION – DEFINED BENEFIT PENSION TRUST FUNDS AND OTHER EMPLOYEE BENEFIT TRUST FUNDS

FOR THE YEAR ENDED JUNE 30, 2013, WITH COMPARATIVE INFORMATION FOR THE YEAR ENDED JUNE 30, 2012

#### Pension Trust Funds

				S	
	Virginia Retirement System	State Police Officers' Retirement System	Virginia Law Officers' Retirement System	Judicial Retirement System	Total Pension Trust Funds
Additions:					
Contributions:					
Members	\$ 572,543	\$ 5,361	\$ 17,256	\$ 179	\$ 595,339
Member Paid by Employers Employers	207,695 1,689,142	- 26 102	EU 200	2,795 27,026	210,490 1,792,758
Total Contributions	<b>2,469,380</b>	26,192 <b>31,553</b>	50,398 <b>67,654</b>	30,000	2,598,587
	2,403,300	31,333	07,034	30,000	2,330,307
Investment Income: Net Appreciation/(Depreciation) in Fair Value of Investments Interest, Dividends and Other Investment Income	4,986,008 1,174,220	57,022 13,431	89,302 21,096	35,327 8,330	5,167,659 1,217,077
Total Investment Income Before Investment	<del></del>	<del></del>	<del></del>	<del></del>	
Expenses	6,160,228	70,453	110,398	43,657	6,384,736
Investment Expenses	(312,799)	(3,581)	(5,623)	(2,222)	(324,225)
Net Investment Income	5,847,429	66,872	104,775	41,435	6,060,511
Security Lending Income: Gross Income Less Borrower Rebates and Agent Fees	19,732 (2,533)	224 (29)	354 (45)	140 (18)	20,450 (2,625)
Net Security Lending Income	17,199	195	309	122	17,825
			303		
Miscellaneous Revenue Transfers In	1,547		27		1,547 27
Total Additions	8,335,555	98,620	172,765	71,557	8,678,497
Deductions:					
Retirement Benefits	3,516,219	47,884	71,638	36,800	3,672,541
Refunds of Member Contributions	77,588	364	3,586	-	81,538
Insurance Premiums and Claims	-	-	-	-	-
Retiree Health Insurance Reimbursements Disability Insurance Premiums and Benefits	-	-	-	-	-
Line of Duty Benefits Administrative Expenses	31,154	227	344	- 141	- 31,866
Other Expenses	4,552	51	82	31	4,716
Transfers Out	27	-	-	-	27
Total Deductions	3,629,540	48,526	75,650	36,972	3,790,688
Net Increase (Decrease) Net Position - Restricted for Benefits -	4,706,015	50,094	97,115	34,585	4,887,809
Beginning of Year	50,266,721	575,468	894,916	354,250	52,091,355
Net Position - Restricted for Benefits - End of Year	\$ 54,972,736	\$ 625,562	\$ 992,031	\$ 388,835	\$ 56,979,164

The accompanying Notes to Financial Statements are an integral part of this statement.

Other Employee Benefit Trust Funds

Total	S
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	Group Life nsurance Fund	Retiree Health Insurance Credit Fund	Disability Insurance Trust Fund	Line of Duty Act Trust Fund	Total Other Employee Benefit Plans	2013	2012		
	Tullu	Greattrana	Trust runu	Trust runu	i idiis	2013	2012		
\$	119,593	\$ -	\$ -	\$ -	\$ 119,593	\$ 714,932	\$ 230,963		
Ψ	81,122	145,031	16,990	- 6,869	81,122 168,890	291,612 1,961,648	560,492 1,134,851		
	200,715	145,031	16,990	6,869	369,605	2,968,192	1,926,306		
	76,497	10,257	33,631	801	121,186	5,288,845	( 431,753)		
	18,254	2,470	7,912	189	28,825	1,245,902	1,367,588		
	94,751	12,727	41,543	990	150,011	6,534,747	935,835		
	(4,854)	(651)	(2,109)	(48)	(7,662)	(331,887)	(307,706)		
	89,897	12,076	39,434	942	142,349	6,202,860	628,129		
	309	42	133	3	487	20,937	21,613		
	(40)	(5)	(17)	-	(62)	(2,687)	(3,147)		
	269	37	116	3	425	18,250	18,466		
	973	-	277	-	1,250 -	2,797 27	4,533 110		
	291,854	157,144	56,817	7,814	513,629	9,192,126	2,577,544		
	_	_	_	_	_	3,672,541	3,401,775		
	-	-	-	-	-	81,538	88,923		
	149,487	-	-	-	149,487	149,487	139,943		
	-	137,538	-	-	137,538	137,538	131,102		
	-	-	30,133	6,676	30,133 6,676	30,133 6,676	28,444 10,492		
	65	358	506	164	1,093	32,959	27,428		
	1,148	10	29	974	2,161	6,877	2,404		
	-	-	-	-	-	27	110		
	150,700	137,906	30,668	7,814	327,088	4,117,776	3,830,621		
	141,154	19,238	26,149	-	186,541	5,074,350	(1,253,077)		
	746,619	127,234	343,972	-	1,217,825	53,309,180	54,562,257		
\$	887,773	\$ 146,472	\$ 370,121	\$ -	\$ 1,404,366	\$ 58,383,530	\$ 53,309,180		

# Notes to Financial Statements JUNE 30, 2013 AND 2012

## 1. Summary of Significant Financial Policies, Administration and Management

#### A. FINANCIAL REPORTING ENTITY

The Virginia Retirement System (the System) is an independent agency of the Commonwealth of Virginia. The System administers two defined benefit pension plans, Plan 1 and Plan 2, and other employee benefit plans, and is included in the basic financial statements

of the Commonwealth of Virginia. As required by generally accepted accounting principles (GAAP), the System's financial statements include all funds for which financial transactions are recorded in its accounting system and for which the Board of Trustees exercises administrative responsibility.

Effective January 1, 1997, the *Constitution of Virginia* was amended to strengthen the independence of the Virginia Retirement System. As set forth in Section 11 of Article X, the funds of the retirement system shall be deemed separate and independent trust funds, segregated from all other funds of the Commonwealth, and invested and administered solely in the interests of members, retirees and beneficiaries.

Fiduciary Responsibility of the VRS
Board of Trustees — As stated in Section
51.1-124.30(C) of the *Code of Virginia:*"... the Board shall invest the assets of

"... the Board shall invest the assets of the Retirement System 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 like character and with like aims." Accordingly, the Board must sufficiently diversify the portfolio to minimize the risk of large losses unless, under the circumstances, it is clearly prudent not to do so. Primary risk measures are volatility in the plan's assets, funded status and contribution rates.

The Board consists of five members appointed by the Governor and four members appointed by the Joint Rules Committee of the Virginia General Assembly, all subject to confirmation by the General Assembly. The Board appoints a director to serve as the chief administrative officer of the System and a chief investment officer to direct, manage and administer the investment of the System's funds. The Board also retains outside managers to advise and assist in the implementation of these policies. The Board of Trustees has appointed BNY Mellon as the custodian of designated assets of the System.

The Virginia Retirement System (VRS), the State Police Officers' Retirement System (SPORS), the Virginia Law Officers' Retirement System (VaLORS) and the Judicial Retirement System (JRS) are administered in accordance with Title 51.1, Chapters 1, 2, 2.1, 3 and 4, respectively, of the *Code* of Virginia (1950), as amended. The Group Life Insurance Fund, the Retiree Health Insurance Credit Fund and the Disability Insurance Trust Fund are administered in accordance with Title 51.1, Chapters 5, 14 and 11, respectively, of the *Code of* Virginia (1950), as amended. The Line of Duty Act Trust Fund was created by and is administered in accordance with the provisions of the 2010 Appropriation Act (Item

258, Chapter 874, 2010 Virginia Acts of Assembly) and most recently confirmed in the 2013 Appropriation Act (Item 268, Chapter 806, 2013 Virginia Acts of Assembly).

The Optional Life Insurance Fund is administered in accordance with Sections 51.1-512 and 51.1-512.1 of the *Code of Virginia* (1950), as amended. Optional life insurance is an insured product, and the premium collection is handled by the insurer. The Board provides only oversight for the program with limited administrative responsibility.

#### B. ADMINISTRATION AND MANAGEMENT

1. Pension Plans and Other Employee Benefit Plans. The Board of Trustees (the Board) is responsible for the general administration and operation of the defined benefit pension plans and other employee benefit plans. The Board has full power to invest and reinvest the trust funds of the System through the adoption of investment policies and guidelines that fulfill the Board's investment objective to maximize long-term investment returns while targeting an acceptable level of risk.

State statutes governing the plans administered by the System may be amended only by the General Assembly of Virginia. Additional information about the plans is provided in Notes 2 and 3.

2. Other Plans Established by the Commonwealth of Virginia. The Board has oversight and limited administrative responsibility, but no investment responsibility, for several other plans of the Commonwealth. Because the Board neither owns nor has custody of the assets, their financial transactions are not recorded in the System's accounting system.

Therefore, these programs are not included in the System's Basic Financial Statements:

- Commonwealth of Virginia 457 Deferred Compensation Plan and the Virginia Cash Match Plan for state employees and employees of participating political subdivisions. Additional information about the 457 and Cash Match Plans is provided in the Statistical Section.
- Commonwealth of Virginia (COV) Voluntary Group Long Term Care Insurance Program, an employee-paid program for eligible employees.
- Defined contribution plans, referred to as the Optional Retirement Plans 1 and 2, for political appointees, certain employees of public institutions of higher education and certain employees of public school divisions and teaching hospitals.
- Commonwealth Health Research Fund, which provides financial support for human health research on behalf of citizens of the Commonwealth.
- Volunteer Firefighters' and Rescue Squad Workers' Service Award Fund, which provides service awards to eligible volunteer firefighters and rescue squad workers.

#### C. ACCOUNTING BASIS

The accounting and presentation of the defined benefit pension plans and other employee benefit plans use the flow of economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned, and expenses are recognized when liabilities are incurred, regardless of the timing of related cash flows. Member and employer contributions are recognized as revenues when due, pursuant to formal commitments as well as statutory or contractual requirements. Investment income is recognized as earned by the plans. Benefits and refunds are recognized when due and payable in accordance with the terms of the plans.

#### D. ACTUARIAL BASIS AND CONTRIBUTION RATES

The funding policy for the pension plans provides for periodic employer contributions at actuarially determined rates, which will remain relatively level over time as a percentage of payroll and will accumulate sufficient assets to meet the cost of all benefits when due. Member and employer contributions are required by Title 51.1 of the Code of Virginia (1950), as amended.

Contribution rates are developed using the entry age normal cost method for both normal cost and amortization of the unfunded actuarial accrued liability. Gains and losses are reflected in the unfunded Actuarial Accrued Liability (AAL), which is being amortized as a level percentage of covered payroll within 30 years or less.

In addition to determining contribution requirements, actuarial computations present an estimate of the discounted present value of the prospective accrued liability contributions that employers will have to pay to ensure that such contributions-when combined with the assets on hand, the normal contributions to be made in the future by employers and members, and investment income-will be sufficient to pay all benefits due to current members in the future as well as to annuitants and designated beneficiaries. Actuarial valuations estimate the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include future employment, mortality and the use of the benefit. Actuarially determined amounts are subject to revision

as actual results are compared with past expectations and new estimates are made about the future. The Required Supplemental Schedules of funding progress and employer contributions, which follow the Notes to Financial Statements, present historical information about the increase or decrease of the actuarial values of the plans' assets over time relative to the AAL for benefits.

## E. GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB) STATEMENTS

- Governmental Accounting Standards Board (GASB)
   Statement No. 40, Deposit and Investment Risk
   Disclosures, requires disclosures related to deposits,
   authorized investments and investment risk.
   Required investment risk disclosures address interest
   rate risk; credit risk, to include custodial credit
   risk and concentrations of credit risk; and foreign
   currency risk. The statement also requires disclosures
   of custodial credit risk and foreign currency risk for
   depository accounts. Information about the System's
   deposit and investment risk is provided in Note 5.
- GASB Statement No. 43, Financial Reporting for Post-employment Benefit Plans Other Than Pension Plans, requires additional reporting and disclosures for other post-employment benefits (OPEBs). The statement became effective for VRS-administered OPEBs beginning with the fiscal year ended June 30, 2007. The Required Supplemental Schedules of funding progress and employer contributions for the pension plans and other employee benefit plans present information about contributions in comparison to the annual required contribution (ARC), which is actuarially determined in accordance with the parameters of GASB Statement 43. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost for each year and amortize any unfunded actuarial liabilities or funding excess over a period not to exceed 30 years.

- GASB Statement No. 50, Pension Disclosures— An Amendment to GASB Statements No. 25 and No. 27, more closely aligns the financial reporting requirements for pensions with those for OPEBs. The statement became effective beginning with the fiscal year ended June 30, 2008. Information about the pension plans and other employee benefit plans administered by the System is presented in Notes 2 and 3.
- GASB Statement No. 51, Accounting and Financial Reporting for Intangible Assets, establishes a "specific conditions" approach to recognizing intangible assets, specifically computer software. The statement became effective beginning with the fiscal year ended June 30, 2010. Capitalized costs are incurred during the Application Development Stage and consist of design of chosen path, including software configuration and software interfaces; coding; installation of hardware; testing, including the parallel processing phase; and data conversion to the extent that the data are necessary to make the computer software operational. Other costs incurred before or after the Application Development Stage are expensed when incurred. Additional disclosures resulting from the implementation of this statement are presented in Note 6.
- GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments, establishes accounting and financial reporting standards for governments that enter into derivative instruments. The statement became effective beginning with the fiscal year ended June 30, 2010. The objective of the statement is to enhance the usefulness and comparability of derivative financial instrument information reported by state and local governments. It provides a comprehensive framework for the measurement, recognition and disclosure of derivative instrument transactions. Additional disclosures resulting from the implementation of this statement are presented in Note 5.
- GASB Statement No. 59, Financial Instruments Omnibus, clarifies the definition of items that should be included in the reporting required by Statement No. 53. The statement became effective beginning with the fiscal year ended June 30, 2010. This is reflected in the disclosures in Note 5.

- GASB Statement No. 63, Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position, establishes standards for reporting deferred outflows of resources, deferred inflows of resources, and net position. The statement became effective beginning with the fiscal year ended June 30, 2013. The financial statement presentations have been updated to reflect the impact of this standard.
- GASB Statement No. 64, Derivative Instruments: Application of Hedge Accounting Termination Provisions An Amendment of GASB Statement No. 53, clarifies the circumstances in which hedge accounting should continue when a swap counterparty, or a swap counterparty's credit support provider, is replaced. The statement became effective beginning with the fiscal year ended June 30, 2012. This is reflected in the disclosures in Note 5.

#### F. INVESTMENTS

1. Investment Valuation. Investments are reported at fair value as determined by the System's master custodian, BNY Mellon, from its Global Pricing System. This system assigns a price source, based on asset type and the vendor pricing products to which the master custodian subscribes, for every security held immediately following its acquisition. The master custodian monitors prices supplied by these sources daily.

When a pricing source is unable to provide a price, quotes are sought from major investment brokers and market-making dealers; or internal calculations are applied, if feasible. As a last resort, the master custodian will contact investment managers for a price. The master custodian prices commingled funds, partnerships and real estate assets from statements received from the funds, partnerships or investment managers.

The pricing sources used by the master custodian provide daily prices for equity securities; corporate, government and mortgage-backed fixed income securities; private placement securities; futures and options on futures; open-ended funds; and foreign exchange rates. Depending on the vendor, collateralized

mortgage obligations (CMOs), adjustable rate mortgages (ARMs) and asset-backed securities are priced daily, weekly or twice a month as well as at month end. Municipal fixed income securities and options on U.S. Treasury/GNMA securities are priced at month end.

2. Investment Transactions and Income. Security transactions and related gains and losses are recorded on a trade-date basis. The cost of investments sold is the average cost of the aggregate holding of the specific investment sold. Dividend income is recorded on the exdividend date, and interest income is accrued as earned. Futures contracts are valued daily, with the resulting adjustments recorded as realized gains or losses arising from the daily settlement of the variation margin. Gains and losses related to forward contracts and options are recognized at the time the contracts are settled. Investments in limited partnerships are accounted for on the equity method of accounting, and their earnings or losses for the period are included in investment income using the equity method.

## G. PROPERTY, PLANT, FURNITURE, EQUIPMENT AND INTANGIBLE ASSETS

Tangible capital assets are recorded at cost at the time of acquisition and are reported net of accumulated depreciation. The System capitalizes all property, plant and equipment that have a cost or value greater than \$5,000. Depreciation is computed on the straight-line basis over the estimated useful life of the property, ranging from five years to 40 years. Intangible capital assets for the System include internal and external costs incurred during VRS' current Application Development Stage. These costs are being depreciated over the software's useful life which is estimated at seven years.

## H. ACCUMULATED LEAVE AND DISABILITY CREDITS

Employees of the System participate in the Commonwealth's annual leave program and in its sick leave program or the Virginia Sickness and Disability Program (VSDP), which is administered by the System. Additional information about VSDP is presented in Note 3. Unused annual leave may be accumulated and is paid at the time of permanent separation from service up to the maximum calendaryear limit. For vested employees who are not covered under VSDP, unused sick leave is paid at a rate of 25% of the amount accumulated, not to exceed \$5,000, at the time of permanent separation. VSDPcovered employees with unused disability credits converted from sick leave at the time of enrollment may be paid in the same manner as for non-VSDP employees or may convert these credits to service credit at a rate of 173 disability credits to one month of service.

The accrued liability for unused annual leave, sick leave and disability credits for System employees at June 30, 2013 and 2012, was computed using salary rates in effect at those times and represents annual and sick leave earned up to the allowable ceilings as well as unused, converted disability credits. This information is included in the Statement of Plan Net Position—Defined Benefit Pension Trust Funds and Other Employee Benefit Trust Funds.

#### I. ADMINISTRATIVE EXPENSES AND BUDGET

The Board of Trustees approves expenses related to the administration and management of the trust fund. These expenses are included in a budget prepared in compliance with the Commonwealth's biennial budgetary system (cash basis).

Appropriations are controlled at the program level and lapse at the end of the fiscal year. Administrative expenses are funded exclusively from investment income. Expenses for goods and services received but not paid for prior to the System's fiscal year end are accrued for financial reporting purposes in accordance with generally accepted accounting principles (GAAP). A reconciliation of the difference between the GAAP basis and budgeted basis is presented in the Schedule of Administrative Expenses following the Required Supplemental Schedules.

#### J. INVESTMENT INCOME ALLOCATION

Income earned on investments is distributed monthly to the VRS, SPORS, VaLORS and JRS retirement plans; the Group Life Insurance Fund; the Retiree Health Insurance Credit Fund; and the Disability Insurance Trust Fund. Distribution of investment income is based on the respective equity of each trust fund in the common investment pool.

The retirement plans distribute their cumulative investment income, net of administrative expenses, in the following manner:

- Investment income is distributed to each individual member contribution account based on a rate of 4.00% applied to each member's cumulative balance as of the close of the preceding fiscal year.
- The remaining portion is allocated monthly to the participating employer retirement allowance accounts based on the ratio of their member account and employer account balances to the total of all such balances.

#### K. USE OF ESTIMATES

The preparation of financial statements, in conformity with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect the reported amounts of net position restricted for benefits at June 30, 2013. Actual results could differ from those estimates.

### L. SUMMARIZED COMPARATIVE DATA/ RECLASSIFICATIONS

The Basic Financial Statements include certain prior-year summarized comparative information in total but not at the level of detail required for a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the System's financial statements for the year ended June 30, 2012, from which the summarized information was derived.

#### 2. Pension Plans

#### A. PLAN DESCRIPTIONS

1. Establishment of the System. The Virginia Retirement System (the System) was established on March 1, 1952, as the administrator of VRS, a governmental retirement plan qualified under Section 401(a) of the Internal Revenue Code. Its mission is to provide a defined benefit plan for state employees, teachers, other eligible school employees and employees of political subdivisions that elect to participate in the System.

VRS is a mixed agent, cost-sharing, multipleemployer system, which administers two defined benefit plans, the VRS Plan 1 and the VRS Plan 2. The System also administers Plan 1 and Plan 2 benefit provisions through the following single-employer retirement systems:

- State Police Officers' Retirement System (SPORS), established on July 1, 1950, for state police officers.
- Virginia Law Officers' Retirement System (VaLORS), established on October 1, 1999, for Virginia law officers other than state police.
- Judicial Retirement System (JRS), established on July 1, 1970, for judges of a court of record or a district court of the state and other eligible judicial employees.

The System is required by law to use the plans' accumulated assets to pay benefits when due to eligible members, retirees and beneficiaries. Full-time permanent, salaried employees of VRS-participating employers are covered automatically under VRS, SPORS, VaLORS or JRS upon employment; some part-time permanent, salaried state employees also are covered under VRS. Information regarding the membership is presented in Figure 2.9. Teaching, research and administrative faculty of the state's public colleges and universities who elect an optional retirement plan, as well as permanent, salaried employees of the state's two public teaching hospitals, are not covered under the VRS defined benefit plans.

2. Pension Plan Provisions and Requirements. Under Plan 1 and Plan 2, members are vested after attaining five years of service credit. They become eligible to retire with an unreduced or reduced benefit when they meet the age and service requirements for their plan. The unreduced benefit is actuarially reduced to calculate the reduced benefit amount. A cost-ofliving adjustment (COLA), based on changes in the Consumer Price Index for all Urban Consumers, is granted on July 1 of the second calendar year after retirement and is effective each July 1 thereafter, when provided.

Members not covered under the Virginia Sickness and Disability Program (VSDP) (see Note 3) are eligible to be considered for VRS disability retirement. If a member dies while in active service, his or her beneficiary or survivor may qualify for a death-inservice benefit. Provisions for the defined benefit plans are presented in Figure 2.10.

FIGURE 2.9 – ACTIVE, RETIRED AND TERMINATED MEMBERS AND BENEFICIARIES AT JUNE 30

AT COME OF		20	)13		2013	2012
	VRS	SPORS	VaLORS	JRS	Total	Total
Retirees and Beneficiaries Receiving Benefits Terminated Employees Entitled to Benefits	164,759	1,175	3,180	474	169,588	162,751
but not Receiving Them	39,377	91	516	3	39,987	36,822
Total	204,136	1,266	3,696	477	209,575	199,573
Active Members:						
Vested	242,048	1,592	6,356	340	250,336	247,259
Non-Vested	86,994	411	2,968	42	90,415	94,567
Total	329,042	2,003	9,324	382	340,751	341,826

#### FIGURE 2.10 - DEFINED BENEFIT PLAN PROVISIONS

AS ESTABLISHED BY TITLE 51.1 OF THE CODE OF VIRGINIA (1950), AS AMENDED

Members qualify for retirement when they become vested (have at least five years of service credit) and meet the age and service requirements for their plan, as shown in the following table. The benefit is calculated using a retirement multiplier as a percentage of the member's average final compensation multiplied by the member's total service credit at retirement.

PROVISIONS	PLAN 1 Hired Before July 1, 2010, and credited with five or more years of service as of January 1, 2013	PLAN 2 Hired On or After July 1, 2010, or hired prior to July 1, 2010, and not vested as of January 1, 2013
Average Final Compensation	Average of the member's 36 consecutive months of highest compensation as a covered employee.	Average of the member's 60 consecutive months of highest compensation as a covered employee.
Member Contributions	State employees, excluding state elected officials, judges and optional retirement plan participants, contribute 5.00% of their compensation each month to their member contribution accounts. School divisions and political subdivisions may elect to pick up the 5.00% member contribution on behalf of their employees.	State employees contribute 5.00% of their compensation each month to their member contribution accounts. Employees of school divisions and political subdivisions may contribute all or a portion of the 5.00% member contribution as elected by the employer.
Vesting and Refunds	Vested members (who have at least five years of creditable service) who leave covered employment are eligible for a full refund of their member contribution account balance. Non-vested members are eligible for a refund, excluding any contributions made by the employer after July 1, 2010, and the interest on these contributions. <i>Exception:</i> Members who are involuntarily separated from employment for causes other than job performance or misconduct are eligible for a full refund, including any employer contributions and interest.	Same as Plan 1.
Normal Retirement Age	VRS: Age 65.	Normal Social Security retirement age.
	SPORS, VaLORS and political subdivision hazardous duty employees: Age 60.	Same as Plan 1.
	JRS: Age 65.	Same as Plan 1.
Earliest Unreduced Retirement Eligibility	VRS: Age 65 with at least five years of service credit or age 50 with at least 30 years of service credit.	Normal Social Security retirement age with at least five years of service credit or when age and service credit equal 90. <i>Example:</i> Age 60 with 30 years of service credit. <i>Note:</i> Plan 2 state employees, except those covered under SPORS and VaLORS, must be at least age 60 to qualify for retirement under the Workforce Transition Act (WTA) if not qualified under the rule of 90.

PROVISIONS	PLAN 1	PLAN 2				
Earliest Unreduced Retirement Eligibility, cont.	SPORS, VaLORS and political subdivision hazardous duty employees: Age 60 with at least five years of service credit or age 50 with at least 25 years of service credit.	Same as Plan 1.				
	JRS: Age 65 with at least five years of service credit or age 60 with at least 30 years of service credit. Service earned under JRS is weighted. The weighting factors under Plan 1 are:	Same as Plan 1.				
	<ul> <li>3.5 for JRS members appointed or elected before January 1, 1995</li> <li>2.5 for JRS members appointed or elected on or after January 1, 1995</li> <li>1.5 for JRS members appointed or elected to an original term on or after July 1, 2010, who are younger than age 45 at time of election or appointment</li> <li>2.0 for JRS members appointed or elected to an original term on or after July 1, 2010, who are at least 45 but younger than 55 at time of election or appointment</li> <li>2.5 for JRS members appointed or elected to an original term on or after July 1, 2010, who are at least age 55 at the time of election or appointment</li> </ul>					
Earliest Reduced Retirement Eligibility	VRS: Age 55 with at least five years of service credit or age 50 with at least 10 years of service credit.	Age 60 with at least five years of service credit.				
	SPORS, VaLORS and political subdivision employees: Age 50 with at least five years of service credit.	Same as Plan 1.				
	JRS: Age 55 with at least five years of service credit.	Same as Plan 1.				
Retirement Multipliers	VRS and JRS: 1.70%.	Same as Plan 1 through December 2012 and reduced to 1.65% beginning January 2013.				
	SPORS, sheriffs and regional jail superintendents: 1.85%.	Same as Plan 1.				
	VaLORS: 1.70% or 2.00%.	2.00%.				
	Political subdivision hazardous duty employees: 1.70% or 1.85% as elected by the employer.	Same as Plan 1.				
Cost-of-Living Adjustment (COLA)*	Matches the first 3.00% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half the remaining increase, up to a maximum COLA of 5.00%.  the COLA is 0%. Beginning January 2013, a member who retires	Matches the first 2.00% increase in the CPI-U and half the remaining increase, up to a maximum COLA of 6.00%.  Beginning January 2013, the COLA is capped at 3.00% (first 2.00% of CPI-U plus one-half of the next 2.00%).				

with less than 20 years of service must receive an allowance for one full calendar year after reaching unreduced retirement age to be eligible for a COLA. Members within five years of eligibility for an unreduced benefit as of January 1, 2013, were grandfathered.

FIGURE 2.11 - MEMBER AND EMPLOYER CONTRIBUTIONS

FOR THE YEARS ENDED JUNE 30

(EXPRESSED IN THOUSANDS)

		20	2013		2012					
	VRS		SPORS	٧	'aLORS	JRS		Total		Total
Member Contributions	\$ 572,543	\$	5,361	\$	17,256	\$ 179	\$	595,339	\$	230,967
Member Contributions Paid by Employers	207,695		-		-	2,795		210,490		560,492
Employer Contributions	1,689,142		26,192		50,398	27,026		1,792,758		1,025,325
Total Contributions	\$ 2,469,380	\$	31,553	\$	67,654	\$ 30,000	\$	2,598,587	\$	1,816,784

#### **B. CONTRIBUTIONS**

Members and employers are required to contribute to the retirement plans as provided by Title 51.1 of the Code of Virginia (1950), as amended. The member contribution is 5.00% of compensation, contributed by members or employers each month to members' contribution accounts. Members leaving covered employment are eligible to request a refund of their member contribution account balance. Vested members and those involuntarily separated from employment for causes other than job performance or misconduct are eligible for a full refund. Non-vested members are eligible for the balance, excluding any member contributions made by employers to their accounts after July 1, 2010, and the interest on these contributions.

Each participating employer is required to contribute the remaining amounts necessary to fund the pension plans using the entry age normal actuarial cost method adopted by the Board of Trustees. The System's actuary, Cavanaugh Macdonald Consulting, LLC, computed the amount of contributions to be provided by state agency, state police and Virginia law officer employers; each participating political subdivision employer; and state judicial employers. The contribution rates for FY 2013 were based on the actuary's valuation as of June 30, 2011. The contribution rates for FY 2012 were based on the actuary's valuation as of June 30, 2009. In addition, the actuary computed a separate contribution requirement for the employers in the teacher cost-sharing pool for each year using the same valuation dates.

As shown in Figure 2.11, contributions for the fiscal years ended June 30, 2013 and 2012, totaled \$2,598,587,000 and \$1,816,784,000, respectively, in accordance with statutory requirements.

Employer contributions to the VRS cost-sharing pool for teachers represented 11.66% of covered payrolls. Employer contributions for state employees represented 8.76% of covered payrolls. Each political subdivision's contributions ranged from zero (0.00%) to 39.52% of covered payrolls. State employer contributions to SPORS, VaLORS and JRS represented 24.74%, 14.80% and 45.44%, respectively. For state and teacher employers and a small number of political subdivisions, these rates reflected the normal cost and the amortization of a portion of the unfunded actuarial accrued liability of each of the plans based on the June 30, 2011, actuarial valuation and using modified actuarial

assumptions. This is discussed further in Note 12. Member contributions for both years represented 5.00% of covered payrolls.

### C. FUNDED STATUS AND FUNDING PROGRESS -PENSION PLANS

The most recent actuarial valuation prepared for the pension plans is as of June 30, 2012. The following schedule presents selected information from that valuation report. Additional information is presented in the Required Supplemental Schedule of Funding Progress-Pension Plans following the Notes to Financial Statements as well as in the Actuarial Section.

#### SCHEDULE OF FUNDING PROGRESS - PENSION PLANS

AS OF JUNE 30, 2012 (DOLLARS IN MILLIONS)

	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b	)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b-a)/(c)
Virginia Retirement System	\$ 51,212	\$ 77,859	\$	26,647	65.8%	\$ 14,880	179.1%
State Police Officers' Retirement System	587	1,013		426	57.9%	104	409.0%
Virginia Law Officers' Retirement System	909	1,753		844	51.9%	345	244.8%
Judicial Retirement System	361	582		221	62.0%	57	388.6%



The actuarial methods and assumptions used to determine funding requirements are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. Actuarial methods and assumptions are presented in the Actuarial Section. The following schedule presents selected information as of the latest actuarial valuation:

SCHEDULE OF ACTUARIAL METHODS AND SIGNIFICANT ASSUMPTIONS - PENSION PLANS

	VRS	SPORS	VaLORS	JRS
Valuation Date	June 30, 2012	June 30, 2012	June 30, 2012	June 30, 2012
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Amortization Method	Level Percent of Pay, Open			
Payroll Growth Rate:				
State Employees	3.00%	3.00%	3.00%	3.00%
Teachers	3.00%	N/A	N/A	N/A
Political Subdivision Employees	3.00%	N/A	N/A	N/A
Remaining Amortization Period:*				
State Employees and Teachers	9 and 29 years			
Political Subdivision Employees	29 years	N/A	N/A	N/A
Asset Valuation Method	5-Year,	5-Year,	5-Year,	5-Year,
	Smoothed	Smoothed	Smoothed	Smoothed
	Market	Market	Market	Market
<b>Actuarial Assumptions:</b>				
Investment Rate of Return**	7.00%	7.00%	7.00%	7.00%
Projected Salary Increases:**				
State Employees	3.75% to 5.60%	3.50% to 4.75%	3.50% to 4.75%	4.50%
Teachers	3.75% to 6.20%	N/A	N/A	N/A
Political Subdivision—				
Non-Hazardous Duty Employees	3.75% to 5.60%	N/A	N/A	N/A
Political Subdivision—				
Hazardous Duty Employees	3.50% to 4.75%	N/A	N/A	N/A
Post-Retirement Benefit Increases:***	+			
Plan 1	2.50%	2.50%	2.50%	2.50%
Plan 2	2.25%	2.25%	2.25%	2.25%

<sup>\*</sup>The deferred contribution for fiscal year 2011 and fiscal year 2012 for state employees and teachers is being amortized using a level-dollar, closed, 10-year period. The amortization period of the Unfunded Actuarial Accrued Liability began at 30 years on June 30, 2011, and will decrease by one each year until reaching the minimum of 20 years.

<sup>\*\*</sup>Includes inflation at 2.50%.

<sup>\*\*\*</sup>Compounded annually.

## 3. Other Employee and Post-Employment Benefit Plans (OPEBs)

#### A. PLAN DESCRIPTIONS

The System administers other employee and postemployment benefit plans for active, deferred and retired members of VRS, SPORS, VaLORS and JRS. These plans are the Group Life Insurance Program, the Retiree Health Insurance Credit Program and the Virginia Sickness and Disability Program (VSDP). The System also manages the assets of the Line of Duty Act Fund; the Department of Accounts (DOA) administers the benefits and payment of claims under the program.

Contributions and payments for other employee benefit plans for active members occur on a current basis; therefore, the System does not record the net position of these plans and is not required to report their funding progress and employer contributions. However, the System does record plan net position and reports funding progress and employer contributions for post-employment benefit plans. This information is provided in the Required Supplemental Schedules following the Notes to Financial Statements. Additional information also is presented in the Statistical Section.

1. Group Life Insurance Program. The Group Life Insurance Program is a cost-sharing, multipleemployer plan. Members whose employers participate in the Group Life Insurance Program are covered automatically under the Basic Group Life Insurance Program upon employment. They also are eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program.

Participating employers and covered employees are required by Title 51.1 of the Code of Virginia (1950), as amended, to contribute to the cost of group life insurance benefits. Employers may assume employees' contributions. A portion of the premium contributions collected during members' active careers is placed in an Advance Premium Deposit Reserve to fund coverage for eligible retired and deferred members. Approximately 357,053 active members and 149,926 retirees were covered under the Basic Group Life Insurance Program at June 30, 2013.

For members who elect optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct the premiums from members' paychecks and pay the premiums to the insurer. Premiums are based on members' ages and approved by the Board of Trustees. Any differences and adjustments are settled between the employer and the insurer. Approximately 66,482 active members and 2,469 retirees were covered under the Optional Group Life Insurance Program at June 30, 2013.



2. Retiree Health Insurance Credit Program. The Retiree Health Insurance Credit Program is an agent, multiple-employer plan. It provides eligible retirees a tax-free reimbursement for health insurance premiums for single coverage under qualifying health plans, including coverage under a spouse's plan, not to exceed the amount of the monthly premium or the maximum credit, whichever is less. Premiums for health plans covering specific conditions are ineligible for reimbursement. Employers are required by Title 51.1 of the Code of Virginia (1950), as amended, to contribute to the program. The amount is financed based on employer contribution rates determined by the System's actuary.

Approximately 103,952 retirees were covered under the health insurance credit program at June 30, 2013.



3. Virginia Sickness and Disability Program. The Virginia Sickness and Disability Program (VSDP) is a single-employer plan. It provides state employees with sick, family and personal leave and short-term and long-term disability benefits. State agencies are required by Title 51.1 of the Code of Virginia (1950), as amended, to contribute to the cost of providing long-term disability benefits and administering the program. Approximately 74,378 members were covered under VSDP at June 30, 2013, and approximately 2,757 former members were receiving benefits from the program during the fiscal year.

4. Line of Duty Act Program. A new program in FY 2011, the Line of Duty Act Program is a cost-sharing, multiple-employer plan. It provides death and health insurance reimbursement benefits to eligible state employees and local government employees, including volunteers, who die or become disabled as a result of the performance of their duties as a public safety officer.

As required by the 2010 Appropriation Act (Item 258, Chapter 874, 2010 Virginia Acts of Assembly) and most recently confirmed in the 2013 Appropriation Act (Item 268, Chapter 806, 2013 Virginia Acts of Assembly) and the System is responsible for managing the assets of the program. Participating employers made contributions to the program beginning in FY 2012. The employer contribution rate was determined by the System's actuary using the anticipated program costs and the number of covered individuals associated with all participating employers.

Provisions for other employee benefit and postemployment benefit plans are presented in Figure 2.12.

#### FIGURE 2.12 – OTHER EMPLOYEE BENEFIT AND POST-EMPLOYMENT BENEFIT PLAN PROVISIONS

AS ESTABLISHED BY TITLE 51.1 OF THE CODE OF VIRGINIA (1950), AS AMENDED

#### **Eligible Employees**

#### Coverage

## VRS Group Life Insurance Program: Basic Coverage

The VRS Group Life Insurance Program was established on July 1, 1960, for state employees, teachers and employees of political subdivisions that elect the program, which include the following employers that do not participate in VRS for retirement: City of Richmond, City of Portsmouth, City of Roanoke, City of Norfolk and Roanoke City School Board.

Basic group life insurance coverage is automatic upon employment. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their member contributions and accrued interest

- Natural death benefit equal to the employee's compensation rounded to the next highest thousand and then doubled.
- Accidental death benefit, which is double the natural death benefit.
- Accidental dismemberment benefit, safety belt benefit, repatriation benefit, felonious assault benefit and accelerated death benefit option.
- Continuation of death benefit and accelerated death benefit option for employees who retire or who have met the age and service requirements for retirement upon termination. Coverage begins to reduce by 25% on the January 1 following one calendar year of retirement or termination and reduces by 25% each January 1 until it reaches 25% of its original value.

### Optional Group Life Insurance Program

Employees covered under the VRS Group Life Insurance Program are eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. Employees pay the premiums through payroll deduction.

Spousal coverage ends if the employee's coverage ends or the couple divorce. Coverage for dependent children ends if the employee's coverage ends or when the children marry, become self-supporting, reach age 21 or reach age 25 as a dependent attending college full time. Coverage continues for dependent unmarried children who are disabled.

The program provides natural death and accidental death or dismemberment coverage:

- Employees select one, two, three or four times their compensation, not to exceed \$700,000.
- Spouses may be covered for up to half the maximum amount of the employees' coverage, not to exceed \$350,000. Dependent children who are at least 15 days old may be covered for \$10,000, \$20,000 or \$30,000, depending on the option employees select for themselves.
- Accidental death and dismemberment coverage ends upon retirement. Optional life insurance amounts begin to reduce by 25% based on the retiree's age, beginning with the retiree's normal retirement age under his or her plan; coverage ends at age 80. Retirees may elect to continue coverage within 31 days of retirement.

## Retiree Health Insurance Credit Program

The Retiree Health Insurance Credit Program was established on January 1, 1990, for retired state employees covered under VRS, SPORS, VaLORS and JRS who retire with at least 15 years of service credit. The program was opened to teachers and eligible employees of participating political subdivisions on July 1, 1993. The health insurance credit is a tax-free reimbursement in an amount set by the General Assembly for each year of service credit against qualified health insurance premiums retirees pay for single coverage, excluding any portion covering a spouse or dependents. The credit cannot exceed the amount of the premiums and ends upon the retiree's death.

#### FIGURE 2.12 - OTHER EMPLOYEE BENEFIT AND POST-EMPLOYMENT BENEFIT PLAN PROVISIONS, cont.

#### **Health Insurance Credit Dollar Amounts at Retirement**

	Amount per Year of Service	Maximum Credit per Month*
State employees	\$4.00	No Cap
Teachers and other professional school employees	\$4.00	No Cap
General registrars and their employees, constitutional officers and their employees and local social service employees	\$1.50	\$45.00
General registrars and their employees, constitutional officers and their employees and local social service employees, if the political subdivision elects the \$1.00 enhancement	\$2.50	\$75.00
Other political subdivision employees as elected by the employer	\$1.50	\$45.00

## Health Insurance Credit Dollar Amounts at Disability Retirement and for **VSDP Long-Term Disability**

Employees who retire on disability or go on long-term disability under the Virginia Sickness and Disability Program (VSDP) are eligible for the health insurance credit.\*\*

Eligible Employees	Coverage
State employees other than state police officers	\$120 per month or \$4 per year of service credit per month, whichever is higher.
State police officers	Non-work related disability: \$120 per month or \$4 per year of service credit per month, whichever is higher. Work-related disability: No health insurance credit for premiums qualified under the Virginia Line of Duty Act; may receive the credit for premiums paid for other qualified health plans.
Teachers and other professional school employees	Either (a) \$4 multiplied by twice the amount of service credit per month; or (b) \$4 multiplied by the amount of service earned had the employee been active until age 60 per month, whichever is higher.
Political subdivision employees as elected by the employer	\$45 per month.

<sup>\*</sup>Not to exceed the individual premium amount.

<sup>\*\*</sup>Not to exceed the individual premium amount. State employees who retire from being on long-term disability under VSDP must have at least 15 years of service credit to qualify for the health insurance credit as a retiree.

#### **Eligible Employees**

### Virginia Sickness and **Disability Program (VSDP)**

VSDP, also known as the Disability Insurance Trust Fund, was established on January 1, 1999, to provide short-term and long-term disability benefits for non-work related and work-related disabilities. Eligible employees are enrolled automatically upon employment. They include:

- Full-time and part-time permanent, salaried state employees covered under VRS, SPORS and VaLORS (members new to VaLORS following its creation on October 1, 1999, have been enrolled since the inception of VSDP).
- State employees hired before January 1, 1999, who elected to transfer to VSDP rather than retain their eligibility to be considered for VRS disability retirement.
- Public college and university faculty members who elect the VRS defined benefit plan. They may participate in VSDP or their institution's disability program, if offered. If the institution does not offer the program or the faculty member does not make an election, he or she is enrolled in VSDP.

#### Coverage

- Sick, family and personal leave.
- Short-term disability benefit beginning after a seven-calendar day waiting period from the first day of disability. The benefit provides income replacement beginning at 100% of the employee's pre-disability income, reducing to 80% and then 60%.
- · Long-term disability benefit beginning after 125 workdays of short-term disability and continuing until the employee reaches his or her normal retirement age. The benefit provides income replacement of 60% of the employee's pre-disability income. If an employee becomes disabled within five years of his or her normal retirement age, the employee will receive up to five years of VSDP benefits, provided he or she remains medically eligible.
- Income replacement adjustment to 80% for catastrophic conditions.
- VSDP Long-Term Care Plan, a self-funded program that assists with the cost of covered long-term care services.

#### Note:

- Employees hired or rehired on or after July 1, 2009, must satisfy eligibility periods before becoming eligible for non-work related short-term disability coverage and certain income replacement levels.
- A state employee who is approved for VSDP benefits on or after the date that is five years prior to his or her normal retirement date is eligible for five years of VSDP benefits.
- Employees on work-related short-term disability receiving only a workers' compensation payment may be eliqible to purchase service credit for this period if retirement contributions are not being withheld from the workers' compensation payment. The rate will be based on 5.00% of the employee's compensation.

## **Commonwealth of Virginia** (COV) Voluntary Group **Long Term Care Insurance Program**

The following members between the ages of 18 and 79 are eligible to apply:

- State employees and public college and university faculty members
- Employees of school divisions and political subdivisions whose employers have elected to participate in the program
- · Vested deferred members and retirees (their employers are not required to have elected the program)
- Select family members of eligible members

The program provides assistance with covered longterm care expenses at group rates. Active members pay the premiums for themselves and any covered family members through payroll deduction or directly to Genworth Life Insurance Company, the insurer, provided the employer has arranged for payroll deductions with Genworth Life. All other participants pay the premiums directly to Genworth.

FIGURE 2.12 - OTHER EMPLOYEE BENEFIT AND POST-EMPLOYMENT BENEFIT PLAN PROVISIONS, cont.

	Eligible Employees	Coverage
Line of Duty Act Program	Paid employees and volunteers in hazardous duty positions in Virginia localities, including hazardous duty employees covered under VRS, SPORS and VaLORS.	Coverage provides death and health insurance benefits, which are administered by the Virginia Department of Accounts. The System is responsible for managing the assets of the Line of Duty Act Fund.

## B. FUNDED STATUS AND FUNDING PROGRESS — OTHER POST-EMPLOYMENT BENEFIT PLANS

The most recent actuarial valuations prepared for other post-employment benefit plans administered by the System are as of June 30, 2012. Actuarial valuations for these plans involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The calculations in these actuarial valuations are based on the benefits provided under the terms of the plans as of June 30, 2012, and on the pattern of cost sharing between the employers and plan members at that point. These calculations reflect a long-term perspective. The actuarial methods and assumptions used in these valuations include techniques that are designed to reduce short-term volatility in the actuarial accrued liabilities and the actuarial value of assets.

The Retiree Health Insurance Credit benefit is based on a member's employer eligibility and his or her years of service. The monthly maximum credit amount cannot exceed the member's actual health insurance premium costs. The actuarial valuation for this plan assumes the maximum credit is payable for each eligible member. Since this benefit is a flat dollar amount multiplied by the member's years of service and the maximum benefit is assumed, no assumption relating to health care cost trend rates is needed or applied.

The following schedule presents selected information from that valuation report. Additional information is presented in the Required Supplemental Schedule of Funding Progress—Other Post-Employment Benefit Plans following the Notes to Financial Statements, as well as in the Actuarial Section.

#### SCHEDULE OF FUNDING PROGRESS - OTHER POST-EMPLOYMENT BENEFIT PLANS

AS OF JUNE 30, 2012 (DOLLARS IN MILLIONS)

	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)(b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b-a)/(c)
Group Life Insurance Fund	\$ 756	\$ 2,458	\$ 1,702	30.7%	\$ 16,697	10.2%
Retiree Health Insurance Credit Fund	130	2,258	2,128	5.8%	14,211	15.0%
Disability Insurance Trust Fund	305	262	(43)	116.6%	3,433	(1.3%)
Line of Duty Act Trust Fund *	6	226	220	2.7%	N/A	N/A

<sup>\*</sup>The Line of Duty Act Program was established and set up as a trust fund effective July 1, 2010. Contributions to the trust fund are based on the number of participants in the program using a per capita-based contribution versus a payroll-based contribution.

Actuarial methods and assumptions for other post-employment benefit plans are presented in the Actuarial Section. The following schedule presents selected information as of the latest actuarial valuation:

### SCHEDULE OF ACTUARIAL METHODS AND SIGNIFICANT ASSUMPTIONS - OTHER POST-EMPLOYMENT **BENEFIT PLANS**

	Group Life Insurance Fund	Retiree Health Insurance Credit Fund	Disability Insurance Trust Fund	Line of Duty Act Trust Fund
Valuation Date	June 30, 2012	June 30, 2012	June 30, 2012	June 30, 2012
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Projected Unit Credit	Projected Unit Credit
Amortization Method	Level Percent of Pay, Open	Level Percent of Pay, Open	Level Percent of Pay, Open	Level Percent of Pay, Open
Payroll Growth Rate:	·	·	·	·
State Employees	3.00%	3.00%	3.00%	3.00%
Teachers	3.00%	3.00%	N/A	N/A
Political Subdivision Employees	3.00%	3.00%	N/A	3.00%
State Police and Virginia Law Officers	3.00%	3.00%	3.00%	3.00%
Judges	3.00%	3.00%	N/A	N/A
Remaining Amortization Period*	29 Years	29 Years	29 Years	4 and 30 Years
Asset Valuation Method:				
State Employees and Teachers	5-Year, Smoothed Market	5-Year, Smoothed Market	Market Value	Market Value
Political Subdivision Employees	Wantot	Warkot		
and State-Funded Local Employees	5-Year, Smoothed Market	Market Value	N/A	Market Value
Actuarial Assumptions:				
Investment Rate of Return**	7.00%	7.00%	7.00%	4.25% and 7.00%
Projected Salary Increases:***				
State Employees	3.75% to 5.60%	3.75% to 5.60%	3.75% to 5.60%	N/A
Teachers	3.75% to 6.20%	3.75% to 6.20%	N/A	N/A
Political Subdivision—				
Non-Hazardous Duty Employees	3.75% to 5.60%	3.75% to 5.60%	N/A	N/A
Political Subdivision—	0.500/ +- 4.750/	0.500/ +- 4.750/	N.I./A	N.I. / A
Hazardous Duty Employees	3.50% to 4.75%	3.50% to 4.75%	N/A	N/A
State Police and Virginia Law Officers	3.50% to 4.75%	3.50% to 4.75%	3.50% to 4.75%	N/A
Judges	4.50%	4.50%	N/A	N/A
Medical Trend Assumptions (Under Age 65)		N/A	N/A	9.50% to 5.00%
Medical Trend Assumptions (Ages 65 and C Year of Ultimate Trend Rate	Older) N/A N/A	N/A N/A	N/A N/A	7.00% to 5.00% 2019

<sup>\*</sup>The amortization period of the Unfunded Actuarial Accrued Liability (UAAL) began at 30 years on June 30, 2011, and will decrease by one each year until reaching the minimum of 20 years for most programs. The Line of Duty Act Program amortization period is 30 years for the UAAL and 4 years for the Loan.

<sup>\*\*</sup>Includes inflation at 2.50%. The Line of Duty Act Program uses 4.25% for the Investment Rate of Return and 7.00% for the Loan interest.

<sup>\*\*\*</sup>Projected salary increases for the Retiree Health Insurance Credit Fund are used in the application of the actuarial cost method. Projected salary increase factors are not applicable to the Line of Duty Act Program since neither the benefit nor the cost is salary based.

#### 4. Reserve Accounts

The reserve account balances available for benefits at June 30, 2013 and 2012, are presented in Figure 2.13. These funds are required by Titles 51.1 and 2.2 of the *Code of Virginia* (1950), as amended, to provide for the payment of current and future benefits as follows:

- Member and employer contributions and investment income fund the member and employer reserves. Each member has a member contribution account that accumulates member contributions plus annual interest of 4.00%. Each employer has a retirement allowance account that accumulates employer contributions, transfers of investment income less administrative expenses incurred in operating the retirement plans, and transfers of member contributions and accrued interest upon a member's retirement. Benefit payments are charged to employers' retirement allowance accounts.
- The Group Life Insurance Advance Premium
  Deposit Reserve accumulates a portion of
  insurance premium contributions collected
  during members' active careers and their
  investment earnings, and is charged for life
  insurance benefits paid and expenses incurred
  in operating the Group Life Insurance Program.
- Employer contributions and investment income fund the Retiree Health Insurance Credit Reserve. It is charged for credit reimbursements applied to the monthly health insurance premiums of eligible retired members and expenses incurred in operating the Retiree Health Insurance Credit Program.
- Employer contributions and investment income fund the Disability Insurance Trust Fund. It is charged for long-term disability benefits and expenses incurred in operating the Virginia Sickness and Disability Program (VSDP).

 Employer contributions and investment income fund the Line of Duty Act Trust Fund. It is charged for Line of Duty Act death and health insurance benefits and expenses incurred in operating the Line of Duty Act Program. The program was new in FY 2011 and still has no net position.

## FIGURE 2.13 - NET POSITION RESTRICTED FOR BENEFITS

AT JUNE 30 (EXPRESSED IN THOUSANDS)

	2013	2012
Virginia Retirement System		
Member Reserve	\$ 11,420,836	\$11,002,540
Employer Reserve	43,551,900	39,264,181
Total VRS	54,972,736	50,266,721
State Police Officers'		
Retirement System		
Member Reserve	88,814	83,804
Employer Reserve	536,748	491,664
Total SPORS	625,562	575,468
Virginia Law Officers'		
Retirement System		
Member Reserve	223,467	216,406
Employer Reserve	768,564	678,510
Total VaLORS	992,031	894,916
Judicial Retirement System		
Member Reserve	38,439	39,160
Employer Reserve	350,396	315,090
Total JRS	388,835	354,250
Group Life Insurance Advance		
Premium Deposit Reserve	887,773	746,619
Retiree Health Insurance		
Credit Reserve	146,472	127,234
Disability Insurance Trust	270 404	242.070.4
Fund (VSDP)	370,121	343,972 1
Line of Duty Act Trust Fund		
Total Pension and Other		
<b>Employee Benefit Reserves</b>	\$58,383,530	\$53,309,180

## 5. Deposits and Investments

#### A. DEPOSITS

Deposits of the System maintained by the Treasurer of Virginia at June 30, 2013 and 2012, as shown in Figure 2.14, were entirely insured under the Virginia Security for Public Deposits Act, Section 2.2-4400 et seq. of the Code of Virginia (1950), as amended, which provides for an assessable, multiple financial institution collateral pool. Deposits with the System's master custodian, BNY Mellon, were entirely insured by federal depository insurance coverage.

#### FIGURE 2.14 - DEPOSITS

AT JUNE 30			(EXPRES	SSED IN THOUSANDS
	2013 Carrying Amount		2012 Carrying Amount	
Treasurer of Virginia Master Custodian	\$ 1,	- 369	\$	224,067 14,881
<b>Total Deposits</b>	\$ 1,	369	\$	238,948

#### **B. INVESTMENTS**

1. Authorized Investments. The Board of Trustees of the System has full power to invest and reinvest the trust funds in accordance with Section 51.1-124.30 of the Code of Virginia (1950), as amended. This section requires the Board to discharge its duties solely in the interests of members, retirees and beneficiaries. It also requires the Board to invest the assets 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.

Investment value and earnings of the investment pool are proportionally allocated among the System's trust funds on the basis of each fund's equity interest in the common investment pool. An Investment Summary is included in the Investment Section. The equity interest of each fund as of June 30, 2013 and 2012, is presented in Figure 2.15.

#### FIGURE 2.15 - EQUITY INTERESTS

AT JUNE 30

2013	2012
94.12%	94.24%
1.07%	1.08%
1.70%	1.68%
0.67%	0.67%
1.55%	1.45%
0.24%	0.25%
0.63%	0.63%
0.02%	0.00%
100.00%	100.00%
	94.12% 1.07% 1.70% 0.67% 1.55% 0.24% 0.63% 0.02%

2. Interest Rate Risk. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The risk is managed within the portfolio using the effective duration or option-adjusted methodology, as shown in Figure 2.16. It is widely used in the management of fixed income portfolios in that it quantifies, to a much greater degree, the risk of interest rate changes. The methodology takes into account optionality on bonds and scales the risk of price changes on bonds depending on the degree of change in rates and the slope of the yield curve. All of the System's fixed income portfolios are managed in accordance with investment guidelines, most of which are specific as to the degree of interest rate risk that can be taken.

#### FIGURE 2.16 - EFFECTIVE DURATION OF DEBT SECURITIES BY INVESTMENT TYPE

AS OF JUNE 30, 2013 (DOLLARS IN THOUSANDS) Weighted Avg. Effective Duration Market Investment Type Value (Years) U.S. Government \$ 3,705,732 4.91 3,240,794 4.76 Agencies Municipal Securities 87,009 9.85 Asset-Backed Securities 100,612 0.09 Collateralized Mortgage Obligations 376,967 2.39 **Commercial Mortgages** 200,485 2.88 Corporate and Other Bonds 10,080,722 4.39 Repurchase Agreements 364,000 0.01 Fixed-Income Commingled Funds 857,757 5.32 Cash and Cash Equivalents 460,624 0.01 **Total Debt Securities** \$ 19,474,702 4.36

3. Credit Risk. Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the System. As of June 30, 2013, the System's fixed income assets that are not government guaranteed represented 81% of the fixed income assets.

The System's policy for credit risk is based on the concept of a risk budget rather than specific limitations related to the rating of an individual security. The System's risk budget is allocated among the different investment strategies. The System's fixed income portfolio credit quality and exposure levels as of June 30, 2013, are summarized in Figure 2.17.

Credit risk for derivative instruments held by the System results from counterparty risk assumed by the System. This is essentially the risk that the borrower will be unable to meet its obligation. Information regarding the System's credit risk related to derivatives is provided in Note 5.B.7. Policies related to credit risk pertaining to the System's securities lending program are provided in Note 5.B.5.

FIGURE 2.17 - CREDIT QUALITY AND EXPOSURE LEVELS OF NONGOVERNMENT GUARANTEED SECURITIES

AS OF JUNE 30, 2013

(EXPRESSED IN THOUSANDS)

Credit Rating Level	Agencies	Municipal Securities	Asset-Backed Securities	Collateralized Mortgage Obligations	Commercial Mortgages	Corporate and Other Bonds	Repurchase Agreements	Fixed-Income Commingled Funds	Cash and Cash Equivalents
U.S. Governmen		m and Not R	ated Debt:						
U.S. Government A	Agencies:								
FHLB:									
A2	\$ 547	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Aaa	53,057	-	-		-	-	-	-	-
FHLMC:									
Aaa	849,805	-	-	86,097	44,208	-	-	-	-
FNMA:									
Aa2	-	-	-	-	-	-	-	-	-
Aaa	1,186,590	-	-	180,612	23,509	-	-	-	-
Aaa-mf	_	-	-	-	-	2,433,838	_	-	-
P-2	_	_	-	-	-	18,850	-	-	-
P-3	-	-	-	-	-	1,550	_	-	-
Not Rated	1,105,867	23,014	4,797	18,229	26,798	2,380,802	364,000	41	460,624
Long-Term Debt	:								
Aaa	44,928	32,643	15,369	21,928	96,441	71,630	-	-	-
Aa1	-	19,787	3,774	-	-	27,954	-	-	-
Aa2	-	11,565	-	1,692	-	57,353	_	-	_
Aa3	-	-	1,736	-	-	168,251	-	-	_
A1	_	_	-	1,086	-	118,216	-	155,053	_
A2	_	_	60	-	-	326,789	-	-	_
A3	_	_	-	_	_	519,306	_	_	_
Baa	_	_	_	_	_	-	_	574,899	_
Baa1	_	_	1,845	_	_	900,817	_	-	_
Baa2	_	_	2,311	_	_	1,046,116	_	127,764	_
Baa3	_	_	2,011	_	_	740,789	_	127,701	_
Ba1		_		_	_	257,380		_	_
Ba2	_	_				69,792	_		
	_	-	242	4 402	2.025		_	-	-
Ba3	-	-	343	4,403	3,935	218,445	-	-	-
B1	-	-	4,390	4,257	1,725	218,297	-	-	-
B2	-	-	3,420	797	1,900	192,224	-	-	-
B3	-	-	5,950	4,477	1,873	183,365	-	-	-
Caa1	-	-	3,429	1,465	-	78,369	-	-	-
Caa2	-	-	13,452	20,422	-	38,457	-	-	-
Caa3	-	-	9,406	19,200	-	416	-	-	-
Ca	-	-	27,651	12,280	96	396	-	-	-
С	-	-	2,679	22	-	7,727	-	-	-
(P) Baa3	-	-	-	-	-	3,036	-	-	-
(P) Caa1						557	-		
Total	\$3,240,794	\$ 87,009	\$ 100,612	\$ 376,967	\$ 200,485	\$10,080,722	\$ 364,000	\$ 857,757	\$ 460,624

VRS used Moody's ratings for this presentation. A large portion of the securities are not rated by Moody's but are rated by other rating agencies.

- Concentration of Credit Risk. This is the risk of loss that may be attributed to the magnitude of a government's investment in a single issue. The System's investment guidelines for each specific portfolio limits investments in any corporate entity to no more that 5.00% of the market value of the account for both the internally and externally managed portfolios. There is no concentration of investments in any one organization that represents 5.00% or more of plan net position available for benefits.
- Custodial Credit Risk. This is the risk that in the event of the failure of the counterparty, the System will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. The System's market value of securities that were uninsured and held by a counterparty at June 30, 2013 and 2012, are presented in Figure 2.18.

FIGURE 2.18 - CUSTODIAL CREDIT RISK

AT JUNE 30 (EXPRESSED IN THOUSANDS)

	2013	2012
U.S. Government and Agency		
Mortgage Securities	\$ 82,668	\$ 11,778
Held by Broker-Dealer Under		
Securities Lending Program:		
U.S. Government and Agency		
Mortgage Securities	1,247,365	-
Corporate and Other Bonds	-	1,467
Common and Preferred Stocks	2,285,170	1,708,638
Total	\$ 3,615,203	\$1,721,883

4. Foreign Currency Risk. Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The System's currency risk exposures, or exchange rate risk, primarily exist in the international and global equity investment holdings. From time to time, the System's external managers may hedge their portfolios' foreign currency exposures with currency forward contracts, depending on their views about a specific foreign currency relative to the U.S. dollar. The System's exposure to foreign currency risk as of June 30, 2013, is highlighted in Figure 2.19.



### FIGURE 2.19 - CURRENCY EXPOSURES BY ASSET CLASS

AS OF JUNE 30, 2013 (EXPRESSED IN THOUSANDS)

710 01 00NE 00, 2010		Cash										(EXTITE)	OLD	IN THOUSANDO,
	a	nd Cash				Fixed		Private			lr	nternational		
Currency		uivalents		Equity		Income		Equity		Real Estate		Funds		Total
Euro Currency Unit	\$	25,710	Φ	1,071,504	Ф	(22,419)	Φ	880,599	\$	(23,428)	Ф	_	\$	1,931,966
Japanese Yen	φ	19,148	φ	989,722	φ	(22,334)	φ	000,333	φ	(23,426)	φ	-	φ	985,802
Hong Kong Dollar		6,176		755,414		(22,334)		-		6,463		-		768,053
British Pound Sterling		14,427		878,813		- /12 225\		1,421				-		757,574
U.S. Dollar		14,427		0/0,013		(12,235)		1,421		(124,852)		483,762		483,762
South Korean Won		2,311		447,838		(142)		-		-		403,702		463,762
Brazil Real		3,027		•		71,641		-		- רבר כ		-		
New Taiwan Dollar		5,762		245,721		71,041		-		2,737		-		323,126
Canadian Dollar				304,902		- /1 251\		-		2003		-		310,664
Australian Dollar		7,326		223,009		(1,251)		-		6,836		-		235,920
South African Comm Ra	n d	1,562		223,547		(714)		-		476		-		224,871
	inu	1,691		169,808		31,673		-		1 555		-		203,172
Swiss Franc		5,681		182,945		(14)		-		1,555		-		190,167
Thailand Baht		198		128,923		23,560		-		-		-		152,681
Indian Rupee		1,873		142,214		2,663		-		400		-		146,750
Mexican New Peso		4,053		68,056		68,234		-		492		-		140,835
New Turkish Lira		536		91,294		42,579		-		-		-		134,409
Malaysian Ringgit		780		70,935		28,087		-		-		-		99,802
Norwegian Krone		1,421		82,519		3		-		-		-		83,943
Indonesian Rupiah		732		52,710		29,883		-		-		-		83,325
Danish Krone		464		63,223		-		-		-		-		63,687
Polish Zloty		1,266		20,858		34,456		-		-		-		56,580
Russian Ruble (New)		23		-		53,438		-		-		-		53,461
Philippines Peso		952		36,023		8,242		-		-		-		45,217
Swedish Krona		2,641		24,792		-		136		-		-		27,569
Nigerian Naira		96		-		15,387		-		-		-		15,483
Chilean Peso		69		14,772		234		-		-		-		15,075
Hungarian Forint		743		5,086		8,058		-		-		-		13,887
Colombian Peso		113		-		10,640		-		-		-		10,753
Costa Rican Colon		-		-		10,514		-		-		-		10,514
Sri Lanka Rupee		-		-		7,527		-		-		-		7,527
Uruguayan Peso		-		-		7,273		-		-		-		7,273
Turkish Lira		7,189		-		-		-		-		-		7,189
Czech Koruna		83		6,764		-		-		-		-		6,847
Romanian Leu		239		-		5,295		-		-		-		5,534
Peruvian Nuevo Sol		-		-		5,233		-		-		-		5,233
Ghanaian Cedi		-		-		4,763		-		-		-		4,763
Egyptian Pound		85		3,532		-		-		-		-		3,617
UAE Dirham		201		2,669		-		-		-		-		2,870
Omani Rial		-		1,746		-		-		-		-		1,746
Chinese Yuan Renminbi		-		15		(10)		-		-		-		5
Moroccan Dirham		1		-		-		-		-		-		1
Singapore Dollar		2,059		(3,300)		6		-		-		-		(1,235)
New Zealand Dollar		307		(1,784)		-		-		-		-		(1,477)
Israeli Shekel		611	_	(9,154)					_		_			(8,543)
Total	\$	119,556	\$	6,295,116	\$	410,270	\$	882,156	\$	(130,455)	\$	483,762	\$	8,060,405

5. Securities Lending. Under authorization of the Board, the System lends its fixed income and equity securities to various broker-dealers on a temporary basis. This program is administered through an agreement with the System's custodial agent bank. All security loan agreements are collateralized by cash, securities or an irrevocable letter-of-credit issued by a major bank, and have a market value equal to at least 102% of the market value for domestic securities and 105% for international securities. Securities received as collateral cannot be pledged or sold by the System unless the borrower defaults. Contracts require the lending agents to indemnify the System if the borrowers fail to return the securities lent and related distributions and if the collateral is inadequate to replace the securities lent. All securities loans can be terminated on demand by either the System or the borrowers. The majority of loans are open loans, meaning the rebate is set daily. This results in a maturity of one or two days on average, although securities are often on loan for longer periods. The maturity of loans generally does not match the maturity of collateral investments, which averages 35 days. At year end, the System had no credit risk exposure to borrowers because the amounts it owes the borrowers exceeded the amounts the borrowers owe the System. All securities are marked to market daily and carried at market value.

The market value of securities on loan at June 30, 2013 and 2012, was \$7,405,441,000 and \$3,913,126,000, respectively. The June 30, 2013 and 2012, balances were composed of U.S. government and agency securities of \$2,280,396,000 and \$0, respectively; corporate and other bonds of \$253,596,000 and \$59,324,000, respectively; and common and preferred stocks of \$4,871,449,000 and \$3,853,802,000, respectively. The value of collateral (cash and non-cash) at June 30, 2013 and 2012, was \$7,827,920,000 and \$4,074,754,000, respectively. Securities on loan are included with investments on the statement of plan net position. The invested cash collateral is included in the statement of plan net position as an asset and corresponding liability.

At June 30, 2013, the invested cash collateral had a market value of \$3,967,576,000 and was composed of commercial paper of \$812,534,000, certificates of deposit of \$719,811,000, floating rate notes of \$1,270,438,000, asset-backed securities of \$14,313,000, agencies of \$48,489,000, time deposits of \$500,425,000 and repurchase agreements of \$601,566,000.

- 6. Accounts Receivable/Accounts Payable for Security Transactions. In addition to unsettled purchases and sales, accounts receivable and accounts payable for security transactions at June 30, 2013 and 2012, included (1) receivables for deposits with brokers for securities sold short of \$502,467,000 and \$417,891,000, respectively; and (2) payables for securities sold short and not covered with market values of \$481,107,000 and \$404,390,000 respectively.
- 7. Derivative Financial Instruments. Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates or financial indexes. They include futures, forwards, options and swap contracts. Some traditional securities, such as structured notes, can have derivative-like characteristics. In this case, the return may be linked to one or more indexes and asset-backed securities, such as collateralized mortgage obligations (CMOs), which are sensitive to changes in interest rates and pre-payments. Futures, forwards, options and swaps generally are not recorded on the financial statements, whereas structured notes and asset-backed investments generally are recorded.

The System is a party, directly and indirectly, to various derivative financial investments that may or may not appear on the financial statements and that are used in the normal course of business to enhance returns on investments and manage risk exposure to changes in value resulting from fluctuations in market conditions. These investments may involve, to varying degrees, elements of credit and market risk in excess of amounts recognized on the financial statements.

At June 30, 2013, the System had four types of derivative financial instruments: futures, currency forwards, options and swaps. Futures, currency forwards and options contracts provide the System with the opportunity to build passive benchmark positions, manage portfolio duration in relation to various benchmarks, adjust portfolio yield curve exposure and gain market exposure to various indexes in a more efficient way and at lower transaction costs. Credit risks depend on whether the contracts are exchange-traded or exercised over-the-counter. Market risks arise from adverse changes in market prices, interest rates and foreign exchange rates.

8. Futures. Futures contracts are contracts to deliver or receive securities at a specified future date and at a specified price or yield. Futures contracts are traded on organized exchanges (exchange-traded) and require an initial margin (collateral) in the form of cash or marketable securities. The net change in the futures contract value is settled daily, in cash, with the exchanges. The net gains or losses resulting from the daily settlements are included in the System's financial statements. Holders of futures contracts look to the exchange for performance under the contract and not to the entity holding the offsetting futures position. Accordingly, the amount at risk posed by nonperformance of counterparties to futures contracts is minimal. The notional value of the System's investment in futures contracts at June 30, 2013 and 2012, is shown in Figure 2.20.

FIGURE 2.20 - FUTURES

AT JUNE 30

(EXPRESSED IN THOUSANDS)

		2013		2012
		Notional Value		
Cash and Cash Equivalent				
Derivatives Futures:				
Long	\$	-	\$	-
Short		(86,971)		(143,472)
<b>Equity Derivatives Futures:</b>				
Long		601,441		474,687
Short		-		-
Fixed Income Derivatives				
Futures:				
Long		367,692		17,818
Short	(	262,406)		(66,863)
Total Futures	\$	619,756	\$	282,170

9. Currency Forwards. Currency forwards represent foreign exchange contracts and are used by the System to effect settlements and to protect the base currency (\$US) value of portfolio assets denominated in foreign currencies against fluctuations in the exchange rates of those currencies. A forward foreign currency exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated price. The credit risk of currency contracts that are exchange-traded lies with the clearinghouse of the exchange where the contracts are traded. The credit risk of currency contracts traded over-thecounter lies with the counterparty, and exposure usually is equal to the unrealized profit on in-themoney contracts. The market risk in foreign currency contracts is related to adverse movements in currency exchange rates. Information on the System's currency forwards contracts at June 30, 2013 and 2012, is shown in Figure 2.21.

### FIGURE 2.21 - CURRENCY FORWARDS

AT JUNE 30 (EXPRESSED IN THOUSANDS)

Currency	Cost	Pending Foreign Exchange Purchases	Pending Foreign Exchange Sales	Market Value 2013	Market Value 2012
Australian Dollar	\$ (270,312)	\$ 80,191	\$ (347,273)	\$ (267,082)	\$ (602,208)
Brazil Real	(27,122)	20,935	(47,260)	(26,325)	(9,176)
British Pound Sterling	(852,342)	232,668	(1,077,945)	(845,277)	(786,539)
Canadian Dollar	(463,783)	53,209	(513,108)	(459,899)	(90,127)
Chilean Peso	250	537	(302)	235	193
Chinese Yuan Renminbi	(79)	5,643	(5,654)	(11)	5,939
Colombian Peso	(3,021)	396	(3,466)	(3,070)	(635)
Czech Koruna	153	7,533	(7,533)	-	-
Danish Krone	(7,690)	52,276	(60,164)	(7,888)	(22,294)
Euro Currency Unit	(836,596)	318,494	(1,150,516)	(832,022)	(2,230,133)
Hong Kong Dollar	(14,180)	152,276	(166,385)	(14,109)	(82,086)
Hungarian Forint	(3,833)	1,130	(4,993)	(3,863)	11,328
Indian Rupee	3,065	9,811	(7,149)	2,662	414
Indonesian Rupian	3,342	7,921	(4,679)	3,242	9,580
Israeli Shekel	(51,163)	-	(50,917)	(50,917)	(14,385)
Japanese Yen	(1,124,117)	75,881	(1,188,869)	(1,112,988)	(875,275)
Malaysian Ringgit	9,895	15,917	(5,972)	9,945	31,105
Mexican New Peso	(1,594)	23,602	(25,197)	(1,595)	(20,430)
New Turkish Lira	14,541	15,233	(1,381)	13,852	8,360
New Zealand Dollar	(5,925)	95,456	(102,094)	(6,638)	(112,944)
Norwegian Krone	1,407	74,072	(73,349)	723	267,170
Peruvian Nuevo Sol	(9,508)	1,290	(10,590)	(9,300)	258
Philippines Peso	3,884	4,622	(756)	3,866	(2,611)
Polish Zloty	10,243	11,261	(1,349)	9,912	2,996
Romanian Leu	826	921	(132)	789	-
Russian Ruble (New)	8,141	13,932	(6,170)	7,762	9,549
Singapore Dollar	(7,328)	14,286	(20,312)	(6,026)	(19,932)
South African Comm Rand	(151,465)	16,538	(167,520)	(150,982)	(22,913)
South Korean Won	(123)	1,513	(1,655)	(142)	2,187
Swedish Krona	(158,900)	30,223	(185,755)	(155,532)	110,356
Swiss Franc	(424,713)	60,576	(481,289)	(420,713)	(260,971)
Thailand Baht	17,327	23,340	(6,314)	17,026	4,995
U.S. Dollar	4,340,722	5,793,657	(1,452,935)	4,340,722	4,646,227
Total Forwards Subject to					
Foreign Currency Risk				\$ 36,357	\$ (42,002)

10. Options. Options may be either exchangetraded or negotiated directly between two counterparties over the counter. Options grant the holder the right, but not the obligation, to purchase (call) or sell (put) a financial instrument at a specified price and within a specified period of time from the writer of the option. As a purchaser of options, the System typically pays a premium at the outset. This premium is reflected as an asset on the financial statements. The System then retains the right, but not the obligation, to exercise the options and purchase the underlying financial instrument. Should the option not be exercised, it expires worthless and the premium is recorded as a loss.

A writer of options assumes the obligation to deliver or receive the underlying financial instrument on exercise of the option. Certain option contracts may involve cash settlements based on specified indexes such as stock indexes. As a writer of options, the System receives a premium at the outset. This premium is reflected as a liability on the financial statements, and the System bears the risk of an unfavorable change in the price of the financial instrument underlying the option. Information on the System's options balances at June 30, 2013 and 2012, is shown in Figure 2.22.

### FIGURE 2.22 - OPTIONS

AT JUNE 30 (EXPRESSED IN THOUSANDS)

	2	2013		2012
		Notion	al Va	alue
Cash and Cash Equivalent Options:				
Call	\$	(10)	\$	-
Put		-		-
Equity Options:				
Call		-		-
Put		-		-
Fixed Income Options:				
Call		-		-
Put		-		-
Swaptions:				
Call		(2)		(978)
Put		(379)		(118)
Total Options	\$	(391)	\$	(1,096)

11. Swap Agreements. Swaps are negotiated contracts between two counterparties for the exchange of payments at certain intervals over a predetermined timeframe. The payments are based on a notional principal amount and calculated using either fixed or floating interest rates or total returns from certain instruments or indexes. Swaps are used to manage risk and enhance returns. To reduce the risk of counterparty nonperformance, the System generally requires collateral on any material gains from these transactions. During FY 2013, the System entered into credit defaults, inflation, interest rate and total return swaps. Information on the System's swap balances at June 30, 2013 and 2012, is shown in Figure 2.23.

	Notional		Counterparty	
Counterparty	Amount	VRS Rate	Rate	
Credit Default Swaps:				
Barclays PLC	\$24,697			
Barclays PLC	5,600			
Barclays PLC	5,000			
Barclays PLC	4,400			
Barclays PLC	4,100			
Barclays PLC	3,200			
Barclays PLC	2,800			
Barclays PLC	1,400			
Barclays PLC	1,300			
Barclays PLC	1,175			
Barclays PLC	1,000			
Barclays PLC	900			
Credit Suisse Group AG	58,150			
Credit Suisse Group AG	26,500			
Credit Suisse Group AG	14,298			
Credit Suisse Group AG	13,025			
Credit Suisse Group AG	8,000			
Credit Suisse Group AG	6,250			
Credit Suisse Group AG	3,700			
Credit Suisse Group AG	2,800			
Credit Suisse Group AG	2,800			
Credit Suisse Group AG	2,800			
Credit Suisse Group AG	2,750			
Credit Suisse Group AG	2,600			
Credit Suisse Group AG	2,600			
Credit Suisse Group AG	2,000			
Credit Suisse Group AG	1,850			
Credit Suisse Group AG	1,000			
Credit Suisse Group AG	900			
Credit Suisse Group AG	800			
Credit Suisse Group AG	400			
·	200			
Credit Suisse Group AG Credit Suisse Group AG				
•	38,452			
Credit Suisse Group AG	12,533			
Credit Suisse Group AG	12,000			
Credit Suisse Group AG	5,900			
Credit Suisse Group AG	5,000			
Credit Suisse Group AG	5,000			
Credit Suisse Group AG	5,000			
Credit Suisse Group AG	4,575			
Credit Suisse Group AG	4,050			
Credit Suisse Group AG	4,050			
Credit Suisse Group AG	2,500			
Credit Suisse Group AG	2,094			
Credit Suisse Group AG	1,500			
Credit Suisse Group AG	500			
Credit Suisse Group AG	475			
Deutsche Bank AG	5,800			

Maturity Date	Buying/Selling Protection	Pay/Receive Rate	Market Value 2013	Market Value 2012
12/20/17	Buying	1.000%	104	
3/20/18	Buying	1.000%	(114)	_
3/20/18	Buying	1.000%	(97)	-
3/20/18	Buying	1.000%	(98)	-
3/20/18	Selling	5.000%	546	-
6/20/18	Selling	5.000%	426	-
3/20/18	Buying	1.000%	(77)	-
3/20/18	Buying	1.000%	(29)	_
3/20/18	Buying	1.000%	29	_
3/20/18	Buying	1.000%	(26)	_
6/20/18	Selling	5.000%	80	-
6/20/18	Selling	5.000%	54	-
12/20/17	Buying	5.000%	(2,604)	-
6/20/18	Selling	1.000%	163	-
12/20/17	Buying	1.000%	330	-
9/20/17	Selling	1.000%	(340)	-
12/20/16	Buying	1.000%	(112)	157
12/20/16	Buying	1.000%	(103)	(49)
6/20/17	Selling	1.000%	(29)	(61)
3/20/18	Buying	1.000%	144	-
3/20/18	Buying	5.000%	(332)	-
3/20/18	Buying	1.000%	98	-
12/20/17	Buying	1.000%	(35)	-
3/20/18	Buying	1.000%	117	-
9/20/17	Buying	1.000%	2	-
6/20/18	Selling	5.000%	87	-
9/20/17	Buying	1.000%	(21)	-
3/20/18	Buying	1.000%	(10)	-
6/20/18	Buying	5.000%	(27)	-
12/20/16	Selling	1.000%	5	(1)
3/20/18	Buying	1.000%	20	-
12/20/16	Selling	1.000%	-	(5)
6/20/17	Buying	1.000%	-	2,738
6/20/16	Selling	1.000%	-	100
6/20/17	Selling	1.000%	-	(72)
12/20/16	Selling	1.000%	-	(14)
12/20/16	Buying	1.000%	-	(121)
12/20/16	Buying	1.000%	-	(68)
12/20/16	Buying	1.000%	-	81
9/20/17	Selling	1.000%	-	(121)
12/20/16	Buying	5.000%	-	(375)
12/20/16	Buying	1.000%	-	305
12/20/16	Selling	1.000%	-	(3)
9/20/17	Selling	5.000%	-	(143)
12/20/16	Selling	5.000%	-	(65)
12/20/12	Selling	1.000%	-	1
6/20/17	Buying	1.000%	400	31
6/20/18	Selling	5.000%	462	-

0	Notional	\/D0 D :	Counterparty
Counterparty	Amount	VRS Rate	Rate
Deutsche Bank AG	5,600		
Deutsche Bank AG	3,500		
Deutsche Bank AG	3,150		
Deutsche Bank AG	3,000		
Deutsche Bank AG	3,000		
Deutsche Bank AG	2,675		
Deutsche Bank AG	2,675		
Deutsche Bank AG	2,675		
Deutsche Bank AG	2,675		
Deutsche Bank AG	2,450		
Deutsche Bank AG	2,300		
Deutsche Bank AG	2,300		
Deutsche Bank AG	2,300		
Deutsche Bank AG	1,800		
Deutsche Bank AG	1,500		
Deutsche Bank AG	1,200		
Deutsche Bank AG	900		
Deutsche Bank AG	700		
Deutsche Bank AG	700		
Deutsche Bank AG	500		
Deutsche Bank AG	350		
Deutsche Bank AG	101		
Deutsche Bank AG	10,000		
Deutsche Bank AG	9,300		
Deutsche Bank AG	6,500		
Deutsche Bank AG	6,500		
Deutsche Bank AG			
	6,000		
Deutsche Bank AG	5,800		
Deutsche Bank AG	5,800		
Deutsche Bank AG	5,000		
Deutsche Bank AG	5,000		
Deutsche Bank AG	5,000		
Deutsche Bank AG	5,000		
Deutsche Bank AG	5,000		
Deutsche Bank AG	4,000		
Deutsche Bank AG	4,000		
Deutsche Bank AG	3,800		
Deutsche Bank AG	3,426		
Deutsche Bank AG	600		
Deutsche Bank AG	500		
Deutsche Bank AG	200		
Goldman Sachs Group Inc	11,699		
Goldman Sachs Group Inc	8,400		
Goldman Sachs Group Inc	7,400		
Goldman Sachs Group Inc	6,889		
Goldman Sachs Group Inc	5,940		
Goldman Sachs Group Inc	5,940		
Goldman Sachs Group Inc	5,850		
Goldman Sachs Group Inc	5,350		
Goldman Sachs Group Inc	4,600		

Maturity Date	Buying/Selling Protection	Pay/Receive Rate	Market Value 2013	Market Value 2012
3/20/18	Buying	1.000%	(155)	_
9/20/13	Selling	1.000%	(1)	-
12/20/16	Buying	1.000%	(56)	42
9/20/14	Selling	1.000%	(11)	-
9/20/14	Selling	1.000%	(15)	-
9/20/17	Buying	1.000%	(4)	-
9/20/17	Buying	1.000%	(3)	-
9/20/17	Buying	1.000%	(4)	-
9/20/17	Buying	1.000%	(4)	_
9/20/17	Buying	1.000%	2	_
3/20/18	Buying	1.000%	(75)	_
9/20/14	Selling	1.000%	(9)	_
9/20/13	Selling	1.000%	1	9
3/20/18	Buying	1.000%	(50)	-
12/20/13	Selling	5.000%	28	(4)
12/20/16	Selling	1.000%	8	(1)
6/20/18	Selling	5.000%	54	(1)
6/20/15	Selling	1.000%	(3)	_
6/20/18	Selling	1.000%	(27)	_
9/20/14	Selling	1.000%	(27)	
12/20/17	Selling	5.000%	26	
3/20/18	Selling	1.000%	(4)	
12/20/12	Selling	5.000%	(4)	163
6/20/17	Selling	5.000%	-	902
12/20/12	Selling	1.000%	-	(14)
12/20/12	Selling	5.000%	-	132
12/20/12	Selling	1.000%	-	56
12/20/16	Selling	1.000%	-	(100)
12/20/16	Selling	1.000%	-	(60)
6/20/17	Selling	1.000%	-	(261)
	_	1.000%	-	(201)
12/20/12	Selling		-	4
12/20/12	Selling	1.000%	-	·
12/20/16	Buying	1.000%	-	260
12/20/16	Buying	1.000%	-	81
12/20/16	Selling	1.000%	-	(28)
12/20/12	Selling	1.000%	-	9 (252)
6/20/21	Selling	1.000%	-	(253)
3/20/14	Selling	5.000%	-	(40)
12/20/12	Selling	1.000%	-	2
12/20/12	Selling	1.000%	-	2
12/20/12	Selling	1.000%	- 070	-
12/20/17	Buying	1.000%	270	-
6/20/18	Selling	10.000%	(144)	-
6/20/18	Selling	5.000%	590	-
12/20/16	Buying	1.000%	32	-
12/20/16	Buying	Variable Rate	44	-
12/20/16	Buying	Variable Rate	54	-
9/20/17	Selling	1.000%	(153)	-
9/20/18	Selling	0.890%	121	-
3/20/18	Selling	5.000%	(322)	-

AS OF JUNE 30

AS OF JUNE 30	Notional		Countarnarty
Counterparty	Notional Amount	VRS Rate	Counterparty Rate
Goldman Sachs Group Inc	3,900		
Goldman Sachs Group Inc	3,900		
Goldman Sachs Group Inc	3,150		
Goldman Sachs Group Inc	3,100		
Goldman Sachs Group Inc	2,950		
Goldman Sachs Group Inc	2,860		
Goldman Sachs Group Inc	2,600		
Goldman Sachs Group Inc	2,500		
Goldman Sachs Group Inc	2,000		
Goldman Sachs Group Inc	1,400		
Goldman Sachs Group Inc	1,200		
Goldman Sachs Group Inc	975		
Goldman Sachs Group Inc	600		
Goldman Sachs Group Inc	300		
Goldman Sachs Group Inc	101		
Goldman Sachs Group Inc	101		
Goldman Sachs Group Inc	11,100		
Goldman Sachs Group Inc	7,750		
Goldman Sachs Group Inc	6,726		
Goldman Sachs Group Inc	6,600		
Goldman Sachs Group Inc	6,000		
Goldman Sachs Group Inc	5,800		
Goldman Sachs Group Inc	5,800		
Goldman Sachs Group Inc	5,400		
Goldman Sachs Group Inc	5,275		
Goldman Sachs Group Inc	5,000		
Goldman Sachs Group Inc	4,375		
Goldman Sachs Group Inc	4,000		
Goldman Sachs Group Inc	3,950		
Goldman Sachs Group Inc	3,200		
Goldman Sachs Group Inc	3,160		
Goldman Sachs Group Inc	2,900		
Goldman Sachs Group Inc	2,650		
Goldman Sachs Group Inc	2,500		
Goldman Sachs Group Inc	2,000		
Goldman Sachs Group Inc	2,000		
Goldman Sachs Group Inc	2,000		
Goldman Sachs Group Inc	1,800		
Goldman Sachs Group Inc	1,777		
Goldman Sachs Group Inc	1,600		
Goldman Sachs Group Inc	1,500		
Goldman Sachs Group Inc	1,500		
Goldman Sachs Group Inc	1,300		
Goldman Sachs Group Inc	1,269		
Goldman Sachs Group Inc	1,269		
Goldman Sachs Group Inc	1,000		
Goldman Sachs Group Inc	1,000		
Goldman Sachs Group Inc	952		
Goldman Sachs Group Inc	900		
Goldman Sachs Group Inc	800		

Maturity Date	Buying/Selling Protection	Pay/Receive Rate	Market Value 2013	Market Value 2012
6/20/18	Buying	Variable Rate	96	
6/20/18	Buying	3.000%	134	-
12/20/16	Buying	1.000%	(43)	1
3/20/18	Selling	5.000%	413	-
12/20/17	Selling	5.000%	174	_
3/20/18	Buying	1.000%	(18)	_
3/20/18	Buying	1.000%	65	_
12/20/16	Buying	1.000%	37	165
3/20/18	Selling	5.000%	(140)	-
9/20/16	Selling	5.000%	111	46
12/20/17	Selling	5.000%	89	40
12/20/17	Selling	1.000%	(138)	_
	•	1.000%		-
3/20/15	Selling		(2)	-
9/20/19	Selling	5.000%	22	-
12/20/17	Selling	1.000%	(4)	-
3/20/18	Selling	1.000%	(4)	- (07)
6/20/17	Selling	1.000%	-	(67)
6/20/17	Selling	5.000%	-	752
12/20/16	Buying	1.000%	-	370
3/20/13	Selling	5.000%	-	169
12/20/16	Selling	1.000%	-	(7)
12/20/16	Buying	Variable Rate	-	398
12/20/16	Buying	Variable Rate	-	459
12/20/16	Buying	1.000%	-	108
6/20/17	Selling	0.250%	-	(182)
12/20/16	Buying	1.000%	-	174
6/20/13	Selling	1.000%	-	(75)
12/20/16	Selling	1.000%	-	(195)
9/20/17	Selling	1.000%	-	(349)
12/20/16	Selling	1.000%	-	(26)
3/20/14	Selling	5.000%	-	91
12/20/16	Selling	5.000%	-	(229)
6/20/17	Selling	1.000%	-	(132)
12/20/16	Selling	5.000%	_	(28)
9/20/17	Buying	1.000%	_	21
9/20/17	Buying	1.000%	_	36
12/20/16	Selling	1.000%	_	(206)
12/20/16	Selling	1.000%	_	(348)
3/20/17	Buying	3.000%	_	119
3/20/14	Selling	5.000%	_	46
12/20/12	Selling	1.000%	_	1
3/20/14	Selling	5.000%	_	60
12/20/13	Selling	5.000%		37
9/20/17	Buying	1.000%		72
9/20/17	Buying	1.000 %		72 72
9/20/17	, -	1.000%	-	72 75
	Buying		-	75 38
9/20/17	Buying	1.000%	-	
12/20/16	Selling	1.000%	-	(197)
6/20/17	Selling	5.000%	-	(25)
12/20/12	Selling	1.000%	-	2

S OF JUNE 30	Notional		Counterparty
Counterparty	Amount	VRS Rate	Rate
Goldman Sachs Group Inc	800		
Goldman Sachs Group Inc	300		
HSBC Holdings PLC	1,900		
HSBC Holdings PLC	700		
HSBC Holdings PLC	200		
HSBC Holdings PLC	100		
UBS AG	7,350		
UBS AG	3,200		
UBS AG	2,800		
UBS AG	6,000		
UBS AG	1,850		
UBS AG	1,600		
UBS AG	200		
Totals-Credit Default Swaps	\$ 691,459	-	
terest Rate Swaps:			
Barclays PLC	\$5,794	Brazil Cetip Interbank Deposit	10.91%
BlackRock Inc	783	Mexico Interbank 28-day Index	5.00%
Credit Suisse Group AG	13,807	Brazil Cetip Interbank Deposit	8.50%
Credit Suisse Group AG	13,128	Brazil Cetip Interbank Deposit	10.45% CDI
Credit Suisse Group AG	45,000	1.08875%	3-month USD LIBOR
Credit Suisse Group AG	21,873	Brazil Cetip Interbank Deposit	8.97%
Credit Suisse Group AG	18,680	Brazil Cetip Interbank Deposit	7.98%
Credit Suisse Group AG	11,274	3-month Malaysia Interbank Fixing	3.33%
Credit Suisse Group AG	10,077	3-month Malaysia Interbank Fixing	3.39%
Credit Suisse Group AG	6,800	2.75%	3-month USD LIBOR
Credit Suisse Group AG	6,703	Mexico Interbank 28-day Index	6.35%
Credit Suisse Group AG	3,873	Mexico Interbank 28-day Index	6.20%
Deutsche Bank AG	11,370	Mexico Interbank 28-day Index	5.00%
Deutsche Bank AG	10,252	6-month Australian BBR-BBSW	4.00%
Deutsche Bank AG	4,074	Brazil Cetip Interbank Deposit	8.29%
Deutsche Bank AG	3,531	Brazil Cetip Interbank Deposit	8.485% CDI
Deutsche Bank AG	1,551	Klibor Interbank Offered Rate	3.335%
Deutsche Bank AG	1,100	2.75%	3-month LIBOR
Deutsche Bank AG	844		xican Interbank Equlibri
Goldman Sachs Group Inc	25,000	1.26%	3-month USD LIBOR
Goldman Sachs Group Inc	25,000	1.25%	3-month USD LIBOR
HSBC Holdings PLC	2,150	Mexico Interbank 28-day Index	5.75%
HSBC Holdings PLC	622	Mexico Interbank 28-day Index	5.50%
HSBC Holdings PLC	136	Brazil Cetip Interbank Deposit	8.32% CDI
UBS AG	22,408	Brazil Cetip Interbank Deposit	8.2% CDI
UBS AG	11,132	Mexico Interbank 28-day Index	5.80%
UBS AG	1,358	Brazil Cetip Interbank Deposit	9.13%
UBS AG	1,222	Brazil Cetip Interbank Deposit	8.59%
UBS AG	230		exican Interbank Equlibriu
UBS AG	71,713	Brazil Cetip Interbank Deposit	7.96%
UBS AG	59,452	Brazil Cetip Interbank Deposit	10.77%
UBS AG	29,793	Mexico Interbank 28 day Index	5.80%
UBS AG	18,331	Brazil Cetip Interbank Deposit	9.84%
UBS AG	16,944	Brazil Cetip Interbank Deposit	9.76%

Maturity Date	Buying/Selling Protection	Pay/Receive Rate	Market Value 2013	Market Value 2012
12/20/12	Selling	1.000%	_	2
12/20/12	Selling	1.000%	_	_
3/20/15	Selling	1.000%	(7)	_
6/20/18	Selling	1.000%	(27)	_
3/20/23	Selling	1.000%	(26)	_
3/20/23	Selling	1.000%	(13)	_
6/20/17	Buying	1.000%	(200)	(42)
9/20/17	Buying	1.000%	3	(42)
3/20/17	Buying	1.000%	(58)	_
6/20/21	Selling	1.000%	(30)	(502)
9/20/16	Selling	1.000%	-	(339)
	_		-	
6/20/15	Selling	5.000%	-	49
12/20/12	Selling	1.000%	<del></del>	<del></del>
			\$ (733)	\$ 3,632
1/2/17			\$ (8)	\$ -
2/26/18			(21)	-
1/2/17			(745)	_
1/2/17			(214)	_
2/14/17			\ <u>~</u> 1 1/	(384)
1/2/15			_	246
1/2/14			_	18
1/20/17				68
5/9/17			-	85
6/20/42			-	(366)
			-	
4/11/22			-	264
6/7/22			- (1 446)	98
2/22/23			(1,446)	-
3/15/23			(238)	-
1/2/17			(241)	-
1/2/15			(50)	-
4/19/18			(19)	-
6/19/43			143	-
9/6/19			(38)	-
10/3/16			-	456
10/3/16			-	456
6/5/23			(153)	-
2/22/23			(54)	-
1/2/17			(8)	-
1/2/17			(1,369)	-
6/8/16			240	-
1/2/17			(43)	-
1/2/17			(66)	-
9/6/19			(11)	-
1/2/14			-	51
1/2/14			-	2,264
6/8/16			-	788
7/1/13			-	438
7/1/13			-	386

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Counterparty Amount VRS Rate Rate UBS AG UBS	ndex IMI all Cap .td Ltd Group o Inc eutical o Co
UBS AG UB	all Cap Ltd Ltd Group o Inc eutical o Co
UBS AG UB	all Cap .td Ltd e Group o Inc eutical o Co
Total Interest Rate Swaps  Total Return Swaps:  Goldman Sachs Group Inc Goldma	all Cap .td Ltd e Group o Inc eutical o Co
Total Interest Rate Swaps  \$ 497,833  Total Return Swaps:  Goldman Sachs Group Inc Goldman Sachs Group	all Cap .td Ltd e Group o Inc eutical o Co
Goldman Sachs Group Inc Goldma	all Cap .td Ltd e Group o Inc eutical o Co
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Goldman Sachs Group Inc 2,931 3-month LIBOR Sumitomo Mitsu	
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Goldman Sachs Group Inc 2,758 3-month LIBOR Sumitomo Mits	
Goldman Sachs Group Inc 2,402 3-month LIBOR Showa Shell S	,
Goldman Sachs Group Inc 2,206 3-month LIBOR Oji Paper Co	
Goldman Sachs Group Inc 2,131 3-month LIBOR Sumitomo Chem	
Goldman Sachs Group Inc 2,013 3-month LIBOR NTN Corp	
Goldman Sachs Group Inc 1,739 3-month LIBOR Aozora Bank	Ltd
Goldman Sachs Group Inc 1,507 3-month LIBOR Denki Kagaku I	Cogyo
Goldman Sachs Group Inc 1,197 3-month LIBOR Mizuho Financi	al Grp
Goldman Sachs Group Inc 1,052 3-month LIBOR NTT Docomo	Inc
Goldman Sachs Group Inc 937 3-month LIBOR Mitsui Enginee	r Ship
Goldman Sachs Group Inc 926 3-month LIBOR Chubu Electric	ower
Goldman Sachs Group Inc 849 3-month LIBOR Toyobo Co L	
Goldman Sachs Group Inc 780 3-month LIBOR Kansai Electric	td
Goldman Sachs Group Inc 674 3-month LIBOR Nippon Suisan	
Goldman Sachs Group Inc 704,400 0.47% MSCI AC World In	Power
Total Return Swaps \$ 1,406,303	Power Kaisha
Total Swaps \$ 2,595,595	Power Kaisha

17/714 9/6/16 9/7/27 17/273 108 9/7/27 17/273 109 104 104 104 104 104 104 104 104 104 104	Maturity Date	Buying/Selling Protection	Pay/Receive Rate	Market Value 2013	Market Value 2012
9/2/22 1/2/13	1/2/14			-	32
1/2/13	9/6/16			-	108
(4,341)   5,448	9/2/22			-	336
4/2/13         \$ (160)         \$ -           8/20/14         19         -           8/20/14         5         -           8/20/14         4         -           8/20/14         4         -           8/20/14         4         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         3         -           8/20/14         2         -           8/20/14         2         -           8/20/14         2         -           8/20/14         2         -           8/20/14         2         -           8/20/14         2         -           8/20/14         2         -           8/20/14         2         - </td <td>1/2/13</td> <td></td> <td></td> <td>-</td> <td>104</td>	1/2/13			-	104
8/20/14				(4,341)	5,448
8/20/14					
8/20/14	4/2/13			\$ (160)	\$ -
8/20/14 8/20/1	8/20/14				-
8/20/14 8/20/1	8/20/14			5	-
8/20/14 8/20/14 8/20/14 8/20/14 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 3 8/20/14 2 8/20/14 8/				5	-
8/20/14 8/20/14 8/20/14 8/20/14 3 8/20/14 4 8/20/14 8/20/13				4	-
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4/2/2013       -       (340)         (57)       (340)				_	-
(57) (340)				_	(340)
	1/ 2/ 2010			/F3\	
\$ (5,131) \$ 8,740					
				\$ (5,131)	\$ 8,740

# 6. Capital Assets

The System's non-depreciable and depreciable capital assets for the year ended June 30, 2013, and the changes by category from the prior fiscal year end are presented in Figure 2.24.

FIGURE 2.24 - PROPERTY, PLANT, FURNITURE, EQUIPMENT AND INTANGIBLE ASSETS

FOR THE YEAR ENDED JUNE 30, 2013					(EXPF	RESSED IN	THOUSANDS)
	alance 30, 2012	ln	creases	De	ecreases		alance e 30, 2013
Non-Depreciable Capital Assets:							
Land	\$ 1,368	\$	-	\$	-	\$	1,368
Construction in progress	22,696		7,493		29,873		316
Total Non-Depreciable Capital Assets	 24,064		7,493		29,873		1,684
Depreciable Capital Assets:							
Building	4,632		-		-		4,632
Furniture and Equipment	5,632		187		-		5,819
Intangible Assets	 		29,801				29,801
Total Depreciable Capital Assets	 10,264		29,988		<del>-</del>		40,252
Less Accumulated Depreciation:							
Building	1,620		116		-		1,736
Furniture and Equipment	3,446		574		-		4,020
Intangible Assets	 		2,483		-		2,483
Total Accumulated Depreciation	 5,066		3,173		<u>-</u>		8,239
Total Depreciable Capital Assets - Net	5,198		26,815		-		32,013
Total Net Capital Assets	\$ 29,262	\$	34,308	\$	29,873	\$	33,697

Depreciation expense amounted to \$3,173,000 and \$639,000 in 2013 and 2012, respectively.

# 7. Operating Leases

The System has commitments under various operating leases for office space and parking. In general, the leases are for a 10-year term. In most cases, the System expects that in the normal course of business, these leases will be replaced by similar leases. Total rental expense for the year ended June 30, 2013, was \$2,297,000. The System's total future minimum rental payments as of June 30, 2013, are presented in Figure 2.25.

FIGURE 2.25 - OPERATING LEASES-FUTURE PAYMENTS

AT JUNE 30, 2013	(EXPRESSED II	N THOUSANDS)
Year	,	Amount
2014	\$	830
2015		852
2016		873
2017		596
Total Future Minimum Rental Payı	ments \$	3,151

# 8. System Employee Benefit Plan Obligations

All full-time permanent, salaried employees of the System are employees of the Commonwealth of Virginia and included in the Commonwealth's participation as an employer in VRS. The Commonwealth, not the System, has overall responsibility for contributions to the VRS pension trust fund as well as other employee benefit and post-employment benefit trust funds for System employees. The state's contribution requirement for general employees for the year ended June 30, 2013, was 8.76% of covered payroll. For FY 2012, the contribution requirement for general employees was 2.08% of covered payroll for the first nine months of the fiscal year and 6.58% of covered payroll for the last quarter of the year. There were approximately 49,586 state retirees, including System retirees, at June 30, 2013. Note 2.B provides information on the state's contribution toward funding the defined benefit plan for state employees for FY 2013 and FY 2012. As set forth in the 2010 Appropriation Act (Item 469, Chapter 874, 2010 Virginia Acts of Assembly) and confirmed in the 2011 Appropriation Act (Item 469, Chapter 890, 2011 Virginia Acts of the Assembly) and the 2012 Appropriation Act (Item 469, Chapter 2, 2012 Special Session I Virginia Acts of Assembly), all state employers were charged 6.58% of covered payroll for retirement for their general employees. The difference between the 6.58% charged and the 2.13% transferred to the plan for FY 2011 and the 6.58% charged and the 2.08% transferred to VRS for the first nine months of FY 2012, with a few exceptions, was retained in the General Fund of the Commonwealth. This is discussed further in Note 12. Because the assets of the System are held in trust for the exclusive benefit of the beneficiaries of the programs, the System was able to recover \$1,582,000 in FY 2012, representing the difference in these rates for FY 2011 and FY 2012. This recovery was recorded in FY 2012 as Miscellaneous Revenue. The System's contribution requirement for its employees for FY 2013 and FY 2012 was \$1,985,000 and \$1,415,000, respectively.

The System's financial obligations for other employee benefit and post-employment benefit plans were as follows:

- The state's contribution requirement for the Group Life Insurance Program for the year ended June 30, 2013, was 1.19% of covered payroll. For FY 2012, the rate was 0.28% of covered payroll for most of the fiscal year and 1.02% for the last half of June 2012. There were approximately 88,968 active state employees and 46,792 state retirees, including System employees and retirees, eligible for group life insurance coverage at June 30, 2013. As set forth in the 2010 Appropriation Act (Item 469, Chapter 874, 2010 Virginia Acts of Assembly) and confirmed in the 2011 Appropriation Act (Item 469, Chapter 890, 2011 Virginia Acts of the Assembly) and the 2012 Appropriation Act (Item 469, Chapter 2, 2012 Special Session I Virginia Acts of Assembly), all state employers were charged 1.02% of covered payroll for group life insurance. The difference between the 1.02% charged and the 0.28% transferred to VRS for all of FY 2011 and FY 2012 except the last half of June 2012, with a few exceptions, was retained in the General Fund of the Commonwealth. This is discussed further in Note 12. Because the assets of the System are held in trust for the exclusive benefit of the beneficiaries of the programs, the System was able to recover \$296,000 in FY 2012, representing the difference in these rates for FY 2011 and FY 2012. This recovery was recorded in FY 2012 as Miscellaneous Revenue. The System's contribution requirement for its employees and retirees for FY 2013 and FY 2012 was \$272,000 and \$219,000, respectively.
- The state's contribution requirement for the Retiree Health Insurance Credit Program for the year ended June 30, 2013, was 1.00% of covered payroll. For FY 2012, the rate was 0.10% of covered payroll for most of the fiscal year and 0.99% for the last half of June 2013. There were approximately 39,964 state retirees, including System retirees, receiving the health insurance credit at June 30, 2013. As set forth

in the 2010 Appropriation Act (Item 469, Chapter 874, 2010 Virginia Acts of Assembly) and confirmed in the 2011 Appropriation Act (Item 469, Chapter 890, 2011 Virginia Acts of the Assembly) and the 2012 Appropriation Act (Item 469, Chapter 2, 2012 Special Session I Virginia Acts of Assembly), all state employers were charged 0.99% of covered payroll for the health insurance credit. The difference between the 0.99% charged and the 0.10% transferred to VRS for all of FY 2011 and FY 2012 except the last half of June 2012, with a few exceptions, was retained in the General Fund of the Commonwealth. This is discussed further in Note 12. Because the assets of the System are held in trust for the exclusive benefit of the beneficiaries of the programs, the System was able to recover \$355,000 in FY 2012, representing the difference in these rates for FY 2011 and FY 2012. This recovery was recorded in FY 2012 as Miscellaneous Revenue. The System's contribution requirement for its employees for FY 2013 and FY 2012 was \$229,000 and \$212,000, respectively.

The state's contribution requirement for the Virginia Sickness and Disability Program (VSDP) for the year ended June 30, 2013, was 0.58% of covered payroll. For FY 2012, the rate was zero (0.00%) of covered payroll for most of the fiscal year and 0.66% for the last half of June 2012. There were approximately 74,378 state employees, including System employees, enrolled in VSDP at June 30, 2013. As set forth in the 2010 Appropriation Act (Item 469, Chapter 874, 2010 Virginia Acts of Assembly) and confirmed in the 2011 Appropriation Act (Item 469, Chapter 890, 2011 Virginia Acts of the Assembly) and the 2012 Appropriation Act (Item 469, Chapter 2, 2012 Special Session I Virginia Acts of Assembly), all state employers were charged 0.66% of covered payroll for VSDP. The difference between the 0.66% charged and zero (0.00%) transferred to VRS for all of FY 2011 and FY 2012 except the last half of June 2012, with a few exceptions, was retained in the General Fund of the Commonwealth. This is discussed further in Note 12. Because the assets of the System are held in trust for the exclusive benefit of the beneficiaries of the programs, the System was able to recover \$264,000 in FY 2012, representing

the difference in these rates for FY 2011 and FY 2012. This recovery was recorded in FY 2012 as Miscellaneous Revenue. The System's contribution requirement for its employees for FY 2013 and FY 2012 was \$104,000 and \$140,000, respectively.

Information regarding the Commonwealth's funding progress is presented in the Commonwealth's Comprehensive Annual Financial Report. Information about the pension plans is provided in Note 2; information about other employee and post-employment benefit plans is provided in Note 3.

# 9. Litigation

The System, including its Board of Trustees, officers and employees, is a defendant in claims and lawsuits that are pending, are in progress or have been settled since June 30, 2013. The Attorney General and outside counsel have reviewed the status of these claims, lawsuits and the System's potential liability arising from them. Based on their review, it is the opinion of management that such liability, if any, would have no material adverse effect on the System's financial condition.

# 10. Risk Management

To cover its exposure to various risks of loss, the System, as an independent agency of the Commonwealth of Virginia, participates in the Commonwealth's self-insurance programs for state employee health care and risk management. The latter program includes property, general (tort) liability, medical malpractice and automobile plans. The System's employees are covered by the Virginia Workers' Compensation Program administered by the Department of Human Resource Management. In addition, the System is self-insured for fiduciary liability as well as directors' and officers' liability under a program administered by the Commonwealth's Division of Risk Management. There were no claims in excess of coverage and no reductions in coverage during FY 2013 and the three preceding fiscal years.

# 11. Commitments

The System extends investment commitments in the normal course of business. At June 30, 2013 and 2012, these commitments amounted to \$4,402,371,000 and \$3,370,248,000, respectively.

# 12. Statutory Contribution Adjustment

For FY 2012, pension contributions due or required were based on the June 30, 2009, actuarial valuation, which used a 20-year funding period for the UAAL. The General Assembly again funded less than the rate determined by the actuary by extending the funding period for these groups from 20 years to 30 years, increasing the investment return assumption from 7.50% to 8.00% and increasing the inflation assumption from 2.50% to 3.00%. In addition, for state employees, only the employer normal cost of the rate was funded for the first nine months of the fiscal year, and this was reduced by a factor representing the savings associated with the adoption of the revised benefit provisions of Plan 2. As a result, the FY 2012 employer rate for state employees was reduced from 8.46% to 2.08% for the first nine months of the fiscal year and then increased to 6.58% for the last quarter of the year. Additionally, the employer rates for SPORS, VaLORS and JRS were reduced from the actuary's recommended rates of 25.56%, 15.93% and 46.79% to 7.73%, 5.07% and 28.65%, respectively, for the first nine months of the fiscal year and then increased to 21.16%, 13.09% and 42.58%, respectively, for the last quarter. The employer contribution rate for teachers was reduced from 12.91% to 6.33%. There was no adjustment to the employer contribution rate for political subdivision employers or to the member contribution rate of 5.00%.

For FY 2012, other post-employment benefit plan contributions due or required also were based on the June 30, 2009, actuarial valuation, which used a 27-year funding period for the UAAL. The General Assembly again funded less than the rates determined by the actuary by extending the funding period for each of the plans from 27 years to 30 years, increasing the investment return assumption from 7.50% to 8.00% and increasing the inflation assumption from 2.50% to 3.00%. In addition, the actual funding was based on only a portion of that rate. As a result, the

FY 2012 rate for the Group Life Insurance Program was reduced from 1.11% to 0.28% and for VSDP from 0.75% to zero (0.00%). Additionally, for the Retiree Health Insurance Credit Program, the state employer rate was reduced from 1.06% to 0.10% and the teacher employer rate from 1.08% to 0.60%. The Commonwealth did contribute 1.02%, 0.99% and 0.66% of covered payroll, respectively, for the Group Life Insurance Program, the Retiree Health Insurance Credit and VSDP for the last half of June 2012. There was no adjustment to the Retiree Health Insurance Credit Program employer contribution rate for political subdivision employers.

For FY 2013, pension contributions due or required were based on the June 30, 2011, actuarial valuation, which used a 10-year funding period for the deferred contributions from FY 2011 and FY 2012 and 30year funding period for the balance of the UAAL. The General Assembly again funded less than the rate determined by the actuary by increasing the investment return assumption from 7.00% to 8.00%. As a result, the FY 2013 employer rate for teachers was reduced from 16.77% to 11.66% and for state employees from 13.07% to 8.76%. Additionally, the employer rates for SPORS, VaLORS and JRS were reduced from the actuary's recommended rates of 32.62%, 19.52% and 54.11% to 24.74%, 14.80% and 45.44%, respectively. There was no adjustment to the employer contribution rate for political subdivision employers or to the member contribution rate of 5.00%.

For FY 2013, other post-employment benefit plan contributions due or required also were based on the June 30, 2011, actuarial valuation, which used a 30-year funding period for the UAAL. The General Assembly again funded less than the rates determined by the actuary by increasing the investment return assumption from 7.00% to 8.00%. As a result, the FY 2013 rate for the Group Life Insurance Program was reduced from 1.32% to 1.19% and for VSDP from 0.58% to 0.47%. Additionally, for the Retiree Health Insurance Credit Program, the state employer rate was reduced from 1.05% to 1.00% and the teacher employer rate from 1.17% to 1.11%. There was no adjustment to the Retiree Health Insurance Credit Program employer contribution rate for political subdivision employers.

### REQUIRED SUPPLEMENTAL SCHEDULE OF FUNDING PROGRESS - PENSION PLANS

(DOLLARS IN MILLIONS) Actuarial UAAL as a Accrued Percentage Actuarial Actuarial Liability Unfunded of Covered Valuation Date Value of (AAL) -AAL (UAAL) Funded Covered Payroll June 30 Assets (a) Entry Age (b) (b-a) Ratio (a/b) Payroll (c) (b-a)/(c)Virginia Retirement System (VRS)\*\* 77,859 \$ 2012 \$ 51,212 26,647 65.8% \$ 14,880 179.1% 75,185 69.9% 2011 52,559 22,626 14,709 153.8% 2010 52,729 72,801 20,072 72.4% 14,758 136.0% 14,948 87.9% 2009\* 53,185 66,323 13,138 80.2% 2008 52.548 62.554 10.006 84.0% 14,559 68.7% 2007 47,815 58,116 10,301 82.3% 13,834 74.5% 2006 42,669 52,822 10,153 80.8% 13,002 78.1% 2005\* 40,372 49,628 9,256 81.3% 12,212 75.8% 2004 39,691 43,958 4,267 90.3% 11,510 37.1% 2003 39,243 40,698 1,455 96.4% 10,885 13.4% State Police Officers' Retirement System (SPORS) \$ \$ \$ \$ 2012 587 1,013 426 57.9% 104 409.0% 2011 617 986 369 62.6% 100 370.3% 2010 634 949 315 66.8% 98 323.2% 2009\* 647 879 232 73.6% 101 230.0% 2008 646 844 198 76.6% 103 193.2% 2007 595 806 211 73.8% 101 209.4% 2006 539 730 191 73.8% 94 204.1% 2005\* 673 76.4% 174.8% 514 159 91 2004 510 656 146 77.8% 82 178.0% 2003 509 616 107 82.6% 79 135.4% Virginia Law Officers' Retirement System (VaLORS) \$ 909 1,753 \$ 2012 844 51.9% 345 244.8% 2011 926 1,683 757 55.0% 356 212.5% 925 654 189.0% 2010 1,579 58.6% 346 2009\* 913 1.412 499 64.7% 359 138.9% 2008 873 1,281 408 68.2% 368 110.8% 400 2007 766 1,166 65.7% 341 117.2% 2006 656 1.096 440 59.9% 321 137.0% 2005\* 575 980 405 58.7% 307 132.0% 927 298 2004 509 418 54.9% 140.3% 2003 458 854 396 292 135.6% 53.6% Judicial Retirement System (JRS) \$ \$ \$ \$ 2012 361 582 221 62.0% 57 388.6% 2011 371 569 198 65.2% 59 336.8% 2010 372 560 188 66.5% 61 307.8% 2009\* 378 521 143 72.5% 63 228.4% 61 199.9% 2008 374 495 121 75.6% 58 2007 340 442 102 76.9% 177.3% 424 122 71.3% 224.1% 2006 302 54 52 220.7% 2005\* 288 402 114 71.5% 2004 285 366 81 78.0% 48 168.8% 2003 282 348 66 81.1% 48 137.5%

<sup>\*</sup>Revised economic and demographic assumptions due to experience study.

<sup>\*\*</sup>The breakdown of VRS data into state, teacher and political subdivisions is presented in the Statistical Section.

# REQUIRED SUPPLEMENTAL SCHEDULE OF EMPLOYER CONTRIBUTIONS - PENSION PLANS

(DOLLARS IN THOUSANDS) Annual Statutory Year Ended Required Required Percentage Percentage June 30 Contributed\* Contribution Contribution Contributed Virginia Retirement System (VRS) 75.79% 2013 \$ 2,227,090 \$ 1,687,865 100.00% 2012 1.614.464 59.56% 961.653 100.00% 2011 1,577,131 46.73% 736,950 100.00% 2010 991,334 1,489,124 66.57% 100.00% 2009 1.501.018 81.25% 1,219,645 100.00% 2008 1,378,993 92.58% 1,276,645 100.00% 2007 1,299,606 85.89% 1,116,217 100.00% 2006 864,245 89.51% 773,553 100.00% 2005 810,944 85.26% 691,415 100.00% 2004 469,200 91.66% 430,064 100.00% State Police Officers' Retirement System (SPORS) 2013 \$ 34,535 75.84% 100.00% 26,193 2012 26,250 43.58% 11,441 100.00% 2011 24.570 30.36% 7,460 100.00% 2010 23,791 66.05% 15,714 100.00% 24,241 100.00% 2009 83.23% 20,175 100.00% 2008 22,941 91.49% 20,989 2007 19,402 84.31% 16,358 100.00% 2006 23,132 65.96% 15,258 100.00% 2005 21,946 65.96% 14,475 100.00% 2004 20,187 51.16% 10,328 100.00% Virginia Law Officers' Retirement System (VaLORS) \$ 75.82% 2013 66.463 50.392 100.00% 2012 55,306 44.27% 24,481 100.00% 2011 53,686 32.14% 17,255 100.00% 2010 57.894 67.41% 39.027 100.00% 2009 60,059 84.80% 100.00% 50,932 2008 61,325 91.20% 55,929 100.00% 2007 56,190 86.03% 48,338 100.00% 2006 77,414 67.96% 52,611 100.00% 74,301 2005 67.96% 50,495 100.00% 2004 72,752 40,596 100.00% 55.80% Judicial Retirement System (JRS) \$ 2013 \$ 32,185 83.98% 27,028 100.00% 2012 27,631 68.43% 18,907 100.00% 2011 28,101 17,303 61.57% 100.00% 17,065 23,638 100.00% 2010 72.20% 21,000 2009 23.148 90.72% 100.00% 2008 23,599 94.86% 22,386 100.00% 2007 22,557 91.02% 20,530 100.00% 2006 23,871 67.89% 16,206 100.00% 2005 22,490 67.89% 15,269 100.00% 2004 21,341 71.18% 15,190 100.00%

<sup>\*</sup>Contributions made by employers during the fiscal years ended June 30, 2004, through June 30, 2013, were not in all cases in accordance with the actuarially determined Annual Required Contribution (ARC), but they did meet statutory requirements.

# REQUIRED SUPPLEMENTAL SCHEDULE OF FUNDING PROGRESS – OTHER POST-EMPLOYMENT BENEFIT PLANS (DOLLARS IN MILLIONS)

UAAL as a Actuarial Percentage of Covered Actuarial Actuarial Accrued Unfunded Valuation Date Value of Liability AAL (UAAL) Funded Covered Payroll June 30 Assets(a) (AAL)(b) (b-a) Ratio (a/b) Payroll (c) (b-a)/(c)Group Life Insurance Fund 2012 \$ 756 \$ 2,458 \$ 1,702 30.7% \$ 16,697 10.2% 2011 852 2,359 1,507 36.1% 16,543 9.1% 2010 929 2,245 1,316 41.4% 16,526 8.0% 2009 967 1,995 1,028 48.5% 16,728 6.1% 797 2008 975 1,772 55.0% 16,267 4.9% 2007 880 1,552 672 56.7% 14,822 4.5% 685 2006\* 751 1,436 52.3% 13,923 4.9% Retiree Health Insurance Credit Fund\*\* \$ 14,211 2012 130 \$ 2,258 \$ 2,128 15.0% \$ 5.8% 213 2,195 2011 1,982 9.7% 14,111 14.0% 2010\*\* 281 2.162 1.881 13.0% 14.220 13.2% 2009\*\* 296 2,007 1,711 14.8% 14,339 11.9% 2008\*\* 264 1,943 1,679 13.6% 13,686 12.3% 2007\*\* 207 1.676 1.883 11.0% 11.935 14.0% Disability Insurance Trust Fund\*\*\* 2012 \$ 305 \$ 262 3,433 (43)116.6% \$ (1.3%)2011 369 296 (73)3,372 124.6% (2.2%)2010\*\*\* 336 311 (25)108.0% 3,168 (0.8%)2009\*\*\* 290 291 99.7% 4,080 0.0% 1 2008\*\*\* 392 79 313 79.9% 1.9% 4,111 2007 264 451 187 58.5% 3,909 4.8% 2006\* 192 423 231 45.4% 6.2% 3,716 Line of Duty Act Trust Fund\*\*\*\* 2012 \$ 6 \$ 226 \$ 220 2.7% N/A N/A 2011 399 399 0.0% N/A N/A 2010\*\*\*\* 576 576 0.0% N/A N/A

<sup>\*</sup>The June 30, 2006, was the first actuarial valuation prepared using the required parameters of GASB 43.

<sup>\*\*</sup>Data for 2007-2010 has been restated to include the state-funded Retiree Health Insurance Credit benefit for local employees. Similar information for 2006 was not available so that year has been excluded.

<sup>\*\*\*</sup>Data for 2008-2010 has been restated to include the long-term care program. Prior years were funded by premiums paid to an insurance carrier. Benefits were paid by the carrier and the program liabilities belonged to the carrier.

<sup>\*\*\*\*\*</sup>Contributions to the Line of Duty Act Trust Fund are based on the number of participants in the program using a per capita-based contribution versus a payroll-based contribution. Fiscal year 2010 was the first actuarial valuation prepared for the Line of Duty Act Trust Fund.

### REQUIRED SUPPLEMENTAL SCHEDULE OF EMPLOYER CONTRIBUTIONS - OTHER POST-EMPLOYMENT **BENEFIT PLANS** (DOLLARS IN THOUSANDS)

Year Ended June 30	Annual Required Contribution	Percentage Contributed	Statutory Required Contribution*	Percentage Contributed
		Group Life Insurance Fu	und	
2013	\$ 221,622	90.15%	\$ 199,796	100.00%
2012	181,527	26.05%	47,293	100.00%
2011	177,378	25.23%	44,744	100.00%
2010	145,228	65.54%	95,185	100.00%
2009	146,545	92.13%	135,019	100.00%
2008	158,740	100.00%	158,740	100.00%
	R	etiree Health Insurance Cre	edit Fund	
2013	\$ 145,416	95.09%	\$ 138,282	100.00%
2012	138,195	37.54%	51,882	100.00%
2011	133,655	36.46%	48,736	100.00%
2010	148,956	66.70%	99,356	100.00%
2009	150,048	96.63%	144,989	100.00%
2008	147,524	100.00%	147,524	100.00%
		Disability Insurance Trust	Fund	
2013	\$ 21,032	81.03%	\$ 17,043	100.00%
2012	30,285	3.62%	1,096	100.00%
2011	28,646	0.00%	-	100.00%
2010	76,530	40.32%	30,861	100.00%
2009	78,120	91.33%	71,344	100.00%
2008	97,975	80.00%	78,380	100.00%
		Line of Duty Act Trust Fu	nd**	
2013	\$ 21,895	42.66%	\$ 9,341	100.00%
2012	25,033	33.25%	8,323	100.00%
2011**	N/A	N/A	N/A	N/A

<sup>\*</sup>Contributions made by employers during the fiscal years ended June 30, 2008, through June 30, 2012, were not in all cases in accordance with the actuarially determined Annual Required Contribution (ARC), but they did meet statutory requirements.

<sup>\*\*</sup> Fiscal year 2011 was the first year for the Line of Duty Act Trust Fund. It was funded by a Loan from the Group Life Insurance Trust Fund. As a result, there were not contributions required or paid during the fiscal year. Contributions of \$10,678,000 were recorded for fiscal year 2011; however, VRS did not receive contributions under the program until fiscal year 2012.

### SCHEDULE OF ADMINISTRATIVE EXPENSES

FOR THE YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS) 2013 2012 Personal Services: 25.922 Salaries and Wages \$ 27.835 \$ Per Diem Services 334 321 **Retirement Contributions** 2.085 1.511 Social Security 1.751 1.602 Group Life and Medical Insurance 3,331 2.856 Compensated Absences 419 264 **Total Personal Services** 35,755 32,476 **Professional Services:** Data Processing 12,222 8,313 Actuarial and Consulting Services 2,262 1,746 Legal Services 638 785 Medical Review Services 808 705 Management Services 605 399 Personnel Development Services 158 44 **Total Professional Services** 16.074 12.611 **Communication Services:** Media Services 16 16 Printing 721 648 Postage and Delivery Services 576 416 Telecommunications 849 694 **Total Communication Services** 2,162 1,774 Rentals: **Business Equipment** 108 Office Space 2,296 2,291 **Total Rentals** 2,297 2,399 Other Services and Charges: Skilled and Clerical Services 478 293 Depreciation 3.173 639 Dues and Membership 105 115 **Building Expense** 0 0 Equipment 734 1,257 Insurance 42 42 Repairs and Maintenance 11 11 Supplies and Materials 138 103 Travel and Transportation 594 527 Miscellaneous 83 180 **Total Other Services and Charges** 5,368 3,157 **Total Administrative Expenses** 61,656 52.417 Adjustment for Capitalization of Expenses (7,493)(5,974)**Total Administrative Expenses (GAAP Basis)** 54,163 46,443 Adjustments Necessary to Convert Administrative Expenses on the GAAP Basis to the Budgetary Basis at Year End (Net) 6.021 4.353 Administrative Expenses (Budgetary Basis) 58,516 52,464 **Administrative Expenses Appropriated** 70,164 \$76,337 **Distribution of Administrative Expenses:** Total Administrative Expenses \$ 54.163 46.443 Less In-House Investment Management (19,015)(21,204)

32,959

27,428

**Net Administrative Expenses** 

# SCHEDULE OF PROFESSIONAL AND CONSULTING SERVICES

FOR THE YEAR ENDED JUNE 30, 2013

(EXPRESSED IN THOUSANDS)

<b>Total Professional and Consulting Service</b>	s			\$ 7,506.7
Total Consulting Services				\$ 6,466.1
Wells Fargo Bank, NA	Recordkeeping Services	\$	34.0	
Vedere Consulting, LLC	Management Consulting Services	φ	3.3	
United Review Services, Inc.	Medical Board Review and Examinations		717.7	
Townsend Group	Investment Consulting Services		185.0	
Torreycove Capital	Investment Consulting Services		25.0	
Strategic Economic Decisions, Inc.	Economic Advisory Services		10.0	
Small World Solution, LLC	Location Services		12.0	
Servient, Inc.	Investment Consulting Services		1.6	
Sagitec Solutions, LLC	VRS "Modernization Project" Solution Vendor		3,337.5	
Roy McLeod	Out-Placement Services		3.0	
Property & Portfolio Research, Inc.	Investment Consulting Services		150.0	
Pension Consulting Alliance, Inc.	Investment Assets/Liability Study		307.5	
Milliman, Inc.	Long-Term Care Plan Consulting		61.8	
Mercer	Defined Contribution Plans Advisory Services		91.3	
McLagan Partners, Inc.	Investment Compensation Study		84.7	
McGinley, Elsberg & Hutcheson, PLC	Fact Finding Hearing Officer for Disability Cases		34.7	
Kroll	Investment Advisory Services		151.2	
Katzen & Frye, PC	Fact Finding Hearing Officer for Disability Cases		181.3	
Hewitt Associates	Retirement Benefits Planning Tool		71.9	
Harrison & Turk, PC	Fact Finding Hearing Officer for Disability Cases		117.2	
Genex	Job Analysis of Disability Cases		1.2	
FX Transparency, LLC	Investment Advisory Services		20.0	
CEM Benchmarking, Inc.	Benchmarking Analysis		65.0	
CACI Federal, Inc.	Test Planning & Execution, I, V & V Review Report		162.9	
Bertini, O'Donnell & Hammer, PC	Fact Finding Hearing Officer for Disability Cases		17.0	
Assura, Inc.	VRS Navigator (VNAV) Risk Assessment		47.5	
Albourne America, LLC	Investment Consulting Services		320.0	
Advent Software, Inc.	Software Maintenance		158.2	
Advantage 2000	Social Security Advocacy & Disability Tracking	\$	93.6	
Consulting Services:				
Oversight Services				\$ 1,040.6
Total Actuarial, Legal and				4 0 - 2 - 2
Troutman Sanders, LLP	Legal Services	\$	73.7	
Sands Anderson, LLP	Legal Services		4.9	
Reed Smith, LLP	Legal Services		8.7	
Labaton Sucharow, LLP	Legal Services		71.6	
Karen Michael, Esq.	Legal Services		10.3	
Joint Legislative Audit Review Commission	Oversight Responsibilities		86.8	
Cavanaugh MacDonald Consulting, LLC		\$	784.6	

# SCHEDULE OF INVESTMENT EXPENSES

FOR THE YEARS ENDED JUNE 30

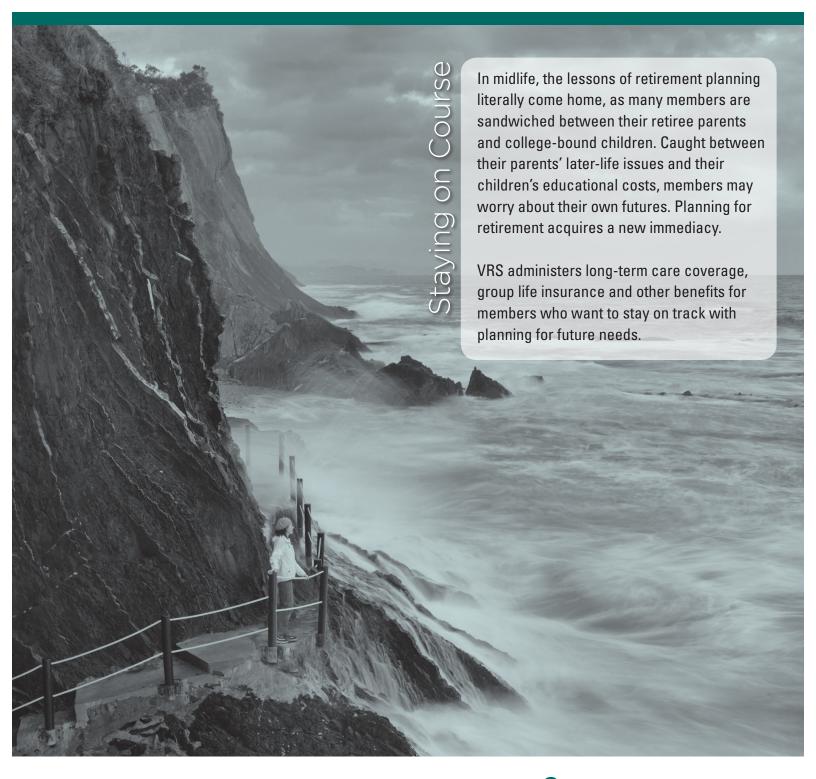
(EXPRESSED IN THOUSANDS)

	2013	2012
Management Fees:		
Domestic Managers	\$ 11,369	\$ 10,427
Non-U.S. Equity Managers	26,793	26,224
Global Equity Managers	19,871	18,306
Fixed Income Managers	1,030	19,325
Credit Strategies Managers	43,788	37,322
Real Estate Managers	50,408	35,829
Alternative Investment Managers	68,675	62,169
Hedge Fund Managers	65,275	58,447
Strategic Opportunity Portfolio	4,333	
Total Management Fees	291,542	268,049
Performance Fees	13,677	15,125
Miscellaneous Fees and Expenses:		
Custodial Fees	4,501	4,501
Legal Fees	430	529
Other Fees and Expenses	533	487
Total Miscellaneous Fees and Expenses	5,464	5,517
In-House Investment Management	21,204	19,015
Total Investment Expenses	\$ 331,887	\$ 307,706



# 3 investment section

Chief Investment Officer's Letter
Investment Account
Portfolio Highlights
VRS Money Managers
Public Equity Commissions
Schedule of Investment Management Fees
and Expenses
Investment Summary



Fast Fact 3: VRS' administrative costs decreased by 3.2 percent between FY 2009 and FY 2012, while the average cost for its peer group increased 1.5 percent in the same period.

# Chief Investment Officer's Letter



Ronald D. Schmitz, Chief Investment Officer

P.O. Box 2500 • 1200 East Main Street Richmond, Virginia 23218-2500 Toll Free: 1-888-VARETIR (827-3847) • TDD: 804-344-3190

December 2, 2013

# To the Members of the Board of Trustees and Participants of the Virginia Retirement System:

I will devote the bulk of my letter this year to a discussion of portfolio performance for the total fund as well as for the individual asset classes that are the building blocks to the total fund. But first, I will spend some time on a very important topic asset allocation.

### Asset Allocation and Risk Tolerance

The Board spent a good deal of time in fiscal year 2013 finalizing its deliberations regarding investment policy and risk/reward parameters to guide staff in the investment of VRS assets. Working with staff, the Investment Advisory Committee and an investment consultant, the Board reviewed thousands of simulated outcomes affecting both assets and liabilities over 10- and 20-year horizons. The output from the study relied heavily on a myriad of assumptions about possible future outcomes and, as such, can be expected to contain forecast error. Nonetheless, the findings from the project are indicative of likely future outcomes. The project provided the Board with valuable insights as to returns, funded status, and required contributions under an array of different portfolio risk/reward profiles.

The key risk factors assessed by the Board involved balancing conflicting goals; improving the funded status of the plan and mitigating extreme downside outcomes that would cause cost spikes. In the end, the Board selected a new target for asset allocation that improved upon certain downside risks. To paraphrase the consultant: The approved policy moves in the direction of meaningfully increasing the long-term expected return at a marginally higher level of volatility while tightening the range of expected outcomes.

The previous and the newly adopted asset mix targets are shown below:

Asset Classes	Prior Policy	New Policy	Change
Public Equity	44%	42%	-2%
Credit	19%	15%	-4%
Fixed Income	20%	15%	-5%
Real Assets	8%	15%	+7%
Private Equity	9%	12%	+3%
Cash	-	1%	+1%

NOTE: The Consultant Report shows the prior policy weighting for Credit and Fixed Income at 17% and 22%, respectively, because of a slight difference in the classification of external investment grade credit mandates.

The significant change in the new policy is the reduction of fixed income and credit strategies paired with the increase in real assets and private equity. Bonds have traditionally been the key diversifier against the downside outcomes in the equity markets. But at the current historically low interest rate levels, the benefit of fixed income exposure is far less certain. At the same time, real assets have the ability to provide inflation protection. And inflation is a key financial risk, given the massive amounts of Federal Reserve stimulus since the Global Financial Crisis in 2008-09. This new policy will be phased-in over a five year period.

### Performance Review

As the June 30, 2013 fiscal year end approached, slowing global growth over the previous 12 months led many analysts to revise their economic growth expectations downward. Catalysts to growth remained elusive. Labor markets improved only marginally as corporate hiring has been modest. Lack of robust job growth has resulted in modest improvements in household income. Additionally, households are still managing down their debt so that spending was relatively flat year over year.

On the plus side, corporate profits have been at record levels as management has met labor needs through overtime and part-time hiring rather than the more expensive additions to full-time payroll. The biggest help to improving equity markets, if not economic growth, has come from central bank stimulus. However, Federal Reserve Chairman Ben Bernanke's comment last summer about the likelihood of near-term reductions in the Fed's bond-buying program ("tapering") helped cause an increase in bond yields (about 1%), resulting in some pain in both the equity and bond markets as the year came to a close.

Given this economic climate, the VRS total fund posted a FY 2013 return of 11.8%. This return was prepared using a time-weighted methodology based on market value, net of investment expenses and bested the benchmark index return of 11.1% for the same time period. The following table shows the total fund performance for various timeframes along with the benchmark:

Periods ending June 30, 2013:

	1 Year	3 Years	<u>5 Years</u>	10 Years
VRS Total Fund	11.8%	10.5%	4.0%	7.6%
VRS Benchmark	11.1%	9.8%	3.8%	7.1%

Double digit returns were generated by several asset classes, led by stocks (18.6%) and private equity (11.7%). Real assets and credit strategies also generated more than 10% for the year. High quality fixed income, the total fund's stable asset actually generated a small loss of 0.1% for the year as interest rates rose in the latter months of the year. All asset classes except private equity performed well relative to their assigned benchmarks.

# **Traditional Asset Classes**

Most pension funds asset allocation policies consist largely of traditional stocks and bonds. A few short decades ago, the "typical" pension fund was referred to as a 60/40 portfolio, reflecting a 60% stock and 40% bond asset allocation. Over the years, alternative assets have been added to institutional portfolios for both return enhancement as well as diversification benefits. VRS has been no different, though the extent to which the Board and staff have embraced alternatives is greater than the median fund per the Pension Fund Data Exchange, a service that gathers and provides data for large public funds. Today, VRS has more than 35% in alternative assets. I will discuss those assets in a moment. But first, a look at traditional stocks and bonds, the largest segment of the total fund.

The VRS public equity portfolio generated an 18.6% return for the fiscal year. Not only was this a strong absolute level of return, it was very nicely ahead of the benchmark index return of 17.4%. Developed markets in the U.S., Europe and Asia rose sharply, while emerging markets as a whole were a drag on performance. One might ask why we invest in emerging markets with their commensurately higher risk, when the return is less than the safer developed markets. The answer lies in the timeframe. Over the past 10 years, emerging markets delivered a significant return premium to developed markets. Looking ahead, we expect a continued performance premium from the emerging markets.

The public equity portfolio is managed using both internal and external managers. Just over one-third of the equity portfolio is managed by internal staff in both active and passive strategies. Eight of the 10 developed market mandates exceeded their benchmarks for the year while the combined portfolio had significant three-year outperformance versus the program benchmark. Large contributors to this performance were two low volatility mandates which are expected to generate attractive performance at lower levels of risk than traditional active strategies.

As mentioned earlier, investment-grade fixed income fell in value as interest rates rose sharply at the end of the year. For the 12 months ended June 30, the VRS bond portfolio was basically flat, declining by 0.1%. The index for the same time period dropped 0.6% in value. So the internal fixed income team performed quite well relative to the benchmark. This level of outperformance was generated by an underweight to Treasury bonds and a commensurate overweight to collateralized bonds and high quality corporate securities.

### Alternative Asset Classes

Going beyond the traditional asset classes of global equities and high quality bonds, VRS was helped tremendously by exposure to private equity, real estate, tangible assets and credit strategies. About 36% of the VRS portfolio was held in these non-traditional asset classes.

The private equity portfolio generated the highest return of all alternative asset classes with 11.7% for the year ended June 30. This level of return falls into the range we expect from this asset class, though it appears that the private equity portfolio performed poorly against its benchmark return of 17.1%. This benchmark consists of a 2.5% return premium over the public stock market. However, it should be noted that the benchmark is a notoriously poor indicator of private equity skill in the short run. But, lacking a better alternative, we use the stock market as a benchmark to evaluate the portfolio returns focusing on longer time periods. For the 10 years ended June 30, 2013, private equity delivered 15.1%, beating all other asset classes and exceeding the private equity custom benchmark by 3.4%.

We combine real estate and tangible assets into a single sleeve of the portfolio called "real assets." The VRS portfolio generated a 10.7% return for the year, beating its benchmark of 10.3%. Longer term, the real assets portfolio has beaten its benchmark in most time periods. However, the portfolio did struggle a bit during the Global Financial Crisis when real estate and equity markets were under severe pressure from panicked sellers. Returns in the portfolio are largely driven by traditional real estate (brick-and-mortar buildings across the globe). Only recently have we started investing in tangible assets which include infrastructure (airports and other public utility types of investments) as well as timber investments in the U.S. and Brazil. It will take time for the tangible assets to be developed into a meaningful part of the real asset portfolio.

Last, but not least, is the credit portfolio which has performed quite well. At the start of the fiscal year, the portfolio was positioned to provide a broad and balanced exposure to all credit sectors. This positioning paid off as the portfolio had high absolute levels of return and significantly outperformed its asset class benchmark (+10.5% vs. +7.7%). Key in this outperformance was the fact that much of the credit portfolio is in non-rate sensitive sectors. Thus, when interest rates rose in the final quarter of the fiscal year – driving bond values down, the non-rate sensitive sector of the credit portfolio generated gains rather than losses.

To conclude, I would like to extend my thanks to the Board of Trustees as well as the Investment Advisory Committee for their time and efforts in making the VRS portfolio better. I also would like to thank VRS Director Bob Schultze and the entire investment staff at VRS. Together, we will build on the successful legacy of the past.

Sincerely,

Ronald D. Schmitz

he Investment Section provides detailed information regarding the structure of the investment portfolio. This information includes performance, asset allocations, portfolio highlights, a list of VRS' money managers and public equity commissions for the fiscal year. The section also presents the System's investment management fees and expenses and an investment summary. \_\_

# Investment Account

The VRS Board of Trustees has fiduciary responsibility to invest the fund solely in the interest of the beneficiaries of the System. As established by the Code of Virginia, "the Board shall invest the assets of the Retirement System with the care, skill, prudence, and due diligence that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims."

Benefit payments are projected to occur over a long period of time. This allows VRS to adopt a long-term investment horizon and asset allocation policy for the management of fund assets. Asset allocation policy is critical because it defines the basic risk and return characteristics of the VRS investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the Board in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This asset-liability analysis considers both sides of the VRS balance sheet in order to estimate the potential impact of various asset class mixes on key measures of total plan risk, including the resulting estimated impact on funded status and contribution rates.

The Chief Investment Officer has been delegated authority by the Board to allocate the System's investments within the approved asset allocation policy and within the Board-approved active risk budget. The total fund active risk budget describes the degree of tolerance for yearly variation in the fund's performance relative to the Total Fund VRS Custom Benchmark. The primary risk measure used for this purpose is Total Fund Tracking Error, calculated as the standard deviation of the difference between the fund's return and the return of the Total Fund VRS Custom Benchmark. From this measure, probability estimates can be derived to help the Board estimate the risk of underperforming the benchmark by certain margins.

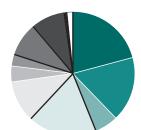
The investment staff manages the VRS portfolio on a day-to-day basis according to policies and guidelines established by the Board. The staff manages assets on a direct basis and through outside investment managers. Managers employ both active and passive investment strategies. The Board has established various performance benchmarks to serve as tools for measuring progress toward the achievement of long-term investment goals.

The asset allocation mix of the VRS fund as of June 30, 2013, is shown in Figure 3.1:



FIGURE 3.1 - ASSET ALLOCATION MIX

AS OF JUNE 30, 2013



### **Public Equity**

- 20.8% Domestic Equity
- 17.2% Non-U.S. Equity
- 6.0% Emerging Market Equity

### Investment-Grade Fixed Income

17.9% Fixed Income

# **Credit Strategies**

- 10.8% Credit
- 3.8% Convertibles
- 3.5% Emerging Market Debt

### **Real Assets**

■ 9.4% Real Assets

# **Private Equity**

■ 8.6% Private Equity

# Strategic Opportunities

■ 0.4% Strategic Opportunities

### Cash

☐ 1.6% Cash

# FIGURE 3.2 - INVESTMENT PERFORMANCE SUMMARY

ANNUALIZED DATA FOR THE PERIOD ENDING JUNE 30, 2013

	1 Year	3 Years	5 Years
1. Total Fund			
VRS	11.8%	10.5%	4.0%
VRS Custom Benchmark <sup>1</sup>	11.1%	9.8%	3.8%
2. Total Public Equity			
VRS	18.6%	12.9%	3.5%
Custom Benchmark <sup>2</sup>	17.4%	12.0%	3.2%
3. Total Investment-Grade Fixed Income			
VRS	-0.1%	4.5%	6.4%
Custom Benchmark <sup>3</sup>	-0.6%	3.6%	5.3%
4. Total Credit Strategies			
VRS	10.5%	8.7%	7.7%
Custom Benchmark <sup>4</sup>	7.7%	7.3%	5.8%
5. Total Real Assets			
VRS	10.7%	15.1%	2.1%
Custom Benchmark <sup>5</sup>	10.3%	13.6%	3.0%
6. Total Private Equity			
VRS	11.7%	13.3%	6.0%
Custom Benchmark <sup>6</sup>	17.1%	15.5%	8.9%
7. Total Strategic Opportunities			
VRS	n/a	n/a	n/a
Custom Benchmark <sup>7</sup>	n/a	n/a	n/a

Investment return calculations were prepared using a time-weighted return methodology based on market value, net of investment expenses.

continued

<sup>1.</sup> The VRS Custom Benchmark is the weighted average of the VRS asset-class program benchmarks.

<sup>2.</sup> Effective July 2009, the Public Equity Custom Benchmark is risk-adjusted. Effective April 2010, the risk-adjusted benchmark is based on the market-value weights of the MSCI ACWI IMI Index.

<sup>3.</sup> Effective July 2012, the Investment-Grade Fixed Income Custom Benchmark consists of the Citigroup BIG Index.

- 4. Effective July 2012, the Credit Strategies Custom Benchmark is the weighted average of the Citigroup Broad Investment Grade Index (10%), the Bank of America Merrill Lynch BB-B Constrained Index (20%), the S&P Performing Loan Index (30%), the Emerging Market Debt Custom Benchmark (20%), and the Bank of America Merrill Lynch All U.S. Convertibles Index (20%). For the four years prior to July 2012, the risk-adjusted benchmark is the weighted average of the Bank of America Merrill Lynch U.S. High Yield BB-B Constrained Index and the Bank of America All Convertibles Index.
- 5. Effective July 2012, the Real Assets Custom Benchmark is the weighted average of the NCREIF ODCE Index (net) lagged by three months (private real estate), the Dow Jones US Select REIT Index (domestic public real estate), the FTSE/EPRA/NAREIT Developed Index (global public real estate) and the CPI-U Index plus 500 basis points per annum lagged by three months (other real assets) with modified benchmarking for Other Real Assets during the increased allocation period.
- 6. Effective January 1995, the Private Equity Custom Benchmark is the Russell 3000 Index lagged by 3 months plus 250 basis points per annum.
- 7. Effective January 2013, the Strategic Opportunities Portfolio Custom Benchmark is a weighted average of the Total Active Currency Overlay Benchmark, which is a constant zero percent, and the Custom Hedge Fund Benchmark. The weights are based on the beginning-of-month notional account value for the VRS Active Currency Overlay and the market value of the Strategic Opportunities Portfolio Total Hedge Funds, respectively.

# Portfolio Highlights

### PUBLIC EQUITY

The market value of the Total Public Equity Program, including rebalance equity exposure, as of June 30, 2013, was \$25.7 billion, representing approximately 44% of the total fund. Forty-seven percent was invested in Domestic Equity and 53% in International Equity. Five percent was invested in passive strategies, and 33% was managed internally. The objective of the portfolio is to exceed the Custom Benchmark over longer-term periods, net of all costs. At fiscal year end, the Custom Benchmark was comprised of 49.2% of the MSCI U.S. Investible Market Index (IMI), 39.6% of the MSCI World excluding U.S. IMI (50% hedged) and 11.2% in the MSCI Emerging IMI.

The Total Public Equity Program outperformed the Custom Benchmark during the fiscal year by 1.3%. During the year, the U.S. benchmark was up 21.4%, the Non-U.S. Developed (50% hedged) benchmark was up 20.4% and the Emerging Markets benchmark was up 3.6%. Public markets advanced as economic data continued to improve.

The Total Public Equity Program is dominated by traditional, long-only strategies (84.4% of program, or \$21.7 billion). The program also employs traditional long-short strategies (2.0% of program, or \$0.5 billion) and equity-oriented hedge fund strategies (13.6% of program, or \$3.5 billion).



There were some differences among the Total Public Equity portfolio versus the Custom Benchmark based on sectors and region weights:

FIGURE 3.3 - CUSTOM BENCHMARK SECTORS AND REGIONS

Sectors	VRS	Strategic Benchmark	Regions	VRS	Strategic Benchmark
Consumer Discretionary	13.05%	12.21%	North America	54.07%	53.01%
Consumer Staples	10.94%	9.71%	Europe/Middle East/Africa	23.22%	24.71%
Energy	7.33%	9.31%	Asia Pacific	19.89%	20.18%
Financials	19.40%	21.63%	Latin and South America	2.82%	2.10%
Health Care	11.24%	10.00%			
Industrials	12.07%	11.33%		100.00%	100.00%
Information Technology	14.06%	12.23%			
Materials	3.91%	6.38%			
Telecommunication Services	4.55%	3.83%			
Utilities	3.45%	3.37%			
	100.00%	100.00%			

Based on Barra's classification of sectors and regions and excludes cash.

The top 10 holdings in the Total Public Equity Program comprised 6.7% of the program at fiscal year-end. In comparison to last year, two companies fell from last year's list. China Mobile and Philip Morris were replaced by Roche Holdings and Novartis AG.

FIGURE 3.4 - PUBLIC EQUITY: TOP 10 EXPOSURES

AS OF JUNE 30, 2013

Company	Market Value	Shares
Microsoft Corporation	\$ 268,238,191	7,768,265
Google, Inc.	210,825,511	239,474
Exxon Mobil Corporation	197,341,753	2,184,192
Apple Inc.	180,982,936	456,935
Samsung Electronics	153,976,957	131,035
Roche Holdings	148,332,754	597,213
Johnson & Johnson	146,373,524	1,704,793
Wells Fargo	143,689,773	3,481,700
Chevron	141,115,279	1,192,456
Novartis AG	132,196,422	1,864,048

Aggregated various share classes based on parent company. VRS maintains a complete list of portfolio holdings.

### FIXED INCOME

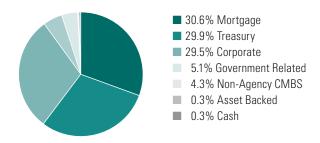
VRS invests a portion of its portfolio in fixed income investments in order to reduce total fund volatility, produce income and provide for some protection in the event of a deflationary environment. At year end, approximately \$10.4 billion was invested in the Fixed Income Program, representing 17.9% of the total fund.

The Fixed Income Program is internally invested in a diversified portfolio of high quality assets, such as government securities, corporate securities, and mortgage-backed securities. The objective of the program is to exceed the return of the Citigroup Broad Investment Grade Index, while staying in compliance with risk limits. For the current fiscal year the return of the program was -0.07% versus a return of -0.65% for the benchmark.



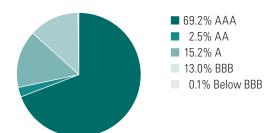
# FIGURE 3.5 - FIXED INCOME PORTFOLIO BY SECTOR ALLOCATION

AS OF JUNE 30, 2013



# FIGURE 3.6 - FIXED INCOME PORTFOLIO BY CREDIT QUALITY BREAKDOWN

AS OF JUNE 30, 2013



# FIGURE 3.7 – FIXED INCOME: TOP 10 HOLDINGS BY MARKET VALUE

AS OF JUNE 30, 2013

Par	Security Description	Market Value	
\$ 275,000,000	Fannie Mae MBS 3.000% due 07/01/2043	\$ 268,683,250	
242,000,000	US Treasury Notes 2.375% due 03/31/2016	253,824,120	
235,200,000	US Treasury Notes 2.625% due 12/31/2014	243,542,544	
230,000,000	US Treasury Notes 2.375% due 10/31/2014	236,559,600	
219,970,000	US Treasury Notes 0.250% due 05/15/2015	219,653,243	
200,000,000	Fannie Mae MBS 3.500% due 07/01/2043	203,032,000	
200,000,000	Freddie Mac MBS 3.000% due 07/01/2043	194,938,000	
200,000,000	Fannie Mae MBS 3.000% due 08/01/2043	194,876,000	
165,000,000	US Treasury Notes 2.000% due 01/31/2016	171,235,350	
169,500,000	US Treasury Bonds 0.750% due 12/31/2017	165,842,190	

### SHORT-TERM INVESTMENTS

Generally, VRS desires to remain fully invested at all times and seeks to minimize its holdings of cash investments. Temporary cash balances are invested in short-term money market instruments with the goal of maintaining high credit quality and liquidity.

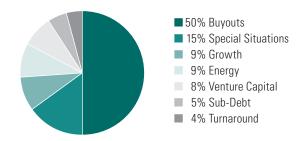
### PRIVATE EQUITY

VRS invests in private equity in order to achieve returns greater than those available in the public equity markets. Specifically, the program seeks to outperform the Russell 3000 Index by 2.5% per year. Program returns are calculated on both a timeweighted basis and a dollar-weighted or internal rate-of-return (IRR) basis. On a time-weighted basis, the program return for FY 2013 was 11.7%. On a dollar-weighted or IRR basis, the private equity one-year return was 11.0% as of March 31, 2013.

As of June 30, 2013, the carrying value of the program was approximately \$5.0 billion. Most of the program is invested in limited partnerships. Sectors in which the program invests include leveraged buyouts, venture capital, growth, subdebt, turnaround, energy and special situations. The Private Equity Program's market value by sub-class was as follows:

FIGURE 3.8 - PRIVATE EQUITY PROGRAM

AS OF JUNE 30, 2013



### **REAL ASSETS**

A portion of the VRS portfolio is invested in real assets to help diversify the total fund by providing exposure to asset classes and sectors that offer low

historical correlations with the public markets and with the additional objectives of generating competitive risk-adjusted returns, significant operating cash flows and inflation linkages. The portfolio continued to grow in fiscal year 2013, producing a 10.7% return and outperforming the benchmark by 40 basis points. Our REITs produced a total return of 13.7% while the private real estate portfolio delivered a 10.7% return. Our initial investments in infrastructure and timberland produced a 3.4% return for the fiscal year.

The percentage of the total fund represented by the real asset portfolio increased over the course of the year from 8.2% to 9.4%, due primarily to new fundings as well as asset income and appreciation. At fiscal year end, the portfolio was composed of approximately 11.5% REITs, 75.1% private real estate, 7.9% infrastructure and 5.5% timberland. Portfolio leverage as a percentage of total real assets was 32.1% as of June 30, 2013.

FIGURE 3.9 - REAL ASSETS BY SECTOR

AS OF JUNE 30, 2013

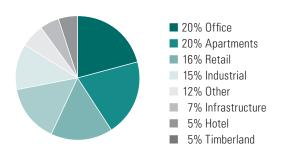
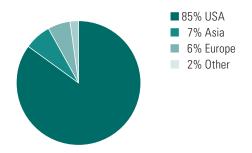


FIGURE 3.10 - REAL ASSETS BY GEOGRAPHIC REGION

AS OF JUNE 30, 2013



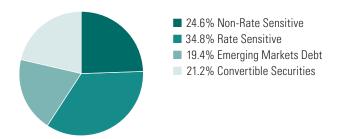


### **CREDIT STRATEGIES**

VRS allocates a portion of the portfolio to creditrelated investments. The Credit Strategies program is utilized to provide an alternative arena for generating attractive returns for the plan. The objectives of the program are to provide attractive returns relative to the Custom Credit Strategies benchmark, to provide higher levels of income, and to provide diversification benefits to the plan. For the fiscal year, the program returned 10.5%, while the program's custom benchmark returned 7.7%.

### FIGURE 3.11 - CREDIT STRATEGIES

AS OF JUNE 30, 2013



### STRATEGIC OPPORTUNITIES PORTFOLIO

Approved by the Board of Trustees, the Strategic Opportunities Portfolio was funded January 1, 2013, to manage strategies that staff believes would add value to the total fund but would otherwise not fit individual program mandates or benchmarks. As of June 30, 2013, the portfolio had a market value of \$216 million and was invested in a global hedge fund and a developed market active currency manager. Since January 1, 2013, the portfolio has returned 0.7% against the program's custom benchmark which returned 0.3%.

### MORE INFORMATION

A complete list of the investment portfolio is available upon request. Address requests to the VRS FOIA Coordinator, Virginia Retirement System, P.O. Box 2500, Richmond, VA 23218-2500.

# VRS Money Managers

The diversified investment structure as of June 30, 2013, is reflected in the following tables, which list VRS managers by investment program and style.

# PUBLIC EQUITY MONEY MANAGERS

External Managers – Top 10 Managers	Style Description
Acadian Asset Management	Non-U.S. Small, Emerging Markets
AllianceBernstein	Global
Arrowstreet Capital	Global
BlackRock	Global
Epoch	Global
LSV Asset Management	Non-U.S. Small
Nordea	Global
Relational	U.S. Large Cap
T. Rowe Price	Emerging Markets
Wells Fargo / Berkeley Street	Emerging Markets
Internal Portfolios	Style Description
Afton	U.S. Small
Dogwood	Non-U.S. Large
Madison	U.S. Large
Matoaka	Non-U.S. Large
Mobjack	U.S. Large
Piedmont	Non-U.S. Large
Potomac	U.S. Large
Small Cap Synthetic	U.S. Small
Hedge Funds – Top 10 Managers	Style Description
Blue Ridge, LP	Long/Short
Cevian	Long/Short
Clough	Long/Short
Glenhill Capital	Long/Short
Lansdowne Partners	Long/Short
Maverick Capital	Long/Short
New Mountain Capital	Long/Short
Theleme	Long/Short
TPG-Axon Partners	Long/Short
ValueAct Capital	Long/Short
FIXED INCOME	
Internal Portfolios	Style Description
VRS Collateralized	Mortgage and other Asset-Backed Securities
VRS Credit	High Quality Corporatos
	High Quality Corporates  Treasuries, Agencies and other Government Related

#### PRIVATE EQUITY - TOP 10 MANAGERS

Style Description

Credit Suisse **Customized Separate Account** 

Nordic Capital Buyout **Apax Partners** Buyout First Reserve Energy Hellman and Friedman **Buyout TPG** Buyout

**Summit Partners** Growth & Sub-Debt

Natural Gas Partners Energy

Welsh, Carson, Anderson and Stowe Buyout and Sub-Debt

Madison Dearborn **Buyout** 

# CREDIT STRATEGY - TOP 10 MANAGERS

Style Description

Style Description

Convertibles **Advent Capital** Anchorage Hedge Fund

Beach Point Capital Management Distressed, Leveraged Loans, Opportunistic Oaktree Capital Management Convertibles, Distressed, High Yield, Mezzanine Pacific Investment Management Company Emerging Markets Debt, High Yield, Investment Grade

Payden & Rygel **Emerging Markets Debt** 

Prudential High Yield, Investment Grade, Mezzanine

Solus Alternative Asset Management Hedge Fund, Opportunistic

Western Asset Management Emerging Markets Debt, Leveraged Loans

Zazove Associates Convertibles

#### REAL ASSETS - TOP 10 MANAGERS

Morgan Stanley

Core, Enhanced Core, Opportunistic & Global REITs

Prudential Real Estate Investors Core & Enhanced Core

Blackstone Real Estate Partners Opportunistic

Core

JP Morgan Investment Management, Inc. Infrastructure Funds Management Infrastructure

Clarion Partners **Enhanced Core** 

Enhanced Core & Opportunistic **ProLogis** 

**TA Associates Realty** Core Hancock Natural Resource Group Timberland LaSalle Investment Management Core

# Public Equity Commissions AS OF JUNE 30, 2013

	Commission
Goldman Sachs Execution & Clearing, New York RBC Capital Markets LLC, New York Sanford C. Bernstein & Co., Inc., London Weeden & Co., New York Morgan Stanley & Co., London (MSLNGB2X) Macquarie Secs. (Singapore), Singapore Hong Kong & Shanghai Bkg. Corp., Hong Kong Stifel Nicolaus Loop Capital Markets, Jersey City Macquarie Bank Ltd., Hong Kong Instinet Corp., New York J.P. Morgan Secs. Asia Pacific, Hong Kong Other Brokers  Total FY 2013	168,962 168,095 167,406 156,013 153,577 146,228 145,935 133,239 118,783 112,804 111,604 107,342 107,320 4,659,650 \$16,730,488
305 369 321 321 324 334 334 395 395 394 394 394 394 394 394	Goldman Sachs Execution & Clearing, New York RBC Capital Markets LLC, New York Sanford C. Bernstein & Co., Inc., London Weeden & Co., New York Morgan Stanley & Co., London (MSLNGB2X) Macquarie Secs. (Singapore), Singapore Hong Kong & Shanghai Bkg. Corp., Hong Kong Stifel Nicolaus Loop Capital Markets, Jersey City Macquarie Bank Ltd., Hong Kong Instinet Corp., New York J.P. Morgan Secs. Asia Pacific, Hong Kong Other Brokers

# SCHEDULE OF INVESTMENT MANAGEMENT FEES AND EXPENSES

FOR THE YEAR ENDED JUNE 30, 2013

(EXPRESSED IN THOUSANDS)

	Assets Under Management	Fe	Management Fees and Expenses		
External Management:					
Domestic Managers	\$ 2,559,448	\$	11,369		
Non-U.S. Equity Managers	4,770,674		26,793		
Global Equity Managers	5,445,605		19,871		
Fixed Income Managers	2,716,981		1,030		
Credit Strategies Managers	9,388,527		53,886		
Real Estate Managers	5,513,378		53,987		
Private Equity Managers	5,140,091		68,676		
Hedge Fund Managers	4,860,193		65,274		
Strategic Opportunity Portfolio*	-		4,333		
Internal Management	19,043,573		21,204		
Miscellaneous Fees and Expenses:					
Custodian fees	-		4,501		
Legal fees	-		430		
Other fees and expenses	-		533		
Total	\$ 59,438,470		\$ 331,887		

<sup>\*</sup>The assets within the Strategic Opportunity Portfolio include Active Currency Overlay program and the related fee is based on the managers' notional account values.

# **Investment Summary**

In accordance with Section 51.1-124.31 of the *Code of Virginia* (1950), as amended, the Board of Trustees has pooled substantially all assets of the Virginia Retirement System, the State Police Officers' Retirement System, the Virginia Law Officers' Retirement System, the Judicial Retirement System, the Group Life Insurance Fund, the Retiree Health Insurance Credit Fund and the Disability Insurance Trust Fund into a common investment pool. The common investment pool of the pension trust funds and other employee benefit trust funds held the following composition of investments at June 30, 2013 and 2012:

			(EXPRE	SSED IN THOUSANDS)
	2013 Fair Value	Percent of Total Value	2012 Fair Value	Percent of Total Value
Bonds and Mortgage Securities:				
U. S. Government and Agencies	\$ 3,760,695	6.28%	\$ 2,981,716	5.57%
Mortgage Securities	3,757,050	6.27%	3,011,596	5.63%
Corporate and Other Bonds	10,648,030	17.79%	12,815,290	23.94%
<b>Total Bonds and Mortgage Securities</b>	18,165,775	30.34%	18,808,602	35.13%
Common and Preferred Stocks	21,954,047	36.65%	18,590,578	34.74%
Index and Pooled Funds:				
Equity Index and Pooled Funds	5,343,955	8.92%	5,303,314	9.91%
Fixed Income Commingled Funds	857,756	1.43%	891,098	1.66%
Total Index and Pooled Funds	6,201,711	10.35%	6,194,412	11.57%
Private Real Estate	4,889,615	8.16%	3,784,232	7.07%
Private Equity	8,126,024	13.57%	5,888,743	11.00%
Short-Term Investments:				
Treasurer of Virginia – LGIP Investment Pool	440,226	0.73%	74,254	0.14%
Short Term Investment Fund	20,398	0.03%	97,617	0.18%
Foreign Currencies	101,297	0.17%	82,046	0.15%
Total Short-Term Investments	561,921	0.93%	253,917	0.47%
Total Investments	\$ 59,899,093	100.00%	\$ 53,520,484	100.00%

# 4 actuarial section

Pension Trust Funds:

Actuary's Certification Letter—Pension Plans

Solvency Test—Pension Plans

Schedule of Active Member Valuation Data-

Pension Plans

Schedule of Retiree and Beneficiary Valuation Data—

**Pension Plans** 

Summary of Actuarial Assumptions and Methods

Summary of Pension Plan Provisions

Summary of Pension Plan Changes

Other Post-Employment Benefit (OPEB) Plan Funds:

Actuary's Certification Letter-OPEB Plans

Actuary's Certification Letter-OPEB Plans-

VSDP Long-Term Care Plan

Actuary's Certification Letter-OPEB Plans-

Line of Duty Act Fund

Summary of Actuarial Assumptions and Methods

Solvency Test--OPEB Plans

Schedule of Active Member Valuation Data— OPEB Plans

Schedule of Retiree and Beneficiary Valuation Data— OPEB Plans

Summary of OPEB Plan Provisions

Summary of OPEB Plan Changes



Fast Fact 4: VRS is consistently in the lowest cost quartile, compared to its peers in the CEM Benchmarking evaluation, while maintaining above median service.

# Actuary's Certification Letter — Pension Plans



October 31, 2013

#### **Board of Trustees**

Virginia Retirement System 1200 E. Main Street Richmond, VA 23219

Dear Trustees:

We are pleased to submit the results of the annual actuarial valuation for the following retirement plans administered by the Virginia Retirement System, prepared as of June 30, 2012:

- State Employees (VRS)
- Teachers (VRS)
- State Police (SPORS)
- Virginia Law Officers (VaLORS)
- Judicial (JRS)

In addition, this report includes information in aggregate on the actuarial valuations of the Political Subdivisions participating in VRS as of June 30, 2012. We have prepared and provided separately, actuarial valuation reports for each of the Political Subdivisions. Please refer to the individual reports for the valuation results, summary of actuarial assumptions and methods, and plan provisions for each of the Political Subdivision plans.

The purpose of this report is to provide a summary of the funded status of the plans as of June 30, 2012, to recommend rates of contribution, and to provide accounting information under Governmental Accounting Standards Board (GASB) Statements No. 25 and 27 (GASB 25 and 27). While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation results indicate that the employer contribution rates shown in the table on the following page are sufficient to fund the normal cost for all members and finance the unfunded accrued liability of the plans. For comparison, in the table on the following page we present the recommended employer contribution rates based on the June 30, 2011, actuarial valuations and the employer contribution rates approved by the General Assembly (GA) for the fiscal years ending June 30, 2013 and 2014.



#### **Employer Contribution Rates**

Division	6/30/2012 Valuation	6/30/2011 Valuation	Adopted for FY 2013 & FY 2014
State Employees	14.87%	13.07%	8.76%
Teachers	18.20%	16.77%	11.66%
State Police	35.16%	32.62%	24.74%
Virginia Law Officers	21.30%	19.52%	14.80%
Judicial	55.18%	54.11%	45.44%
Political Subdivisions*	11.11%	10.63%	10.63%

\*Average rate for 2012 valuation, and average rates for 2011 valuation and fiscal years 2013 and 2014.

Contribution rates for VRS employers are established every two years. The actuarially calculated employer contribution rates based on the June 30, 2012, results presented in this report are for informational purposes only.

The promised benefits of VRS are included in the calculated contribution rates, which are developed using the entry age normal cost method. The valuation takes into account the differentiation between Plan 1 vested members, Plan 1 non-vested members as of 1/1/2013 resulting from HB 1130 and SB 498, and Plan 2 members. Five-year smoothed market value of assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability. In accordance with the supplemental contribution provision of House Bill 30 (from 2011), the portion of the unfunded accrued liability with respect to deferred contributions for the 2010-2012 biennium is amortized using a level-dollar, closed, 10-year period beginning June 30, 2011. The balance of the unfunded accrued liability is being amortized by regular annual contributions as a level percentage of payroll within a 30-year period, on the assumption that payroll will increase by 3.00% annually and the amortization period will decrease by one year until reaching the minimum period of 20 years. The assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund, and meet the parameters for disclosures under GASB 25 and 27.

We have prepared the Schedule of Funding Progress and Trend Information shown in the Financial Section of the Comprehensive Annual Financial Report and all supporting schedules, including the Schedule of Active Member Valuation Data, the Solvency Test and the Analysis of Financial Experience shown in the Actuarial Section of the Comprehensive Annual Financial Report. For completeness, the table of Changes in Unfunded Actuarial Accrued Liabilities, the Solvency Test and the Retiree and Beneficiary Valuation Data include the information with respect to the Political Subdivisions participating in VRS. All historical information that references a valuation date prior to June 30, 2008, was prepared by a previous actuarial firm.



In addition, the following schedules (or updates to them) were prepared by VRS from information prepared by us during the 2012 and prior actuarial valuations or from supplemental information prepared by us for use in the System's Comprehensive Annual Financial Report. Historical information that references a valuation date prior to June 30, 2008, was prepared by a previous actuarial firm. We have reviewed the following schedules for the periods indicated for inclusion in the System's 2013 Comprehensive Annual Financial Report:

- Schedule of Funding Progress (FY 2003-FY 2005)
- Schedule of Employer Contributions (All Years)
- Solvency Test (FY 2003-FY 2006)
- Schedule of Active Member Valuation Data (FY 2003-FY 2009)
- Schedule of Retirees and Beneficiaries (All Years)

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the System and on actuarial assumptions that are internally consistent and reasonably based on the actuarial experience of the System.

Future actuarial results may differ significantly from the current results 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. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA

Chief Executive Officer

Jose I. Fernandez, ASA, FCA, EA, MAAA Principal and Consulting Actuary

he Actuarial Section presents information about the assumptions adopted by the Board of Trustees and used by the VRS actuary to evaluate the funded status of the pension plans. This information includes trend data about retirements, disabilities, terminations and salary increase rates. The section also provides summaries of the provisions of and changes to the pension plans administered by the System.

#### ACTUARIAL ASSUMPTIONS AND METHODS - PENSION PLANS

	2003-2004	2005-2009	2010	2011-2012
Investment Rate of Return	8.00%	7.50%	7.00%	7.00%
Inflation Assumption:	3.00%	2.50%	2.50%	2.50%
Cost of Living (COLA) Assumption: Plan 1 Plan 2	3.00% N/A	2.50% N/A	2.50% N/A	2.50% 2.25%
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Change in Decremental Assumptions	No	Yes	No	No
Value of Ancillary Benefits Included	Yes	Yes	Yes	Yes
Value of Post-Retirement Adjustments to Date Included	Yes	Yes	Yes	Yes
Assets Valuation Method	5-Year Smoothed Market	5-Year Smoothed Market	5-Year Smoothed Market	5-Year Smoothed Market



Valuation	Aggre (1) Active	gate Accrued Liabil (2) Retirees	ities for			Portion of ccrued Liabilitie	
Date (June 30)	Member Contributions	and Beneficiaries	(3) Active Members*	Valuation Assets	(1)	overed by Asset (2)	(3)
(505 55)		201101101011010	ent System (VRS)	( ' /	(=/	(0)	
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003	\$ 9,479,988 9,116,662 9,246,421 8,876,564 8,389,773 8,154,046 6,988,172 6,555,402 6,139,908 5,703,557	\$ 39,996,442 37,539,539 35,117,915 31,589,747 29,225,652 23,339,386 23,055,815 21,140,882 18,971,864 17,223,070	\$ 28,382,426 28,528,577 28,436,065 25,856,700 24,939,054 23,623,041 22,777,916 21,932,204 18,846,578 17,770,944	\$ 51,211,915 52,558,997 52,728,575 53,185,033 52,548,375 47,815,450 42,668,752 40,372,648 39,691,562 39,242,624	100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	6.11% 20.69% 29.41% 49.19% 59.88% 56.39% 55.43% 57.80% 77.36% 91.81%
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003	\$ 78,465 74,943 77,759 74,662 71,160 70,796 66,055 62,917 61,529 59,097	\$ 563,612 540,097 510,491 474,622 444,025 408,085 378,636 337,017 310,306 277,282	\$ 371,201 370,664 360,642 329,896 329,010 327,147 285,236 273,239 284,509 279,243	\$ 587,160 616,603 633,415 646,960 646,277 594,985 538,646 514,330 510,604 508,576	100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	90.30% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	0.00% 0.42% 12.52% 29.61% 39.84% 35.49% 32.94% 41.87% 48.77% 61.67%
				irement System (VaL			
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003	\$ 176,172 174,963 186,792 181,760 173,039 169,393 156,310 148,890 143,836 135,144	\$ 861,342 763,631 682,378 581,887 510,878 458,383 412,767 330,502 246,872 195,554	\$ 715,499 744,597 710,151 648,197 597,560 538,203 527,291 500,705 536,424 523,138	\$ 909,399 926,082 925,443 912,922 873,473 766,243 656,668 575,327 508,561 457,615	100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	85.10% 98.40% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	0.00% 0.00% 7.92% 23.03% 31.72% 25.73% 16.61% 19.16% 21.97% 24.26%
			Judicial Retirem	ent System (JRS)			
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003	\$ 38,578 37,981 43,217 41,793 38,785 38,675 34,756 32,143 30,176 28,766	\$ 335,501 312,423 310,305 287,543 271,276 242,825 240,005 229,942 211,228 198,005	\$ 208,377 219,091 206,398 192,127 184,707 160,998 149,637 140,216 124,171 121,265	\$ 361,097 371,051 372,096 378,212 373,850 340,200 302,734 287,825 285,178 282,326	100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	96.10% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	0.00% 9.42% 9.00% 25.44% 34.54% 36.46% 18.69% 18.36% 35.25% 45.81%

<sup>\*</sup>Employer-financed portion.

Aggregate Accrued Liabilities are determined under the entry age normal cost method (System-funded method used to determine employer contribution requirements).

The progress of a retirement system in accumulating assets to pay benefits when due can be measured by examining the extent to which assets accumulated for benefits cover (1) active member contributions to the System; (2) liabilities for future benefits to retirees and beneficiaries; and (3) liabilities for the employerfinanced portion of service already rendered by active members. In a system receiving actuarially determined employer contributions, the liabilities for member contributions and future benefits to retirees and beneficiaries will generally be fully covered by accumulated assets. In addition, the liabilities for service already rendered will be partially covered by the remainder of the accumulated assets and will increase over time.

# SCHEDULE OF ACTIVE MEMBER VALUATION DATA - PENSION PLANS

Valuation Date (June 30)	Number	Annual Payroll (000s)	Average Annual Pay	Annualized % Increase in Average Pay	Number of Employers
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003	328,385 326,357 329,374 333,049 331,851 326,218 320,065 312,981 305,388 300,612	\$ 14,880,275 14,708,859 14,757,790 14,947,644 14,558,592 13,834,022 13,001,551 12,212,145 11,509,902 10,884,629	\$ 45,314 45,070 44,806 44,881 43,871 42,407 40,622 39,019 37,689 36,208	0.5% 0.6% -0.2% 2.3% 3.5% 4.4% 4.1% 3.5% 4.1%	599 594 592 587 583 578 575 571 565 559
		State Police Officers' Ret	, ,	•	
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003 2012 2011 2010 2009 2008 2007 2006 2005 2006 2005 2004	1,881 1,738 1,767 1,828 1,852 1,890 1,795 1,811 1,755 1,727 9,383 9,631 9,734 10,087 10,087 10,213 9,904 9,819 9,746 9,626	\$ 104,189 99,669 97,601 100,974 102,466 100,785 93,742 90,865 82,100 79,020 Virginia Law Officers' Ret \$ 344,616 356,240 346,040 359,070 368,255 341,035 320,869 306,574 298,313 291,801	\$ 55,390 57,347 55,235 55,237 55,327 53,325 52,224 50,174 46,781 45,756 irement System (VaLOF) \$ 36,728 36,989 35,550 35,550 35,597 35,512 33,392 32,398 31,222 30,609 30,314	-3.4% 3.8% 0.0% -0.2% 3.8% 2.1% 4.1% 7.3% 2.2% -1.3%  -0.7% 4.0% -0.1% 0.2% 6.3% 3.1% 3.8% 2.0% 1.0% -0.6%	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
-	·	Judicial Retireme			
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003	380 394 408 421 412 424 415 414 405 408	\$ 56,958 58,919 61,021 62,709 60,486 57,687 54,289 51,874 48,271 47,568	\$ 149,889 149,541 149,561 148,952 146,811 136,054 130,818 125,300 119,188 116,588	0.2% 0.0% 0.4% 1.5% 7.9% 4.0% 4.4% 5.1% 2.2% 0.0%	1 1 1 1 1 1 1 1 1

#### SCHEDULE OF RETIREE AND BENEFICIARIES VALUATION DATA - PENSION PLANS

Retirees and Beneficiaries

Valuation Date	Adde	d to Rolls	Remove	ed from Rolls	Rolls	at End of `	Year	Annualized % Increase in	Average Annual
(June 30)	Number	Allowances**	Number	Allowances	Number	Allowa	ances	Annual Allowances	Allowance
			Vir	ginia Retirement	System (VRS	5)			
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003*	10,493 11,630 10,780 9,474 9,610 9,475 8,949 9,151 7,913 7,920	\$305,440,000 248,784,000 234,416,000 278,307,000 284,577,000 277,466,000 190,775,000 187,247,000	4,411 4,210 4,011 4,202 3,869 3,774 3,834 4,250 2,561 3,554	\$91,446,000 31,978,000 65,755,000 63,388,000 68,575,000 66,307,000 33,172,000 48,631,000 29,304,000	158,771 152,689 145,269 138,500 133,228 127,487 121,786 116,671 111,770 106,418	\$3,213,9 2,999,9 2,783,1 2,614,4 2,399,5 2,183,5 1,972,3 1,814,7 1,676,1 1,537,9	341,000 35,000 474,000 555,000 553,000 994,000 75,000	7.1% 7.8% 6.5% 9.0% 9.9% 10.7% 8.7% 8.3% 9.0% 11.8%	\$20,243 19,647 19,158 18,877 18,011 17,128 16,196 15,555 14,997 14,452
			State Polic	e Officers' Retire	ment System	(SPORS)			
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003* 2012 2011 2010 2009 2008 2007 2006 2005 2005 2006	54 68 62 72 68 52 57 70 56 63 347 316 281 264 224 253 209 248 207	\$ 3,619,000 2,954,000 2,450,000 3,604,000 4,207,000 3,292,000 2,378,000 3,035,000 2,717,000 6,667,000 6,667,000 6,903,000 5,774,000 7,118,000 4,692,000 7,541,000 4,554,000	37 33 24 17 28 16 34 12 2	\$ 1,543,000 412,000 1,085,000 777,000 548,000 1,311,000 210,000 93,000 	2,911 2,601 2,318 2,061 1,814 1,618 1,381 1,206 970	43,7 41,2 39,8 37,0 33,3 31,3 29,1 26,3 23,7 (VaLORS) \$ 63,9 57,0 51,4 45,7 39,5 37,5 31,8 27,2 20,4	844,000 768,000 226,000 861,000 875,000 894,000 861,000 737,000 862,000 98,000 98,000 98,000 631,000 631,000 631,000 631,000 632,000 633,000 634,000 632,000 633,000 633,000 634,000 634,000 634,000 634,000	4.7% 6.2% 3.4% 7.6% 11.0% 6.3% 7.6% 10.7% 11.1% 18.2%  12.2% 10.7% 12.5% 15.8% 5.2% 18.0% 16.7% 33.6% 27.8%	\$38,203 37,537 36,743 36,840 35,851 33,678 32,805 31,620 30,581 29,305 \$21,973 21,926 22,216 22,204 21,792 23,222 23,062 22,625 21,055
2003*	248	-	10	-	765		982,000	72.7%	20,892
				dicial Retirement					
2012 2011 2010 2009 2008 2007 2006 2005 2004 2003*	34 25 29 36 36 24 25 25 33 35	\$ 3,354,000 1,717,000 2,116,000 2,919,000 3,567,000 2,831,000 1,983,000 2,017,000 1,387,000	17 30 17 20 17 19 21 17 21 26	\$ 1,022,000 1,514,000 1,022,000 1,491,000 1,746,000 1,723,000 814,000 70,000 86,000	463 446 451 439 423 404 399 395 387 375	30,5 30,3 29,2 27,8 26,0 24,9 23,7 21,7	391,000 559,000 856,000 662,000 334,000 113,000 005,000 736,000 789,000 888,000	7.6% 0.7% 3.7% 5.1% 7.0% 4.4% 4.9% 8.9% 6.4% 8.3%	\$71,039 68,518 67,308 66,657 65,802 64,390 62,420 60,092 56,302 54,635

<sup>\*</sup>Details of the changes in Allowances are unavailable prior to fiscal year 2004.

<sup>\*\*</sup>Additions to Allowances include added retirees and the annual COLA provided to existing retirees and beneficiaries.

FIGURE 4.1 – ANALYSIS OF ACTUARIAL GAINS AND LOSSES – PENSION PLANS

FOR THE YEAR ENDED JUNE 30, 2012 (EXPRESSED IN THOUSANDS) **VRS SPORS VaLORS** JRS Total A. Calculation of Expected Unfunded Actuarial Accrued Liability (UAAL) 1. UAAL as of June 30, 2011 \$23,950,416 \$22,625,763 369,101 757,109 198,443 2. Normal Cost for Previous Year 1,567,013 15,438 42,051 22.793 1,647,295 3. Actual Contributions During the Year (16,611)(21,875)(1,816,755)(1,736,067)(42,202)4. Interest at Previous Year's Rate of 7.00% a. On UAAL 52.998 1,583,804 25.837 13.891 1,676,530 b. On Normal Cost 109,690 1,081 2,944 1,596 115,311 c. On Contributions (60,763)(581)(1,477)(766)(63,587)d. Total 1,632,731 26,337 54,465 14,721 1,728,254 5. Expected UAAL as of June 30, 2012 (A1+A2+A3+A4)24,089,440 394,265 811,423 214,082 25,509,210 426,118 221,359 6. Actual UAAL as of June 30, 2012 26,646,941 843.615 28,138,033 7. Total Gain/(Loss) (A5-A6) (2,557,501)(31,853)(32,192)(7,277)(2,628,823)B. Calculation of Asset Gain/(Loss) 1. Actuarial Value of Assets (AVA) as of June 30, 2011 54,472,733 52,558,997 616,603 926,082 371,051 42,202 2. Contributions During the Year 1,736,067 16,611 21,875 1,816,755 3. Benefit Payments During the Year (3,341,909)(46,432)(68,876)(33,454)(3,490,671)4. Interest at Previous Year's Rate of 7.00% a. On AVA at Beginning of Year 3,679,130 43,162 64,826 25,974 3,813,092 63,587 b. On Contributions 60,763 581 1,477 766 c. On Benefit Payments (116,968)(1,625)(2,411)(1,171)(122,175)d. Total 3,622,925 25,569 3,754,504 42,118 63,892 5. Expected AVA as of June 30, 2012 (B1+B2+B3+B4) 963,300 56,553,321 54,576,080 628,900 385,041 909,399 53,069,572 6. Actual AVA as of June 30, 2012 51,211,916 587,160 361,097 (53.901)(23.944)7. Total Gain/(Loss) on Assets (B6-B5) (3,364,164)(41,740)(3,483,749)C. Calculation of Liability Gain/(Loss) 1. Gain/(Loss) Due to Changes in Actuarial Assumptions 1,260 2. Gain/(Loss) Due to Plan Amendments 216,676 5,601 223,537 3. Gain/(Loss) Due to Change in Asset Method 4. Liability Experience Gain/(Loss) (A7-B7-C1-C2-C3) 589,987 8,627 16,108 16,667 631,389

# Summary of Actuarial Assumptions and Methods

On April 16, 2009, the VRS Board of Trustees adopted most of the actuarial assumptions and methods presented in Figure 4.2 below on the recommendation of its actuary. At its meeting on June 17, 2010, the Board reduced the assumption for the investment rate of return from 7.50% to 7.00%. These assumptions include the Virginia Retirement System (VRS), the State Police Officers' Retirement System (SPORS), the Virginia Law Officers' Retirement System (VaLORS) and the Judicial Retirement System (JRS). They were based on an analysis of plan experience for the four-year period July 1, 2004, through June 30, 2008, and, along with the subsequent change in the assumption for the investment rate of return, were used for the June 30, 2010, and subsequent valuations.

#### FIGURE 4.2 - ACTUARIAL ASSUMPTIONS AND METHODS-PENSION PLANS

FOR THE JUNE 30, 2012, VALUATION

Investment Return Rate. 7.00% per annum, compounded annually, composed of an assumed 2.50% inflation rate and a 4.50% real rate of return. Benefits are assumed to increase annually by 2.50% for Plan 1 retirees and by 2.25% for Plan 2 retirees due to the cost-of-living adjustment (COLA).

#### Mortality Rates:

- Pre-Retirement: 1994 Group Annuity Mortality Table for males and females with a one-year set back in age for males and females in all employer groups.
- Post-Retirement: 1994 Group Annuity Mortality Table for males and females with a one-year set back in age for male and female state employees and employees of political subdivisions not receiving enhanced hazardous duty benefits; a threeyear set back in age for male and female teachers; and a one-year set back in age for male and female judges. 1994 Group Annuity Mortality Table for males and females with a four-year set back in age for state police officers, political subdivision employees in hazardous duty positions receiving enhanced benefits and other Virginia law enforcement and correctional
- Post-Disablement: 70% of PBGC Disabled Mortality Table 5a for males; 90% of PBGC Disabled Mortality Table 6a for females.

#### FIGURE 4.3 - RETIREMENT RATES-PENSION PLANS

Sample rates of retirement for members eligible to retire are shown below.

#### State Employees

		Pla		Pla	n 2			
				Retirement with 30 or More Years of Service		vith Less Than of Service		t with 30 or s of Service
Age	Male	Female	Male	Female	Male	Female	Male	Female
50	3.00%	3.22%	10.00%	10.00%	0.00%	0.00%	10.00%	10.00%
55	5.00%	5.00%	10.00%	10.00%	0.00%	0.00%	10.00%	10.00%
59	5.00%	5.50%	10.00%	10.00%	0.00%	0.00%	10.00%	10.00%
60	5.00%	5.50%	10.00%	15.00%	5.00%	5.50%	10.00%	15.00%
61	10.00%	10.00%	15.00%	20.00%	10.00%	10.00%	15.00%	20.00%
62	15.00%	15.00%	25.00%	30.00%	15.00%	15.00%	25.00%	30.00%
64	15.00%	15.00%	20.00%	20.00%	15.00%	15.00%	20.00%	20.00%
65	40.00%	40.00%	30.00%	40.00%	40.00%	40.00%	30.00%	40.00%
67	40.00%	40.00%	25.00%	25.00%	40.00%	40.00%	25.00%	25.00%
>= 70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

FIGURE 4.3 - RETIREMENT RATES-PENSION PLANS, cont.

#### **Teachers**

		Pla		Pla	n 2			
				Retirement with 30 or More Years of Service		vith Less Than of Service		t with 30 or s of Service
Age	Male	Female	Male	Female	Male	Female	Male	Female
50	2.00%	2.00%	17.50%	15.00%	0.00%	0.00%	17.50%	15.00%
55	5.70%	6.10%	22.50%	22.50%	0.00%	0.00%	22.50%	22.50%
59	7.00%	7.50%	22.50%	22.50%	0.00%	0.00%	22.50%	22.50%
60	7.50%	8.50%	22.50%	22.50%	7.50%	8.50%	22.50%	22.50%
61	11.00%	12.00%	30.00%	30.00%	11.00%	12.00%	30.00%	30.00%
62	17.00%	17.00%	35.00%	40.00%	17.00%	17.00%	35.00%	40.00%
64	18.00%	16.50%	30.00%	25.00%	18.00%	16.50%	30.00%	25.00%
65	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
67	40.00%	40.00%	20.00%	30.00%	40.00%	40.00%	20.00%	30.00%
>= 70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

# Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

	Plan 1					Pla	n 2	
	Retirement with Less Than Retirement with 30 or 30 Years of Service More Years of Service		Retirement with Less Than 30 Years of Service		Retirement with 30 or More Years of Service			
Age	Male	Female	Male	Female	Male	Female	Male	Female
50	3.50%	3.50%	13.00%	15.60%	0.00%	0.00%	13.00%	15.60%
55	5.00%	5.00%	11.50%	14.30%	0.00%	0.00%	11.50%	14.30%
59	4.50%	6.00%	13.50%	13.40%	0.00%	0.00%	13.50%	13.40%
60	6.00%	7.50%	17.00%	12.80%	6.00%	7.50%	17.00%	12.80%
61	10.50%	10.00%	19.00%	17.70%	10.50%	10.00%	19.00%	17.70%
62	17.50%	15.50%	31.00%	28.00%	17.50%	15.50%	31.00%	28.00%
64	16.50%	17.00%	29.00%	18.30%	16.50%	17.00%	29.00%	18.30%
65	40.00%	40.00%	41.00%	29.60%	40.00%	40.00%	41.00%	29.60%
67	40.00%	40.00%	24.00%	33.20%	40.00%	40.00%	24.00%	33.20%
> = 70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

# Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – All Other Employers

	Plan 1				Pla	n 2		
		vith Less Than of Service		t with 30 or s of Service		vith Less Than of Service		t with 30 or s of Service
Age	Male	Female	Male	Female	Male	Female	Male	Female
50	5.00%	4.00%	9.00%	8.00%	0.00%	0.00%	9.00%	8.00%
55	5.00%	5.50%	14.00%	11.50%	0.00%	0.00%	14.00%	11.50%
59	6.00%	5.00%	11.00%	11.50%	0.00%	0.00%	11.00%	11.50%
60	6.00%	7.50%	11.00%	13.00%	6.00%	7.50%	11.00%	13.00%
61	10.00%	7.50%	25.00%	17.50%	10.00%	7.50%	25.00%	17.50%
62	17.00%	17.00%	35.00%	25.00%	17.00%	17.00%	35.00%	25.00%
64	15.00%	13.00%	27.00%	17.50%	15.00%	13.00%	25.00%	25.00%
65	40.00%	40.00%	33.00%	40.00%	40.00%	40.00%	25.00%	25.00%
67	40.00%	40.00%	20.00%	25.00%	40.00%	40.00%	33.00%	40.00%
> = 70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

FIGURE 4.3 - RETIREMENT RATES-PENSION PLANS, cont.

# Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

Age	Reduced Retirement	Unreduced Retirement	
50	9.00%	25.00%	
55	8.50%	18.00%	
59	13.50%	31.50%	
60	20.00%	35.00%	
>= 65	100.00%	100.00%	

# Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits - All Other Employers

Age	Reduced Retirement	Unreduced Retirement
50	8.50%	25.00%
55	8.50%	17.50%
59	11.50%	28.50%
60	20.00%	35.00%
> = 65	100.00%	100.00%

# State Police Officers

Age	Reduced Retirement	<b>Unreduced Retirement</b>
50	10.00%	15.00%
55	10.00%	15.00%
59	12.00%	20.00%
60	25.00%	40.00%
>= 64	100.00%	100.00%

# Virginia Law Officers

Age	Reduced Retirement	Unreduced Retirement
50	9.20%	25.00%
55	9.50%	20.00%
59	12.00%	25.00%
60	20.00%	40.00%
> = 65	100.00%	100.00%

# Judges

Se			Service Multiplier = 3.5 Years of Service		
2-11	12	>=13	1-8	9	>=10
0.00%	50.00%	50.00%	0.00%	50.00%	50.00%
50.00%	15.00%	15.00%	50.00%	50.00%	15.00%
15.00% 100.00%	15.00% 100.00%	15.00% 100.00%	15.00% 100.00%	15.00% 100.00%	15.00% 100.00%
	2-11 0.00% 50.00% 15.00%	Years of Service  2-11 12  0.00% 50.00% 50.00% 15.00% 15.00% 15.00%	0.00%       50.00%       50.00%         50.00%       15.00%       15.00%         15.00%       15.00%       15.00%	Years of Service       2-11     12     >=13     1-8       0.00%     50.00%     50.00%     0.00%       50.00%     15.00%     15.00%     50.00%       15.00%     15.00%     15.00%     15.00%	Years of Service         Years of Service           2-11         12         >=13         1-8         9           0.00%         50.00%         50.00%         50.00%         50.00%           50.00%         15.00%         15.00%         50.00%         50.00%           15.00%         15.00%         15.00%         15.00%         15.00%

# FIGURE 4.4 - DISABILITY RATES-PENSION PLANS

As shown below for selected ages.

# State Employees

14% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.1000%	0.0100%	
30	0.2000%	0.1500%	
40	0.2000%	0.2900%	
50	0.5000%	0.5500%	
60	0.8000%	1.0000%	
00	0.8000%	1.0000%	

#### **Teachers**

5% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.0000%	0.0000%	
30	0.0150%	0.0170%	
40	0.0320%	0.0600%	
50	0.2040%	0.1500%	
60	0.4740%	0.4000%	

# Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

14% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.0000%	0.0000%	
30	0.1000%	0.1000%	
40	0.3000%	0.1000%	
50	0.4000%	0.4000%	
60	1.2000%	1.0000%	

# Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – All Other Employers

14% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.0300%	0.0100%	
30	0.1000%	0.0400%	
40	0.2400%	0.1300%	
50	0.5200%	0.4500%	
60	1.3600%	1.1600%	

#### FIGURE 4.4 - DISABILITY RATES-PENSION PLANS, cont.

# Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

60% of disability cases are assumed to be service-related.

 Age	Rate
20	0.0000%
30	0.0500%
40	0.2400%
50	0.5300%
60	0.8100%

# Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – All Other Employers

60% of disability cases are assumed to be service-related.

Age	Rate
20	0.0000%
30	0.0400%
40	0.1500%
50	0.5100%
60	0.8500%

# State Police Officers

60% of disability cases are assumed to be service-related.

Age	Rate	
20	0.0000%	
30	0.0281%	
40	0.2100%	
50	0.6750%	)
60	0.0000%	

# Virginia Law Officers

60% of disability cases are assumed to be service-related.

Age	Rate
20	0.0000%
30	0.0250%
40	0.1810%
50	0.4740%
60	0.6200%

# FIGURE 4.4 - DISABILITY RATES-PENSION PLANS, cont.

#### **Judges**

5% of disability cases are assumed to be service-related.

Age	Male	Female
20	0.0000%	0.0000%
30	0.0070%	0.0070%
40	0.1420%	0.0900%
50	0.4800%	0.3970%
60	0.0000%	0.0000%

#### FIGURE 4.5 – TERMINATION RATES-PENSION PLANS

Withdrawal rates are based on age and years of service. Sample rates for selected ages and years of service are shown below for causes other than death, disability or retirement.

#### State Employees - Plan 1

SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Years of Service – Males			Years of Service — Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	22.00%	13.00%	0.00%	25.50%	16.00%	0.00%
35	17.00%	9.50%	4.50%	19.00%	11.50%	5.00%
45	14.00%	7.50%	2.30%	14.00%	7.50%	2.50%
55	10.00%	5.50%	0.00%	12.00%	6.00%	0.00%
65	12.00%	13.00%	0.00%	13.00%	17.00%	0.00%

# State Employees - Plan 2

SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Years of Service – Males			Years of Service — Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	22.00%	13.00%	0.00%	25.50%	16.00%	0.00%
35	17.00%	9.50%	4.50%	19.00%	11.50%	5.00%
45	14.00%	7.50%	2.30%	14.00%	7.50%	2.50%
55	10.00%	5.50%	0.40%	12.00%	6.00%	0.40%
65	12.00%	13.00%	0.00%	13.00%	17.00%	0.00%

#### Teachers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Ye	ears of Service – Ma	les	Years of Service – Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	15.00%	13.00%	0.80%	14.00%	12.50%	15.00%
35	14.00%	7.00%	3.20%	15.00%	9.70%	4.00%
45	15.00%	8.00%	1.90%	11.50%	6.30%	2.00%
55	14.00%	7.00%	0.00%	12.50%	5.70%	0.00%
65	17.00%	8.30%	0.00%	13.00%	8.00%	0.00%

FIGURE 4.5 - TERMINATION RATES-PENSION PLANS, cont.

# Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Years of Service – Males			Years of Service – Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	21.80%	13.70%	0.00%	23.30%	16.70%	0.00%
35	17.20%	9.70%	5.80%	18.60%	10.60%	5.10%
45	14.30%	7.10%	2.90%	14.80%	7.70%	2.80%
55	10.90%	5.30%	0.70%	11.90%	6.30%	0.00%
65	13.60%	8.20%	0.00%	12.60%	8.20%	0.00%

# Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – All Other Employers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Years of Service – Males			Years of Service — Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	23.50%	14.00%	0.00%	25.50%	16.50%	0.00%
35	18.50%	10.50%	5.50%	19.00%	11.50%	6.00%
45	15.50%	8.00%	3.00%	15.00%	8.00%	3.50%
55	12.00%	6.50%	1.00%	12.50%	6.50%	0.00%
65	12.00%	8.00%	0.00%	13.00%	9.00%	0.00%

# Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Years of Service – Males			Years of Service — Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	7.80%	6.80%	0.00%	7.80%	6.80%	0.00%
35	8.00%	4.40%	2.40%	8.00%	4.40%	2.40%
45	9.20%	4.60%	1.50%	9.20%	4.60%	1.50%
55	8.30%	6.30%	0.00%	8.30%	6.30%	0.00%
60	8.70%	6.50%	0.00%	8.70%	6.50%	0.00%

FIGURE 4.5 - TERMINATION RATES-PENSION PLANS, cont.

# Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – All Other Employers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Years of Service – Males			Years of Service – Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	10.70%	8.30%	0.00%	10.70%	8.30%	0.00%
35	10.90%	6.30%	3.30%	10.90%	6.30%	3.30%
45	8.70%	5.20%	1.80%	8.70%	5.20%	1.80%
55	10.90%	6.30%	0.50%	10.90%	6.30%	0.50%
60	8.20%	7.70%	0.50%	8.20%	7.70%	0.50%

# State Police Officers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Years of Service – Males			Years of Service — Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	7.50%	5.50%	3.00%	14.10%	8.80%	4.40%
35	7.50%	4.80%	2.40%	14.50%	7.30%	6.10%
45	10.00%	4.50%	1.40%	11.70%	7.90%	5.90%
55	10.00%	6.70%	1.20%	6.10%	10.60%	4.10%
65	10.00%	7.50%	1.20%	0.50%	15.40%	0.60%

# Virginia Law Officers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Υ	ears of Service – Ma	ales	Years of Service – Females		
Age	0-2	3-9	10+	0-2	3-9	10+
25	20.00%	15.00%	5.00%	20.00%	15.00%	7.50%
35	20.00%	12.50%	5.00%	20.00%	12.50%	7.50%
45	15.00%	10.50%	4.00%	17.50%	8.00%	5.90%
55	12.00%	6.50%	4.00%	10.00%	12.00%	6.00%
65	15.00%	7.00%	4.00%	10.00%	10.00%	6.00%

#### **Judges**

There are no assumed rates of withdrawal prior to service retirement for causes other than death, disability or retirement.

#### FIGURE 4.6 - SALARY INCREASE RATES-PENSION PLANS

Sample salary increase rates are shown below.

#### State Employees

Inflation of 2.50% plus productivity component of 1.25% plus step-rate/promotional component as shown. It is assumed state employees covered under the Virginia Sickness and Disability Program (VSDP) receive a 3.75% annual increase in pay while disabled. This adjusted pay is used to determine deferred retirement benefits payable from the System.

Years of Service	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.85%	5.60%	
3	1.25%	5.00%	
6	0.95%	4.70%	
9	0.50%	4.25%	
11	0.15%	3.90%	
15	0.15%	3.90%	
19	0.15%	3.90%	
20 or more	0.00%	3.75%	

#### **Teachers**

Inflation rate of 2.50% plus productivity component of 1.25% plus step-rate/promotional component as shown.

Years of Service	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	2.45%	6.20%	
3	2.35%	6.10%	
6	1.95%	5.70%	
9	1.85%	5.60%	
11	1.35%	5.10%	
15	1.15%	4.90%	
19	0.95%	4.70%	
20 or more	0.00%	3.75%	

#### Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

Inflation rate of 2.50% plus productivity component of 1.25% plus step-rate/promotional component as shown.

Years of Service	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.85%	5.60%	
3	1.25%	5.00%	
6	0.95%	4.70%	
9	0.50%	4.25%	
11	0.15%	3.90%	
15	0.15%	3.90%	
19	0.15%	3.90%	
20 or more	0.00%	3.75%	

#### FIGURE 4.6 - SALARY INCREASE RATES-PENSION PLANS, cont.

# Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – All Other Employers

Inflation rate of 2.50% plus productivity component of 1.25% plus step-rate/promotional component as shown.

Years of Service	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.85%	5.60%	
3	1.25%	5.00%	
6	0.95%	4.70%	
9	0.50%	4.25%	
11	0.15%	3.90%	
15	0.15%	3.90%	
19	0.15%	3.90%	
20 or more	0.00%	3.75%	

# Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

Inflation rate of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown.

Years of Service	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.25%	4.75%	
3	1.25%	4.75%	
6	0.90%	4.40%	
9	0.90%	4.40%	
11	0.50%	4.00%	
15	0.50%	4.00%	
19	0.50%	4.00%	
20 or more	0.00%	3.50%	

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – All Other Employers

Inflation rate of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown.

Years of Service	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.25%	4.75%	
3	1.25%	4.75%	
6	0.90%	4.40%	
9	0.90%	4.40%	
11	0.50%	4.00%	
15	0.50%	4.00%	
19	0.50%	4.00%	
20 or more	0.00%	3.50%	

#### FIGURE 4.6 - SALARY INCREASE RATES-PENSION PLANS, cont.

#### State Police Officers

Inflation of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown. It is assumed state police who are covered under the Virginia Sickness and Disability Program (VSDP) receive a 3.50% annual increase in pay while disabled. This adjusted pay is used to determine deferred retirement benefits payable from the System.

Years of Service	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.25%	4.75%	
3	1.25%	4.75%	
6	0.90%	4.40%	
9	0.90%	4.40%	
11	0.50%	4.00%	
15	0.50%	4.00%	
19	0.50%	4.00%	
20 or more	0.00%	3.50%	

#### Virginia Law Officers

Inflation of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown. It is assumed Virginia law officers who are covered under the Virginia Sickness and Disability Program (VSDP) receive a 3.50% annual increase in pay while disabled. This adjusted pay is used to determine deferred retirement benefits payable from the System.

Years of Service	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.25%	4.75%	
3	1.25%	4.75%	
6	0.90%	4.40%	
9	0.90%	4.40%	
11	0.50%	4.00%	
15	0.50%	4.00%	
19	0.50%	4.00%	
20 or more	0.00%	3.50%	

#### Judges

Salary increase rates are 4.50%.

# ADDITIONAL INFORMATION ABOUT ACTUARIAL ASSUMPTIONS AND METHODS – PENSION PLANS

Percent Electing a Refund or Deferred Annuity (excluding JRS Members). Terminating members are assumed to elect a refund of their member contributions and accrued interest or a deferred annuity based on the option any given member would consider most valuable at the time of termination. The deferred annuity, if elected, is assumed to commence at the age at which the member first becomes eligible for an unreduced benefit.

Provision for Expense. The assumed investment return represents the anticipated net rate of return after payment of all administrative expenses.

Asset Valuation Method. The actuarial value of assets is equal to the market value of assets, adjusted for a five-year phase-in of the excess or shortfall between expected investment returns and actual income, both based on market value, with the resulting value not being less than 80% or more than 120% of the market value of assets.

Actuarial Cost Method. The valuation was prepared using the entry age normal actuarial cost method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contributions that, if applied to the compensation of the average new member during the entire period of his or her anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on the member's behalf.

The unfunded actuarial accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the Present value of expected benefits to be paid from VRS. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.

Actuarial Gains and Losses. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability and are amortized as part of that balance.

Payroll Growth Rates. For state employees, teachers and members of SPORS, VaLORS and JRS, the payroll growth rate is assumed to be 3.00% based on a zero population growth assumption. For political subdivision employees, the payroll growth rate also is assumed to be 3.00% based on a zero population growth assumption.

Funding Period. For all members, the funding period is 29-year open amortization, computed as a level percent of covered payroll.

Cost-of-Living Adjustment (COLA). For Plan 1 employees, the COLA is assumed to be 2.50% per year compounded annually for the Basic Benefit option. The hazardous duty supplement for Plan 1 SPORS members, VaLORS members and political subdivision employees receiving enhanced hazardous duty benefits is assumed to increase at an inflation rate of 2.50% per year compounded annually. For Plan 2 employees, the inflation rate is assumed to be 2.25% per year compounded annually.

# Summary of Pension Plan Provisions

# **Retirement Plans**

#### **ADMINISTRATION**

The Virginia Retirement System (the System) pension Plan 1 and Plan 2 are administered by the Board of Trustees of the System. Plan 2 was established during the 2010 session of the General Assembly, and its provisions are effective for new members hired or rehired on or after July 1, 2010. In addition, Plan 1 members who were not vested as of January 1, 2013, are also in Plan 2.

#### TYPE OF PLANS

1. Virginia Retirement System (VRS), effective March 1, 1952. VRS is a qualified governmental pension system that administers two defined benefit plans, the VRS Plan 1 and the VRS Plan 2. The Governmental Accounting Standards Board (GASB) defines VRS as an agent multipleemployer public employee retirement system. Covered employees include full-time permanent, salaried state employees; faculty members of the state's public colleges and universities who do not elect to participate in an optional retirement plan; teachers and administrative employees of the state's local public school divisions; and employees of Virginia cities, towns, counties and other political subdivisions that have elected to participate in VRS. Some part-time permanent, salaried state employees also are covered under VRS. VRS has separate costsharing pools for state and school employers.

Members are covered under Plan 1 or Plan 2 according to their membership date:

Members hired before July 1, 2010, and who had at least five years of service on January 1, 2013, are covered under Plan 1. These members also include deferred members who have returned to covered employment with service credit in VRS or an account balance in an optional retirement plan (ORP) authorized or administered by VRS

- as of June 30, 2010, and members retired under Plan 1 who have returned to covered employment and resumed active membership.
- Members hired or rehired on or after July 1, 2010, and former Plan 1 members who did not have five years of service on January 1, 2013, are covered under Plan 2. These members also include those employed in a covered position before July 1, 2010, who left covered employment, took a refund and returned to covered employment on or after July 1, 2010, with no service credit in VRS or no ORP account balance.
- 2. Single-Employer Public Employee Retirement Systems as Defined by GASB. The provisions for membership in Plan 1 and Plan 2 for the following systems are the same as those for VRS:
- State Police Officers' Retirement System (SPORS) established July 1, 1950, for full-time permanent, salaried state police officers;
- Virginia Law Officers' Retirement System (VaLORS) established October 1, 1999, for fulltime permanent, salaried Virginia law officers other than state police; and
- Judicial Retirement System (JRS) established July 1, 1970, for full-time permanent, salaried state judges and other qualifying employees.



#### MEMBER CONTRIBUTIONS

The member contribution is 5.00% of the member's compensation. Contributions paid by employers on behalf of employees are governed by Section 414(h) of the Internal Revenue Code. Members' contribution accounts accrue 4.00% interest each year, calculated on the balance as of the previous June 30.

#### PLAN 1

#### PLAN 2

State employees, excluding state elected officials, judges and optional retirement plan participants, contribute 5.00% of their compensation each month to their member contribution accounts.

State employees contribute 5.00% of their compensation each month to their member contribution accounts.

Employees of school divisions and political subdivisions may contribute some or all of the 5.00% member contribution, as elected by the employer.

Same as Plan 1.

# COMPENSATION AND AVERAGE FINAL COMPENSATION

Compensation is the member's salary reported to VRS by the employer. It does not include payments for overtime, temporary employment, extra duties or other additional payments.

#### PLAN 1

#### PLAN 2

Average of the member's 36 consecutive months of highest compensation as a covered employee.

Average of the member's 60 consecutive months of highest compensation as a covered employee.

#### **VESTING**

Plan 1 and Plan 2 members become vested after accumulating five years of service credit.

#### SERVICE CREDIT

- 1. VRS, SPORS and VaLORS Members in Plan 1 and Plan 2. These members receive one month of service credit for each month they are employed in a covered position and the employer is contributing to the System.
- 2. JRS Members in Plan 1. Judges appointed or elected before January 1, 1995, receive one month of service credit multiplied by a weighting factor of 3.5 for each month they are employed in a JRS-covered position and the employer is contributing to the System. The weighting factor for judges appointed or elected on or after January 1, 1995, is 2.5.
- 3. JRS Members in Plan 2. Judges appointed or elected on or after July 1, 2010, receive one month of service credit multiplied by the following weighting factors for each month they are employed in a JRS-covered position and the employer is contributing to the System: 1.5 for those appointed or elected before age 45; 2.0 for those appointed or elected between the ages 45 and 54; and 2.5 for those appointed or elected at age 55 or older.

#### PRIOR SERVICE CREDIT

Members may purchase prior service as credit in their plan. Eligible prior service includes active duty military service; full-time salaried federal service; full-time salaried public service with an employer or school system of another state or United States territory, or with a Virginia public employer that does not participate in VRS; non-covered service with a VRS-participating employer; approved leave from a VRS-covered position for the birth or adoption of a child; approved educational leave; unused sick leave at retirement, if the member is eligible; and VRS-refunded service. Members also

can apply for no-cost military leave, provided they are not dishonorably discharged, return to covered employment within one year of discharge and do not take a refund of their member contributions and interest.

Prior service credit counts toward vesting, eligibility for retirement and eligibility for the health insurance credit. Prior service credit for refunded VRS hazardous duty service or for an eligible period of leave while covered under VRS in a hazardous duty position also counts toward the hazardous duty supplement for eligible members, provided they purchase or, in the case of no-cost military leave, are granted this service. Other types of prior service credit, such as active duty military service or

hazardous duty service with a non-VRS participating employer, do not count toward the supplement.

Members may arrange to purchase prior service through a lump-sum payment using a personal check, a trustee-to-trustee transfer of funds or a pretax rollover of funds; an after-tax payroll deduction contract or a pre-tax salary reduction contract (if the employer offers the pre-tax salary reduction option); or a combination of these methods. Members must be within their eligibility period to use a contract. Other special rules and limits govern the purchase of prior service.

The cost basis and eligibility periods for Plan 1 and Plan 2 members are as follows:

#### PLAN 1

Within three years of becoming eligible: 5.00% of compensation or average final compensation at the time of purchase, whichever is higher, multiplied by the number of months to purchase. If the member uses a contract to purchase service, the cost is based on compensation, even if average final compensation is higher.

After the three-year eligibility period: Actuarial equivalent rate.

PLAN 2

Within one year of becoming eligible: Approximate normal cost rate as a percentage of compensation or average final compensation at the time of purchase, whichever is higher, multiplied by the number of months to purchase. If the member uses a contract to purchase service, the cost is based on compensation, even if average final compensation is higher. Normal cost rates vary depending on whether the member is covered under VRS, SPORS, VaLORS or JRS, or employed in a political subdivision position eligible for enhanced hazardous duty coverage.

After the one-year eligibility period: Actuarial equivalent rate.

VRS refunded service: 5.00% of compensation or average final compensation at the time of purchase, whichever is higher, multiplied by the number of months to purchase. If the member uses a contract to purchase VRS refunded service, the cost is based on compensation, even if average final compensation is higher. If the member has not purchased VRS refunded service within three years, the cost basis will remain 5.00%, but the member will be required to use a lump-sum payment.

Same as Plan 1.

# NORMAL (UNREDUCED) AND REDUCED RETIREMENT ELIGIBILITY AND BENEFIT CALCULATIONS

	PLAN 1	PLAN 2	BENEFIT CALCULATIONS
Earliest Unreduced Retirement Eligibility	VRS: Age 65 with at least five years of service credit or age 50 with at least 30 years of service credit.	Normal Social Security retirement age with at least five years of service credit or when age and service equal 90. <i>Example:</i> Age 60 with 30 years of service credit.	1.70% of average final compensation for each year of service credit. The benefit multiplier was reduced to 1.65% for Plan 2 service after January 1, 2013.
	SPORS, VaLORS and political subdivision hazardous duty employees: Age 60 with at least five years of service credit or age 50 with at least 25 years of service credit.	Same as Plan 1.	SPORS, sheriffs and regional jail superintendents: 1.85% of average final compensation for each year of service credit.  VaLORS: 1.70% or 2.00% of average final compensation for each year of service credit. <i>Note:</i> VaLORS members retiring under the 2.00% multiplier are not eligible for the hazardous duty supplement.  Political subdivision hazardous duty employees: 1.70% or 1.85% of average final compensation for each year of service credit, as elected by the employer.
	JRS: Age 65 with at least five years of service credit or age 60 with at least 30 years of service credit.	Same as Plan 1.	1.70% of average final compensation for each year of service credit. For members hired after January 1, 2013, the benefit multiplier is 1.65%.
Earliest Reduced Retirement Eligibility	VRS: Age 55 with at least five years of service credit or age 50 with at least 10 years of service credit.	Age 60 with at least five years of service credit.	All members: 0.5% per month for the first 60 months of retirement and 0.4% per month for the next 60 months of retirement. The reduction is applied for each
	SPORS, VaLORS and political subdivision hazardous duty employees: Age 50 with at least five years of service credit.	Same as Plan 1.	month until the member reaches age 65 or, if more favorable to the member, for each month the member's service credit is less
	JRS: Age 55 with at least five years of service credit.	Same as Plan 1.	than 30 years (less than 25 years for hazardous duty members).

#### BENEFIT PAYOUT OPTIONS

Under Plan 1 and Plan 2, members eligible for retirement must elect one of the following benefit payout options when they apply for retirement. This election is irrevocable, except for the Survivor Option under certain circumstances. These options are available on an actuarially equivalent basis:

- 1. Basic Benefit. Members may choose the Basic Benefit, which is the unreduced benefit amount. An early retirement reduction factor is applied for the reduced benefit. The Basic Benefit does not provide a continuation of a lifetime monthly benefit to a survivor.
- 2. Survivor Option. Members may choose a whole percentage of their benefit, between 10% and 100%, to continue as a lifetime benefit to a survivor upon their death. The member's benefit is actuarially reduced accordingly.
- 3. Partial Lump-Sum Option Payment (PLOP). Members who are in active service for one or more years beyond the date they become eligible for an unreduced retirement benefit may elect a partial lump-sum payment of their member contributions and accrued interest equal to one, two or three times their annual retirement benefit, depending on how long they work beyond their unreduced retirement eligibility date. The monthly benefit is actuarially reduced accordingly. This option is available with the Basic Benefit and the Survivor Option.
- 4. Advance Pension Option. With this option, members elect to receive a temporary higher benefit until at least age 62 up to their normal retirement age under Social Security, as elected by the member. At that point, the monthly benefit is permanently reduced on an actuarially equivalent basis. The benefit can never be reduced by more than 50%.

#### **PAYMENT FORM**

The retirement benefit is paid as a lifetime monthly annuity. Upon the member's death in retirement, the member's beneficiary receives a lump-sum payment of any remaining member contributions and accrued interest in the member's account. If the member has elected the Survivor Option, a lifetime monthly benefit is paid to his or her survivor instead of a lump-sum payment.

#### HAZARDOUS DUTY SUPPLEMENT

An annual supplement is payable to members of SPORS and VRS political subdivision members eligible for enhanced hazardous duty coverage who retire with at least 20 years of eligible hazardous duty service credit. The supplement begins when they retire and continues until they reach their normal retirement age under Social Security. VaLORS members retiring under the 1.70% multiplier who have at least 20 years of eligible hazardous duty service credit receive the supplement beginning when they retire and continuing until age 65; VaLORS members retiring under the 2.00% multiplier are not eligible for the supplement. Vested members hired in eligible hazardous duty positions before July 1, 1974, are not required to have 20 years of hazardous duty service credit to qualify for the supplement, provided they take an immediate annuity.

The supplement is a dollar amount added to the member's monthly retirement benefit payment. It is adjusted biennially based on increases in Social Security benefits during interim periods, as determined by the VRS actuary.

# COST-OF-LIVING ADJUSTMENT (COLA)

The cost-of living adjustment (COLA) is deferred for one full calendar year after the member reaches unreduced retirement age. The deferred COLA does not apply to employees within five years of eligibility for unreduced retirement as of January 1, 2013, and

to members who retire with 20 or more years of service. The COLA is effective each July 1 thereafter, when provided. During periods of no inflation or deflation, the COLA is zero (0.00%). The COLA is calculated based on changes in the Consumer Price Index for all Urban Consumers (CPI-U) as follows:

- 1. The CPI-U for the most recent calendar year used to determine the VRS COLA is subtracted from the most recent average annual CPI-U to arrive at the index point change.
- 2. The index point change is divided by the CPI-U for the most recent calendar year in which a COLA was paid.
- 3. The result is multiplied by 100 to convert it to a percentage.

Under Plan 1, the COLA matches the first 3.00% increase in the CPI-U and half the remaining increase, not to exceed a maximum COLA of 5.00%. Under Plan 2, the COLA matches the first 2.00% increase in the CPI-U and half the remaining increase, not to exceed a maximum COLA of 3.00%.

# Refunds and Deferred Membership

1. Refunds. Vested members under Plan 1 and Plan 2 who leave or are involuntarily separated from employment for causes other than job performance or misconduct are eligible for a full refund of their member contribution account balance, including accrued interest. Non-vested members are eligible for a refund of the balance, excluding any employerpaid member contributions made to their accounts after July 1, 2010, and the accrued interest on these contributions. Taking a refund cancels membership and eligibility for any future benefits under the retirement plans. Plan 1 members who take a refund and return to covered employment on or after July 1, 2010, are rehired under Plan 2. They are eligible to purchase their VRS refunded service as credit in Plan 2.

2. Deferred membership. Members separating from employment have the option to leave their funds with VRS and become deferred members. If they are vested or involuntarily separated from employment, they may be eligible for a future retirement benefit if they meet the age and service requirements for their plan. The benefit is calculated based on the member's service credit and average final compensation at the time of separation. Upon the member's death, the member's beneficiary receives a lump-sum payment of any remaining member contributions and accrued interest. If the member retires and elects the Survivor Option, a lifetime monthly benefit is paid to the survivor upon the member's death.

Deferred members remain eligible to receive a full or partial refund of their member contribution account balance, depending on whether or not they are vested. If a deferred member returns to covered employment, member contributions and the service credit the member earns upon reemployment are added to the member's record.

# Death-in-Service Benefit

If a member dies while in active service, his or her named beneficiary or spouse, natural or legally adopted minor child or parent may be eligible for a death-in-service benefit in addition to VRS life insurance benefits, if applicable.

#### NON-WORK RELATED CAUSE OF DEATH

If the member dies from a non-work related cause, the member's named beneficiary will be eligible for a refund of any funds remaining in the member's contribution account. If the member is vested at the time of death and his or her spouse, natural or legally adopted minor child or parent is one of the member's named beneficiaries or is the beneficiary based on order of precedence, he or she will be eligible for a refund or a monthly benefit to the exclusion of all other primary beneficiaries. Any benefits minor children receive will end when they

reach age 18. If the member is not vested at the time of death, his or her spouse, natural or legally adopted minor child or parent will be eligible for a refund only, which will be shared with any other primary beneficiaries the member has designated, if applicable.

The monthly non-work related benefit is a lifetime monthly annuity based on the 100% Survivor Option. Members covered under Plan 1 who die before age 55 are assumed to be age 55 at the time of death for the purpose of calculating the benefit. The calculation for members covered under Plan 2 uses age 60. The calculation for Plan 1 and Plan 2 members of SPORS and VaLORS and members of VRS who are eligible for enhanced hazardous duty coverage uses age 50.

#### **WORK-RELATED CAUSE OF DEATH**

If the member dies from a work-related cause, the member's named beneficiary will be eligible for a lump-sum payment of any funds remaining in the member's contribution account. In addition, the member's spouse, natural or legally adopted minor child or parent will be eligible for a monthly benefit, whether or not this individual is a named beneficiary.

The monthly work-related benefit is a lifetime monthly annuity based on 331/3% of the member's average final compensation if the spouse, minor child or parent qualifies for Social Security survivor benefits, or 50% of the member's average final compensation if the spouse, minor child or parent does not qualify for Social Security survivor benefits. The benefit is then adjusted by any workers' compensation survivor benefits.

# **Disability Benefits**

#### **DISABILITY RETIREMENT**

Members who are not covered under the Virginia Sickness and Disability Program (VSDP) are eligible to apply for disability retirement from the first

day of covered employment if they have a physical or cognitive disability that prevents them from performing their job and is likely to be permanent. Members covered under Plan 1 and Plan 2 who retire on disability before age 60 are credited with the lesser of (1) twice their total service credit at disability retirement; or (2) their total service credit plus the number of years remaining between their age at disability retirement and age 60.

The disability benefit for non-vested members is the minimum guaranteed benefit, which is either (1) 50% of the member's average final compensation (662/3% if the disability is work-related) if the member does not qualify for primary Social Security benefits; or (2) 331/3% of average final compensation (50% if the disability is work-related) if the member qualifies for primary Social Security benefits.

Vested members receive the greater of the minimum guaranteed benefit or 1.70% of average final compensation for each year of service credit at the time of disability retirement. The benefit for members retiring on work-related disability is reduced by any workers' compensation benefits. The payout options available to members retiring on disability are the Basic Benefit and Survivor Option.

#### VIRGINIA SICKNESS AND DISABILITY PROGRAM

The Virginia Sickness and Disability Program (VSDP) was established on January 1, 1999, to provide state employees covered under VRS, SPORS and VaLORS income protection if they suffer a non-work related or work-related illness or injury. Enrollment in VSDP is automatic upon employment. State employees hired before January 1, 1999, had the option to elect VSDP or retain their eligibility to be considered for disability retirement. Employees enrolled in VSDP are not eligible to retire on disability. Additional information about VSDP is provided in the "Summary of Other Post-Employment Benefit (OPEB) Plan Provisions" in the next discussion on OPEBs. Additional information also is provided in the Financial Section.

# Summary of Pension Plan Changes

The following actuarially material changes have occurred to the pension plan provisions in recent years.

**2003 VALUATION** — No actuarially material changes are made to the plan provisions. There are two changes of note:

- 1. School superintendents with five years of service credit become eligible to purchase an additional 10 years of out-ofstate school service, provided the service does not qualify the superintendent for a benefit under the out-of-state school's retirement plan.
- 2. The Advance Pension Option is added as a benefit payout option. Members may elect to receive a temporary higher benefit until at least age 62 up to their normal retirement age under Social Security, as elected by the member. At that point, the benefit is permanently reduced. The benefit can never be reduced below 50% of the member's Basic Benefit. COLAs are calculated on the Basic Benefit amount.

**2004 VALUATION** – No actuarially material changes are made to the plan provisions.

**2005** VALUATION — No actuarially material changes are made to the plan provisions. On May 19, 2005, the Board adopts the recommended economic and demographic assumptions proposed by the actuary as a result of the June 2004 actuarial experience study.

**2006 VALUATION** — No actuarially material changes are made to the plan provisions.

**2007 VALUATION** – The retirement multiplier for VRS-covered sheriffs and SPORS members changes from 1.70% to 1.85% of average final compensation, effective July 1, 2008.

**2008 VALUATION** — No actuarially material changes are made to the plan provisions.

**2009 VALUATION** — No actuarially material changes are made to the plan provisions. There are three changes of note:

- 1. On April 16, 2009, the Board adopts the recommended economic and demographic assumptions proposed by the actuary as a result of the June 2008 experience study.
- 2. The temporary retirement supplement for SPORS members, VaLORS members and political subdivision employees eligible for enhanced hazardous duty coverage changes from \$11,508 to \$12,456 annually.
- 3. For the June 30, 2009, valuation, the Board suspends application of the 80% to 120% market value-of-assets corridor on the actuarial value of assets.

**2010 VALUATION** – No actuarially material changes are made to the plan provisions. There are two changes of note:

- 1. For the June 30, 2010, valuation, the application of the 80% to 120% market value-of-assets corridor on the actuarial value of assets is reinstated.
- 2. The Board reduces the investment rate-of-return assumption from 7.50% to 7.00%.

**2011 VALUATION** — In 2010, VRS adopts a second retirement plan, Plan 2. All employees hired on or after July 1, 2010, are automatically enrolled in this plan. The differences between Plan 1 and Plan 2 are listed below:

1. Under Plan 2, average final compensation is based on the highest 60 consecutive months of service.

- 2. The Plan 2 cost-of-living adjustment (COLA) is based on the first 2.00% increase in the Consumer Price Index for all Urban Consumers (CPI-U) plus half of each percent from 2.00% to 10.00%, with a maximum COLA of 6.00%.
- 3. Under Plan 2, normal retirement age is Social Security normal retirement age with at least five years of service credit. A Plan 2 member is eligible for unreduced early retirement when the sum of his or her age plus service credit is 90 (Rule of 90). Eligibility for reduced early retirement is at age 60 with five years of service credit.
- 4. Weighted service factors for first-term Plan 2 judges are 1.5 for judges less than age 45; 2.0 for judges age 45-54; and 2.5 for judges age 55 or older.

New general state employees, teachers and general political subdivision employees under VRS are subject to changes 1, 2 and 3 above. New state police officers (SPORS), Virginia law officers (VaLORS) and political subdivision employees eligible for enhanced hazardous duty coverage (VRS) are subject to changes 1 and 2 above. New employees covered under JRS are subject to changes 1. 2 and 4 above.

- **2012 VALUATION** In 2012 HB 1130/SB 498 was enacted and was effective on January 1, 2013. The changes resulting from this legislation as listed below:
- 1. Active non-vested members of Plan 1 have their Average Final Compensation based on the highest 60 consecutive months of service instead of the highest 36 consecutive months of service. This provision applies to all plans.

- 2. Active non-vested members of Plan 1 and all Plan 2 members accrue benefits at 1.65% as of the effective date. This provision applies to the state and teacher plans and to members in political subdivision plans who are not covered by hazardous duty benefits.
- 3. Active members in the Judicial plan hired after January 1, 2013, accrue benefits at 1.65%.
- 4. Active non-vested members of Plan 1 have to satisfy the Rule of 90 (sum of age and service at least 90) or reach their Social Security normal retirement age to be eligible for unreduced retirement. These same members must attain age 60 with five years of service to be eligible for early retirement. This provision applies to the state and teacher plans and to members of political subdivision plans who are not covered by hazardous duty benefits.
- 5. Non-vested members of Plan 1 and all members of Plan 2 have a maximum cost-of-living adjustment (COLA) of 3.00%. This provision applies to all plans.
- 6. All active employees not within five years of eligibility for an unreduced retirement as of January 1, 2013, and retiring with less than 20 years of service have their cost-of-living adjustment (COLA) deferred to one year following their unreduced retirement date after beginning to receive benefits. All active employees within five years of eligibility for unreduced retirement as of January 1, 2013, are grandfathered into the old provisions with no deferral of the COLA.

# Actuary's Certification Letter — OPEB Plans



October 31, 2013

**Board of Trustees** Virginia Retirement System 1200 E. Main Street Richmond, VA 23219

Dear Trustees:

Governmental Accounting Standards Board (GASB) Statements No. 43 and 45 require actuarial valuations of retiree health care and other post-employment benefit (OPEB) plans. Cavanaugh Macdonald Consulting, LLC (CMC) is submitting the results of the annual actuarial valuation of the Virginia Retirement System (VRS) Group Life Insurance Program, the Retiree Health Insurance Credit Program and the long-term (LTD) benefits payable by the Virginia Sickness and Disability Program (VSDP), prepared as of June 30, 2012. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

Group Life Insurance Program. This valuation covers only the portion of the Group Life Insurance Program providing benefits for current retirees and future retirees. This valuation does not value the plan's benefits for members who die while actively employed. Death benefits for active employees are covered under a group life insurance arrangement. The valuation indicates that the Annual Required Contribution (ARC) under GASB Statements No. 43 and 45 is 1.03% of active covered payroll. Adjusted to include the costs for deaths in active service, the total contribution rate for the plan is 1.38% of active covered payroll. Contribution rates for VRS employers are established every two years. The actuarially calculated employer contribution rates based on the June 30, 2012, results presented in this report are for information only.

Retiree Health Insurance Credit Program. The valuation indicates that the Annual Required Contribution (ARC) under GASB Statements No. 43 and 45 is 1.16% of active covered payroll for state employees, including state police (SPORS), judicial employees (JRS), Virginia law officers (VaLORS), Optional Retirement Plan (ORP) participants, and the University of Virginia (UVA) members on active covered payroll; 1.24% of active teachers' payroll; and varying percentages of active covered payroll for employees of political subdivisions that have elected to provide this benefit. Contribution rates for VRS employers are established every two years. The actuarially calculated employer contribution rates based on the June 30, 2012, results presented in this report are for information only.

Virginia Sickness and Disability Program. The valuation indicates that the Annual Required Contribution (ARC) under GASB Statements No. 43 and 45 for long-term disability (LTD) benefits is 0.60% of active covered payroll for members covered by VSDP. Contribution rates for VRS employers are established every two years. The actuarially calculated employer contribution rates based on the June 30, 2012, results presented in this report are for information only.

The promised post-employment death benefit under the Group Life Insurance Program and the health care benefits under the Retiree Health Insurance Credit Program of VRS are included in the actuarially calculated contribution rates, which were developed using the entry age normal actuarial cost method with projected benefits. The promised long-term disability benefits of VSDP are included in the actuarially calculated contribution rates, which were developed using the projected unit credit actuarial cost method with projected benefits.



Five-year smoothed market value of assets is used for actuarial valuation purposes for the Group Life Insurance Program and the state and teacher components of the Retiree Health Insurance Credit Program. The actual market value of assets is used for actuarial valuation purposes for the political subdivision components of the Retiree Health Insurance Credit Program and for VSDP.

GASB requires that the discount rate used to value a plan be based on the likely return of the assets held in trust to pay benefits. As of June 30, 2012, each of the plans had assets in trust solely to provide benefits to retirees and beneficiaries. Therefore, the discount rate has been set at 7.00%. The unfunded accrued liability is being amortized by regular annual contributions as a level percentage of payroll within a 29-year period on the assumption that payroll will increase by 3.00% annually.

The assumptions recommended by the actuary are in the aggregate reasonably related to the experience under each of the Plans and to reasonable expectations of anticipated experience under each of the Plans, and meet the parameters for the disclosures under GASB 43 and 45.

The amortization period of the unfunded actuarial accrued liability was decreased from 30 to 29 years. In future valuations, the amortization period will decrease by one each year until reaching the minimum period of 20 years. Additionally, the valuations also take into account the differentiation between Plan 1 members, employees hired prior to July 1, 2010, and Plan 2 members, new members hired on or after July 1, 2010, and former Plan 1 members that were not vested as of January 1, 2013. Also, the assumptions for benefit offsets of the LTD plan have been modified to be consistent with recent experience. Effective July 1, 2012, the Group Life Insurance benefit amount for disabled retirees will begin to reduce on January 1 following the first full year from the date the retiree reaches Normal Retirement Age.

The liability associated with long-term care (LTC) benefits was calculated by Milliman. In addition, all historical information that references a valuation date prior to June 30, 2008, was prepared by a previous actuarial firm.

The following schedules (or updates to them) were prepared by VRS from information prepared by us during the 2012 actuarial valuation or from supplemental information prepared by us for use in the System's Comprehensive Annual Financial Report. We have reviewed them for inclusion in the 2013 Comprehensive Annual Financial Report:

- Schedule of Funding Progress
- Schedule of Actuarial Methods and Significant Assumptions
- Schedule of Employer Contributions
- Schedules of Selected Experience Rates

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems; that the valuations were prepared in accordance with principles of practice prescribed by the Actuarial Standards Board; and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the individual Plans and on actuarial assumptions that are internally consistent and reasonably based on the actuarial experience of the System and the individual Plans.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the 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. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

Respectfully submitted,

Jose I. Fernandez, ASA, FCA, EA, MAAA Principal and Consulting Actuary Eric H. Gary, FSA, FCA, MAAA

Senior Actuary

# Actuary's Certification Letter — OPEB Plans-VSDP Long-Term Care Plan



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October 31, 2013

#### **Board of Trustees**

Virginia Retirement System 1200 E. Main Street Richmond, VA 23219

Dear Trustees:

#### **Purpose**

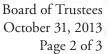
This report presents the required disclosures to comply with the Government Accounting Standards Board (GASB) No. 43 based on the results of the June 30, 2012, actuarial valuation of the self-funded long-term care (LTC) benefits provided to the Virginia Sickness and Disability Program (VSDP) eligible members. This benefit program is an employer-paid self-funded plan. The funding for this plan is a percent of payroll determined by the Board to sustain both the active and ported group long-term care benefits.

This report determines the funded status of the program under the parameters of GASB Statement No. 43 and calculates the annual required contribution sufficient to fund the program's normal cost and amortize any unfunded liability over a period not to exceed 30 years. We have used an amortization period of 29 years to amortize the gain/loss over the past year for this valuation. The results of this report apply to the plan's fiscal year ending June 30, 2012.

#### Liabilities and Costs

Section II of the actuarial valuation report provides the results of the calculations of liabilities and annual required contributions of the program under the Unit Credit Cost Method. The Actuarial Liability represents the present value of long-term care benefits allocated to the service of active participants performed up to the valuation date. The unfunded actuarial accrued liability equals the difference between the total actuarial accrued liability and the value of the assets accumulated for the future payment of the benefits. The normal cost represents the annual ongoing cost of the post-retirement benefits accruing to active participants.

The required level of funding for the LTC program is 0.145% of payroll from each participating employer. This contribution funds both current employee and future retiree benefits. This valuation is the fifth one to determine the actuarial accrued liabilities and GASB Statement No. 43-compliant required funding necessary to fund the retiree long-term care benefits.





Changes made in this year's valuation were for the following items, which are described in detail in the July 1, 2012, valuation report.

- Update to the FY 2012 census;
- Update to the morbidity assumptions;
- Adjustment to the calculation of active contributions to reflect expenses for ported members;
- Update of the termination rates to more accurately reflect actual experience; and
- Adjustment to the claim selection factors.

This work product was prepared solely for VRS for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

#### **Actuarial Methods and Assumptions**

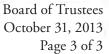
The methods and assumptions are those used in the July 1, 2012, actuarial valuation of the self-funded long-term care benefit that is part of the VSDP program. The methods and assumptions used herein comply with the parameters specified by GASB Statement No. 43 and 45.

#### Limitations

In preparing this report, we relied, without audit, on information provided by VRS. This information includes, but is not limited to, benefit provisions, benefit payments, employee data and financial information. In our examination of these data, we found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data are incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions used in this valuation. It is certain that actual experience will not conform exactly to the assumptions used in this valuation. Actual liability amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

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; and changes in plan provisions or applicable law.





Milliman's work product was prepared exclusively for VRS for a specific and limited purpose. It is a complex technical analysis that assumes a high level of knowledge concerning the plan's operations, and uses data which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs. Any distribution of this report must be provided in its entirety unless prior written consent is obtained from Milliman.

#### Valuation Results and Supplemental Information

The following schedules (or updates to them) were prepared by VRS from information prepared by us during the 2012 actuarial valuation or from supplemental information prepared by us for use in the System's Comprehensive Annual Financial Report. We have reviewed them for inclusion in the 2013 Comprehensive Annual Financial Report:

- Schedule of Funding Progress
- Schedule of Actuarial Methods and Significant Assumptions
- Schedule of Employer Contributions
- Schedules of Selected Experience Rates

#### Certification

On the basis of the foregoing, I certify that, to the best of my knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with Actuarial Standards of Practice, the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries. I am a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Best regards,

Amy Pahl, FSA, MAAA Consulting Actuary

# Actuary's Certification Letter — OPEB Plans-Line of Duty Act Fund



October 31, 2013

#### **Board of Trustees**

Virginia Retirement System 1200 E. Main Street Richmond, VA 23219

Dear Trustees:

Government Account Standards Board Statements No. 43 and 45 require the actuarial valuations of retiree health care and other post-employment benefit (OPEB) plans. Cavanaugh Macdonald Consulting, LLC (CMC) is submitting the results of the annual actuarial valuation of the Virginia Retirement System (VRS) Line of Duty Act Fund (the Plan) prepared as of June 30, 2012.

CMC has relied on the plan provisions and eligibility provisions provided by the Commonwealth of Virginia's Line of Duty Act Program (LODA Program) provided by §9.1-400 of the Code of Virginia (the Code), the 2010 Appropriations Act, the 2011 Appropriations Act, and the 2012 Appropriation Act (the Acts). Additionally, CMC has received active participant data from the Virginia Retirement System (VRS) and inactive data provided by the Commonwealth of Virginia's Department of Accounts (DOA). CMC has reviewed the data for reasonableness only, and has not performed a formal audit of the data used for this valuation. Because the census data was collected from a wide range of sources with varying and, at times, limited content, the data is incomplete. Adjustments have been made to account for this incompleteness. Along with the valuation results, commentary is provided regarding the various aspects of developing the cost structure for LODA Program benefits to be financed through the Plan.

The valuation results are provided on a blended, single group cost basis comprised of two individual segments of the total population: state employees and political subdivision employees. State employees include state employees, Virginia law officers (VaLORS), state police (SPORS), Department of Motor Vehicles (DMV) employees and members of the National Guard. Political



subdivision employees include Emergency Medical Technicians (EMTs), Fire personnel and employees performing hazardous duties in political subdivisions within VRS, as well as one independent retirement system.

Projections estimate annual Full-Time Equivalent (FTE) employee contributions for the fiscal year 2014 to be \$542.53. The estimated contribution rate assumes plan participation of 12,497.30 state FTE employees and 7,144.75 political subdivision FTE employees for a total of 19,642.05 FTE employees. The contribution rate represents, in total, the estimated cost of providing benefits payable in fiscal year 2014; including administrative expenses; the cost of benefits incurred and reported to the administrator but awaiting processing (additional reserves); and the loan installment to repay the LODA Program's costs financed via loans from the Group Life Insurance Program. Contribution rates for participating employer groups are established very two years. The Board approved rate for fiscal year 2014 is \$521.97. The results of the June 30, 2012, valuation are for information purposes only.

The results provided do not account for the potential, long-term incurred but not reported claims resulting from a lack of employer or beneficiary education about the Plan's benefits. The potential cost and liability for these claims may be considerable. A margin for these costs may need to be considered. Additionally, the State Comptroller may want to consider this potential risk in regards to its authority to waive the five-year statute of limitation on claims.

The promised death benefits and post-employment health care benefits provided through the plan are included in all of the actuarially estimated contribution rates. The Plan is a cost-sharing, multipleemployer plan, and the liability for the Plan is developed and reported, as a whole, under the requirements of GASB Statement No. 43. The measurement of the cost-sharing employers' OPEB expense and liabilities under GASB Statement No. 45 is based upon the employers' contractually required contributions to the Plan. The actuarially calculated contribution rates based upon the requirements of GASB 43 and 45 were developed using the projected unit credit cost method with projected benefits. As the Acts require contributions to be determined on a current disbursement basis, the Plan has minimal assets in trust solely to provide benefits, and GASB 43 and 45 requires that the discount rate used to value a plan be based on the likely return of the assets held in trust to pay benefits, the GASB 43 and 45 valuation results provided in this report reflect a discount rate of 4.75%. The assumed annual rate of return of 4.75% is assumed to be consistent with the long-term rate of Virginia's Local Government Investment Pool (LGIP). The unfunded accrued liability is being amortized by regular annual contributions as a level percentage of payroll within a 30-year period on the assumption that payroll will increase by 3.00% annually. The assumptions recommended by the actuary are in the aggregate reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan, and meet the parameters for disclosures under GASB 43 and 45.



The following schedules (or updates to them) were prepared by VRS from information prepared by us during the 2012 actuarial valuation or from supplemental information prepared by us for use in the System's Comprehensive Annual Financial Report. We have reviewed them for inclusion in the 2013 Comprehensive Annual Financial Report:

- Schedule of Funding Progress
- Schedule of Actuarial Methods and Significant Assumptions
- Schedule of Employer Contributions
- Schedules of Selected Experience Rates

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Plan and on actuarial assumptions that are internally consistent and reasonably based on the actuarial experience of the VRS. The aggregate assumptions recommended by the actuary are reasonably related to the experience under the Plan and are reasonable expectations of anticipated experience under the Plan.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: potential variance in the number and/or type of covered lives; Plan experience differing from that anticipated by the 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. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

Respectfully submitted,

Eric H. Gary, FSA, FCA, MAAA

Senior Actuary

he Actuarial Section for VRS-administered Other Post-Employment Benefit (OPEB) Plans presents information about the assumptions adopted by the Board of Trustees and used by the VRS actuaries to evaluate the funded status of these plans. This information includes assumptions about retirements, disabilities, terminations and salary increase rates. The section also provides a summary of OPEB plan provisions and changes. \_\_\_

## Summary of Actuarial Assumptions and Methods

At its meeting on June 17, 2010, the Board reduced the assumption for the investment rate of return from 7.50% to 7.00%. The following assumptions include the Group Life Insurance Program, the Retiree Health Insurance Credit Program, the Virginia Sickness and Disability Program and the Line of Duty Act Program. They were based on an analysis of VRS pension plan experience for the four-year period July 1, 2004, through June 30, 2008, and, along with the subsequent change in the assumption for the investment rate of return, were used for the June 30, 2010, and subsequent actuarial valuations.

#### SOLVENCY TEST - OPEB PLANS

(EXPRESSED IN THOUSANDS)

	Aggrega	ate Accrued Liabili	ties for			Portion of	
Valuation Date	(1) Active Member	(2) Retirees and	(3) Active	Valuation		Accrued Liabilitie Covered by Asse	
(June 30)	Contributions	Beneficiaries	Members*	Assets	(1)	(2)	(3)
			Group Life	Insurance			
2012	N/A	\$ 1,308,096	\$ 1,150,214	\$ 755,889	N/A	57.79%	0.00%
2011	N/A	1,228,335	1,130,642	852,424	N/A	69.40%	0.00%
2010	N/A	1,140,158	1,105,157	928,920	N/A	81.47%	0.00%
2009	N/A	995,206	999,593	967,188	N/A	97.18%	0.00%
2008***	N/A	912,508	858,862	974,869	N/A	100.00%	7.26%
		Retiree	Health Insurance C	redit — State Emplo	yees**		
2012	N/A	\$ 542,874	\$ 374,294	\$ 55,510	N/A	10.23%	0.00%
2011	N/A	530,461	366,099	110,791	N/A	20.89%	0.00%
2010	N/A	521,153	373,888	159,163	N/A	30.54%	0.00%
2009	N/A	466,457	375,654	169,287	N/A	36.29%	0.00%
2008***	N/A	422,996	379,164	153,738	N/A	36.35%	0.00%

Valuation Date	Aggrega (1) Active Member		Accrued Liabi 2) Retirees and		r (3) Active	,	/aluation		Portion of Accrued Liabilities Covered by Assets	
(June 30)	Contributions	Ве	eneficiaries		Members*	`	Assets	(1)	(2)	(3)
			Re	etiree H	ealth Insurar	nce Cred	dit — Teachers	S		
2012	N/A	\$	732,146	\$	536,924	\$	58,286	N/A	7.96%	0.00%
2011	N/A		707,436		522,769		85,933	N/A	12.15%	0.00%
2010	N/A		666,263		536,175		108,187	N/A	16.24%	0.00%
2009	N/A		614,050		494,120		115,880	N/A	18.87%	0.00%
2008***	N/A		554,541		523,484		98,266	N/A	17.72%	0.00%
		ı	Retiree Healt	th Insura	ance Credit -	- State-	Funded Loca	lity Benefits		
2012	N/A	\$	19,817	\$	18,456	\$	1,807	N/A	9.12%	0.00%
2011	N/A		18,271		18,406		2,338	N/A	12.80%	0.00%
2010	N/A		17,045		17,724		2,743	N/A	16.09%	0.00%
2009	N/A		15,289		16,049		3,040	N/A	19.88%	0.00%
2008***	N/A		14,960		19,726		3,311	N/A	22.13%	0.00%
			Retiree I	Health I	nsurance Cre	edit – Po	olitical Subdi	visions		
2012	N/A	\$	15,054	\$	16,369	\$	14,275	N/A	94.83%	0.00%
2011	N/A		14,503		15,688		13,918	N/A	95.97%	0.00%
2010	N/A		13,223		16,861		11,218	N/A	84.84%	0.00%
2009	N/A		11,943		13,548		8,332	N/A	69.76%	0.00%
2008***	N/A		15,388		12,722		8,553	N/A	55.58%	0.00%
			V	/irginia	Sickness and	d Disabi	lity Program			
2012	N/A	\$	125,578	\$	136,151	\$	305,170	N/A	100.00%	131.91%
2011	N/A		123,339		139,505		330,079	N/A	100.00%	148.20%
2010	N/A		133,728		148,251		302,683	N/A	100.00%	113.97%
2009	N/A		120,811		146,773		266,635	N/A	100.00%	99.35%
2008***	N/A		147,518		215,357		286,164	N/A	100.00%	64.38%

<sup>\*</sup>Employer-financed portion.

The progress of a plan in accumulating assets to pay benefits when due can be measured by examining the extent to which assets accumulated for benefits cover 1) any active member contributions to the plan; 2) liabilities for future benefits to retirees and beneficiaries; and 3) liabilities for the employer-financed portion of service already rendered by active members. In a plan receiving actuarially determined employer contributions, the liabilities for future benefits to retirees and beneficiaries will generally be fully covered by accumulated assets. In addition, the liabilities for service already rendered will be partially covered by the remainder of the accumulated assets and will increase over time.

<sup>\*\*</sup>State employees includes state, SPORS, JRS, VaLORS, ORP, and UVA.

<sup>\*\*\*</sup>Data for prior fiscal years is unavailable.

#### SCHEDULE OF ACTIVE MEMBER VALUATION DATA - OPEB PLANS

		Active	Members	
Valuation Date (June 30)	Number	Annual Payroll (000s)	Average Annual Pay	Annualized % Change in Average Pay
		Group Life Insurance		
2012	360,602	\$16,696,961	46,303	0.36%
2011	358,536	16,542,753	46,140	0.97%
2010	361,644	16,526,260	45,698	-0.10%
2009	365,682	16,728,060	45,745	2.67%
2008**	365,103	16,267,352	44,556	N/A
	Retiree He	alth Insurance Credit – State E	mployees*	
2012	106,517	\$ 5,641,862	52,967	-0.91%
2011	105,186	5,622,425	53,452	5.21%
2010	105,106	5,340,134	50,807	0.45%
2009	107,791	5,452,111	50,580	0.79%
2008**	104,774	5,257,958	50,184	N/A
	Retire	e Health Insurance Credit — Te	achers	
2012	147,216	\$ 7,004,577	47,580	0.46%
2011	146,152	6,922,130	47,363	-1.24%
2010	148,462	7,119,889	47,958	-0.37%
2009	148,762	7,160,842	48,136	3.29%
2008**	147,833	6,889,702	46,605	N/A
	Retiree Health In	surance Credit — State-Funded	Locality Benefits	
2012	16,175	\$ 716,748	44,312	1.13%
2011	16,894	740,253	43,818	-0.02%
2010	17,021	745,952	43,825	-0.34%
2009	17,052	749,841	43,974	1.53%
2008**	16,168	700,231	43,310	N/A
	Virgi	nia Sickness and Disability Pro	gram	
2012	73,707	\$ 3,433,322	46,581	0.08%
2011	72,440	3,371,773	46,546	5.10%
2010	71,529	3,167,849	44,288	0.04%
2009	73,003	3,231,897	44,271	0.15%
2008**	72,854	3,220,489	44,205	N/A

<sup>\*</sup>State employees includes state, SPORS, JRS, VaLORS, ORP, and UVA. \*\*Data for prior fiscal years is unavailable.

#### SCHEDULE OF RETIREE AND BENEFICIARIES VALUATION DATA - OPEB PLANS

Valuation Date	Added	Retirees Removed		_	Current Total Life Insurance	Annualized % Increase in Life Insurance	Average Life Insurance	% Increase in Average Life Insurance
(June 30)	to Rolls	from Rolls	Total		Amount	Amount	Amount	Amount
			Group	Life Ir	nsurance			
2012	9,787	3,864	146,314		6,658,865,000	4.58%	\$45,511	0.35%
2011	11,216	4,325	140,391		6,366,958,000	8.35%	45,352	3.03%
2010	10,048	2,577	133,500		5,876,393,000	8.49%	44,018	2.42%
2009 2008**	8,296	10,816	126,029		5,416,588,000 1,984,937,000	8.66%	42,979 20 770	10.83%
	N/A	N/A	128,549		1,304,337,000	N/A	38,778	N/A
					Current Total	Annualized %	Average	% Increase
Valuation		Retirees		_	Annual Health	Increase in	Annual Heal	th in Average
Date	Added	Removed			Insurance	Health Insurance	Insurance	Health Insurance
(June 30)	to Rolls	from Rolls	Total		Credit	Credit	Credit	Credit
		Retire	e Health Insura	nce Cr	edit — State En	nployees*		
2012	2,136	1,153	39,943	\$	59,018,000	2.73%	\$1,478	0.20%
2011	2,684	1,986	38,960		57,451,000	2.08%	1,475	0.27%
2010	3,521	1,279	38,262		56,283,000	7.45%	1,471	1.17%
2009	3,201	1,368	36,020		52,382,000	8.98%	1,454	3.41%
2008**	N/A	N/A	34,187		48,067,000	N/A	1,406	N/A
		Ro	etiree Health In	surano	ce Credit – Tea	chers		
2012	2,898	933	53,454	\$	73,828,000	3.90%	\$1,381	0.07%
2011	4,073	1,163	51,489		71,059,000	6.29%	1,380	0.29%
2010	3,216	1,101	48,579		66,851,000	4.80%	1,376	0.22%
2009 2008**	5,375 N/A	1,002 N/A	46,464 42,091		63,789,000 58,045,000	9.90% N/A	1,373 1,379	-0.44% N/A
	IN/A	IV/A	42,031		30,043,000	IV/A	1,379	IN/A
							Average	% Increase
Valuation		Disableds		_	Current	Annualized %	Annual	in Average
Date	Added	Removed			Total Annual	Increase in	LTD	Annual LTD
(June 30)	to Rolls	from Rolls	Total	L	TD Payments	LTD Payments	Payment	Payment
		\	Virginia Sicknes	s and	Disability Prog	ram		
2012	422	372	2,670	\$	24,230,000	3.43%	\$9,075	1.49%
2011	402	356	2,620		23,427,000	0.04%	8,942	-1.71%
2010	458	278	2,574		23,417,000	8.98%	9,098	1.37%
2009 2008**	377 N/A	297 N/A	2,394		21,487,000 28,455,000	-24.49%	8,975	-27.01%
ZUU0 	N/A	N/A	2,314		Z0,433,UUU	N/A	12,297	N/A

<sup>\*</sup>State employees includes state, SPORS, JRS, VaLORS, ORP, and UVA.

<sup>\*\*</sup>Details of retirees added to and removed from the rolls were not available for these periods.

<sup>\*\*\*</sup>Data for prior fiscal years is unavailable.

#### ACTUARIAL ASSUMPTIONS AND METHODS - OTHER POST-EMPLOYMENT BENEFIT (OPEB) PLANS

FOR THE JUNE 30, 2012, ACTUARIAL VALUATION

Actuarial Assumptions and Methods	Group Life Insurance Program	Retiree Health Insurance Credit Program	Virginia Sickness and Disability Program	Line of Duty Act Program
Valuation Interest Rate	7.00%	7.00%	7.00%	4.75%
Salary Scale Inflation Factor	2.50%	2.50%	2.50%	2.50%
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Projected Unit Credit	Projected Unit Credit
Funding Period	29 Years	29 Years	29 Years	30 Years
Payroll Growth Rate	3.00%	3.00%	3.00%	3.00%
Assets Valuation Method – State and Teacher Assets Valuation Method –	5-Year Smoothed Market	5-Year Smoothed Market	Market Value	Market Value
Political Subdivisions	5-Year Smoothed Market	Market Value*	N/A	Market Value

<sup>\*</sup>Includes state-funded Retiree Health Insurance for certain local government employees.

#### FIGURE 4.7 - RETIREMENT RATES-OPEB PLANS

Sample rates of retirement for members eligible to retire are shown below.\*

#### State Employees

	Plan 1					Plan 2			
		vith Less Than of Service		t with 30 or s of Service		vith Less Than of Service		t with 30 or s of Service	
Age	Male	Female	Male	Female	Male	Female	Male	Female	
50	3.00%	3.22%	10.00%	10.00%	0.00%	10.00%	10.00%	10.00%	
55	5.00%	5.00%	10.00%	10.00%	0.00%	10.00%	10.00%	10.00%	
59	5.00%	5.50%	10.00%	10.00%	0.00%	10.00%	10.00%	10.00%	
60	5.00%	5.50%	10.00%	15.00%	5.00%	10.00%	10.00%	10.00%	
61	10.00%	10.00%	15.00%	20.00%	10.00%	15.00%	15.00%	15.00%	
62	15.00%	15.00%	25.00%	30.00%	15.00%	25.00%	25.00%	25.00%	
64	15.00%	15.00%	20.00%	20.00%	15.00%	20.00%	20.00%	20.00%	
65	40.00%	40.00%	30.00%	40.00%	40.00%	30.00%	30.00%	30.00%	
67	40.00%	40.00%	25.00%	25.00%	40.00%	25.00%	25.00%	25.00%	
>= 70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

#### Teachers

	Plan 1				Plan 2			
		vith Less Than of Service		t with 30 or s of Service		vith Less Than of Service		t with 30 or s of Service
Age	Male	Female	Male	Female	Male	Female	Male	Female
50 55 59 60 61	2.00% 5.70% 7.00% 7.50% 11.00%	2.00% 6.10% 7.50% 8.50% 12.00%	17.50% 22.50% 22.50% 22.50% 30.00%	15.00% 22.50% 22.50% 22.50% 30.00%	0.00% 0.00% 0.00% 7.50% 11.00%	0.00% 0.00% 0.00% 8.50% 12.00%	17.50% 22.50% 22.50% 22.50% 30.00%	15.00% 22.50% 22.50% 22.50% 30.00%
62 64 65 67 >= 70	17.00% 18.00% 40.00% 40.00% 100.00%	17.00% 16.50% 40.00% 40.00% 100.00%	35.00% 30.00% 40.00% 20.00% 100.00%	40.00% 25.00% 40.00% 30.00% 100.00%	17.00% 18.00% 40.00% 40.00% 100.00%	17.00% 16.50% 40.00% 40.00% 100.00%	35.00% 30.00% 40.00% 20.00% 100.00%	40.00% 25.00% 40.00% 30.00% 100.00%

FIGURE 4.7 - RETIREMENT RATES-OPEB PLANS, cont.

# Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

	Plan 1					Plan 2			
		vith Less Than of Service		nt with 30 or rs of Service		vith Less Than of Service		t with 30 or s of Service	
Age	Male	Female	Male	Female	Male	Female	Male	Female	
50	3.50%	3.50%	13.00%	15.60%	0.00%	0.00%	13.00%	15.60%	
55	5.00%	5.00%	11.50%	14.30%	0.00%	0.00%	11.50%	14.30%	
59	4.50%	6.00%	13.50%	13.40%	0.00%	0.00%	13.50%	13.40%	
60	6.00%	7.50%	17.00%	12.80%	6.00%	7.50%	17.00%	12.80%	
61	10.50%	10.00%	19.00%	17.70%	10.50%	10.00%	19.00%	17.70%	
62	17.50%	15.50%	31.00%	28.00%	17.50%	15.50%	31.00%	28.00%	
64	16.50%	17.00%	29.00%	18.30%	16.50%	17.00%	29.00%	18.30%	
65	40.00%	40.00%	41.00%	29.60%	40.00%	40.00%	41.00%	29.60%	
67	40.00%	40.00%	24.00%	33.20%	40.00%	40.00%	24.00%	33.20%	
>= 70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

## Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits - All Other Employers

	Plan 1					Plan 2			
		vith Less Than of Service		t with 30 or s of Service		vith Less Than of Service		t with 30 or s of Service	
Age	Male	Female	Male	Female	Male	Female	Male	Female	
50	5.00%	4.00%	9.00%	8.00%	0.00%	0.00%	9.00%	8.00%	
55	5.00%	5.50%	14.00%	11.50%	0.00%	0.00%	14.00%	11.50%	
59	6.00%	5.00%	11.00%	11.50%	0.00%	0.00%	11.00%	11.50%	
60	6.00%	7.50%	11.00%	13.00%	6.00%	7.50%	11.00%	13.00%	
61	10.00%	7.50%	25.00%	17.50%	10.00%	7.50%	25.00%	17.50%	
62	17.00%	17.00%	35.00%	25.00%	17.00%	17.00%	35.00%	25.00%	
64	15.00%	13.00%	27.00%	17.50%	15.00%	13.00%	25.00%	25.00%	
65	40.00%	40.00%	33.00%	40.00%	40.00%	40.00%	25.00%	25.00%	
67	40.00%	40.00%	20.00%	25.00%	40.00%	40.00%	33.00%	40.00%	
>= 70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	



FIGURE 4.7 - RETIREMENT RATES-OPEB PLANS, cont.

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

Age	Reduced Retirement	Unreduced Retirement
50	9.00%	25.00%
55	8.50%	18.00%
59	13.50%	31.50%
60	20.00%	35.00%
>= 65	100.00%	100.00%

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits - All Other Employers

Age	Reduced Retirement	Unreduced Retirement
50	8.50%	25.00%
55	8.50%	17.50%
59	11.50%	28.50%
60	20.00%	35.00%
>=65	100.00%	100.00%

#### State Police Officers

Age	Reduced Retirement	Unreduced Retirement
50	10.00%	15.00%
55	10.00%	15.00%
59	12.00%	20.00%
60	25.00%	40.00%
> = 64	100.00%	100.00%

#### Virginia Law Officers

Age	Reduced Retirement	Unreduced Retirement
50	9.20%	25.00%
55	9.50%	20.00%
59	12.00%	25.00%
60	20.00%	40.00%
>=65	100.00%	100.00%

#### Judges Service Multiplier = 2.5 Service Multiplier = 3.5 Years of Service Years of Service 2-11 12 1-8 9 >=10 Age >=13 60 0.00% 50.00% 50.00% 0.00% 50.00% 50.00% 65 50.00% 15.00% 15.00% 50.00% 50.00% 15.00% 69 15.00% 15.00% 15.00% 15.00% 15.00% 15.00% > = 70100.00% 100.00% 100.00% 100.00% 100.00% 100.00%

<sup>\*</sup>For the Retiree Health Insurance Credit, 95% of the state employees, teachers, state police officers, Virginia law officers and Judges who retire with 15 or more years of service will utilize the benefit. For all political subdivision employees, 85% of the employees with 15 or more years of service will utilize the benefit.

#### FIGURE 4.8 - DISABILITY RATES-OPEB PLANS

As shown below for selected ages.

#### State Employees

14% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.1000%	0.0100%	
30	0.2000%	0.1500%	
40	0.2000%	0.2900%	
50	0.5000%	0.5500%	
60	0.8000%	1.0000%	

#### Teachers

5% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.0000%	0.0000%	
30	0.0150%	0.0170%	
40	0.0320%	0.0600%	
50	0.2040%	0.1500%	
60	0.4740%	0.4000%	

#### Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

14% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.0000%	0.0000%	
30	0.1000%	0.1000%	
40	0.3000%	0.1000%	
50	0.4000%	0.4000%	
60	1.2000%	1.0000%	

#### Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – All Other Employers

14% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.0300%	0.0100%	
30	0.1000%	0.0400%	
40	0.2400%	0.1300%	
50	0.5200%	0.4500%	
60	1.3600%	1.1600%	

#### FIGURE 4.8 - DISABILITY RATES-OPEB PLANS, cont.

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

60% of disability cases are assumed to be service-related.

 Age	Rate
20	0.0000%
30	0.0500%
40	0.2400%
50	0.5300%
60	0.8100%

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits - All Other Employers

60% of disability cases are assumed to be service-related.

Age	Rate	
20	0.0000%	
30	0.0400%	
40	0.1500%	
50	0.5100%	
60	0.8500%	

#### State Police Officers

60% of disability cases are assumed to be service-related.

Age	Rate	
20	0.0000%	
30	0.0281%	
40	0.2100%	
50	0.6750%	
60	0.0000%	

#### Virginia Law Officers

60% of disability cases are assumed to be service-related.

Age	Rate	
20	0.0000%	
30	0.0250%	
40	0.1810%	
50	0.4740%	
60	0.6200%	

#### FIGURE 4.8 - DISABILITY RATES-OPEB PLANS, cont.

#### Judges

5% of disability cases are assumed to be service-related.

Age	Male	Female	
20	0.0000%	0.0000%	
30	0.0070%	0.0070%	
40	0.1420%	0.0900%	
50	0.4800%	0.3970%	
60	0.0000%	0.0000%	

#### FIGURE 4.9 – TERMINATION RATES-OPEB PLANS

Withdrawal rates are based on age and years of service credit. Sample rates for selected ages and years of service are shown below for causes other than death, disability or retirement.

#### State Employees- Plan 1

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

Years of Service – Males		Yea	ars of Service — Fem	ales		
Age	0-2	3-9	10+	0-2	3-9	10+
25	22.00%	13.00%	0.00%	25.50%	16.00%	0.00%
35	17.00%	9.50%	4.50%	19.00%	11.50%	5.00%
45	14.00%	7.50%	2.30%	14.00%	7.50%	2.50%
55	10.00%	5.50%	0.00%	12.00%	6.00%	0.00%
65	12.00%	13.00%	0.00%	13.00%	17.00%	0.00%

#### State Employees- Plan 2

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

Years of Service – Males		Yea	ars of Service — Fem	ales		
Age	0-2	3-9	10+	0-2	3-9	10+
25	22.00%	13.00%	0.00%	25.50%	16.00%	0.00%
35	17.00%	9.50%	4.50%	19.00%	11.50%	5.00%
45	14.00%	7.50%	2.30%	14.00%	7.50%	2.50%
55	10.00%	5.50%	0.40%	12.00%	6.00%	0.40%
65	12.00%	13.00%	0.00%	13.00%	17.00%	0.00%

#### **Teachers**

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Y	ears of Service – Ma	ales	Yea	ars of Service – Fem	nales
Age	0-2	3-9	10+	0-2	3-9	10+
25	15.00%	13.00%	0.80%	14.00%	12.50%	15.00%
35	14.00%	7.00%	3.20%	15.00%	9.70%	4.00%
45	15.00%	8.00%	1.90%	11.50%	6.30%	2.00%
55	14.00%	7.00%	0.00%	12.50%	5.70%	0.00%
65	17.00%	8.30%	0.00%	13.00%	8.00%	0.00%

#### FIGURE 4.9 - TERMINATION RATES-OPEB PLANS, cont.

#### Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Y	ears of Service – Ma	ales	Yea	ars of Service – Fem	ales
Age	0-2	3-9	10+	0-2	3-9	10+
25	21.80%	13.70%	0.00%	23.30%	16.70%	0.00%
35	17.20%	9.70%	5.80%	18.60%	10.60%	5.10%
45	14.30%	7.10%	2.90%	14.80%	7.70%	2.80%
55	10.90%	5.30%	0.70%	11.90%	6.30%	0.00%
65	13.60%	8.20%	0.00%	12.60%	8.20%	0.00%

#### Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – All Other Employers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Yo	ears of Service – Ma	ales	Yea	ars of Service — Fem	ales
Age	0-2	3-9	10+	0-2	3-9	10+
25	23.50%	14.00%	0.00%	25.50%	16.50%	0.00%
35	18.50%	10.50%	5.50%	19.00%	11.50%	6.00%
45	15.50%	8.00%	3.00%	15.00%	8.00%	3.50%
55	12.00%	6.50%	1.00%	12.50%	6.50%	0.00%
65	12.00%	8.00%	0.00%	13.00%	9.00%	0.00%

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Ye	ars of Service – Ma	ales	Yea	rs of Service — Fem	ales
Age	0-2	3-9	10+	0-2	3-9	10+
25	7.80%	6.80%	0.00%	7.80%	6.80%	0.00%
35	8.00%	4.40%	2.40%	8.00%	4.40%	2.40%
45	9.20%	4.60%	1.50%	9.20%	4.60%	1.50%
55	8.30%	6.30%	0.00%	8.30%	6.30%	0.00%
60	8.70%	6.50%	0.00%	8.70%	6.50%	0.00%

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – All Other Employers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Ye	ars of Service – Ma	ales	Yea	rs of Service — Fem	ales
Age	0-2	3-9	10+	0-2	3-9	10+
25	10.70%	8.30%	0.00%	10.70%	8.30%	0.00%
35	10.90%	6.30%	3.30%	10.90%	6.30%	3.30%
45	8.70%	5.20%	1.80%	8.70%	5.20%	1.80%
55	10.90%	6.30%	0.50%	10.90%	6.30%	0.50%
60	8.20%	7.70%	0.50%	8.20%	7.70%	0.50%

#### FIGURE 4.9 - TERMINATION RATES-OPEB PLANS, cont.

#### State Police Officers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Ye	ars of Service – Ma	ales	Yea	ars of Service — Fem	ales
Age	0-2	3-9	10+	0-2	3-9	10+
25	7.50%	5.50%	3.00%	18.30%	10.50%	4.40%
35	7.50%	4.80%	2.40%	17.00%	10.00%	6.10%
45	10.00%	4.50%	1.40%	12.70%	9.80%	5.90%
55	10.00%	7.50%	1.20%	5.20%	10.20%	4.10%
65	10.00%	7.50%	1.20%	0.00%	11.20%	0.60%

#### Virginia Law Officers

#### SEPARATIONS FROM ACTIVE SERVICE DUE TO TERMINATION

	Υ	ears of Service – Ma	ales	Yea	ars of Service — Fem	ales
Age	0-2	3-9	10+	0-2	3-9	10+
25	20.00%	15.00%	5.00%	20.00%	15.00%	7.50%
35	20.00%	12.50%	5.00%	20.00%	12.50%	7.50%
45	15.00%	10.50%	4.00%	17.50%	8.00%	5.90%
55	12.00%	6.50%	4.00%	10.00%	12.00%	6.00%
65	15.00%	7.00%	4.00%	10.00%	10.00%	6.00%

#### **Judges**

There are no assumed rates of withdrawal prior to service retirement for causes other than death, disability or retirement.

#### FIGURE 4.10 - SALARY INCREASE RATES-OPEB PLANS

Sample salary increase rates are shown below. These factors are not applicable to the Line of Duty Act Program since neither the benefit nor the cost is salary based.

#### State Employees

Inflation of 2.50% plus productivity component of 1.25% plus step-rate/promotional component as shown. It is assumed state employees covered under the Virginia Sickness and Disability Program (VSDP) receive a 3.75% annual increase in pay while disabled. This adjusted pay is used to determine deferred retirement benefits payable from the System.

Years of Service Credit	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.85%	5.60%	
3	1.25%	5.00%	
6	0.95%	4.70%	
9	0.50%	4.25%	
11	0.15%	3.90%	
15	0.15%	3.90%	
19	0.15%	3.90%	
20 or more	0.00%	3.75%	

#### FIGURE 4.10 - SALARY INCREASE RATES-OPEB PLANS, cont.

#### **Teachers**

Inflation rate of 2.50% plus productivity component of 1.25% plus step-rate/promotional component as shown.

Years of Service Credit	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	2.45%	6.20%	
3	2.35%	6.10%	
6	1.95%	5.70%	
9	1.85%	5.60%	
11	1.35%	5.10%	
15	1.15%	4.90%	
19	0.95%	4.70%	
20 or more	0.00%	3.75%	

#### Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

Inflation rate of 2.50% plus productivity component of 1.25% plus step-rate/promotional component as shown.

Years of Service Credit	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.85%	5.60%	
3	1.25%	5.00%	
6	0.95%	4.70%	
9	0.50%	4.25%	
11	0.15%	3.90%	
15	0.15%	3.90%	
19	0.15%	3.90%	
20 or more	0.00%	3.75%	

#### Political Subdivision Employees Not Receiving Enhanced Hazardous Duty Benefits – All Other Employers

Inflation rate of 2.50% plus productivity component of 1.25% plus step-rate/promotional component as shown.

Years of Service Credit	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.85%	5.60%	
3	1.25%	5.00%	
6	0.95%	4.70%	
9	0.50%	4.25%	
11	0.15%	3.90%	
15	0.15%	3.90%	
19	0.15%	3.90%	
20 or more	0.00%	3.75%	

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – 10 Largest Employers

Inflation rate of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown.

Years of Service Credit	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.25%	4.75%	
3	1.25%	4.75%	
6	0.90%	4.40%	
9	0.90%	4.40%	
11	0.50%	4.00%	
15	0.50%	4.00%	
19	0.50%	4.00%	
20 or more	0.00%	3.50%	

#### FIGURE 4.10 - SALARY INCREASE RATES-OPEB PLANS, cont.

#### Political Subdivision Employees Receiving Enhanced Hazardous Duty Benefits – All Other Employers

Inflation rate of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown.

Years of Service Credit	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.25%	4.75%	
3	1.25%	4.75%	
6	0.90%	4.40%	
9	0.90%	4.40%	
11	0.50%	4.00%	
15	0.50%	4.00%	
19	0.50%	4.00%	
20 or more	0.00%	3.50%	

#### State Police Officers

Inflation of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown. It is assumed state police who are covered under the Virginia Sickness and Disability Program (VSDP) receive a 3.50% annual increase in pay while disabled. This adjusted pay is used to determine deferred retirement benefits payable from the System.

Years of Service Credit	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.25%	4.75%	
3	1.25%	4.75%	
6	0.90%	4.40%	
9	0.90%	4.40%	
11	0.50%	4.00%	
15	0.50%	4.00%	
19	0.50%	4.00%	
20 or more	0.00%	3.50%	

#### Virginia Law Officers

Inflation of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown. It is assumed Virginia law officers who are covered under the Virginia Sickness and Disability Program (VSDP) receive a 3.50% annual increase in pay while disabled. This adjusted pay is used to determine deferred retirement benefits payable from the System.

Years of Service Credit	Annual Step-Rate/Promotional Rates of Increase	Total Annual Rate of Increase	
1	1.25%	4.75%	
3	1.25%	4.75%	
6	0.90%	4.40%	
9	0.90%	4.40%	
11	0.50%	4.00%	
15	0.50%	4.00%	
19	0.50%	4.00%	
20 or more	0.00%	3.50%	

#### **Judges**

Salary increase rates are 4.50%.

#### FIGURE 4.11 - EMPLOYMENT TERMINATION RATES - LONG-TERM CARE

The termination rates used for the long-term care plan valuation differ from those used for other valuations, particularly at the older ages. For example, whereas other valuations assume a 100% retirement rate by age 70 for all categories of employees, this is not the case for long-term care, which is typically accessed at older ages. Since termination rates are a critical and sensitive set of assumptions for the valuation of the long-term care benefit, a more detailed age by employment duration grid of termination rates appropriate for this purpose was developed.

#### Current Assumption: Selected Employment Turnover Assumptions by Hire Age and Accrued Service

Hire Age	0	10	20	30	40
20	0.413	0.085	0.021	0.041	0.087
30	0.275	0.056	0.020	0.086	0.243
40	0.260	0.040	0.041	0.225	0.326
50	0.228	0.057	0.146	0.345	0.455
60	0.239	0.163	0.341	0.544	0.722
70	0.444	0.258	0.632	1.000	1.000

#### Employment Duration (Years) - Male

Hire Age	0	10	20	30	40
20	0.371	0.063	0.028	0.088	0.185
30	0.273	0.051	0.028	0.090	0.250
40	0.235	0.038	0.047	0.204	0.350
50	0.211	0.058	0.185	0.383	0.680
60	0.215	0.125	0.243	0.534	0.947
70	0.288	0.237	0.486	1.000	1.000

#### FIGURE 4.12 - PORTING RATES - LONG-TERM CARE

Porting rates represent the probability that an individual will choose to port the coverage upon employment termination. Porting rates are assumed to increase with longevity because the contributions for terminated employees are based upon the age at which they started the program (either 2002 or age at hire, if later).

#### Current Selected Policy Porting Rate Assumptions by Policy Issue Age and Policy Duration

#### Policy Duration (Years)

Issue Age	0	10	20	30	40
30	0.0000	0.0272	0.1185	0.3537	0.6574
40	0.0000	0.0679	0.2423	0.4526	0.8230
50	0.0091	0.1352	0.3116	0.5790	0.9589
60	0.0376	0.1791	0.3986	0.7407	0.9997
70	0.0902	0.2447	0.5099	0.8985	1.0000
80	0.1441	0.3191	0.6524	0.9987	1.0000
90	0.1618	0.3750	0.8347	1.0000	1.0000
110	0.2040	0.5182	1.0000	1.0000	1.0000

# ADDITIONAL INFORMATION ABOUT ACTUARIAL ASSUMPTIONS AND METHODS – OTHER POST-EMPLOYMENT BENEFIT (OPEB) PLANS

#### Mortality Rates:

- Pre-Retirement: 1994 Group Annuity Mortality
  Table for males and females with a one-year set
  back in age for males and females in all employer
  groups.
- Post-Retirement: 1994 Group Annuity Mortality Table for males and females with a one-year set back in age for male and female state employees and employees of political subdivisions not receiving enhanced hazardous duty benefits; a three-year set back in age for male and female teachers; and a one-year set back in age for male and female judges. 1994 Group Annuity Mortality Table for males and females with a four-year set back in age for state police officers, political subdivision employees in hazardous duty positions receiving enhanced benefits and other Virginia law enforcement and correctional officers.
- Post-Disablement: 70% of PBGC Disabled Mortality Table 5a for males; 90% of PBGC Disabled Mortality Table 6a for females.

Provision for Expense. The assumed investment return represents the anticipated net rate of return after payment of all administrative expenses.

Asset Valuation Method. For the Group Life Insurance Program and the state and teacher employer groups for the Retiree Health Insurance Credit Program, the actuarial value of assets is equal to the market value of assets, adjusted for a five-year phase-in of the excess or shortfall between expected investment returns and actual income, both based on market value, with the resulting value not being less than 80% or more than 120% of the market value of assets. For VSDP, the Line of Duty Act Program and the political subdivision employer groups in the Retiree Health Insurance Credit Program, the actuarial value of assets is equal to the market value of assets.

Actuarial Cost Method. For the Group Life Insurance and Retiree Health Insurance Credit Programs, the normal contribution is determined using the entry age normal method. Under this method, a calculation is made for the cost of benefits to determine the uniform and constant percentage rate of the employer contribution which, if applied to the compensation of the average new member during the entire period of the member's anticipated covered service, would meet the cost of all benefits payable on the member's behalf. The unfunded accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions from the present value of the expected benefits to be paid. The accrued liability contribution amortizes the balance of the unfunded accrued actuarial liability (UAAL) over a period of years from the valuation date.

For VSDP and the Line of Duty Act Program, the normal contribution is determined using the projected unit credit method. Under this method, the liability for active employees is the portion of the employee's present value of expected benefits attributed to service completed as compared to total service at decrement. The unfunded accrued liability is determined by subtracting the current assets from the liability of active employees and current beneficiaries. The accrued liability contribution amortizes the balance of the unfunded accrued actuarial liability (UAAL) over a period of years from the valuation date.

Actuarial Gains and Losses. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability and are amortized as part of that balance.

Payroll Growth Rates. The payroll growth rate is assumed to be 3.00% based on a zero population growth assumption.

Funding Period. For all members, the funding period is 29-year open amortization, computed as a level percent of covered payroll, for the Group Life Insurance Program, the Retiree Health Insurance Credit Programs and VSDP; and 30-year open amortization, computed as a level percent of covered payroll, for the Line of Duty Act Program.

# Summary of Other Post-Employment Benefit Plan Provisions

## Group Life Insurance Program

#### **ADMINISTRATION**

The plan is administered by the Board of Trustees of the Virginia Retirement System (the System). Contributions received are held in trust. Payments are made to the Minnesota Life Insurance Company as reimbursement for the payment of life insurance proceeds to the beneficiaries.

An addition to the contribution requirement for the active member benefit provides for the retiree death benefit. The active portion of the contribution is used to purchase group term life insurance from an insurance company; the retired member portion is held in a trust until required for benefit payments. When a covered retiree dies, the Minnesota Life Insurance Company pays the insurance claim and then collects a premium equal to the cost of the claim.

The retired member contribution is determined actuarially. The Board sets administrative policy and determines the allocation of the assets held for investment.

#### **ELIGIBILITY**

The following employees are covered under the Group Life Insurance Program upon employment:

- Full-time permanent, salaried employees of the Commonwealth of Virginia, including state employees, faculty members of the state's public colleges and universities, state police officers (SPORS), Virginia law officers (VaLORS) and judicial employees (JRS);
- Full-time permanent, salaried teachers and other administrative employees of local public school divisions;

- Full-time permanent, salaried sheriffs, deputy sheriffs and other eligible non-hazardous duty and hazardous duty employees of political subdivisions that have elected to participate in the Group Life Insurance Program; and
- Employees of five localities that do not participate in VRS for retirement: City of Richmond, City of Portsmouth, City of Roanoke, City of Norfolk and Roanoke City School Board.

Certain members who were employed at the time of initial coverage under the Group Life Insurance Program had the option to decline coverage.

#### **ACTIVE MEMBER BENEFIT**

Active members are covered for the following benefits:

- Natural death benefit equal to the member's compensation rounded to the next highest thousand and then doubled
- Accidental death benefit, which is double the natural death benefit
- Accidental dismemberment benefit, safety belt benefit, repatriation benefit, felonious assault benefit and an accelerated death benefit option

Covered employees may elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. Optional group life benefits are not included in the valuations of the OPEB plans.

#### RETIREE BENEFIT

- 1. Service Retirement. A death benefit equal to the active member's natural death benefit and the accelerated death benefit option continue for retirees and for deferred members who have met the eligibility requirements for retirement upon leaving employment. Coverage begins to reduce by 25% on the January 1 following one calendar year of retirement and by 25% each January 1 thereafter, until it reaches 25% of its original value.
- 2. Disability Retirement. The benefits available to disability retirees are the same as those for service retirees, except that the first 25% annual reduction begins on the January 1 following the first full year from the date the retiree reaches normal retirement age.

# Retiree Health Insurance Credit Program

#### **ADMINISTRATION**

The plan is administered by the System's Board of Trustees. Contributions received are held in trust. The Board sets administrative policy and determines the allocation of the assets held for investment.

#### **ELIGIBILITY**

The health insurance credit is a tax-free reimbursement in an amount set by the General Assembly for each year of service credit against the portion of qualified health insurance premiums retirees pay for single coverage. The credit cannot exceed the amount of the premium and ends upon the retiree's death.

If a member has worked for more than one employer under VRS, SPORS, VaLORS or JRS, for the purpose of this valuation, the most current (or last) employer assumes the full liability for that employee.

#### CREDIT AMOUNTS

The dollar amounts vary depending on the employee type, as shown in the following table:

#### **Health Insurance Credit Dollar Amounts at Retirement**

ELIGIBLE EMPLOYEES	Amount per Year of Service	Maximum Credit per Month
State employees	\$ 4.00	No Cap
Teachers and other administrative school employees	\$ 4.00	No Cap
General registrars and their employees constitutional officers and their employees and local social service employees	, \$ 1.50	\$45.00
General registrars and their employees constitutional officers and their employees and local social service employees, if the political subdivision elects the \$1.00 enhancement	, \$ 2.50	\$75.00
Other political subdivision employees as elected by the employer	\$ 1.50	\$45.00

# Virginia Sickness and Disability Program (VSDP)

#### **ADMINISTRATION**

The plan is administered by the System's Board of Trustees. Contributions received are held in trust. The Board sets administrative policy and determines the allocation of the assets held for investment.

#### **ELIGIBILITY**

The following state employees are covered automatically under the Virginia Sickness and Disability Program (VSDP) upon employment:

 Full-time permanent, salaried employees of the Commonwealth of Virginia (VRS) and part-time permanent, salaried state employees who work at least 20 hours a week;

- Public college and university faculty members who elect to participate in VRS instead of an optional retirement plan. These faculty members can elect VSDP or a disability plan offered by their institution;
- Full-time permanent, salaried state police officers (SPORS); and
- Full-time permanent, salaried Virginia law officers other than state police (VaLORS).

State employees hired before January 1, 1999, had the option to elect VSDP or retain their eligibility to be considered for disability retirement.

# SHORT-TERM AND LONG-TERM DISABILITY BENEFITS

VSDP coverage provides short-term and long-term disability benefits for non-work related and work-related illnesses and injuries. Eligible members who become disabled receive short-term disability benefits for up to 125 workdays, following a seven-calendar day waiting period from the first day of disability. Members who are still disabled after 125 workdays are evaluated for long-term disability. Members hired or rehired on or after July 1, 2009, must satisfy eligibility periods for non-work related disability coverage and certain income replacement levels.

The long-term disability benefit provides income replacement equal to 60% of the member's predisability income. While members are on long-term disability, they are not considered employees of the Commonwealth of Virginia. Members who can work at least 20 hours a week but cannot perform their full duties may be eligible for long-term disability benefits while working. They must have returned to work with modified duties while on short-term disability.

The long-term disability benefit is adjusted by any salary, wages, workers' compensation benefits or other disability payments the member receives for the same condition. If a member's condition becomes catastrophic, income replacement will increase to 80% of pre-disability income for as long as the condition is considered catastrophic. A disability is determined to be catastrophic if a member is unable to perform at least two of a specified list of activities of daily living without assistance.



Long-term disability benefits end if the member can perform the full duties of his or her pre-disability position without any restrictions during the first 24 months of disability; can perform the regular duties of any job for which the member is reasonably qualified after 24 months of disability and earning 80% or more of his or her pre-disability income; takes a refund of his or her member contributions and interest; does not cooperate or comply with the requirements of VSDP; or begins receiving a VRS service retirement benefit. Benefits also end in the event of the member's death.

#### **VSDP LONG-TERM CARE PLAN**

VSDP plan members are eligible for no-cost longterm care coverage under the VSDP Long-Term Care Plan. The plan provides a two-year maximum coverage period with a maximum \$96-per-day daily benefit for nursing home care and other covered services. The benefit of many of the other services is less than the nursing home benefit, which means those needing these services will take longer to reach their lifetime maximum amount, resulting in longer coverage duration.

Benefits begin after 90 days from the date the member is certified by a licensed healthcare professional as eligible for benefits. The benefit schedule includes the possibility of an increase for inflation every five years in the amount of 5.00% compounded annually since the last inflation increase. Since such increases are not pre-funded, they are accompanied by a corresponding increase in contributions. Upon retirement or termination from employment, VSDP plan members may elect to continue their long-term care coverage by paying the premiums.

# Line of Duty Act Program

#### **ADMINISTRATION**

The plan is administered by the System's Board of Trustees. Contributions received are held in trust. The Board sets administrative policy and determines the allocation of the assets held for investment.

#### **ELIGIBILITY**

Members of SPORS and VaLORS as well as members of VRS who are eligible for enhanced hazardous duty coverage are covered under the Line of Duty Act. Paid employees and volunteers in hazardous duty positions in all VRS-participating and non-VRS participating localities also are covered under the act.

#### **BENEFITS**

Coverage provides death and health insurance benefits, which are administered by the Virginia Department of Accounts (DOA). The System is responsible for managing the assets of the Line of Duty Act Fund.



# Summary of OPEB Plan Changes

The following changes have occurred to the OPEB plan provisions.

#### 2009 VALUATION

No actuarially material changes are made to the plan provisions. There are two changes of note:

- 1. On April 16, 2009, the Board adopts the recommended economic and demographic assumptions proposed by the actuary as a result of the June 2008 actuarial experience study.
- 2. For the June 30, 2009, valuation, the Board suspends application of the 80% to 120% market value-of-assets corridor on the actuarial value of assets for the Group Life Insurance Program and the Retiree Health Insurance Credit Program.

#### 2010 VALUATION

No actuarially material changes are made to the plan provisions. There are two changes of note:

- 1. For the June 30, 2010, valuation, the application of the 80% to 120% market value-of-assets corridor on the actuarial value of assets is reinstated.
- 2. The Board reduces the investment rate-of-return assumption for the Group Life Insurance Program, the Retiree Health Insurance Credit Program and the Virginia Sickness and Disability Program (VSDP) from 7.50% to 7.00%.

#### 2011 VALUATION

No actuarially material changes are made to the plan provisions.

#### 2012 VALUATION

The changes resulting from recent legislation are listed below:

- 1. Under House Bill 791, effective July 1, 2012, the life insurance amount reduction start date for disabled retirees was changed to January 1 following the first full year from the date the retiree reaches normal retirement age.
- 2. In 2012 HB 1130/SB 498 was enacted and was effective on January 1, 2013, requiring active non-vested members of Plan 1 have to satisfy the Rule of 90 (sum of age and service at least 90) or reach their Social Security normal retirement age to be eligible for unreduced retirement. These same members must attain age 60 with five years of service to be eligible for early retirement. This provision applies to the state and teacher plans and to members of political subdivision plans who are not covered by hazardous duty benefits. In addition, state employees on LTD are assumed to receive cost-of-living adjustments to their LTD benefits in an amount of 2.25% per year, compounded annually.
- 3. Benefit offset adjustments for VSDP were adjusted to reflect actual VRS experience.

# statistical section

#### Pension Trust Funds:

Schedule of Retirement Contributions by System

Schedule of Pension Trust Fund Additions by Source

Schedule of Pension Trust Fund Deductions by Type

Schedule of Retirement Benefits by System

Schedule of Retirement Benefits by Type

Schedule of Refunds by Type

Schedule of Retirees and Beneficiaries by

Type of Retirement

Schedule of Retirees and Beneficiaries by Type of Retirement and Plan

Schedule of Retirees and Beneficiaries by Payout
Option Selected

Schedule of Average Benefit Payments

Schedule of Funding Progress-VRS Pension Plans

Schedule of Funding (Market Value Basis)—

**All Pension Plans** 

Schedule of Funding (Market Value Basis)— VRS Pension Plans

Other Employee Benefit Trust Funds:

Schedule of Group Life Insurance Additions by Source

Schedule of Group Life Insurance Deductions by Type

Schedule of Retiree Health Insurance Credit Additions by Source

Schedule of Retiree Health Insurance Credit Deductions by Type

Schedule of Disability Insurance Trust Fund Additions by Source

Schedule of Disability Insurance Trust Fund Deductions by Type

Schedule of Retired Members and Beneficiaries by Plan

Schedule of Average Benefit Payments by Plan

**VRS-Participating Employers** 

Commonwealth of Virginia 457 Deferred

Compensation and Cash Match Plans



Fast Fact 5: VRS scored 82 out of a scale of 100 for service, compared with the median of 78 for peers and 77 for all systems evaluated.

he Statistical Section presents detailed historical information regarding the pension and other employee benefit plans administered by the System. This information includes a 10-year analysis of changes in plan net position, plan enrollment, contributions, plan additions and deductions, benefits and refunds. Included in this analysis is information regarding retirees and an analysis of funding, enrollment and investment activity related to the Commonwealth of Virginia 457 Deferred Compensation Plan and the Virginia Cash Match Plan.

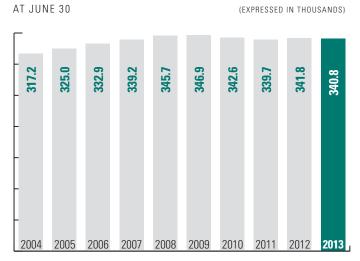
## **Pension Trust Funds**

FIGURE 5.1 – ANALYSIS OF CHANGES AND GROWTH IN PLAN NET POSITION – ALL PENSION TRUST FUNDS

The Statistical Section also lists the employers participating in VRS as of the end of the fiscal year.

								(EXPRESSED	IN MILLIONS)
2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
\$ 33,781	\$ 39,039	\$ 43,060	\$ 47,627	\$ 56,890	\$ 53,600	\$ 41,348	\$ 46,287	\$ 53,151	\$ 52,091
1,185	1,468	1,567	1,944	2,148	2,097	1,862	1,549	1,821	2,600
(1,865)	(2,049)	(2,214)	(2,434)	(2,665)	(2,857)	(3,157)	(3,397)	(3,518)	(3,791)
(680)	(581)	(647)	(490)	(517)	(760)	(1,295)	(1,848)	(1,697)	(1,191)
461	667	823	1,157	983	762	775	1,031	1,052	911
5,477	3,935	4,391	8,596	(3,756)	(12,254)	5,459	7,681	(415)	5,168
5,938	4,602	5,214	9,753	(2,773)	(11,492)	6,234	8,712	637	6,079
5,258	4,021	4,567	9,263	(3,290)	(12,252)	4,939	6,864	(1,060)	4,888
\$ 39,039	\$ 43,060	\$ 47,627	\$ 56,890	\$ 53,600	\$ 41,348	\$ 46,287	\$ 53,151	\$ 52,091	\$ 56,979
	1,185 (1,865) (680) 461 ) 5,477 5,938 <b>5,258</b>	\$ 33,781 \$ 39,039 1,185 1,468 (1,865) (2,049) (680) (581) 461 667 ) 5,477 3,935 5,938 4,602 5,258 4,021	\$ 33,781       \$ 39,039       \$ 43,060         1,185       1,468       1,567         (1,865)       (2,049)       (2,214)         (680)       (581)       (647)         461       667       823         5,477       3,935       4,391         5,938       4,602       5,214         5,258       4,021       4,567	\$ 33,781       \$ 39,039       \$ 43,060       \$ 47,627         1,185       1,468       1,567       1,944         (1,865)       (2,049)       (2,214)       (2,434)         (680)       (581)       (647)       (490)         461       667       823       1,157         5,477       3,935       4,391       8,596         5,938       4,602       5,214       9,753         5,258       4,021       4,567       9,263	\$ 33,781       \$ 39,039       \$ 43,060       \$ 47,627       \$ 56,890         1,185       1,468       1,567       1,944       2,148         (1,865)       (2,049)       (2,214)       (2,434)       (2,665)         (680)       (581)       (647)       (490)       (517)         461       667       823       1,157       983         )       5,477       3,935       4,391       8,596       (3,756)         5,938       4,602       5,214       9,753       (2,773)         5,258       4,021       4,567       9,263       (3,290)	\$ 33,781       \$ 39,039       \$ 43,060       \$ 47,627       \$ 56,890       \$ 53,600         1,185       1,468       1,567       1,944       2,148       2,097         (1,865)       (2,049)       (2,214)       (2,434)       (2,665)       (2,857)         (680)       (581)       (647)       (490)       (517)       (760)         5,477       3,935       4,391       8,596       (3,756)       (12,254)         5,938       4,602       5,214       9,753       (2,773)       (11,492)         5,258       4,021       4,567       9,263       (3,290)       (12,252)	\$ 33,781       \$ 39,039       \$ 43,060       \$ 47,627       \$ 56,890       \$ 53,600       \$ 41,348         1,185       1,468       1,567       1,944       2,148       2,097       1,862         (1,865)       (2,049)       (2,214)       (2,434)       (2,665)       (2,857)       (3,157)         (680)       (581)       (647)       (490)       (517)       (760)       (1,295)         5,477       3,935       4,391       8,596       (3,756)       (12,254)       5,459         5,938       4,602       5,214       9,753       (2,773)       (11,492)       6,234         5,258       4,021       4,567       9,263       (3,290)       (12,252)       4,939	\$ 33,781       \$ 39,039       \$ 43,060       \$ 47,627       \$ 56,890       \$ 53,600       \$ 41,348       \$ 46,287         1,185       1,468       1,567       1,944       2,148       2,097       1,862       1,549         (1,865)       (2,049)       (2,214)       (2,434)       (2,665)       (2,857)       (3,157)       (3,397)         (680)       (581)       (647)       (490)       (517)       (760)       (1,295)       (1,848)         461       667       823       1,157       983       762       775       1,031         5,477       3,935       4,391       8,596       (3,756)       (12,254)       5,459       7,681         5,938       4,602       5,214       9,753       (2,773)       (11,492)       6,234       8,712         5,258       4,021       4,567       9,263       (3,290)       (12,252)       4,939       6,864	2004         2005         2006         2007         2008         2009         2010         2011         2012           \$ 33,781         \$ 39,039         \$ 43,060         \$ 47,627         \$ 56,890         \$ 53,600         \$ 41,348         \$ 46,287         \$ 53,151           1,185         1,468         1,567         1,944         2,148         2,097         1,862         1,549         1,821           (1,865)         (2,049)         (2,214)         (2,434)         (2,665)         (2,857)         (3,157)         (3,397)         (3,518)           (680)         (581)         (647)         (490)         (517)         (760)         (1,295)         (1,848)         (1,697)           5,477         3,935         4,391         8,596         (3,756)         (12,254)         5,459         7,681         (415)           5,938         4,602         5,214         9,753         (2,773)         (11,492)         6,234         8,712         637           5,258         4,021         4,567         9,263         (3,290)         (12,252)         4,939         6,864         (1,060)

#### FIGURE 5.2 - NUMBER OF ACTIVE MEMBERS



#### FIGURE 5.3 – ANALYSIS OF CHANGES AND GROWTH IN PLAN NET POSITION BY PENSION TRUST FUND

FOR THE YEARS ENDED JUNE 30

#### VIRGINIA RETIREMENT SYSTEM PENSION TRUST FUND

(EXPRESSED IN MILLIONS)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Position Restricted– Beginning of Year	\$ 32,727	\$ 37,784	\$ 41,640	\$ 46,021	\$ 54,948	\$ 51,743	\$ 39,890	\$ 44,646	\$ 51,280	\$ 50,267
Funding: Member and Employer Contributions and										
Other Additions Benefits and Administrative	1,097	1,366	1,459	1,834	2,022	1,979	1,765	1,482	1,740	2,471
Expenses and Transfers	(1,791)	(1,963)	(2,121)	(2,333)	(2,550)	(2,735)	(3,024)	(3,254)	(3,368)	(3,629)
Net Funding	(694)	(597)	(662)	(499)	(528)	(756)	(1,259)	(1,772)	(1,628)	(1,158)
Investment Income: Interest, Dividends and										
Other Investment Income Net Appreciation (Depreciation)	446	645	796	1,118	948	736	748	995	1,016	878
in Fair Value	5,305	3,808	4,247	8,308	(3,625)	(11,833)	5,267	7,411	(401)	4,986
Net Investment Income	5,751	4,453	5,043	9,426	(2,677)	(11,097)	6,015	8,406	615	5,864
Net Increase (Decrease)	5,057	3,856	4,381	8,927	(3,205)	(11,853)	4,756	6,634	(1,013)	4,706
Net Position Restricted– End of Year	\$ 37,784	\$ 41,640	\$ 46,021	\$ 54,948	\$ 51,743	\$ 39,890	\$ 44,646	\$ 51,280	\$ 50,267	\$ 54,973

#### STATE POLICE OFFICERS' RETIREMENT SYSTEM PENSION TRUST FUND

(EXPRESSED IN MILLIONS)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Position Restricted– Beginning of Year	\$ 424	\$ 486	\$ 530	\$ 581	\$ 684	\$ 636	\$ 484	\$ 534	\$ 599	\$ 575
Funding: Member and Employer Contributions and										
Other Additions Benefits and Administrative	15		20	21	26	25	21	13	16	31
Expenses and Transfers	(27)			(35	(41)	(41)	(43)	(47)	(47)	(49)
Net Funding	(12)	(13)	(13)	(14	) (15)	(16)	(22)	(34)	(31)	(18)
Investment Income: Interest, Dividends and										
Other Investment Income Net Appreciation (Depreciation)	6		10	14		9	9	12	12	11
in Fair Value	68	48	54	103	(45)	(145)	63	87	(5)	57
Net Investment Income	74	57	64	117	(33)	(136)	72	99	7	68
Net Increase (Decrease)	62	44	51	103	(48)	(152)	50	65	(24)	50
Net Position Restricted– End of Year	\$ 486	\$ 530	\$ 581	\$ 684	\$ 636	\$ 484	\$ 534	\$ 599	\$ 575	\$ 625

## VIRGINIA LAW OFFICERS' RETIREMENT SYSTEM PENSION TRUST FUND (EXPRESSED IN MILLIONS)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Position Restricted– Beginning of Year	\$ 395	\$ 498	\$ 593	\$ 700	\$ 868	\$ 853	\$ 691	\$ 792	\$ 911	\$ 895
Funding:  Member and Employer  Contributions and										
Other Additions Benefits and Administrative	56	66	69	64	74	69	56	35	42	68
Expenses and Transfers	(24)	(30)	(34)	(40)	(45)	(50)	(58)	(64)	(69)	(76)
Net Funding	32	36	35	24	29	19	(2)	(29)	(27)	(8)
Investment Income: Interest, Dividends and										
Other Investment Income Net Appreciation (Depreciation)	6	8	11	17	16	12	12	18	18	16
in Fair Value	65	51	61	127	(60)	(193)	91	130	(7)	89
Net Investment Income	71	59	72	144	(44)	(181)	103	148	11	105
Net Increase (Decrease)	103	95	107	168	(15)	(162)	101	119	(16)	97
Net Position Restricted– End of Year	\$ 498	\$ 593	\$ 700	\$ 868	\$ 853	\$ 691	\$ 792	\$ 911	\$ 895	\$ 992

#### JUDICIAL RETIREMENT SYSTEM PENSION TRUST FUND

(EXPRESSED IN MILLIONS)

	20	04	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Position Restricted– Beginning of Year	\$ 2	235	\$ 271	\$ 296	\$ 326	\$ 390	\$ 367	\$ 284	\$ 315	\$ 361	\$ 354
Funding:  Member and Employer  Contributions and											
Other Additions Benefits and Administrative		18	18	19	23	25	24	20	20	22	30
<b>Expenses and Transfers</b>		(23)	(24)	(24)	(25)	(29)	(29)	(31)	(32)	(34)	(37)
Net Funding		(5)	(6)	(5)	(2)	(4)	(5)	(11)	(12)	(12)	(7)
Investment Income: Interest, Dividends and Other Investment Income		3	4	5	8	7	5	5	7	7	6
Net Appreciation (Depreciation) in Fair Value		38	27	30	58	(26)	(83)	37	51	(2)	36
Net Investment Income		41	31	35	66	(19)	(78)	42	58	5	42
Net Increase (Decrease)  Net Position Restricted—		36	 25	 30	 64	 (23)	(83)	 31	 46	 (7)	35
End of Year	\$ 2	271	\$ 296	\$ 326	\$ 390	\$ 367	\$ 284	\$ 315	\$ 361	\$ 354	\$ 389

#### SCHEDULE OF RETIREMENT CONTRIBUTIONS BY SYSTEM

FISCAL YEARS 2004-2013 (EXPRESSED IN THOUSANDS)

Vaar		Virginia Retire	ment System		State Police	Virginia Law	ludicial	
Year Ended June 30	State	Teachers	Political Subdivisions	Sub-Total	Officers' Retirement System	Officers' Retirement System	Judicial Retirement System	Total
2013	\$ 519,319	\$ 1,204,021	\$ 746,040	\$ 2,469,380	\$ 31,553	\$ 67,654	\$ 30,000	\$ 2,598,587
2012**	307,843	814,681	613,572	1,736,096	16,611	42,202	21,875	1,816,784
2011**	252,110	622,904	605,908	1,480,922	12,343	34,423	20,338	1,548,026
2010*	359,827	820,193	583,864	1,763,884	20,747	56,347	20,206	1,861,184
2009	416,921	986,116	575,951	1,978,988	25,280	69,071	24,064	2,097,403
2008	409,685	1,055,498	557,230	2,022,413	26,218	74,039	25,498	2,148,168
2007	377,117	945,243	511,687	1,834,047	21,466	64,820	23,437	1,943,770
2006	303,183	731,929	423,724	1,458,836	20,188	68,688	18,967	1,566,679
2005	295,736	671,152	398,004	1,364,892	19,363	66,079	17,927	1,468,261
2004	292,895	515,750	287,228	1,095,873	15,232	56,292	17,758	1,185,155

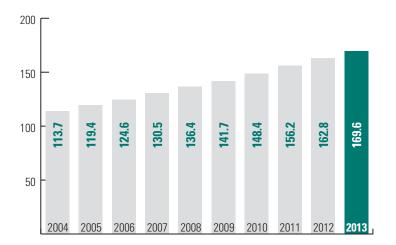
<sup>\*</sup>The General Assembly suspended employer contributions for all state employees, SPORS, VaLORS and JRS for April, May and the first half of June 2010 and for teachers for the entire 4th quarter of FY 2010.

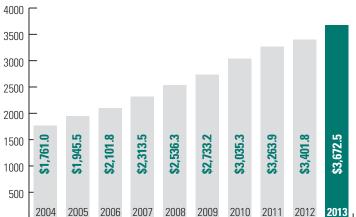
#### FIGURE 5.4 - NUMBER OF RETIREES AND BENEFICIARIES

## AT JUNE 30 (EXPRESSED IN THOUSANDS)

#### FIGURE 5.5 - RETIREMENT BENEFITS PAID







<sup>\*\*</sup>The General Assembly funded contribution rates for all state employee groups and teachers significantly below those certified by the Board of Trustees for FY 2011. For FY 2012, the funding for all state employee groups remained at low levels for the first three quarters of the year.

#### SCHEDULE OF PENSION TRUST FUND ADDITIONS BY SOURCE

FISCAL YEARS 2004-2013

(EXPRESSED IN THOUSANDS)

				Employer Co	ntribut	ions					
Year Ended June 30		ember ributions	N	For Members		Employer Share		Investment Income (Loss)		Other	Total
	Virginia Retirement System (VRS)										
2013* 2012* 2011 2010 2009 2008 2007 2006 2005 2004	2	72,543 08,243 26,529 26,225 20,254 24,843 29,489 38,825 63,503 85,769	\$	207,695 557,522 712,560 736,413 743,762 716,797 680,023 638,242 599,769 564,020		1,689,142 970,331 741,833 1,001,246 1,214,972 1,280,773 1,124,535 781,769 701,620 446,084	\$	5,864,628 614,613 8,405,834 6,014,601 (11,106,018) (2,677,358) 9,426,035 5,042,575 4,453,335 5,751,277	\$	1,547 3,782 1,290 1,083 8,668 290 338 185 743 908	8,335,555 2,354,491 9,888,046 7,779,568 (9,118,362) (654,655) 11,260,420 6,501,596 5,818,970 6,848,058
			St	ate Police O	fficers'	Retirement	Syst	em (SPORS)			
2013 2012* 2011 2010 2009 2008 2007 2006 2005 2004	\$	5,361 5,167 121 47 57 149 213 304 494 790	\$	1 4,742 4,945 5,034 5,061 4,895 4,627 4,392 4,037	\$	26,192 11,443 7,480 15,755 20,189 21,008 16,358 15,257 14,477 10,405	\$	67,067 6,853 99,209 72,609 (135,929) (33,367) 117,501 63,475 56,481 73,977	\$	- - - 87 20 - - -	\$ 98,620 23,464 111,552 93,356 (110,562) (7,129) 138,967 83,663 75,844 89,209
			Vir	ginia Law Of	fficers'	Retirement	Syste	em (VaLORS)			
2013 2012* 2011 2010 2009 2008 2007 2006 2005 2004		17,256 17,510 941 196 212 291 371 534 700 880	\$	48 16,102 17,208 17,871 17,723 16,127 15,492 14,869 14,703	\$	50,398 24,644 17,380 38,943 50,988 56,025 48,322 52,662 50,510 40,709	\$	105,084 11,195 147,982 103,488 (181,112) (44,270) 143,664 71,905 59,525 70,668	\$	27 110 130 104 519 274 171 255 230	\$ 172,765 53,507 182,535 159,939 (111,522) 30,043 208,655 140,848 125,834 126,960
				Judicia	al Retir	ement Syst	em (J	RS)			
2013 2012 2011 2010 2009 2008 2007 2006 2005 2004	\$	179 47 32 30 20 21 92 108 159 197	\$	2,795 2,921 3,003 3,108 3,043 2,945 2,815 2,653 2,499 2,371	\$	27,026 18,907 17,303 17,068 21,001 22,532 20,530 16,206 15,269 15,190	\$	41,557 4,576 58,587 42,430 (77,947) (19,305) 65,964 35,368 31,379 40,947	\$	- - - 50 - - - -	\$ 71,557 26,451 78,925 62,636 (53,833) 6,193 89,401 54,335 49,306 58,705

<sup>\*</sup>Member contributions and employer contributions for members reflect the shift to member-paid retirement contributions for state employees, except judges, effective July 1, 2011, and for teachers and political subdivision employees beginning July 1, 2012.

#### SCHEDULE OF PENSION TRUST FUND DEDUCTIONS BY TYPE

FISCAL YEARS 2004-2013 (EXPRESSED IN THOUSANDS)

Year Ended June 30	Retirement Benefits	Refunds	Administrative Expenses		Other		Total
		Virginia Retiren	nent System (VRS)				
2013 2012 2011 2010 2009 2008 2007 2006 2005 2004	\$ 3,516,219 3,257,359 3,125,772 2,907,204 2,617,313 2,427,543 2,219,350 2,015,557 1,865,776 1,692,166	\$ 77,588 84,577 96,209 88,671 86,688 97,574 89,716 85,804 78,709 80,237	\$ 31,154 25,475 25,082 23,720 30,692 24,677 23,686 19,724 18,182 18,119	\$	4,579 694 6,464 3,911 668 298 178 258 230	3 3 3 2 2 2 2 2 1	,629,540 ,368,105 ,253,527 ,023,506 ,735,361 ,550,092 ,332,930 ,121,343 ,962,897 ,790,522
		State Police Officers' Ri	etirement System (SPOF				
2013 2012 2011 2010 2009 2008 2007 2006 2005 2004	\$ 47,884 46,113 46,259 42,714 40,919 39,382 33,867 32,309 30,487 26,336	\$ 364 319 279 496 469 730 1,221 596 1,053 731	\$ 227 243 222 257 340 299 301 231 203 213	\$	51 7 68 46 - - - - -	\$	48,526 46,682 46,828 43,513 41,728 40,411 35,389 33,136 31,743 27,280
		Virginia Law Officers' Re	etirement System (VaLO	RS)			
2013 2012 2011 2010 2009 2008 2007 2006 2005 2004	\$ 71,638 64,849 59,749 53,758 45,890 40,805 35,019 29,202 25,100 19,784	\$ 3,586 4,027 4,051 3,919 4,151 4,586 4,828 4,830 4,927 3,998	\$ 344 366 395 373 471 378 365 263 208 196	\$	82 15 103 66 - - - -	\$	75,650 69,257 64,298 58,116 50,512 45,769 40,212 34,295 30,235 23,978
		Judicial Retirer	ment System (JRS)				
2013 2012 2011 2010 2009 2008 2007 2006 2005 2004	\$ 36,800 33,454 32,115 31,598 29,101 28,538 25,253 24,717 24,108 22,706	\$ - 5 - 40 45 - - 42	\$ 141 143 158 151 198 168 169 130 113	\$	31 5 40 27 - - - -	\$	36,972 33,602 32,318 31,776 29,339 28,751 25,422 24,847 24,263 22,823

#### SCHEDULE OF RETIREMENT BENEFITS BY SYSTEM

FISCAL YEARS 2004-2013

(EXPRESSED IN THOUSANDS)

		Virginia Ret	irem	ent System	1		S	State Police Officers'	Virginia Law Officers'	Judicial	
Year Ended June 30	State	Teachers	;	Political Subdivision	S	Sub-Total	ı	Retirement System	Retirement System	Retirement System	Total
2013	\$ 1,024,464	\$ 1,788,548	\$	703,207	\$	3,516,219	\$	47,884	\$ 71,638	\$ 36,800	\$ 3,672,541
2012	961,209	1,654,377		641,773		3,257,359		46,113	64,849	33,454	3,401,775
2011	931,893	1,599,208		594,671		3,125,772		46,259	59,749	32,115	3,263,895
2010	898,226	1,462,638		546,340		2,907,204		42,714	53,758	31,598	3,035,274
2009	790,472	1,338,776		488,065		2,617,313		40,919	45,890	29,101	2,733,223
2008	736,053	1,245,201		446,289		2,427,543		39,382	40,805	28,538	2,536,268
2007	686,258	1,138,980		394,112		2,219,350		33,867	35,019	25,253	2,313,489
2006	623,571	1,037,509		354,477		2,015,557		32,309	29,202	24,717	2,101,785
2005	589,113	959,268		317,395		1,865,776		30,487	25,100	24,108	1,945,471
2004	552,282	855,113		284,771		1,692,166		26,336	19,784	22,706	1,760,992

#### SCHEDULE OF RETIREMENT BENEFITS BY TYPE

FISCAL YEARS 2004-2013

(EXPRESSED IN THOUSANDS)

Year Ended June 30	Service Benefits	Disability Benefits	Survivor Benefits	Total
2013	\$ 3,341,532	\$ 301,045	\$ 29,964	\$ 3,672,541
2012	3,080,562	293,336	27,877	3,401,775
2011	2,948,702	288,951	26,242	3,263,895
2010	2,724,900	285,802	24,572	3,035,274
2009	2,434,353	276,382	22,488	2,733,223
2008	2,252,981	263,427	19,860	2,536,268
2007	2,045,400	250,212	17,877	2,313,489
2006	1,849,239	236,266	16,280	2,101,785
2005	1,708,147	222,632	14,692	1,945,471
2004	1,537,173	210,385	13,434	1,760,992



#### SCHEDULE OF REFUNDS BY TYPE

FISCAL YEARS 2004-2013

(EXPRESSED IN THOUSANDS)

Year Ended June 30	Separations	Death	Total
2013	\$ 66,694	\$ 14,844	\$ 81,538
2012	75,668	13,255	88,923
2011	87,221	13,323	100,544
2010	79,600	13,486	93,086
2009	77,498	13,850	91,348
2008	88,732	14,203	102,935
2007	88,661	7,104	95,765
2006	79,744	11,486	91,230
2005	76,296	8,435	84,731
2004	73,715	11,251	84,966

#### SCHEDULE OF RETIREES AND BENEFICIARIES BY TYPE OF RETIREMENT

AS OF JUNE 30, 2013

Τv	ne	nf	Ret	iren	nen:

					.,	po 01 110tillo				
Min. Guaranteed Benefit Amount	Number of Retirees	Service Retirement	Early Retirement Window	50/30 Service Retirement	1991 Early Faculty Ret. Window	Regular Disability	Survivor Death-in- Service	Line-of-Duty (LOD) Disability	Survivor LOD Death- in-Service	50/10 Service Retirement
\$ 1-200	14,603	12,544	3	-	1	623	597	52	4	779
201-400	20,261	16,238	154	3	-	1,998	512	113	10	1,233
401-600	17,260	13,184	357	29	1	2,371	327	235	23	733
601-800	14,538	10,771	440	62	2	2,120	222	390	22	509
801-1,000	12,854	9,401	582	168	5	1,705	150	405	22	416
1,001-1,200	11,418	8,345	550	356	7	1,376	130	325	14	315
1,201-1,400	9,622	7,012	511	444	15	1,044	82	264	7	243
1,401-1,600	9,048	6,614	455	616	23	808	71	217	7	237
1,601-1,800	8,530	6,239	320	891	28	625	49	172	5	201
1,801-2,000	9,032	6,551	252	1,298	30	520	66	173	1	141
Over 2,000	42,422	33,907	478	5,408	113	1,431	219	536	8	322
Totals	169,588	130,806	4,102	9,275	225	14,621	2,425	2,882	123	5,129

#### SCHEDULE OF RETIREES AND BENEFICIARIES BY TYPE OF RETIREMENT AND PLAN

AS OF JUNE 30, 2013

Tyne	٥f	Dot:	rom	ont
IVDE	nı	Reli	ren	1001

					1 7	po or riotironio	110			
Plan	Number of Retirees	Service Retirement	Early Retirement Window	50/30 Service Retirement	1991 Early Faculty Ret. Window	Regular Disability	Survivor Death-in- Service	Line-of-Duty (LOD) Disability	Survivor LOD Death- in-Service	50/10 Service Retirement
VRS	164,759	126,521	4,102	9,274	225	14,399	2,319	2,685	105	5,129
SPORS	1,175	950	-	-	-	43	11	154	17	-
VaLORS	3,180	2,896	-	1	-	169	70	43	1	-
JRS	474	439			_	10	25			
All Plans	169,588	130,806	4,102	9,275	225	14,621	2,425	2,882	123	5,129

#### SCHEDULE OF RETIREES AND BENEFICIARIES BY PAYOUT OPTION SELECTED

AS OF JUNE 30, 2013

Pav	nut	Option	SPI	erter
ıavı	UUL	ODLION	OCI	ていしてい

						/									
A	В	С	D	F	F	G	Н	ı	J	K	ı	М	N	0	Р
,,					•		- ''	•							
11,945	32	523	125	695	3	59	2	-	2	650	-	352	103	103	9
16,196	17	567	200	681	5	793	21	2	28	629	-	747	135	214	26
13,076	18	447	249	680	10	1,118	39	-	70	481	-	662	128	262	20
10,603	9	355	274	702	11	970	38	-	82	422	-	654	119	269	30
9,025	3	316	327	735	16	666	24	1	57	428	-	683	123	394	56
7,714	-	305	322	622	11	489	20	1	37	266	-	789	137	601	104
6,481	-	241	298	408	20	296	12	1	18	197	-	715	126	688	121
5,963	1	241	282	288	27	198	4	-	26	148	-	659	129	892	190
5,586	-	198	267	159	30	110	3	-	8	93	-	680	145	1,012	239
5,738	-	172	272	120	27	92	3	-	6	80	-	652	142	1,436	292
23,085	-	573	811	182	169	121	8	-	13	158	-	4,591	1,129	9,779	1,803
115,412	80	3,938	3,427	5,272	329	4,912	174	5	347	3,552	0	11,184	2,416	15,650	2,890
	A 11,945 16,196 13,076 10,603 9,025 7,714 6,481 5,963 5,586 5,738 23,085	A B  11,945 32 16,196 17 13,076 18 10,603 9 9,025 3 7,714 - 6,481 - 5,963 1 5,586 - 5,738 - 23,085 -	A B C  11,945 32 523 16,196 17 567 13,076 18 447 10,603 9 355 9,025 3 316 7,714 - 305 6,481 - 241 5,963 1 241 5,586 - 198 5,738 - 172 23,085 - 573	A     B     C     D       11,945     32     523     125       16,196     17     567     200       13,076     18     447     249       10,603     9     355     274       9,025     3     316     327       7,714     -     305     322       6,481     -     241     298       5,963     1     241     282       5,586     -     198     267       5,738     -     172     272       23,085     -     573     811	A         B         C         D         E           11,945         32         523         125         695           16,196         17         567         200         681           13,076         18         447         249         680           10,603         9         355         274         702           9,025         3         316         327         735           7,714         -         305         322         622           6,481         -         241         298         408           5,963         1         241         282         288           5,586         -         198         267         159           5,738         -         172         272         120           23,085         -         573         811         182	A         B         C         D         E         F           11,945         32         523         125         695         3           16,196         17         567         200         681         5           13,076         18         447         249         680         10           10,603         9         355         274         702         11           9,025         3         316         327         735         16           7,714         -         305         322         622         11           6,481         -         241         298         408         20           5,963         1         241         282         288         27           5,586         -         198         267         159         30           5,738         -         172         272         120         27           23,085         -         573         811         182         169	A B C D E F G  11,945 32 523 125 695 3 59  16,196 17 567 200 681 5 793  13,076 18 447 249 680 10 1,118  10,603 9 355 274 702 11 970  9,025 3 316 327 735 16 666  7,714 - 305 322 622 11 489  6,481 - 241 298 408 20 296  5,963 1 241 282 288 27 198  5,586 - 198 267 159 30 110  5,738 - 172 272 120 27 92  23,085 - 573 811 182 169 121	A B C D E F G H  11,945 32 523 125 695 3 59 2 16,196 17 567 200 681 5 793 21 13,076 18 447 249 680 10 1,118 39 10,603 9 355 274 702 11 970 38 9,025 3 316 327 735 16 666 24 7,714 - 305 322 622 11 489 20 6,481 - 241 298 408 20 296 12 5,963 1 241 282 288 27 198 4 5,586 - 198 267 159 30 110 3 5,738 - 172 272 120 27 92 3 23,085 - 573 811 182 169 121 8	A         B         C         D         E         F         G         H         I           11,945         32         523         125         695         3         59         2         -           16,196         17         567         200         681         5         793         21         2           13,076         18         447         249         680         10         1,118         39         -           10,603         9         355         274         702         11         970         38         -           9,025         3         316         327         735         16         666         24         1           7,714         -         305         322         622         11         489         20         1           6,481         -         241         298         408         20         296         12         1           5,963         1         241         282         288         27         198         4         -           5,586         -         198         267         159         30         110         3         -	A B C D E F G H I J  11,945 32 523 125 695 3 59 2 - 2  16,196 17 567 200 681 5 793 21 2 28  13,076 18 447 249 680 10 1,118 39 - 70  10,603 9 355 274 702 11 970 38 - 82  9,025 3 316 327 735 16 666 24 1 57  7,714 - 305 322 622 11 489 20 1 37  6,481 - 241 298 408 20 296 12 1 18  5,963 1 241 282 288 27 198 4 - 26  5,586 - 198 267 159 30 110 3 - 8  5,738 - 172 272 120 27 92 3 - 6  23,085 - 573 811 182 169 121 8 - 13	A B C D E F G H I J K  11,945 32 523 125 695 3 59 2 - 2 650  16,196 17 567 200 681 5 793 21 2 28 629  13,076 18 447 249 680 10 1,118 39 - 70 481  10,603 9 355 274 702 11 970 38 - 82 422  9,025 3 316 327 735 16 666 24 1 57 428  7,714 - 305 322 622 11 489 20 1 37 266  6,481 - 241 298 408 20 296 12 1 18 197  5,963 1 241 282 288 27 198 4 - 26 148  5,586 - 198 267 159 30 110 3 - 8 93  5,738 - 172 272 120 27 92 3 - 6 80  23,085 - 573 811 182 169 121 8 - 13 158	A B C D E F G H I J K L  11,945 32 523 125 695 3 59 2 - 2 650 - 16,196 17 567 200 681 5 793 21 2 28 629 - 13,076 18 447 249 680 10 1,118 39 - 70 481 - 10,603 9 355 274 702 11 970 38 - 82 422 - 9,025 3 316 327 735 16 666 24 1 57 428 - 7,714 - 305 322 622 11 489 20 1 37 266 - 6,481 - 241 298 408 20 296 12 1 18 197 - 5,963 1 241 282 288 27 198 4 - 26 148 - 5,586 - 198 267 159 30 110 3 - 8 93 - 5,738 - 172 272 120 27 92 3 - 6 80 - 23,085 - 573 811 182 169 121 8 - 13 158 -	A B C D E F G H I J K L M  11,945 32 523 125 695 3 59 2 - 2 650 - 352  16,196 17 567 200 681 5 793 21 2 28 629 - 747  13,076 18 447 249 680 10 1,118 39 - 70 481 - 662  10,603 9 355 274 702 11 970 38 - 82 422 - 654  9,025 3 316 327 735 16 666 24 1 57 428 - 683  7,714 - 305 322 622 11 489 20 1 37 266 - 789  6,481 - 241 298 408 20 296 12 1 18 197 - 715  5,963 1 241 282 288 27 198 4 - 26 148 - 659  5,586 - 198 267 159 30 110 3 - 8 93 - 680  5,738 - 172 272 120 27 92 3 - 6 80 - 652  23,085 - 573 811 182 169 121 8 - 13 158 - 4,591	A B C D E F G H I J K L M N  11,945 32 523 125 695 3 59 2 - 2 650 - 352 103  16,196 17 567 200 681 5 793 21 2 28 629 - 747 135  13,076 18 447 249 680 10 1,118 39 - 70 481 - 662 128  10,603 9 355 274 702 11 970 38 - 82 422 - 654 119  9,025 3 316 327 735 16 666 24 1 57 428 - 683 123  7,714 - 305 322 622 11 489 20 1 37 266 - 789 137  6,481 - 241 298 408 20 296 12 1 18 197 - 715 126  5,963 1 241 282 288 27 198 4 - 26 148 - 659 129  5,586 - 198 267 159 30 110 3 - 8 93 - 680 145  5,738 - 172 272 120 27 92 3 - 6 80 - 652 142  23,085 - 573 811 182 169 121 8 - 13 158 - 4,591 1,129	A B C D E F G H I J K L M N O  11,945 32 523 125 695 3 59 2 - 2 650 - 352 103 103  16,196 17 567 200 681 5 793 21 2 28 629 - 747 135 214  13,076 18 447 249 680 10 1,118 39 - 70 481 - 662 128 262  10,603 9 355 274 702 11 970 38 - 82 422 - 654 119 269  9,025 3 316 327 735 16 666 24 1 57 428 - 683 123 394  7,714 - 305 322 622 11 489 20 1 37 266 - 789 137 601  6,481 - 241 298 408 20 296 12 1 18 197 - 715 126 688  5,963 1 241 282 288 27 198 4 - 26 148 - 659 129 892  5,586 - 198 267 159 30 110 3 - 8 93 - 680 145 1,012  5,738 - 172 272 120 27 92 3 - 6 80 - 652 142 1,436  23,085 - 573 811 182 169 121 8 - 13 158 - 4,591 1,129 9,779

- A- Basic Benefit
- B- Increased Basic Benefit
- C- 100% Survivor Option
- D- Variable Survivor Option
- E- Social Security Leveling Benefit
- F- Special Survivor Option
- G- Minimum Guaranteed Disability Basic Benefit
- H- Minimum Guaranteed Disability Variable Survivor Option
- I- Disability 100% Survivor Option
- J- Special Disability Survivor Option
- K- Leveling Benefit

- L- Leveling Benefit/Rollover
- M- Survivor Option
- N- Advance Pension Option
- O- Partial Lump-Sum Option Payment (PLOP) with Basic Benefit
- P- PLOP with Survivor Option



#### SCHEDULE OF AVERAGE BENEFIT PAYMENTS

FOR RETIREMENTS EFFECTIVE JULY 1, 2008, TO JUNE 30, 2013

Years of Credited Service 1-10 11-15 16-20 21-25 26-30 Over 30 FY 2013\* VRS Average Monthly Benefit \$ 363.12 \$617.34 \$1,000.42 \$ 1.404.56 \$ 2.093.05 \$ 2.830.51 Number of Active Retirees 1,384 1,385 1,193 1,313 1,583 3,511 **SPORS** 0.00 0.00 \$ 0.00 \$ 2,263,68 \$ 2.752.85 \$ 3,282.00 Average Monthly Benefit \$ Number of Active Retirees 3 10 17 **VaLORS** Average Monthly Benefit \$ 332.59 \$ 632.67 \$ 883.09 \$1,223.64 \$1,709.19 \$ 2,246.63 Number of Active Retirees 29 30 39 67 70 49 JRS 0.00 0.00 0.00 \$ 7.490.90 Average Monthly Benefit \$3,645,63 \$ 4.738.37 Number of Active Retirees 3 28 All Plans Average Monthly Benefit \$ 362.24 \$ 617.66 \$1,003.13 \$ 1,400.06 \$2,080.06 \$ 2.860.90 Number of Active Retirees 1,413 1,415 1.235 1,384 1,663 3,605 \$ 950.15 FY 2012 All Plans \$ 349.17 \$ 628.04 \$1,360.69 \$ 2,149.70 \$ 2,843.02 Average Monthly Benefit Number of Active Retirees 1,331 1,309 1,176 1,273 1,453 3,367 FY 2011 All Plans \$ 590.10 \$ 923.89 \$1,364.97 \$ 2,058.50 \$ 2,791.19 Average Monthly Benefit \$ 346.15 Number of Active Retirees 1,218 1,196 1,164 1,383 1,637 4,318 FY 2010 All Plans Average Monthly Benefit \$319.83 \$ 585.59 \$ 895.47 \$ 1,309.38 \$1,977.48 \$ 2.750.03 Number of Active Retirees 954 980 1,251 1,543 4,303 1,106 FY 2009 All Plans \$ 578.17 \$ 880.56 \$ 1.269.17 \$ 2,024.64 \$ 2,669.86 Average Monthly Benefit \$ 344.16 Number of Active Retirees 986 859 916 1,090 1,377 3,063 FY 2008 \$ 575.47 \$ 861.72 \$ 2,610.24 All Plans Average Monthly Benefit \$ 327.19 \$1,234.89 \$ 2,024.96 Number of Active Retirees 995 3,271 994 857 1.091 1,615

#### FIGURE 5.6 - DISTRIBUTION OF RETIREES BY PAYOUT OPTION SELECTED

ALL RETIREES AT JUNE 30, 2013

			PLOP with	PLOP with	Advance	
	Basic	Survivor	Basic	Survivor	Pension	
	Benefit	Option	Benefit	Option	Option	Total
VRS	71.77%	10.97%	8.99%	1.58%	6.69%	100.00%
SPORS	51.66%	30.72%	10.38%	6.64%	0.60%	100.00%
VaLORS	61.33%	17.14%	14.07%	3.73%	3.73%	100.00%
JRS	46.12%	32.29%	9.43%	9.64%	2.52%	100.00%
All Plans	71.38%	11.27%	9.09%	1.68%	6.58%	100.00%
FY 2013 RETIREES						
			PLOP with	PLOP with	Advance	
	Basic	Survivor	Basic	Survivor	Pension	
	Benefit	Option	Benefit	Option	Option	Total
VRS	66.47%	10.85%	17.94%	3.06%	1.68%	100.00%
SPORS	51.43%	8.57%	20.00%	20.00%	0.00%	100.00%
VaLORS	56.08%	14.86%	22.30%	3.04%	3.72%	100.00%
JRS	29.73%	32.43%	16.22%	21.62%	0.00%	100.00%
All Plans	66.03%	11.02%	18.06%	3.17%	1.72%	100.00%

<sup>\*</sup> FY 2013 is the earliest year for which information is available to support this detailed presentation by plan.

#### **Retirement Benefit Payout Options**

Basic Benefit. The Basic Benefit is based on the unreduced (normal) retirement benefit calculation. It does not provide for a continuation of a benefit to a survivor. Upon the member's death, any remaining member contributions and accrued interest are paid in a lump sum to the member's beneficiary.

Partial Lump-Sum Option Payment (PLOP). Members who are in active service for one or more years beyond their eligibility for an unreduced retirement benefit are eligible to elect a partial lump-sum payment of their member contributions and accrued interest equal to one, two or three times their annual retirement benefit, depending on how long they work beyond their unreduced retirement eligibility. The monthly benefit is actuarially reduced accordingly. This option is available with the Basic Benefit or Survivor Option.

Survivor Option. Members may choose a whole percentage of their benefit, between 10% and 100%, to continue as a lifetime benefit to a survivor upon their death. The member's benefit is actuarially reduced accordingly.

Advance Pension Option. With this option, members elect to receive a temporary higher benefit until at least age 62 up to their normal retirement age under Social Security, as elected by the member. At that point, the monthly benefit is permanently reduced on an actuarially equivalent basis.

FIGURE 5.7 - DISTRIBUTION OF RETIREES BY YEARS OF SERVICE

ALL RETIREES AT JUNE 30, 2013

	1-10 Years	11-20 Years	21-30 Years	Over 30 Years	Total
VRS	11.22%	23.93%	29.75%	35.10%	100.00%
SPORS	2.53%	4.01%	21.34%	72.12%	100.00%
VaLORS	7.89%	19.43%	52.66%	20.02%	100.00%
JRS	0.75%	2.82%	6.40%	90.03%	100.00%
All Plans	11.07%	23.65%	30.04%	35.24%	100.00%
FY 2013 RETIREES					
	1-10	11-20	21-30	Over 30	
	Years	Years	Years	Years	Total
VRS	13.34%	24.86%	27.93%	33.87%	100.00%
SPORS	3.23%	0.00%	41.94%	54.83%	100.00%
VaLORS	10.21%	24.30%	48.24%	17.25%	100.00%
JRS	0.00%	9.38%	3.13%	87.49%	100.00%
All Plans	13.19%	24.73%	28.44%	33.64%	100.00%

#### FIGURE 5.8 – DISTRIBUTION OF RETIREES BY AGE AT RETIREMENT

ALL RETIREES AT JUNE 30, 2013

	Under Age 55	Age 55-59	Age 60-65	Over Age 65	Total
VRS	16.86%	26.45%	45.72%	10.97%	100.00%
SPORS	47.68%	33.95%	16.31%	2.06%	100.00%
VaLORS	43.75%	26.43%	25.43%	4.39%	100.00%
JRS	1.59%	12.26%	43.47%	42.68%	100.00%
All Plans	17.40%	26.45%	45.24%	10.91%	100.00%
FY 2013 RETIREES					
	Under Age 55	Age 55-59	Age 60-65	Over Age 65	Total
VRS	11.08%	21.63%	48.43%	18.86%	100.00%
SPORS	58.07%	19.35%	19.35%	3.23%	100.00%
VaLORS	40.00%	23.51%	30.53%	5.96%	100.00%
JRS	0.00%	0.00%	37.50%	62.50%	100.00%
All Plans	11.94%	21.61%	47.84%	18.61%	100.00%

#### FIGURE 5.9 - DISTRIBUTION OF RETIREES BY AVERAGE FINAL COMPENSATION

ALL RETIREES AT JUNE 30, 2013

	Up to \$10,000	\$10,001 - 20,000	\$20,001 - 30,000	\$30,001 - 40,000	\$40,001 - 50,000	\$50,001 - 70,000	Over \$70,000	Total
VRS SPORS VaLORS JRS	7.07% 4.26% 0.00% 3.66%	19.17% 6.02% 0.09% 2.07%	18.22% 8.08% 12.63% 1.11%	16.26% 14.70% 47.52% 4.62%	13.99% 18.88% 26.37% 5.89%	16.51% 29.03% 12.01% 11.31%	8.78% 19.03% 1.38% 71.34%	100.00% 100.00% 100.00% 100.00%
All Plans	6.94%	18.74%	18.03%	16.69%	14.18%	16.51%	8.91%	100.00%
FY 2013 RETIR	EES							
	Up to	\$10,001 -	\$20,001 -	\$30,001 -	\$40,001 -	\$50,001 -	Over	
	\$10,000	20,000	30,000	40,000	50,000	70,000	\$70,000	Total
VRS SPORS VaLORS JRS	0.48% 0.00% 0.00% 0.00%	7.14% 0.00% 0.00% 0.00%	11.51% 0.00% 2.46% 0.00%	14.46% 0.00% 51.57% 0.00%	15.62% 3.23% 27.02% 0.00%	29.60% 38.71% 14.74% 0.00%	21.19% 58.06% 4.21% 100.00%	100.00% 100.00% 100.00% 100.00%
All Plans	0.46%	6.92%	11.20%	15.36%	15.84%	29.13%	21.09%	100.00%

## SCHEDULE OF FUNDING PROGRESS - VRS PENSION PLANS

(DOLLARS IN THOUSANDS)

LARS IN THOUSANDS)	(DUL)					
UAAL as a Percentage of Covered Payroll (b-a)/(c)	Covered Payroll (c)	Funded Ratio (a/b)	Unfunded AAL (UAAL) (b-a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Actuarial Value of Assets (a)	Actuarial Valuation Date June 30
			VRS - State			
194.0% 162.8% 137.7% 79.5% 56.3% 69.9% 76.4% 64.2% 23.3% (1.7%)	\$ 3,713,119 3,686,259 3,514,396 3,619,478 3,640,692 3,467,388 3,301,286 3,100,479 2,946,067 2,852,370	65.6% 70.6% 75.2% 84.0% 88.0% 85.1% 83.3% 85.8% 94.6% 100.4%	\$ 7,203,892 6,001,683 4,838,599 2,875,978 2,050,594 2,422,439 2,521,672 1,989,099 687,447 (47,565)	\$ 20,944,258 20,407,958 19,539,453 17,925,879 17,096,942 16,279,781 15,064,062 14,007,274 12,669,013 11,860,803	\$ 13,740,366 14,406,275 14,700,854 15,049,901 15,046,348 13,857,342 12,542,390 12,018,175 11,981,566 11,908,368	2012 2011 2010 2009* 2008 2007 2006 2005* 2004 2003
			VRS - Teachers			
209.8% 182.1% 163.5% 113.1% 93.6% 97.9% 105.6% 95.2% 51.5% 25.4% 114.0% 98.0% 87.1% 52.0% 37.3% 37.6% 31.1% 52.1%	\$ 7,004,577 6,922,130 7,119,889 7,160,842 6,896,432 6,604,643 6,195,421 5,844,860 5,491,142 5,109,840 \$ 4,162,579 4,100,470 4,123,505 4,167,324 4,021,468 3,761,991 3,504,844 3,266,806	62.4% 66.6% 68.6% 76.1% 79.8% 78.2% 76.0% 77.9% 87.2% 93.7% fions 73.4% 77.8% 85.1% 88.9% 88.4% 89.6% 83.7%	\$ 14,698,647 12,605,608 11,640,899 8,095,849 6,455,839 6,464,967 6,542,872 5,565,731 2,829,899 1,297,532 RS - Political Subdivis \$ 4,744,402 4,018,472 3,592,328 2,166,151 1,499,671 1,413,617 1,088,607 1,701,010	\$ 39,090,408 37,771,732 37,088,576 33,860,514 31,958,321 29,669,838 27,274,064 25,205,725 22,173,218 20,480,092 V \$ 17,824,190 17,005,070 16,172,372 14,536,618 13,499,216 12,166,854 10,483,777 10,415,489	\$ 24,391,761 25,166,124 25,447,677 25,764,665 25,502,482 23,204,871 20,731,192 19,639,994 19,343,319 19,182,560 \$ 13,079,788 12,986,598 12,580,044 12,370,467 11,999,545 10,753,237 9,395,170 8,714,479	2012 2011 2010 2009* 2008 2007 2006 2005* 2004 2003 
24.4% 7.0%	3,072,693 2,922,419	91.8% 97.5%	749,442 204,980	9,116,119 8,356,676	8,366,677 8,151,696	2004 2003
			VRS - Total			
179.1% 153.8% 136.0% 87.9% 68.7% 74.5% 78.1% 75.8% 37.1% 13.4%	\$ 14,880,275 14,708,859 14,757,790 14,947,644 14,558,592 13,834,022 13,001,551 12,212,145 11,509,902 10,884,629	65.8% 69.9% 72.4% 80.2% 84.0% 82.3% 80.8% 81.3% 90.3% 96.4%	\$ 26,646,941 22,625,763 20,071,826 13,137,978 10,006,104 10,301,023 10,153,151 9,255,840 4,266,788 1,454,947	\$ 77,858,856 75,184,760 72,800,401 66,323,011 62,554,479 58,116,473 52,821,903 49,628,488 43,958,350 40,697,571	\$ 51,211,915 52,558,997 52,728,575 53,185,033 52,548,375 47,815,450 42,668,752 40,372,648 39,691,562 39,242,624	2012 2011 2010 2009* 2008 2007 2006 2005* 2004 2003

<sup>\*</sup>Revised economic and demographic assumptions due to experience study.

#### SCHEDULE OF FUNDING (MARKET VALUE BASIS) - ALL PENSION PLANS

(DOLLARS IN MILLIONS)

					(	DOLLARS IN MILLIONS)
Actuarial Valuation Date June 30	Market Value of Assets (MVA)(a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Net Pension Liability (AAL-MVA) (b-a)	Funded Ratio (MVA/AAL) (a/b)	Covered Payroll (c)	Net Pension Liability as a Percentage of Covered Payroll (b-a)/(o
		Virginia	a Retirement System	(VRS)**		
2012 2011 2010 2009* 2008 2007 2006 2005* 2004 2003	\$ 50,267 51,280 44,646 39,890 51,743 54,948 46,021 41,640 37,784 32,727	\$ 77,859 75,185 72,801 66,323 62,554 58,116 52,822 49,628 43,958	\$ 27,592 23,905 28,155 26,433 10,811 3,168 6,801 7,988 6,174 7,971	64.6% 68.2% 61.3% 60.1% 82.7% 94.5% 87.1% 83.9% 86.0% 80.4%	\$ 14,880 14,709 14,758 14,948 14,559 13,834 13,002 12,212 11,510 10,885	185.4% 162.5% 190.8% 176.8% 74.3% 22.9% 52.3% 65.4% 53.6% 73.2%
2003	32,121	40,698			10,000	73.270
2012 2011 2010 2009* 2008 2007 2006 2005* 2004 2003 2012 2011 2010 2009* 2008 2007 2006 2005* 2006 2005*	\$ 575 599 534 484 636 684 581 530 486 424 \$ 895 911 792 691 853 868 700 593 498	\$ 1,013 986 949 879 844 806 730 673 656 616 Virginia Law O \$ 1,753 1,683 1,579 1,412 1,281 1,166 1,096 980 927	\$ 438 387 415 395 208 122 149 143 170 192 fficers' Retirement S \$ 858 772 787 721 428 298 396 387 429	56.8% 60.8% 56.3% 55.1% 75.5% 84.9% 79.6% 78.8% 74.2% 68.8% System (VaLORS) 51.1% 54.1% 50.2% 48.9% 66.7% 74.4% 63.9% 60.5% 53.7%	\$ 104 100 98 101 103 101 94 91 82 79 \$ 345 356 346 359 368 341 321 307 298	420.6% 388.3% 425.3% 391.4% 202.9% 121.3% 159.4% 157.2% 207.3% 243.0% 248.9% 216.8% 227.5% 200.7% 116.2% 87.3% 123.3% 126.2% 144.0%
2003	395	854	459	46.3%	292	157.2%
			al Retirement System	m (JRS)		
2012 2011 2010 2009* 2008 2007 2006 2005* 2004 2003	\$ 354 361 315 284 367 390 326 296 271 235	\$ 582 569 560 521 495 442 424 402 366 348	\$ 228 208 245 237 128 52 98 106 95	60.8% 63.4% 56.4% 54.4% 74.1% 88.2% 77.0% 73.5% 74.1% 67.6%	\$ 57 59 61 63 61 58 54 52 48 48	400.9% 353.7% 401.2% 377.6% 211.3% 91.1% 179.7% 205.3% 197.9% 235.4%

 $<sup>{\</sup>it *Revised economic and demographic assumptions due to experience study.}$ 

<sup>\*\*</sup>The breakdown of VRS data into state, teacher and political subdivisions is also presented in the Statistical Section.

## SCHEDULE OF FUNDING (MARKET VALUE BASIS) - VRS PENSION PLANS

(DOLLARS IN THOUSANDS)

					(DO	LLARS IN THOUSANDS)
Actuarial Valuation Date June 30	Market Value of Assets (MVA)(a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Net Pension Liability (AAL-MVA) (b-a)	Funded Ratio (MVA/AAL) (a/b)	Covered Payroll (c)	Net Pension Liability as a Percentage of Covered Payroll (b-a)/(c
		Virginia R	Retirement System (V	RS) - State		
2012	\$ 13,469,215	\$ 20,944,258	\$ 7,475,043	64.3%	\$ 3,713,119	201.3%
2011	13,992,901	20,407,958	6,415,057	68.6%	3,686,259	174.0%
2010	12,384,638	19,539,453	7,154,815	63.4%	3,514,396	203.6%
2009*	11,253,767	17,925,879	6,672,112	62.8%	3,619,478	184.3%
2008	14,856,159	17,096,942	2,240,783	86.9%	3,640,692	61.5%
2007 2006	15,987,528	16,279,781	292,253	98.2% 89.9%	3,467,388	8.4% 45.9%
2005*	13,549,153 12,398,345	15,064,062 14,007,274	1,514,909 1,608,929	88.5%	3,301,286 3,100,479	45.9% 51.9%
2004	11,379,685	12,669,013	1,289,328	89.8%	2,946,067	43.8%
2003	9,923,640	11,860,803	1,937,163	83.7%	2,852,370	67.9%
		Virginia Re	etirement System (VR	S) - Teacher		
2012	\$ 23,930,149	\$ 39,090,408	\$15,160,259	61.2%	\$ 7,004,577	216.4%
2011	24,520,362	37,771,732	13,251,370	64.9%	6,922,130	191.4%
2010	21,517,178	37,088,576	15,571,398	58.0%	7,119,889	218.7%
2009*	19,302,368	33,860,514	14,558,146	57.0%	7,160,842	203.3%
2008	25,076,413	31,958,321	6,881,908	78.5%	6,896,432	99.8%
2007	26,618,235	29,669,838	3,051,603	89.7%	6,604,643	46.2%
2006	22,330,731	27,274,064	4,943,333	81.9%	6,195,421	79.8%
2005* 2004	20,239,648	25,205,725	4,966,077	80.3%	5,844,860	85.0%
2004	18,406,676 15,985,467	22,173,218 20,480,092	3,766,542 4,494,625	83.0% 78.1%	5,491,142 5,109,840	68.6% 88.0%
		Virginia Retireme	nt System (VRS) - Po	litical Subdivisions		
2012	\$ 12,867,357	\$ 17,824,190	\$ 4,956,833	72.2%	\$ 4,162,579	119.1%
2011	12,767,072	17,005,070	4,237,998	75.1%	4,100,470	103.4%
2010	10,744,000	16,172,372	5,428,372	66.4%	4,123,505	131.6%
2009*	9,333,619	14,536,618	5,202,999	64.2%	4,167,324	124.9%
2008	11,810,904	13,499,216	1,688,312	87.5%	4,021,468	42.0%
2007	12,342,460	12,166,854	(175,606)	101.4%	3,761,991	(4.7%)
2006	10,140,847	10,483,777	342,930	96.7%	3,504,844	9.8%
2005*	9,002,488	10,415,489	1,413,001	86.4%	3,266,806	43.3%
2004 2003	7,997,944 6,817,773	9,116,119 8,356,676	1,118,175 1,538,903	87.7% 81.6%	3,072,693 2,922,419	36.4% 52.7%
			Retirement System (V		, , , ,	
2012	\$ 50,266,721	\$ 77,858,856	\$27,592,135	64.6%	\$14,880,275	185.4%
2011	51,280,335	75,184,760	23,904,425	68.2%	14,708,859	162.5%
2010	44,645,816	72,800,401	28,154,585	61.3%	14,757,790	190.8%
2009*	39,889,754	66,323,011	26,433,257	60.1%	14,947,644	176.8%
2008	51,743,476	62,554,479	10,811,003	82.7%	14,558,592	74.3%
2007	54,948,223	58,116,473	3,168,250	94.5%	13,834,022	22.9%
2006	46,020,731	52,821,903	6,801,172	87.1%	13,001,551	52.3%
2005*	41,640,481	49,628,488	7,988,007	83.9%	12,212,145	65.4%
	07 70 4 005	40.000.000	0 474 0 45	00 001	44 500 000	EC 00/
2004 2003	37,784,305 32,726,880	43,958,350 40,697,571	6,174,045 7,970,691	86.0% 80.4%	11,509,902 10,884,629	53.6% 73.2%

<sup>\*</sup> Revised economic and demographic assumptions due to experience study.

## Other Employee Benefit Trust Funds

#### FIGURE 5.10 – ANALYSIS OF CHANGES AND GROWTH IN PLAN NET POSITION – GROUP LIFE INSURANCE FUND

FOR THE YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	2004*	2005*	2006*	2007	2008	2009	2010*	2011	2012	2013
Net Position Restricted– Beginning of Year	\$751,747	\$778,464	\$771,817	\$751,361	\$962,328	\$937,146	\$713,812	\$783,058	\$833,065	\$746,619
Funding:  Member and Employer  Contributions and Other										
Additions Benefits and Administrative	20	(31)	52	169,824	158,823	135,063	94,860	45,048	47,285	201,688
Expenses	(107,018)	(98,163)	(112,695)	(119,738)	(133,407)	(153,083)	(139,344)	(146,550)	(141,026)	(150,700)
Net Funding	(106,998)	(98,194)	(112,643)	50,086	25,416	(18,020)	(44,484)	(101,502)	(93,741)	50,988
Investment Income: Interest, Dividends and Other Investment Income Net Appreciation	10,366	13,256	14,546	19,078	17,908	13,582	14,128	17,924	16,301	13,669
(Depreciation) in Fair Value	123,349	78,291	77,641	141,803	(68,506)	(218,896)	99,602	133,585	(9,006)	76,497
Net Investment Income	133,715	91,547	92,187	160,881	(50,598)	(205,314)	113,730	151,509	7,295	90,166
Net Increase (Decrease)	26,717	(6,647)	(20,456)	210,967	(25,182)	(223,334)	69,246	50,007	(86,446)	141,154
Net Position Restricted– End of Year	\$778,464	\$771,817	\$751,361	\$962,328	\$937,146	\$713,812	\$783,058	\$833,065	\$746,619	\$887,773

<sup>\*</sup>The group life insurance contribution rates for the last quarter of FY 2010 and for all of FYs 2006, 2005 and 2004 were zero as a result of a statutory premium holiday. Amounts shown in premium holiday years are adjustments and contributions for new employers.



#### SCHEDULE OF GROUP LIFE INSURANCE ADDITIONS BY SOURCE

FISCAL YEARS 2004-2013 (EXPRESSED IN THOUSANDS)

		Contribut	ions				
Year Ended June 30	State	Teachers	Political Subdivisions	Sub-Total	Investment Income (Loss)	Other	Total
2013	\$ 61,541	\$ 85,725	\$ 53,449	\$ 200,715	\$ 90,166	\$ 973	\$ 291,854
2012	14,243	20,183	12,108	46,534	7,295	751	54,580
2011	13,348	19,427	11,920	44,695	151,509	353	196,557
2010*	28,685	40,502	25,673	94,860	113,730	-	208,590
2009	40,369	58,855	35,839	135,063	(205,314)	-	(70,251)
2008	52,503	60,405	45,915	158,823	(50,598)	-	108,225
2007	51,116	74,442	44,266	169,824	160,881	-	330,705
2006*	(2)	-	54	52	92,187	-	92,239
2005*	1	(33)	1	(31)	91,547	-	91,516

<sup>\*</sup>The group life insurance contribution rates for the last quarter of FY 2010 and for all of FYs 2006, 2005 and 2004 were zero as a result of a statutory premium holiday. Amounts shown in premium holiday years are adjustments and contributions for new employers.

19

133,715

20

#### SCHEDULE OF GROUP LIFE INSURANCE DEDUCTIONS BY TYPE

2004\*

FISCAL YEARS 2004-2013 (EXPRESSED IN THOUSANDS)

Year Ended	G	Group Life Claims		Administrative		
June 30	Active	Retired	Sub-Total	Expenses	Other	Total
2013	\$ 47,875	\$ 101,612	\$ 149,487	\$ 65	\$ 1,148	\$ 150,700
2012	54,605	85,338	139,943	77	1,006	141,026
2011	51,236	93,791	145,027	484	1,039	146,550
2010	46,263	91,570	137,833	663	848	139,344
2009	64,119	87,550	151,669	700	714	153,083
2008	55,814	76,279	132,093	686	628	133,407
2007	46,322	72,305	118,627	568	543	119,738
2006	43,140	68,350	111,490	716	489	112,695
2005	37,139	59,902	97,041	678	444	98,163
2004	42,290	63,741	106,031	615	372	107,018

133,735

# FIGURE 5.11 – ANALYSIS OF CHANGES AND GROWTH IN PLAN NET POSITION – RETIREE HEALTH INSURANCE CREDIT FUND

FOR THE YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	2004	2005	2006	2007	2008*	2009	2010**	2011	2012	2013
Net Position Restricted– Beginning of Year	\$ 92,222	\$120,895	\$146,956	\$178,068	\$224,606	\$ 251,634	\$231,994	\$244,958	\$209,033	\$127,234
Funding: Employer Contributions	70,000	04.005	00.040	00.040	4.40.000	4.40.000	400.040	50.050	54.050	4.45.004
and Other Additions Reimbursements and	78,383	81,995	86,913	92,919	148,908	146,333	100,613	50,052	51,356	145,031
Administrative Expenses	(65,292)	(69,474)	(72,819)	(80,803)	(109,426)	(115,878)	(120,872)	(126,963)	(131,435)	(137,906)
Net Funding	13,091	12,521	14,094	12,116	39,482	30,455	(20,259)	(76,911)	(80,079)	7,125
Investment Income: Interest, Dividends and										
Other Investment Income Net Appreciation (Depreciation	1,207	1,960	2,685	4,082	4,407	3,314	4,127	4,849	2,997	1,856
in Fair Value	14,375	11,580	14,333	30,340	(16,861)	(53,409)	29,096	36,137	(4,717)	10,257
Net Investment Income	15,582	13,540	17,018	34,422	(12,454)	(50,095)	33,223	40,986	(1,720)	12,113
Net Increase (Decrease)	28,673	26,061	31,112	46,538	27,028	(19,640)	12,964	(35,925)	(81,799)	19,238
Net Position Restricted– End of Year	\$120,895	\$146,956	\$178,068	\$224,606	\$251,634	\$231,994	\$244,958	\$209,033	\$127,234	\$146,472

<sup>\*</sup>The health insurance credit for teachers increased to \$4.00 for each year of service credit per month with no cap on the benefit. The balance in the Enhanced Retiree Health Insurance Credit Program for teachers was refunded to employers.

#### SCHEDULE OF RETIREE HEALTH INSURANCE CREDIT ADDITIONS BY SOURCE

FISCAL YEARS 2004-2013 (EXPRESSED IN THOUSANDS)

		Contril	outions					
Year Ended June 30	State	Teacher	Political Subdivisions	Sub-Total	Investment Income (Loss)	01	ther	Total
2013	\$ 62,597	\$ 80,489	\$ 1,945	\$ 145,031	\$ 12,113	\$	-	\$ 157,144
2012	7,137	42,245	1,974	51,356	(1,720)		-	49,636
2011	6,702	41,410	1,940	50,052	40,986		-	91,038
2010*	44,485	53,114	3,014	100,613	33,223		-	133,836
2009	66,256	77,205	2,872	146,333	(50,095)		-	96,238
2008	65,696	79,518	3,694	148,908	(12,454)		-	136,454
2007	55,289	34,019	3,611	92,919	34,422		-	127,341
2006	50,979	34,758	1,176	86,913	17,018		-	103,931
2005	48,196	32,745	1,054	81,995	13,540		-	95,535
2004	38,590	38,881	912	78,383	15,582		-	93,965

<sup>\*</sup>The health insurance credit contribution rate for the last quarter of FY 2010 was zero as a result of a statutory contribution holiday.

<sup>\*\*</sup>The health insurance credit contribution rate for the last quarter of FY 2010 was zero as a result of a statutory contribution holiday.

#### SCHEDULE OF RETIREE HEALTH INSURANCE CREDIT DEDUCTIONS BY TYPE

FISCAL YEARS 2004-2013 (EXPRESSED IN THOUSANDS)

Retiree Health Insurance Reimbursements

Year Ended June 30	State	Teacher	Political Subdivisions	Sub-Total	Administrative Expenses	Other	Total
2013	\$ 62,795	\$ 72,997	\$ 1,746	\$ 137,538	\$ 358	\$ 10	\$ 137,906
2012	59,882	69,638	1,582	131,102	333	-	131,435
2011	58,433	66,608	1,459	126,500	463	-	126,963
2010	56,337	62,573	1,359	120,269	603	-	120,872
2009	52,742	61,229	1,307	115,278	600	-	115,878
2008*	49,248	58,748	993	108,989	437	-	109,426
2007	47,263	32,308	876	80,447	356	-	80,803
2006	41,560	30,177	745	72,482	337	-	72,819
2005	40,038	28,255	673	68,966	508	-	69,474
2004	38,088	26,247	585	64,920	372	-	65,292

<sup>\*</sup>The health insurance credit reimbursement for teachers was increased to \$4.00 per month per year of service with no cap on the benefit.

#### FIGURE 5.12 - ANALYSIS OF CHANGES AND GROWTH IN PLAN NET POSITION -DISABILITY INSURANCE TRUST FUND

FOR THE YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	2004	2005	2006	2007	2008	2009	2010*	2011*	2012*	2013
Net Position Restricted Beginning of Year	\$ 78,383	\$103,322	\$144,234	\$191,872	\$263,586	\$313,521	\$290,481	\$336,213	\$369,071	\$343,972
Funding: Employer Contributions and Other Additions	35,247	54,505	57,991	65,726	99,430	71,337	31,021	6	78	17,267
Disability Insurance Benefits and Administrative Expenses	(24,506)	(26,316)	(27,915)	•	(32,697)	(28,800)	(28,415)	(29,001)	(28,955)	(30,668)
Net Funding	10,741	28,189	30,076	31,678	66,733	42,537	2,606	(28,995)	(28,877)	(13,401)
Investment Income: Interest, Dividends and										
Other Investment Income Net Appreciation (Depreciation)		1,843	2,771	4,749	5,946	4,339	5,358	7,317	7,048	5,919
in Fair Value	13,097	10,880	14,791	35,287	(22,744)	(69,916)	37,768	54,536	(3,270)	33,631
Net Investment Income	14,198	12,723	17,562	40,036	(16,798)	(65,577)	43,126	61,853	3,778	39,550
Net Increase (Decrease)	24,939	40,912	47,638	71,714	49,935	(23,040)	45,732	32,858	(25,099)	26,149
Net Position Restricted– End of Year	\$103,322	\$144,234	\$191,872	\$263,586	\$313,521	\$290,481	\$336,213	\$369,071	\$343,972	\$370,121

<sup>\*</sup>The disability insurance contribution rate for FY 2011 and FY 2012 and for the last quarter of FY 2010 was zero as a result of a statutory contribution holiday.

#### SCHEDULE OF DISABILITY INSURANCE TRUST FUND ADDITIONS BY SOURCE

FISCAL YEARS 2008-2013 (EXPRESSED IN THOUSANDS)

Year Ended June 30	Contributions	Investment Income	Transfers and Other Additions**	Total
		Long-Term Disability Progran	n	
2013 2012 2011 2010 2009 2008*	\$ 14,061 67 5 24,196 61,371 66,606	\$ 35,090 3,378 55,686 39,586 (59,852) (15,332)	\$ - 7,029 - -	\$ 49,151 3,445 55,691 70,811 1,519 51,274
		Long-Term Care Program		
2013 2012 2011 2010 2009 2008*	\$ 2,929 11 1 6,825 9,966 11,754	\$ 4,460 400 6,167 3,540 (5,725) (1,466)	\$ 277 - - - - 21,070	\$ 7,666 411 6,168 10,365 4,241 31,358
		Total Disability Insurance Trust F	und	
2013 2012 2011 2010 2009 2008*	\$ 16,990 78 6 31,021 71,337 78,360	\$ 39,550 3,778 61,853 43,126 (65,577) (16,798)	\$ 277 - - 7,029 - 21,070	\$ 56,817 3,856 61,859 81,176 5,760 82,632

<sup>\*</sup>FY 2008 is the first year for program activity with the current program design.

<sup>\*\*</sup>Transfers and Other Additions in FY 2008 was a transfer of assets from a fully insured plan. Transfers and Other Additions in FY 2010 includes a transfer of \$7,029,000 between LTC and LTD.



#### SCHEDULE OF DISABILITY INSURANCE TRUST FUND DEDUCTIONS BY TYPE

FISCAL YEARS 2008-2013 (EXPRESSED IN THOUSANDS)

Year Ended June 30	Long-Term Disability Benefits	Long-Term Care and Costs	Third-Party Administrator Administrative Services	VRS Administrative Expenses	Transfers and Other Expenses **	Total
		Long	-Term Disability Pro	gram		
2013 2012 2011 2010 2009 2008*	\$ 23,015 20,924 20,050 19,771 19,076 19,675	\$ - - - - -	\$ 6,320 6,974 7,512 7,191 8,285 8,438	\$ 449 425 585 747 716 583	\$ 26 32 148 25 -	\$ 29,810 28,355 28,295 27,734 28,077 28,696
		Lo	ng-Term Care Progr	am		
2013 2012 2011 2010 2009 2008*	\$ - - - - - -	\$ 798 546 624 612 655 3,098	\$ - - - - -	\$ 57 50 65 67 68 903	\$ 3 4 17 7,031 -	\$ 858 600 706 7,710 723 4,001
Total Disability Insurance Trust Fund						
2013 2012 2011 2010 2009 2008*	\$ 23,015 20,924 20,050 19,771 19,076 19,675	\$ 798 546 624 612 655 3,098	\$ 6,320 6,974 7,512 7,191 8,285 8,438	\$ 506 475 650 814 784 1,486	\$ 29 36 165 7,056	\$ 30,668 28,955 29,001 35,444 28,800 32,697

<sup>\*</sup>FY 2008 is the first year for program activity with the current program design.

<sup>\*\*</sup> Transfers and Other Expenses in FY 2010 includes a transfer of \$7,029,000 between long-term care and long-term disability.

#### FIGURE 5.13 - OTHER POST-EMPLOYMENT BENEFIT PLAN STATISTICS

#### SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES BY PLAN

At June 30	Group Life Insurance	Retiree Health Insurance Credit	Disability Insurance	Line-Of-Duty*
2013	149,926	103,952	2,757	536
2012	143,657	99,836	2,722	788
2011	137,784	96,671	2,698	801
2010	130,915	92,126	2,592	N/A
2009**	124,646	87,538	2,483	N/A

<sup>\*</sup>This was a new program FY 2011. The reduction in cases resulted from employers that opted out of the Line-Of-Duty program and are self-administering their line-of-duty cases and funding their benefits.

#### SCHEDULE OF AVERAGE BENEFIT PAYMENTS BY PLAN

#### Group Life Insurance

Year Ended	Number of	Average Claim
June 30	Claims Paid	Amount
2013	4,206	\$21,816
2012	4,013	\$21,737
2011	3,999	\$21,896
2010	3,852	\$22,118
2009*	3,650	\$21,301

<sup>\*</sup>FY 2009 is the first year that this data is available.

#### Retiree Health Insurance Credit

Payment	Number of	Average Monthly
Period	Recipients	Credit Amount
June, 2013	103,952	\$107
June, 2012	99,834	\$107
June, 2011	96,671	\$107
June, 2010	92,125	\$106
June, 2009*	87,537	\$105

<sup>\*</sup>FY 2009 is the first year that this data is available.

#### Disability Insurance

Payment	Number of	Average Gross	Average Net
Period	Claims Paid	Monthly Benefit	Monthly Benefit*
June, 2013	2,707	\$1,852	\$814
June, 2012	2,683	\$1,828	\$762
June, 2011	2,650	\$1,770	\$759
June, 2010	2,564	\$1,738	\$779
June, 2009**	2,428	\$1,714	\$797

<sup>\*</sup>The net monthly benefit reflects adjustments for Social Security, Worker's Compensation and other offsets

<sup>\*\*</sup>FY 2009 is the first year that this data is available.

<sup>\*\*</sup>FY 2009 is the first year that this data is available.

#### SCHEDULE OF AVERAGE BENEFIT PAYMENTS BY PLAN, CONT.

Line-of-Duty\*

Line of Duty Death Benefits **		Health Insurance Benefits			
Year Ended June 30	LOD Death	Presumptive LOD Death	Year Ended June 30	Number of Active Claims	Average Annual Health Insurance Benefit
2013 2012 2011***	2 4 6	3 4 11	2013 2012 2011	552 781 801	\$10,807 \$12,298 \$11,138

<sup>\*</sup>The Line of Duty Program was funded by a trust fund beginning in FY 2011. In that year and FY 2012 employers had the option to opt-out and self-fund the benefits provided by the program. Data for FY 2011 and FY 2012 are not representative of the program's expected activity going forward.

## **VRS-Participating Employers**

More than 800 employers participate in the Virginia Retirement System (VRS) on behalf of their employees. Employers include state agencies, public colleges and universities, school divisions and political subdivisions. The following employers were participating in VRS as of June 30, 2013:

#### **PARTICIPATING POLITICAL SUBDIVISIONS: 453**

A - retirement only B - retirement and group life insurance
C - retirement, group life insurance and retiree health insurance credit D - retirement and retiree health insurance credit

COUNTIES: 9

Accomack County - B	Dickenson County - A	King William County - B	Prince William County - C
Albemarle County - B	Dinwiddie County - B	Lancaster County - B	Pulaski County - C
Alleghany County - B	Essex County - B	Lee County - B	Rappahannock County - C
Amelia County - C	Fauquier County - B	Loudoun County - B	Richmond County - B
Amherst County - C	Floyd County - B	Louisa County - C	Roanoke County - C
Appomattox County - B	Fluvanna County - C	Lunenburg County - B	Rockbridge County - B
Augusta County - B	Franklin County - B	Madison County - C	Rockingham County - B
Bath County - B	Frederick County - B	Mathews County - B	Russell County - C
Bedford County - B	Giles County - B	Mecklenburg County - B	Scott County - B
Bland County - C	Gloucester County - C	Middlesex County - B	Shenandoah County - C
Botetourt County - B	Goochland County - B	Montgomery County - B	Smyth County - B
Brunswick County - B	Grayson County - B	Nelson County - B	Southampton County - C
Buchanan County - B	Greene County - C	New Kent County - B	Spotsylvania County - B
Buckingham County - B	Greensville County - C	Northampton County - B	Stafford County - C
Campbell County - B	Halifax County - C	Northumberland County - C	Surry County - B
Caroline County - B	Hanover County - C	Nottoway County - B	Sussex County - B
Carroll County - B	Henrico County - B	Orange County - B	Tazewell County - C
Charles City County - B	Henry County - C	Page County - B	Warren County - B
Charlotte County - B	Highland County - B	Patrick County - B	Washington County - C
Chesterfield County - B	Isle of Wight County - C	Pittsylvania County - C	Westmoreland County - C
Clarke County - B	James City County - C	Powhatan County - B	Wise County - C
Craig County - C	King & Queen County - B	Prince Edward County - B	Wythe County - C
Culpeper County - B	King George County - B	Prince George County - B	York County - C
Cumberland County - B			

<sup>\*\*</sup>The Line of Duty Program provides a \$100,000 death benefit of an eligible individual whose death was as a direct or proximate result of the performance of their duty. The program also provides a \$25,000 death benefit for certain individuals whose death arose out of their employment or was within five years of the date of retirement.

<sup>\*\*\*</sup>FY 2011 is the first year that this data is available.

#### CITIES AND TOWNS: 162

City of Alexandria - A City of Bedford - B City of Bristol - B City of Buena Vista - B City of Chesapeake - B City of Colonial Heights - B City of Covington - C City of Danville - A City of Emporia - B City of Fairfax - A City of Falls Church - B City of Franklin - B City of Fredericksburg - B City of Galax - B City of Hampton - B City of Harrisonburg - B City of Hopewell - B City of Lexington - B City of Lynchburg - B City of Manassas - C City of Manassas Park - B City of Martinsville - B City of Newport News - B City of Norfolk - B City of Norton - B City of Petersburg - B City of Poquoson - C City of Portsmouth - B City of Radford - C City of Richmond - B City of Roanoke - C City of Salem - B City of Staunton - B City of Suffolk - B City of Virginia Beach - B City of Waynesboro - B City of Williamsburg - B City of Winchester - C Town of Abingdon - B Town of Alberta - B

Town of Amherst - B Town of Appomattox - A Town of Ashland - B Town of Berryville - B Town of Big Stone Gap - A Town of Blacksburg - B Town of Blackstone - B Town of Bluefield - B Town of Bowling Green - B Town of Boyce - B Town of Boydton - B Town of Boykins - A Town of Bridgewater - B Town of Broadway - B Town of Brodnax - A Town of Brookneal - B Town of Burkeville - B Town of Cape Charles - B Town of Chase City - B Town of Chatham - B Town of Chilhowie - B Town of Chincoteague - B Town of Christiansburg - A Town of Clarksville - B Town of Clifton Forge - B Town of Coeburn - B Town of Colonial Beach - B Town of Courtland - B Town of Craigsville - B Town of Crewe - B Town of Culpeper - B Town of Dayton - B Town of Dillwyn - A Town of Dublin - B Town of Dumfries - C Town of Edinburg - A Town of Elkton - B Town of Exmore - A Town of Floyd - B Town of Front Royal - B Town of Gate City - A

Town of Glasgow - B Town of Gordonsville - B Town of Gretna - B Town of Grottoes - B Town of Grundy - B Town of Halifax - B Town of Hamilton - C Town of Haymarket - A Town of Haysi - A Town of Herndon - B Town of Hillsville - B Town of Hurt - B Town of Independence - A Town of Iron Gate - B Town of Jarratt - A Town of Jonesville - B Town of Kenbridge - C Town of Kilmarnock - C Town of La Crosse - A Town of Lawrenceville - C Town of Lebanon - A Town of Leesburg - B Town of Louisa - B Town of Lovettsville - B Town of Luray - B Town of Madison - B Town of Marion - B Town of McKenney - B Town of Middlebura - B Town of Middletown - D Town of Mineral - A Town of Montross - B Town of Mt. Jackson - B Town of Narrows - A Town of New Market - B Town of Onancock - B Town of Onley - B Town of Orange - B Town of Parksley - B Town of Pearisburg - C Town of Pembroke - B

Town of Pennington Gap - A Town of Pound - A Town of Pulaski - B Town of Purcellville - B Town of Quantico - B Town of Remington - B Town of Rich Creek - A Town of Richlands - A Town of Rocky Mount - B Town of Round Hill - B Town of Rural Retreat - A Town of Saltville - A Town of Scottsville - B Town of Shenandoah - C Town of Smithfield - B Town of South Boston - B Town of South Hill - A Town of St. Paul - B Town of Stanley - C Town of Stephens City - B Town of Strasburg - C Town of Stuart - B Town of Tappahannock - A Town of Tazewell - A Town of Timberville - B Town of Urbanna - B Town of Victoria - B Town of Vienna - B Town of Vinton - B Town of Wakefield - A Town of Warrenton - B Town of Warsaw - B Town of Waverly - A Town of Weber City - B Town of West Point - B Town of Windsor - B Town of Wise - B Town of Woodstock - C Town of Wytheville - B

## AUTHORITIES, COMMISSIONS, DISTRICTS, REGIONAL INSTITUTIONS AND COMMUNITY SERVICES BOARDS: 198

Accomack-Northampton Planning
District Commission - B
Albemarle County Service
Authority - B
Albemarle-Charlottesville
Regional Jail - B

Town of Altavista - B

Alexandria Redevelopment &
Housing Authority - B
Alexandria Renew Enterprises - A
Alleghany Highlands Community
Services Board - B
Amherst County Service
Authority - C

Appalachian Juvenile
Commission - C
Appomattox Regional Library - B
Appomattox River Water
Authority - B

Anchor Commission - B

Augusta County Service
Authority - B
Bedford County Public Service
Authority - B
Bedford Public Library - B

Continued

#### AUTHORITIES, COMMISSIONS, DISTRICTS, REGIONAL INSTITUTIONS AND COMMUNITY SERVICES BOARDS, cont.

Big Sandy Soil & Water Conservation District - A Big Stone Gap Redevelopment & Housing Authority - A Big Walker Soil & Water Conservation District - A Blacksburg-Christiansburg-VPI Water Authority - B Blacksburg-VPI Sanitation Authority - B Blue Ridge Behavioral Healthcare - B Blue Ridge Juvenile Detention Center - B Blue Ridge Regional Jail Authority - B **Bristol Redevelopment &** Housing Authority - B **Bristol Virginia Utilities** Authority - B Brunswick Industrial Development Authori ty - B Campbell County Utilities & Service Authority - B Capital Region Airport Commission - B Castlewood Water & Sewage Authority - B Central Rappahannock Regional Library - B Central Virginia Community Services Board - B Central Virginia Regional Jail - B Central Virginia Waste Management Authority - C Charles Pinckney Jones Memorial Library - B Charlottesville-Albemarle Airport Authority - B Charlottesville Redevelopment & Housing Authority - B Chesapeake Bay Bridge & Tunnel District - B Chesapeake Redevelopment & Housing Authority - B Chesterfield County Health Center Commission - B Clinch Valley Soil & Water Conservation District - B Coeburn-Norton-Wise Regional Water Treatment Authority - B

Colonial Behavioral Health - C Colonial Soil & Water Conservation District - B Commonwealth Regional Council - A Crater Youth Care Commission - B Culpeper Soil & Water Conservation District - B **Cumberland Mountain Community** Services Board - B Cumberland Plateau Regional Housing Authority - B Daniel Boone Soil & Water Conservation District - B Danville-Pittsvlvania Community Services Board - B Danville Redevelopment & Housing Authority - B Dinwiddie County Water Authority - B District 19 Community Services Board - C Eastern Shore Community Services Board - B Eastern Shore Public Library - B Eastern Shore Soil & Water Conservation District - B **Economic Development Authority** of Henrico County - B Evergreen Soil & Water Conservation District - B Fauguier County Water & Sanitation Authority - B Ferrum Water & Sewage Authority - A Franklin Redevelopment & Housing Authority - B Frederick County Sanitation Authority - C Giles County Public Service Authority - B Goochland-Powhatan Community Services Board - B Greensville County Water & Sewer Authority - C Greensville-Emporia Department of Social Services - C Halifax Service Authority - B Hampton-Newport News Community Services Board - A

Hampton Redevelopment & Housing Authority - B Hampton Roads Planning District Commission - B Hampton Roads Regional Jail Authority - B Hampton Roads Sanitation District - C Hampton Roads Transit - B Handley Regional Library - B Harrisonburg-Rockingham Community Services Board - C Harrisonburg-Rockingham Regional Sewer Authority - B Henricopolis Soil & Water Conservation District - B Henry County Public Service Authority - C Holston River Soil & Water Conservation District - A Hopewell Redevelopment & Housing Authority - A Institute for Advanced Learning and Research - A James City Service Authority - C John Marshall Soil & Water Conservation District - B Lee County Redevelopment & Housing Authority - B Lee County Public Service Authority - B Lenwisco Planning District Commission - B Lonesome Pine Regional Library - B Lonesome Pine Soil & Water Conservation District - A Loudoun County Sanitation Authority - B Massanuttan Regional Library - B Meherrin Regional Library - C Meherrin River Regional Jail Authority - C Middle Peninsula-Northern Neck Community Services Board - B Middle Peninsula Planning District Commission - B Middle Peninsula Regional Security Center - B Middle River Regional Jail

Authority - B

Monacan Soil & Water Conservation District - C Montgomery Regional Solid Waste Authority - B Mount Rogers Community Services Board - B Nelson County Service Authority - B New River Resource Authority - C New River Soil & Water Conservation District - B New River Valley Community Services Board - A New River Valley Juvenile Detention Home Commission - B New River Valley Planning District Commission - A New River Valley Regional Jail - B Norfolk Airport Authority - B Norfolk Redevelopment & Housing Authority - B Northern Neck-Essex County Group Home Commission - B Northern Neck Regional Jail - B Northern Shenandoah Valley Regional Commission - B Northern Virginia Health Care Center Commission - A Northern Virginia Juvenile Detention Home - B Northwestern Community Services Board - B Opportunity Inc. of Hampton Roads - B Pamunkey Regional Jail - B Peaks of Otter Soil & Water Conservation District - B Peninsula Airport Commission - B Pepper's Ferry Regional Wastewater Authority - C Peter Francisco Soil & Water Conservation District - A Petersburg Redevelopment & Housing Authority - C Peumansend Creek Regional Jail - B Piedmont Community Services Board - B Piedmont Regional Jail - B Piedmont Regional Juvenile

Continued

Detention Center - B

#### AUTHORITIES, COMMISSIONS, DISTRICTS, REGIONAL INSTITUTIONS AND COMMUNITY SERVICES BOARDS, cont.

Pittsylvania County Service Authority - B Planning District One Behavioral Health Services Board - C Portsmouth Redevelopment & Housing Authority - B Potomac and Rappahannock Transportation Commission - B Potomac River Fisheries Commission - B Prince William County Service Authority - C Prince William Soil & Water Conservation District - B Rappahannock Area Community Services Board - C Rappahannock Juvenile Center - C Rappahannock-Rapidan Community Services Board - B Rappahannock-Rapidan Regional Planning District Commission - B Rappahannock Regional Jail - B Region Ten Community Services Board - B Richmond Metropolitan Authority - B Richmond Redevelopment & Housing Authority - B Richmond Regional Planning District Commission - A Rivanna Solid Waste Authority - B Rivanna Water & Sewer Authority - B Riverside Regional Jail - B

Roanoke Higher Education Authority - C Roanoke Redevelopment & Housing Authority - A Roanoke River Service Authority - A Robert E. Lee Soil & Water Conservation District - A Rockbridge Area Community Services Board - B Rockbridge Area Social Services Department - B Rockbridge County Public Service Authority - B Rockbridge Regional Library - A Russell County Public Service Authority - C Scott County Public Service Authority - B Scott County Redevelopment & Housing Authority - B Scott County Soil & Water Conservation District - B Shenandoah Valley Juvenile Detention Home Commission - C Shenandoah Valley Regional Airport Commission - B Skyline Soil & Water Conservation District - A South Central Wastewater Authority - B Southeastern Virginia Public Service Authority - B Southside Community Services

Southside Planning District Commission - B Southside Regional Jail - C Southside Regional Juvenile Group Home Commission - B Southside Regional Library Board - B Southwest Regional Recreation Authority - B Southwest Virginia Regional Jail - B Spotsylvania-Stafford-Fredericksburg Group Home Commission - B Staunton Redevelopment & Housing Authority - B Suffolk Redevelopment & Housing Authority - B Sussex Service Authority - B Tazewell Soil & Water Conservation District - B Thomas Jefferson Planning District Commission - B Thomas Jefferson Soil & Water Conservation District - B Tidewater Soil & Water Conservation District - A Tidewater Youth Services Commission - C Tri-County/City Soil & Water

Virginia Biotechnology Research Park Authority - C Virginia Coalfield Economic Development Authority - C Virginia Highlands Airport Commission - B Virginia Peninsula Regional Jail - B Virginia Peninsulas Public Service Authority - B Virginia Resources Authority - B Virginia's Region 2000 Local Government Council - B Washington County Service Authority - B Washington Metropolitan Area Transportation Commission - A Waynesboro Redevelopment & Housing Authority - B Western Tidewater Community Services Board - D Western Tidewater Regional Jail - B Western Virginia Regional Jail Authority - C Western Virginia Water Authority - B Wise County Public Service Authority - B Wise County Redevelopment & Housing Authority - C Woodway Water Authority - B Wythe-Grayson Regional Library - B Wytheville Redevelopment &

#### **SCHOOLS: 145**

E- professional employees covered by retirement, group life insurance and the retiree health insurance credit and non-professional employees (as applicable) covered by retirement and group life insurance F - professional and non-professional employees covered by retirement, group life insurance and the retiree health insurance credit

#### COUNTY SCHOOLS: 94

Accomack County Schools - E Albemarle County Schools - E Alleghany County Schools - E Amelia County Schools - E Amherst County Schools - E Appomattox County Schools - F Arlington County Schools - E Augusta County Schools - E Bath County Schools - F

Bedford County Schools - E Bland County Schools - E Botetourt County Schools - F Brunswick County Schools - F Buchanan County Schools - E Buckingham County Schools - E Campbell County Schools - F Caroline County Schools - E Carroll County Schools - F

Board - C

Charles City County Schools - E Charlotte County Schools - E Chesterfield County Schools - E Clarke County Schools - E Craig County Schools - E Culpeper County Schools - F Cumberland County Schools - E Dickenson County Schools - E Dinwiddie County Schools - E

Conservation District - B

Upper Occoquan Sewage

Valley Community Services

Authority - B

Board - B

Essex County Schools - E Fairfax County Schools - E Fauquier County Schools - E Floyd County Schools - E Fluvanna County Schools - E Franklin County Schools - F Frederick County Schools - E Giles County Schools - E Gloucester County Schools - F

Housing Authority - B

#### COUNTY SCHOOLS, cont.

Goochland County Schools - E
Grayson County Schools - E
Greene County Schools - E
Greensville County Schools - E
Halifax County Schools - F
Hanover County Schools - E
Henrico County Schools - E
Henry County Schools - E
Highland County Schools - E
Isle of Wight County Schools - E
King & Queen County Schools - E
King George County Schools - E
King William County Schools - E
Lancaster County Schools - E
Lee County Schools - F

Loudoun County Schools - F
Louisa County Schools - F
Lunenburg County Schools - E
Madison County Schools - E
Mathews County Schools - E
Mecklenburg County Schools - E
Middlesex County Schools - E
Montgomery County Schools - E
Nelson County Schools - E
New Kent County Schools - E
Northampton County Schools - E
Northumberland County
Schools - E
Nottoway County Schools - E
Orange County Schools - E

Page County Schools - E
Patrick County Schools - E
Pittsylvania County Schools - E
Powhatan County Schools - E
Prince Edward County Schools - E
Prince George County Schools - E
Prince William County Schools - F
Pulaski County Schools - E
Rappahannock County Schools - E
Roanoke County Schools - E
Rockbridge County Schools - E
Rockingham County Schools - F
Russell County Schools - F
Scott County Schools - E

Shenandoah County Schools - E
Smyth County Schools - E
Southampton County Schools - E
Spotsylvania County Schools - E
Stafford County Schools - F
Surry County Schools - E
Sussex County Schools - E
Tazewell County Schools - E
Warren County Schools - E
Washington County Schools - F
Westmoreland County Schools - F
Wise County Schools - F
Wythe County Schools - F
York County Schools - F

#### CITY AND TOWN SCHOOLS: 39

Alexandria City Schools - E
Bristol City Schools - E
Buena Vista City Schools - E
Charlottesville Public Schools - E
Chesapeake Public Schools - E
Colonial Beach Schools - E
Colonial Heights City Schools - E
Covington City Schools - F
Danville City Schools - E
Fairfax City Schools - E

Falls Church Public Schools - E
Franklin City Schools - F
Fredericksburg City Schools - E
Galax City Schools - E
Hampton City Schools - E
Harrisonburg City Schools - E
Hopewell City Schools - E
Lexington City Schools - E
Lynchburg Public Schools - E
Manassas City Schools - F

Manassas Park City Schools - F
Martinsville City Schools - E
Newport News Public Schools - E
Norfolk Public Schools - E
Norton City Schools - E
Petersburg City Schools - E
Poquoson City Schools - F
Portsmouth City Schools - E
Radford City Schools - E
Richmond Public Schools - E

Roanoke City Schools - F
Salem City Schools - F
Staunton City Schools - F
Suffolk City Schools - E
Virginia Beach City Schools - E
Waynesboro City Schools - E
West Point Schools - E
Williamsburg-James City County
Schools - F
Winchester Public Schools - F

#### OTHER SCHOOLS: 12

Amelia-Nottoway Vocational Center - E Appomattox Regional Governor's School - E Bridging Communities Regional Career Center & Technical Center - E Charlottesville-Albemarle
Vocational Technical Center - E
Jackson River Vocational Technical
Center - F
Maggie Walker Governor's School
for Government and International
Studies - E

New Horizons Technical Center - E
Northern Neck Regional Special
Education Program - E
Northern Neck Regional Vocational
Center - E
Rowanty Vocational Technical
Center - E

The Pruden Center for Industry and Technology - E Valley Vocational Technical Center - E

Of the 145 school boards, 133 also provide coverage for non-professional employees and are treated as political subdivisions.

#### AGENCIES OF THE COMMONWEALTH OF VIRGINIA, INCLUDING PUBLIC COLLEGES AND UNIVERSITIES: 228

Covered by retirement, group life insurance, retiree health insurance credit, and sickness and disability

#### **TOTAL VRS-PARTICIPATING EMPLOYERS: 826**

#### FIGURE 5.14 - VRS EMPLOYER RANKING

#### **CURRENT YEAR**

AS OF JUNE 30, 2013

Employer	Active Employees	Percentage of Total
Fairfax County Schools - Professional Employees	21,117	6.20%
2. Virginia Beach City Schools - Professional Employees	8,274	2.43%
3. Prince William County Schools - Professional Employees	7,918	2.32%
4. Loudoun County Schools - Professional Employees	7,769	2.28%
5. Chesterfield County Schools - Professional Employees	6,000	1.76%
6. City of Virginia Beach - General Government	5,910	1.73%
7. University of Virginia - Academic Division	5,280	1.55%
8. Henrico County Schools - Professional Employees	5,071	1.49%
9. Henrico County - General Government	4,909	1.44%
10. Virginia Polytechnic Institute and State University - Academic	4,717	1.38%
11. All other	263,786	77.42%
Total	340,751	100.00%

#### HISTORICAL COMPARISON

AS OF JUNE 30, 2005\*

Employer	Active Employees	Percentage of Total
1. Fairfax County Schools - Professional Employees	18,821	5.81%
2. Virginia Beach City Schools - Professional Employees	8,401	2.59%
3. Prince William County Schools - Professional Employees	6,558	2.02%
4. Chesterfield County Schools - Professional Employees	5,660	1.75%
5. City of Virginia Beach - General Government	5,655	1.75%
6. University of Virginia - Academic Division	5,248	1.62%
7. Loudoun County Schools - Professional Employees	5,163	1.59%
8. Norfolk City Schools - Professional Employees	4,960	1.53%
9. Henrico County - General Government	4,526	1.40%
10. Virginia Polytechnic Institute and State University - Academic	4,493	1.39%
11. All other	254,540	78.55%
Total	324,025	100.00%

<sup>\*</sup>FY 2005 is the earliest year for which comparative information exists to support this detailed presentation by specific employer.

# Commonwealth of Virginia 457 Deferred Compensation and Cash Match Plans Program with Oversight by VRS

#### PLAN OVERVIEW

The Commonwealth of Virginia 457 Deferred Compensation Plan is qualified under Section 457(b) of the Internal Revenue Code and regulated by Title 51.1, Chapter 6, of the *Code of Virginia*. The 457 Deferred Compensation Plan provides eligible members a way to save for retirement through deferrals of compensation each pay period.

The Cash Match Plan is qualified under Section 401(a) of the Internal Revenue Code and is regulated by Title 51.1, Chapter 6, of the *Code of* 

Virginia. Employees participating in the Deferred Compensation Plan are eligible to receive an employer-provided contribution to the Cash Match Plan if they are state employees or employees whose employers have elected the Cash Match Plan.

The Virginia Retirement System (the System) has oversight but no investment responsibility for the Deferred Compensation and Cash Match Plans. These plans' assets, therefore, are not included in the System's Basic Financial Statements.

#### FIGURE 5.15 – STATEMENT OF CHANGES IN PLAN ACCUMULATION ASSETS

FOR THE YEARS ENDED JUNE 30

	Deferred Compensation Plan - 457(b)		Cash Matc	h Plan - 401(a)
	2013	2012	2013	2012
Plan Assets on July 1	\$1,528,232,980	\$ 1,435,314,284	\$ 259,611,643	\$ 236,515,555
Contributions	128,720,554	122,471,456	17,424,822	17,052,149
Distributions	(79,590,047)	(72,186,519)	(16,004,308)	(15,392,026)
Plan Transfers*	928,134	352,360	15,598,642	13,868,950
Third Party Administrative Fees**	(2,449,461)	(2,214,950)	(472,879)	(407,359)
Period Earnings	166,003,172	44,496,349	26,327,017	7,974,374
Plan Assets on June 30	\$ 1,741,845,332	\$ 1,528,232,980	\$ 302,484,937	\$ 259,611,643

<sup>\*</sup>For the Deferred Compensation Plan, this represents plan transfers from other eligible Section 457(b) plans into the Commonwealth's Plan. For the Cash Match Plan, this represents transfers from other qualified plans, including Partial Lump-Sum Option Payments (PLOPs) for the VRS pension plans.

<sup>\*\*</sup>The current third-party administrator, ING Institutional Plan Services (ING), is compensated based on an annual recordkeeping and communication fee of 18 basis points (0.18%) capped at combined account balances of \$130,000. In addition, administrative costs were incurred by VRS for each of the plans. For the Deferred Compensation Plan they were in \$665,028 and \$604,457 in FY 2013 and FY 2012, respectively. For the Cash Match Plan they were in \$473,073 and \$390,095 in FY 2013 and FY 2012, respectively. These costs are funded by the employers participating in the plans.

#### **ELIGIBILITY**

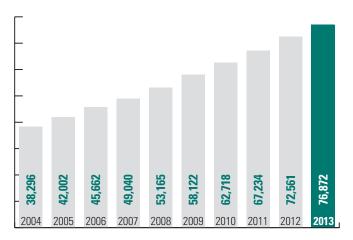
New and re-hired salaried state employees are automatically enrolled in the Deferred Compensation Plan upon employment with two opportunities to opt out of the plan. The Deferred Compensation Plan is voluntary to salaried state employees hired before January 1, 2008, and to eligible political subdivision employees whose employers have elected to participate in the plan. Wage employees of employers that offer the plans may participate in the Deferred Compensation Plan but not the Cash Match Plan. Figure 5.15 presents details of each plan's activity for the years ended June 30, 2013 and 2012.

Contributions to the Deferred Compensation Plan during FY 2013 and FY 2012 were \$128,720,554 and \$122,471,456, respectively. Contributions to the Cash Match Plan during FY 2013 and FY 2012 were \$17,424,822 and \$17,052,149, respectively.

As shown in Figures 5.16 and 5.17, there were approximately 76,872 employees in the Deferred Compensation Plan and 72,074 employees in the Cash Match Plan as of June 30, 2013.

FIGURE 5.16 - 457(B) ACTIVE AND INACTIVE PLAN **PARTICIPANTS** 

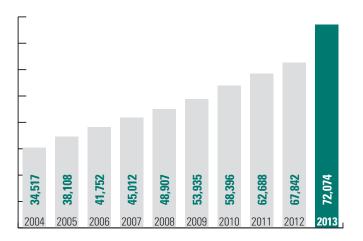
AT JUNE 30



Current state legislation establishing the 457 Plan allows participants to use plan funds to purchase eligible prior service credit in their defined benefit plan. Approximately 239 plan participants used the trustee-to-trustee transfer provision to buy VRS service credit.

#### FIGURE 5.17 – 401(A) ACTIVE AND INACTIVE PLAN **PARTICIPANTS**

AT JUNE 30



#### FIGURE 5.18 – TOTAL PARTICIPANT ACCOUNTS IN EACH FUND OPTION

AT JUNE 30, 2013

For d Marca	Deferred Compensation	Cash Match
Fund Name	Plan - 457(b)	Plan - 401(a)
Retirement Portfolio	3,455	2,658
Target Date 2015 Portfolio	2,588	2,153
Target Date 2020 Portfolio	5,345	4,623
Target Date 2025 Portfolio	5,768	5,080
Target Date 2030 Portfolio	5,677	4,981
Target Date 2035 Portfolio	5,687	4,992
Target Date 2040 Portfolio	5,238	4,629
Target Date 2045 Portfolio	5,719	5,050
Target Date 2050 Portfolio	5,885	5,262
Target Date 2055 Portfolio	2,772	2,629
Money Market Fund	4,819	3,812
Stable Value Fund	21,274	21,953
Bond Fund	11,396	8,622
Inflation-Protected Bond Fund	4,601	3,143
High-Yield Bond Fund	4,424	2,998
Stock Fund	25,482	22,153
Small/Mid-Cap Stock Fund	12,964	10,509
International Stock Fund	12,605	9,912
Emerging Markets Stock Fund	933	459
Global Real Estate Fund	9,024	7,006
VRS Investment Portfolio – Interim Account	1,069	731
VRS Investment Portfolio	1,658	1,079
Self-Directed Brokerage	283	34

The number of participant accounts exceeds the number of participants as a participant may invest in more than one fund.



#### FIGURE 5.19 - ACCUMULATION PLAN ASSETS BY FUND

#### FOR THE YEAR ENDED JUNE 30, 2013

FUR THE YEAR ENDED JUNE 30, 2013	Deferred Compensation Plan - 457(b) 2013	Cash Match Plan - 401(a) 2013	
Retirement Portfolio	\$ 87,711,899	\$ 12,758,228	
Target Date 2015 Portfolio	44,479,900	6,558,438	
Target Date 2020 Portfolio	69,030,653	11,327,092	
Target Date 2025 Portfolio	47,156,926	9,122,905	
Target Date 2030 Portfolio	31,325,436	7,719,799	
Target Date 2035 Portfolio	25,293,156	7,128,274	
Target Date 2040 Portfolio	16,740,785	4,826,263	
Target Date 2045 Portfolio	11,568,287	4,005,551	
Target Date 2050 Portfolio	7,424,593	2,777,230	
Target Date 2055 Portfolio	3,054,275	838,204	
Money Market Fund	37,048,723	5,811,203	
Stable Value Fund	376,500,260	90,827,125	
Bond Fund	101,739,439	13,043,214	
Inflation-Protected Bond Fund	36,854,027	3,832,883	
High-Yield Bond Fund	22,041,323	3,009,729	
Stock Fund	464,067,854	70,461,482	
Small/Mid-Cap Stock Fund	154,050,693	20,805,564	
International Stock Fund	97,655,593	11,989,232	
Emerging Markets Stock Fund	4,905,915	501,227	
Global Real Estate Fund	72,379,586	10,794,187	
VRS Investment Portfolio - Interim Account	429,109	74,065	
VRS Investment Portfolio	11,647,963	3,875,334	
Self-Directed Brokerage	18,738,927	397,708	
Total Accumulation Plan Assets	\$ 1,741,845,322	\$ 302,484,937	

The investment options available to participants in these Plans was changed during FY 2013 as part of an effort to provide different investment options, including Target Date Funds.

#### ACCUMULATION PLAN ASSETS BY FUND, cont.

#### FOR THE YEAR ENDED JUNE 30, 2012

FOR THE YEAR ENDED JUNE 30, 2012	Deferred Compensation Plan - 457(b) 2012	Cash Match Plan - 401(a) 2012
Income & Growth Fund	\$ 46,241,819	\$ 9,321,694
Balanced Growth Fund	157,799,349	27,887,002
Long-Term Growth Fund	63,807,724	13,618,783
VRS Investment Portfolio Interim Account	927,125	1,751,981
Bond Index Fund	66,783,184	7,973,699
S&P 500 Index Fund	287,394,448	45,125,725
Russell 1000 Value Index Fund	58,280,319	6,839,631
Russell 1000 Growth Index Fund	37,412,335	4,802,491
Russell 3000 Index Fund	17,902,201	1,867,019
Small/Mid-Cap Equity Index Fund	120,351,622	15,977,321
International Equity Index Fund	55,996,072	6,780,982
Real Estate Investment Trust Index Fund	61,540,669	9,350,762
Money Market Fund	35,691,986	5,724,674
Active Inflation-Protected Bond Fund	40,712,394	4,272,643
Active Bond Fund	40,253,139	5,843,305
Active High-Yield Bond Fund	16,142,738	1,960,108
Active Global Equity Fund	28,529,586	3,495,517
Stable Value Fund (Galliard)	369,200,040	85,135,371
VRS Investment Portfolio	8,292,675	1,503,923
Self-Directed Brokerage	14,973,555	379,012
Total Accumulation Plan Assets	\$1,528,232,980	\$259,611,643

The investment options available to participants in these Plans was changed during FY 2013 as part of an effort to provide different investment options, including Target Date Funds.

## **Description of Plan Funds**

AS OF JUNE 30, 2013

The Commonwealth of Virginia 457 Deferred Compensation and Cash Match Plans offer a number of core investment options to participants. The investment options were modified during the fiscal year to introduce target date funds and improve the other options. At June 30, 2013, the plans provided the following core investment options to plan participants.

#### **DO-IT-FOR-ME FUNDS**

**Retirement Portfolio**: Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Bonds-52.7% U.S. Large-Cap Stocks-18.5% International Stocks-9.9% U.S. Inflation-Index Bonds-8.9% U.S. Small/Mid-Cap Stocks-6.0% Commodities-3.5% Developed Real Estate-0.5%
```

**Target Date 2015 Portfolio:** Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Bonds-49.4% U.S. Large-Cap Stocks-20.5% International Stocks-11.2% U.S. Inflation-Index Bonds-8.1% U.S. Small/Mid-Cap Stocks-6.2% Commodities-3.6% Developed Real Estate-1.0%
```

**Target Date 2020 Portfolio**: Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Bonds-40.6% U.S. Large-Cap Stocks-24.9% International Stocks-14.5% U.S. Inflation-Index Bonds-6.7% U.S. Small/Mid-Cap Stocks-6.6% Commodities-3.7% Developed Real Estate-3.0%
```

**Target Date 2025 Portfolio:** Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Bonds-33.6% U.S. Large-Cap Stocks-28.7% International Stocks-17.0% U.S. Small/Mid-Cap Stocks-7.2% U.S. Inflation-Index Bonds-5.2% Developed Real Estate-4.5% Commodities-3.8%
```

**Target Date 2030 Portfolio**: Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Large-Cap Stocks-31.7% U.S. Bonds-27.6% International Stocks-19.5% U.S. Small/Mid-Cap Stocks-7.5% Developed Real Estate-5.7% U.S. Inflation-Index Bonds-4.1% Commodities-3.9%
```

**Target Date 2035 Portfolio**: Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Large-Cap Stocks-34.8% U.S. Bonds-22.2% International Stocks-21.6% U.S. Small/Mid-Cap Stocks-7.7% Developed Real Estate-6.9% Commodities-3.9% U.S. Inflation-Index Bonds-2.9%
```

**Target Date 2040 Portfolio**: Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Large-Cap Stocks-37.4% International Stocks-23.3% U.S. Bonds-17.5% Developed Real Estate-8.1% U.S. Small/Mid-Cap Stocks-8.0% Commodities-3.9% U.S. Inflation-Index Bonds-1.8%
```

**Target Date 2045 Portfolio**: Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Large-Cap Stocks-39.9% International Stocks-25.1% U.S. Bonds-13.7% Developed Real Estate-9.1% U.S. Small/Mid-Cap Stocks-8.3% Commodities-3.9%
```

**Target Date 2050 Portfolio**: Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Large-Cap Stocks-42.0% International Stocks-26.6% Developed Real Estate-10.1% U.S. Bonds-8.9% U.S. Small/Mid-Cap Stocks-8.5% Commodities-3.9%
```

**Target Date 2055 Portfolio**: Seeks to maximize total return with a risk level that may be appropriate for the portfolio's particular time frame and provide those who are close to retirement or already retired with an appropriate blend of income and inflation protection.

```
U.S. Large-Cap Stocks-43.6% International Stocks-27.9% Developed Real Estate-11.4% U.S. Small/Mid-Cap Stocks-9.4% Commodities-4.0% U.S. Bonds-3.7%
```

#### **HELP-ME-DO-IT FUNDS**

**Money Market Fund:** Seeks to provide a high level of current income as is consistent liquidity and stability of principal.

```
Government Agency Debt-44.8% Treasury Debt-30.0%

Government Agency Repurchase Agreements-15.0% Treasury Repurchase Agreements-10.2%
```

**Stable Value Fund:** Seeks to provide safety of principal while earning a reasonable level of interest income consistent with an underlying portfolio of short to intermediate duration high-quality fixed-income (bond) securities and liquidity to accommodate participant transactions.

Security-Backed Contracts (Wrap Providers): Monumental Life Insurance Company-24.8%

State Street Bank and Trust Company-20.5% Royal Bank of Canada-15.8% ING Life Insurance and Annuity Co.-15.8%

Stable Value Funds: Wells Fargo Stable Return Fund-23.1%

**Bond Fund:** Seeks to track the performance of the Barclays Aggregate Bond Index. The Index is an unmanaged index that represents the broad U.S. investment grade bond market and is comprised of U.S. Treasury securities, government agency bonds, corporate bonds, mortgage-backed securities, asset-backed securities and a small amount of foreign bonds traded in the U.S.

Treasury-37.6% Mortgage-Backed Securities-28.6% Industrials-12.1% Financials-7.0% Non-U.S. Credit-5.0% Agencies-3.7% Utilities-2.3% CMBS-1.7% Taxable Municipals-0.9% Hybrid ARM-0.6% Asset-Backed Securities-0.4% Cash-0.1%

**Inflation-Protected Bond Fund:** Seeks to track the performance of the Barclays U.S. Treasury Inflation-Protected Securities Index. The Index is an unmanaged index that represents the U.S. Treasury Inflation-Protection Securities (TIPS) market. The index includes investment grade TIPS with one or more years to final maturity.

U.S Treasury-99.8% Cash/Other-0.2%

**High-Yield Bond Fund:** Seeks to achieve returns that exceed, over time, its benchmark, the Bank of America (BofA) Merrill Lynch U.S. High-Yield BB-B Rated Constrained Index. The Index is an unmanaged index of BB-B rated securities that caps any single issuer exposure to 2.00%. The index is indicative of the higher quality high-yield bond market.

Consumer Non-Cyclical-16.6% Communications-16.5% Consumer Cyclical-15.7% Capital Goods-11.2% Other/Cash-9.5% Technology-8.2% Energy-6.5% Financial/REIT-5.5% Basic Industry-5.3% Utilities-3.2% Transportation-1.8%

**Stock Fund:** Seeks to track the performance of the Standard & Poor's 500 Index. The Index is an unmanaged index that represents the broad large capitalization U.S. stock market and is comprised of 500 widely held U.S. stocks chosen by Standard & Poor's.

Information Technology-17.8% Financials-16.7% Health Care-12.7% Consumer Discretionary-12.2% Energy-10.5% Consumer Staples-10.5% Industrials-10.2% Utilities-3.3% Materials-3.3% Telecommunications Services-2.8%

**Small/Mid Capitalization Stock Fund**: Seeks to track the performance of the Russell 2500 Index. The Index is an unmanaged index that represents the broad middle to smaller capitalization U.S. stock market.

Financials- 23.3% Industrials-15.4% Consumer Discretionary-15.2% Information Technology-14.2% Health Care-10.3% Materials-6.4% Energy-5.8% Utilities-5.0% Consumer Staples-3.3% Telecommunication Services-1.1%

**International Stock Fund:** Seeks to track the performance of the Morgan Stanley Capital International World ex-U.S. (MSCI World ex-U.S.) Index. The Index is an unmanaged index that is comprised of foreign stocks representing companies located in Canada and in developed countries across Western Europe, and the Pacific Rim.

Financials-26.1% Industrials-12.2% Consumer Discretionary-11.1% Consumer Staples-11.0% Health Care-9.8% Energy-8.8% Materials-8.4% Telecommunication Services-4.9% Information Technology-4.1% Utilities-3.6%

**Emerging Markets Stock Fund:** Seeks to track the performance of the Morgan Stanley Capital International Emerging markets (MSCI Emerging Markets) Index. The Index is an unmanaged index that is comprised of foreign stocks representing companies located in 26 emerging markets.

Financials-27.6% Information Technology-14.7% Energy-11.4% Materials-9.5% Consumer Staples-9.4% Consumer Discretionary-8.3% Telecommunication Services-7.9% Industrials-6.3% Utilities-3.4% Health Care-1.5%

**Global Real Estate Fund:** Seeks to track the performance of the FTSE EPRA/NAREIT Developed Index. This Index is an unmanaged index which is designed to reflect the performance of listed real estate companies worldwide including the U.S.

Retail REITs-23.5% Specialized REITs-15.1% Diversified Real Estate Activities-15.1% Diversified REITs-11.9% Office REITs-11.2% Residential REITs-9.3% Real Estate Operating Companies-6.8% Industrial REITs-5.1% Real Estate Development-1.9% Health Care Facilities-0.1%

**VRS Investment Portfolio (VRSIP)**: Seeks to maximize return while managing risk within an acceptable range. Due to the long-term nature of the defined benefit plan's liabilities, the horizon for investment decisions is generally defined as 10 years or longer.

Domestic Equity-20.9% Fixed Income-18.7% Non-U.S. Equity (Dev)-17.2% Private Equity-8.6% Private Real Estate-7.0% Non-Rate Sensitive Credit-6.3% Emerging Markets-6.0% Rate Sensitive Credit 4.5% Convertibles-3.8% Emerging Market Debt-3.5% Other Real Assets-1.3% Public Real Estate-1.1% Cash-0.7% Strategic Opportunities-0.4%

#### **DO-IT-MYSELF FUNDS**

**Self-Directed Brokerage Account (SDBA)**: Allows investors to select from thousands of publicly-traded mutual funds, exchange-traded funds (ETFs) and individual securities in addition to the Plan's core investment options. The SDBA option is offered through TD Ameritrade, a division of Ameritrade, Inc. The SDBA option is for knowledgeable investors who acknowledge and understand the risks and costs associated with the investments contained in this option. In addition to the annual recordkeeping and communication services fee, there is a plan fee of \$12.50 per quarter, as well as transaction fees charged by TD Ameritrade and investment management related fees and expenses for the funds or investments select.

#### **DO-IT-FOR-ME PATH: TARGET DATE PORTFOLIOS**

50 11 1011 1111				Expense
Investment Options	1 Year	3 Years	5 Years	Ratio
Retirement Portfolio	5.31%	7.89%	5.31%	0.08%
Custom Benchmark*	5.17%	7.83%	5.28%	
Target Date 2015 Portfolio**	6.31%	8.79%	4.76%	0.08%
Custom Benchmark*	6.18%	8.73%	4.77%	
Target Date 2020 Portfolio**	8.18%	9.88%	4.78%	0.08%
Custom Benchmark*	8.07%	9.83%	4.77%	
Target Date 2025 Portfolio**	9.68%	10.83%	4.77%	0.08%
Custom Benchmark*	9.64%	10.73%	4.73%	
Target Date 2030 Portfolio**	11.05%	11.62%	4.72%	0.09%
Custom Benchmark*	11.03%	11.52%	4.67%	
Target Date 2035 Portfolio**	12.36%	12.39%	4.68%	0.09%
Custom Benchmark*	12.29%	12.23%	4.59%	
Target Date 2040 Portfolio**	13.52%	13.05%	4.59%	0.09%
Custom Benchmark*	13.46%	12.87%	4.50%	
Target Date 2045 Portfolio**	14.64%	13.65%	4.50%	0.09%
Custom Benchmark*	14.59%	13.46%	4.40%	
Target Date 2050 Portfolio**	15.66%	14.25%	4.68%	0.09%
Custom Benchmark*	15.57%	14.03%	4.60%	
Target Date 2055 Portfolio**	16.57%	14.52%	N/A	0.09%
Custom Benchmark*	16.51%	14.29%	N/A	
HELP-ME-D	O-IT PATH: INDIVID	UAL OPTIONS		
Investment Options	1 Year	3 Years	5 Years	Expense Ratio
Money Market Fund	0.06%	0.15%	0.41%	0.10%
Benchmark: Barclays 3-Month Treasury Bill Index	0.13%	0.13%	0.32%	
Yield as of June 30, 2013 was 0.08%				
Stable Value Fund	2.20%	2.49%	2.92%	0.28%
Custom Benchmark***	0.89%	1.08%	1.48%	
Yield as of June 30, 2013 was 1.95%				
Bond Fund	-0.49%	3.55%	5.28%	0.04%

-0.69%

3.51%

5.19%

Benchmark: Barclays Aggregate Bond Index

#### INVESTMENT OPTION PERFORMANCE SUMMARY, cont.

#### HELP-ME-DO-IT PATH: INDIVIDUAL OPTIONS, CONT.

Investment Options	1 Year	3 Years	5 Years	Expense Ratio
Inflation-Protected Bond Fund	-4.72%	4.69%	4.47%	0.04%
Benchmark: Barclays US Treasury Inflation-Protected Securities Index	-4.78%	4.63%	4.41%	
High-Yield Bond Fund	8.94%	10.45%	10.05%	0.39%
Benchmark: BofA Merrill Lynch U.S. High-Yield BB-B Constrained Index	8.51%	9.98%	9.41%	
Stock Fund	20.65%	18.47%	7.08%	0.01%
Benchmark: S&P 500 Index	20.60%	18.45%	7.01%	
Small/Mid-Cap Stock Fund	25.73%	19.40%	8.77%	0.05%
Benchmark: Russell 2500 Index	25.62%	19.31%	8.61%	
International Stock Fund	17.39%	9.91%	-0.60%	0.07%
Benchmark: MSCI World ex-U.S. Index	17.07%	9.56%	-0.89%	
Emerging Markets Stock Fund	1.85%	3.36%	N/A	0.14%
Benchmark: MSCI Emerging Markets Index	2.87%	3.38%	N/A	
Global Real Estate Fund	13.88%	20.09%	7.89%	0.12%
Benchmark: FTSE EPRA/NAREIT Developed Index	13.50%	20.17%	8.10%	
VRS Investment Portfolio (VRSIP)	16.41%	10.68%	3.17%	0.56%
Benchmark: Intermediate-Term	16.69%	10.85%	3.68%	
Benchmark: Long-Term	16.45%	11.81%	5.27%	
VRSIP and benchmark performance returns are reported with a one	month lag. Information is	as of May 31, 2013.		

\*Benchmarks are calculated using blended returns of third-party indices that proportionately reflect the respective weightings of the Portfolios' asset classes. Weightings are adjusted quarterly to reflect the Portfolios' asset allocation shifts over time. Indices currently used to calculate the custom benchmarks are S&P 500 Index, Dow Jones U.S. Completion Total Stock Market Index, MSCI ACWI ex-U.S. IMI Index, Barclays Aggregate Bond Index, Barclays U.S Treasury Inflation-Protected Securities Index, FTSE EPRA/NAREIT Developed Index and the Dow Jones-UBS Commodity Total Return Index.

\*\*The Target Date Portfolios invest in units of BlackRock's LifePath Index Funds 0. The LifePath Index Funds 0 invest in the master LifePath Index Funds F. Fund returns prior to January 2012 are those of the master Funds F with deductions taken for investment management fees negotiated by VRS and fund administrative expenses.

<sup>\*\*\*</sup>The benchmark represents the hypothetical return generated by the monthly yield of actively traded U.S. Treasuries with a 3-year maturity plus an annualized spread of 0.50% and representative of the fund's expected return profile, given its mandate and book value accounting treatment.



## **Virginia Retirement System**