VRS OVERSIGHT Report

JOINT LEGISLATIVE AUDIT & REVIEW COMMISSION
OF THE VIRGINIA GENERAL ASSEMBLY

VRS Biennial Status and Semi-Annual Investment Report December 2010

Profile: Virginia Retirement System Investments (as of September 30, 2010)

Market Value of Assets: **$50.8 billion**

Number of External Managers:
Public Equity – 33 (13 traditional, 20 hedge funds)
Fixed Income – 11

Number of External Investment Accounts:
Public Equity – 38 (17 traditional, 21 hedge funds)
Fixed Income – 16

Total Return on Investments			
10 years	*5 years*	*3 years*	*1 year*
3.8%	**3.7%**	**-3.3%**	**11.7%**
Performance/Intermediate Benchmark			
3.5%	**3.4%**	**-3.2%**	**10.7%**

Number of VRS Investment Department Staff: 57 authorized FTEs (11 vacant)

FY 2010 Investment Expenses: $285.46 million (59.9 basis points)

FY 2010 Investment Department Operating Expenses: $13.9 million* (2.9 basis points)

Investment Policy Indicators (as of September 30, 2010)

	Asset Allocation (% of Total Assets)		*Asset Allocation* (% of Asset Class)		*Type of Management* (% of Asset Class)	
Asset Class	Policy	Actual	Domestic	Non-U.S.	External	VRS
Public Equity**	**47.3%**	**46.4%**	**45.5%**	**54.5%**	**69.0%**	**31.0%**
Fixed Income**	**21.2%**	**21.8%**	**92.5%**	**7.5%**	**71.0%**	**29.0%**
Credit Strategies**	**16.1%**	**16.1%**	**92.1%**	**7.9%**	**100.0%**	**0.0%**
Private Equity	**8.6%**	**8.6%**	**84.5%**	**15.5%**	**100.0%**	**0.0%**
Real Estate	**6.5%**	**6.5%**	**88.1%**	**11.9%**	**95.0%**	**5.0%**
Cash	**0.25%**	**0.6%**	**n/a**	**n/a**	**100.0%**	**0.0%**

***Includes allocated administrative expenses**
****Figures include hedge funds**

Introduction

The Virginia Retirement System (VRS) administers a defined benefit retirement plan, a deferred compensation plan, and a cash match plan for Virginia's public sector employees, as well as an optional retirement plan for selected employees. VRS also administers the Virginia Sickness and Disability Program, a group life insurance plan, and a long-term care insurance plan for State employees.

VRS serves approximately 600,000 active members, retirees, and beneficiaries. As of June 30, 2010, the active employees include 147,817 teachers, 104,385 local government employees, and 90,407 State employees. VRS provides benefits to 148,496 retirees and beneficiaries. In addition, there are 105,774 inactive and deferred members. In FY 2010, VRS paid $3.4 billion in benefits, refunds, insurance premiums and claims, health insurance credit reimbursements, and disability insurance premiums and benefits. The retirement system ranks as the nation's 22nd largest public or private pension fund.

The Virginia Retirement System Oversight Act (Section 30-78 et seq. of the *Code of Virginia*) directs the Joint Legislative Audit and Review Commission (JLARC) to provide continuing oversight of VRS, including the preparation of biennial status and semi-annual investment reports. This report includes both the semi-annual investment report for December 2010 and the seventh biennial status report. The first section of the report provides an overview of each of the fund's asset classes and addresses the investment program. Subsequent sections of this report focus on recent legislation, VRS' modernization effort, benefit changes, the plans' actuarial valuations and benefit funding, the plan's cash flow, and various agency accomplishments.

Semi-Annual Investment Report

This section of the report provides an overview of the performance of VRS investments as of September 30, 2010, as well as noteworthy changes or initiatives being undertaken in the investment department. These include the Board's recruitment of a new Chief Investment Officer as well as modification to the compensation plan for VRS investment professionals.

Overview of VRS Investment Department Performance

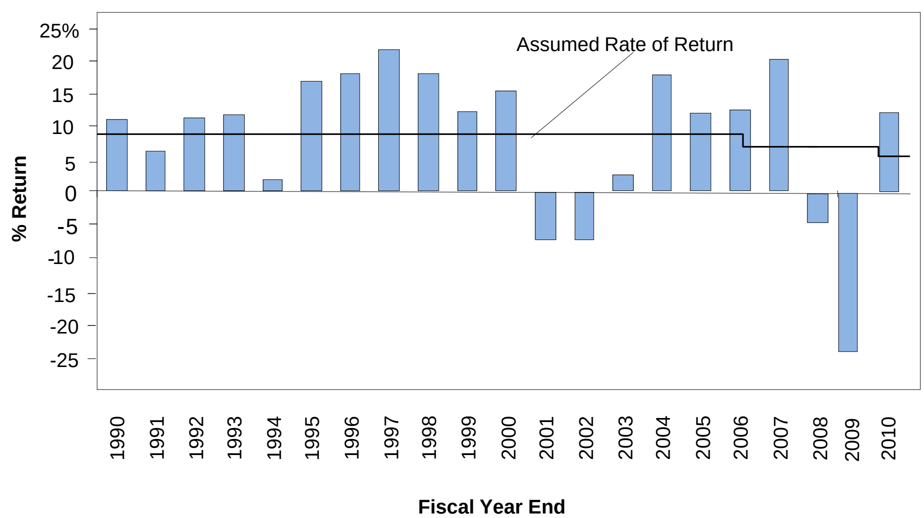
While the recent global recession created significant investment challenges for VRS, economic conditions have shown gradual improvement, and VRS assets have recovered some of the losses experienced in 2008 and 2009. With $50.8 billion in assets as of September 30, 2010, the VRS pension fund achieved a return of 11.7 percent for the one-year period. The value of the total fund increased by $3.9 billion between September 30, 2009 and September 30, 2010. The fund's performance exceeded established benchmarks in all but the three-year period ending September 30, 2010. While the fund did not earn the assumed rate of return of seven percent for the three-, five-, and ten-year periods, it did add value (160 basis points) over the long-term benchmark for the ten-year period. Performance indicators are provided in Table 1. Figure 1 compares the fund's performance over time to the assumed rate of return.

Table 1
VRS Investment Performance for Period Ending September 30, 2010

***Program/* Performance Objective**	**Fiscal Year to Date**	**1 Year**	**3 Years**	**5 Years**	**10 Years**
Total Fund	*8.0%*	*11.7%*	*-3.3%*	*3.7%*	*3.8%*
Total Fund Benchmark - Intermediate	6.9	10.7	-3.2	3.4	3.5
Total Fund Benchmark - Long Term	8.0	9.6	-2.2	2.7	2.2
Total Public Equity	*12.6*	*10.7*	*-6.5*	*2.3*	*1.9*
Public Equity Custom Benchmark	12.7	9.9	-6.1	2.5	1.8
Total Fixed Income	*3.5*	*11.6*	*8.5*	*6.8*	*6.9*
Fixed Income Custom Benchmark	2.4	7.8	7.7	6.4	6.5
Total Credit Strategies	*5.8*	*15.0*	*4.4*	*6.0*	*n/a*
VRS Credit Strategies Custom Benchmark	7.2	16.5	3.8	5.8	n/a
Total Real Estate	*7.4*	*9.5*	*-8.2*	*3.3*	*8.6*
Real Estate Custom Benchmark	5.6	3.9	-5.2	4.1	8.2
Total Private Equity	*2.0*	*17.3*	*-0.8*	*11.0*	*6.7*
Private Equity Custom Benchmark	-10.8	18.2	-6.9	2.1	1.7

Source: VRS investment department data.

Figure 1
VRS Annual Performance



Source: VRS investment department data.

Public Equity. Public equity investments are typically higher risk investments that are expected to provide long-term capital growth and inflation protection. Both of these expectations assume a long-term time horizon. The public equity program continues to recover from its FY 2009 losses, having achieved a fiscal year to date return of 12.6 percent and a one-year return of 10.7 percent. The public equity program continues to be VRS' largest asset class, constituting 46 percent of the portfolio or $23.5 billion. The public equity program slightly exceeded established benchmarks for the ten-year period ending September 30, 2010, but underperformed benchmarks for the fiscal year to date, three-, and five-year periods. The program exceeded its benchmark for the one- and calendar-year periods by 80 and 40 basis points, respectively. VRS staff predict that because the public equity program has more exposure to higher quality stocks than the market as a whole, it may not perform quite as well as the overall public markets in periods of substantial gains.

Fixed Income. The fixed income program serves as a diversifier for the overall portfolio. As of September 30, 2010, the program constituted 21.8 percent of the portfolio or $11.1 billion. Almost all (92 percent) of VRS' fixed income assets were domestically invested. The fixed income program is the only program to have exceeded its benchmark for all periods.

Credit Strategies. In the current VRS portfolio, credit strategies are used opportunistically whenever they are expected to provide good risk adjusted returns relative to other investment options available to the plan. The credit strategies program is fairly new, having begun on July 1, 2004. Benefits of this asset class include further diversification and cash flow benefits, as well as lower volatility compared to equities. VRS credit strategies include investments in areas such as public high yield debt, private debt, convertible bonds, bank loans, and high yield asset-backed securities. As of September 30, 2010, the program had $8.2 billion in assets and represented 16.1 percent of the total fund. The credit strategies program exceeded established benchmarks in the three- and five-year periods, but underperformed in more recent periods.

Real Estate. The total value of the VRS real estate portfolio as of September 30, 2010, was $3.3 billion or 6.5 percent of the total fund.[*] Real estate added 560 points over its benchmark in the one-year period, but it underperformed in the three- and five-year periods. The majority (88 percent) of the real estate portfolio is invested in U.S. holdings.

Private Equity. Private equity is an opportunistic substitute for public equity. Through active equity management, VRS expects to earn a meaningful return premium on its private equity investments. As of September 30, 2010, private equity represented 8.6 percent of the total fund or $4.4 billion.[*]

The private equity program exceeded established benchmarks for the three-, five-, and ten-year periods ending September 30, 2010. The program performed well above the benchmark for the fiscal year to date (1,280 basis points) and since January 1, 2010 (870 basis points).

This performance is a substantial improvement over its performance earlier in the year. VRS staff attributed the program's earlier underperformance to the nature of its private equity benchmark, which comprises public assets. According to VRS staff, in a given time period, gains (or losses) in the value of private equity investments may not occur to the same degree as changes in public equity asset values.

Over the long term, VRS staff expect the program to outperform its benchmark and continue to earn a premium over the public equity program. Notably, the dollar-weighted annualized performance since the inception of the program in April 1989 through June 30, 2010, was 22.16 percent.

Hedge Funds. VRS considers hedge funds active investment strategies that can be used within any of the investment programs, subject to a total policy limit currently set by the Board at ten percent. While not considered a separate asset class, investments in hedge fund strategies constituted $4.7 billion or 9.2 percent of the total portfolio as of September 30, 2010. VRS staff report that assets in its hedge

[*] Whereas performance figures for the real estate and private equity programs reflect data on cash flow into the program as of September 30, 2010, they do not reflect managers' actual valuations of these investments as of that date because these data have not yet been made available to VRS. Instead, their performance is based on June 30, 2010 valuations, adjusted for cash flows during the quarter ended September 30, 2010.

funds continue to perform well, particularly compared to public markets. Most of the hedge fund managers are public equity managers, but there are also hedge fund managers in the credit strategies and fixed income programs.

Search for New Chief Investment Officer Is Underway

On September 1, 2010, VRS announced that its Chief Investment Officer (CIO) would not seek reappointment by the Board of Trustees after the expiration of his contract in August 2011. Following an unsuccessful initial recruitment effort that was fairly limited in scope, the Board announced at its October 28, 2010 meeting that it would create a formal search committee for the purpose of hiring a new CIO. At the November 18, 2010 meeting the Board formally created a search committee consisting of Board members as well as the chairman of the Investment Advisory Committee.

The CIO, a VRS employee since 1995, has informed the Board that he will remain in the position until a suitable replacement is found and that he will assist in the transition of responsibilities. VRS has had four CIOs since 1994 when the General Assembly codified this position in response to a JLARC recommendation.

Review of Investment Fees Finds That VRS Is a Low-Cost Plan

Externally managed investments constitute the bulk of the VRS portfolio, and the fees paid to external asset managers come out of the trust fund. VRS staff review investment management fees on an ongoing basis, and in December 2009 staff were asked by the Board's Audit and Compliance Committee to provide a summary of these investment fees. Fees in FY 2009 amounted to $253.9 million, or 59.2 basis points of the total assets in the fund. In FY 2010, VRS paid $285.46 million in investment fees, or 59.9 basis points of the fund. According to VRS staff, the primary cause of fee increases has been the use of more active management styles, especially in alternative investments such as credit strategies.

To address trustee interest in the reasonableness of these costs, the VRS investment department participated in a comparison study of public pension fund fees and performance conducted by CEM Benchmarking Inc. CEM presented its final report to the Board of Trustees in October of this year. The findings indicate that VRS has a low-cost plan compared to its peers. CEM arrived at this conclusion by comparing VRS' expenses with the costs that peer plans would incur if they had VRS' same asset mix. The CEM report states that VRS "paid less for similar mandates and had a slightly lower cost implementation style" characterized by the lower use of "fund of funds," differences in the use of external active management, and higher use of overlays. Moreover, when comparing fund performance, VRS performed better than its peer group at a lower cost.

VRS investment staff indicated to the committee and to JLARC staff that they continually negotiate fees with their external account managers to help minimize the costs of managing these assets. In 2010, VRS investment staff succeeded in negotiating lower fees with 25 percent of their external managers, amounting to a projected savings of approximately $20 million annually.

Investment Professionals' Pay Plan Revised, Incentive Payments Awarded

VRS conducts a comparative market compensation study for its investment staff at least every two years to ensure its continued competitiveness among public and private sector investment departments. In 2010, VRS contracted with McLagan, a firm specializing in compensation consulting, to conduct a comprehensive competitive pay analysis for its investment positions. McLagan compared the compensation of VRS investment staff to compensation provided by 16 public funds that correspond to VRS in size and investment approach, 240 private sector investment firms, and compensation data from a mix of public (75 percent) and private (25 percent) sector funds.

McLagan found that "salary levels for many positions are below the competitive market," but that when salary is combined with other compensation such as incentive pay, "total cash levels are mainly competitive versus the peer group." Still, McLagan recommended an increase in salary levels for all positions except the Chief Operations Officer. The recommended salaries are based on VRS' objective of paying salaries at the 75th percentile of the leading public fund comparator group. McLagan found that, in aggregate, VRS' salary levels were nine percent below this level.

As a result of McLagan's findings, the VRS Board approved adjustments to the salary ranges set forth in the Investment Professionals' Pay Plan. For the eight job classes shown in Table 2, the average change to the salary range midpoint in the Pay Plan was 8.8 percent, ranging from 0 percent to 31 percent. According to VRS staff, however, the only salary adjustments made were for six employees who were found to have salaries below the minimum for their job class. Since salaries of most investment staff fell within the new ranges, only nine employees received salary adjustments as a result of the Pay Plan revisions.

In addition to salaries, VRS investment staff have historically been awarded incentive pay based on the fund's performance over three- and five-year periods. In June, the Board approved a new compensation plan for its professional investment staff that changed how incentive pay is determined and distributed. These revisions stemmed from uncertainty about the manner in which investment staff should be compensated in light of the historic asset losses of 2008 and 2009 and the State's declining revenues, which resulted in no salary increases for State employees. Considering these circumstances, the Board declined to award planned incentive payments payable in FY 2010 for the FY 2009 performance year.

Rather than relying strictly on a formula, the new compensation approach grants the Board and the CIO flexibility in determining and awarding annual incentives for the investment staff. The Board believes this new flexibility is needed given the significant changes underway among institutional investment firms regarding compensation philosophy and practice. Incentives remain based on a variety of input factors, including investment performance as well as market-based salary comparisons.

At its September 2010 meeting, the Board voted unanimously to award an incentive pool of $2 million to the professional investment staff, based on the performance of the fund in FY 2010. Consistent with the new compensation policy, $1.75 million of the pool was distributed among 30 investment staff at the discretion of the CIO. The remainder was granted to the CIO. To be eligible for any incentive payments, a staff member must have met certain performance expectations and have

Table 2
Salary Range Adjustments

Job Class	Prior Salary Ranges ($ in 000s)			New Salary Ranges ($ in 000s)		
	Minimum	Midpoint	Maximum	Minimum	Midpoint	Maximum
Chief Investment Officer	$272	$340	$408	$296	$370	$444
Chief Operating Officer	176	220	264	176	220	264
Program Director	184	230	276	192	240	288
Portfolio Manager	140	175	210	152	190	228
Research Manager	108	135	162	136	170	204
Senior Investment Officer	104	130	156	112	140	168
Investment Officer	72	90	108	84	105	126
Investment Analyst	52	65	78	68	85	102

Source: VRS Investment Professionals' Pay Plan, Proposed Revisions, September 30, 2010.

complied with the agency's Code of Ethics and Standards of Professional Conduct policy. In support of the incentive payments, one Board member observed that the total pool amount of $2 million amounted to less than ten percent of the more than $20 million in program fee savings achieved by the investment staff in FY 2010.

The amount of the incentive pool was calculated according to the VRS Investment Professionals' Pay Plan which states that "a target incentive pool will be determined by comparing the end-of-year base salaries with the total compensation target." The total compensation target equals a 75/25 percent blend of the median public/private compensation comparisons, which were calculated by McLagan. The pay plan ties VRS incentive compensation to market compensation because the purpose of incentive compensation is to "bring total compensation to a level that is reasonably competitive with a targeted blend of public and private sector compensation."

The Board also approved a three percent bonus for the full-time VRS Administrative staff. The 2010 Appropriation Act provides a three percent bonus for all full-time State employees, including VRS employees. Additionally, the Board approved a five percent bonus for the VRS Director, based on his annual performance review. This bonus is authorized by §4-6.01.c.2.b.1 of the General Appropriations Act for the 2010-2012 biennium. Five percent of salary is the maximum amount permitted by the act.

Legislation Results in Substantial Benefit Changes

Several bills enacted in the 2009 and 2010 General Assembly sessions impacted VRS, State and local employers, and VRS members and beneficiaries. This legislation is summarized in Table 3.

In 2010, the most significant change was the passage of HB 1189 and SB 232, which resulted in creating a new retirement plan ("Plan 2") for employees hired on or after July 1, 2010. (No aspects of the retirement plan were changed for employees hired prior to July 1, 2010.) These changes increased the length of time newly hired employees must work to qualify for a full VRS retirement benefit and reduced the cost of living adjustment they can expect when they do retire. Additionally, members of Plan 2 will be required to pay the member portion of the retirement contribution (five percent of salary) on a pre-tax salary reduction basis. Finally, the new legislation reduced the eligibility period for purchasing prior covered service at a cost lower than the actuarial equivalent rate. A summary of the differences between the new retirement plan (Plan 2) and the one that remains in place for most employees (Plan 1) is shown in Table 4.

The impact of Plan 2 will be a reduction in the cost of the retirement plan to the State and local employers. However, substantial savings will not be realized until the new cohort of employees accounts for a large portion of VRS active members. As part of the most recent actuarial valuation, the VRS actuary prepared an analysis of the impact of the pension reform changes on the future funded status of the plans. Over ten years, these changes are expected to reduce the employer contribution rates by between one and ten percentage points. The smallest impact is projected for the State Police Officers plan (SPORS) (1.64 percentage points) and the greatest impact for the Judicial Retirement System (JRS) (9.72 percentage points). Rates for the State, Teachers, and Virginia Law Officers (VaLORS) plans are estimated to decrease by 2.49, 2.50, and 2.81 percentage points, respectively (Table 5). These decreases are primarily due to the requirement that employees hired after July 1, 2010, pay their own member contribution of five percent.

The implementation of the new retirement plan in a short timeframe required significant effort by the VRS staff, including communicating to employers and members, publishing a new series of handbooks, and launching a new Web site that presents both Plan 1 and Plan 2 benefits information. Agency staff were also tasked with tracking the new members from a systems perspective due to the new plan design, but also because of the requirement that new members pay their member contribution.

2010 Actuarial Valuation Indicates Decreased Funded Status, Higher Contribution Rates

VRS pension benefits are funded through a combination of member contributions, employer contributions, and investment income. The member contribution rate is fixed by the *Code of Virginia* at five percent of salary. The State, as well as most of its political subdivisions, pays the member contribution for its employees, with the exception of employees hired on or after July 1, 2010.

To achieve the VRS Board's goal of being fully funded, every two years the VRS actuary calculates the amount of funds the State should contribute to the retirement

Table 3

VRS-related Legislation Passed in the 2009 and 2010 Legislative Sessions

Bill Number	Description
2009 Legislative Session	
HB 2065	Required regional jail boards and authorities as well as localities participating in such boards and authorities to provide enhanced hazardous duty coverage for regional jail superintendents and sworn officers.
HB 2128	Modified several provisions to comply with the federal Heroes Earnings Assistance and Relief Act (HEART) Act by extending the period of time allowed for leave without pay for members on active military duty, which extends eligibility for retirement, accidental death, and group life insurance benefits.
SB 919	Extended the sunset date from July 1, 2010 to July 1, 2015 for provisions allowing retirees to be hired as teachers or school administrative personnel in K-12 critical shortage positions without interruption in their retirement benefits.
Appropriation Act	Changed the timeframe for eligibility for Virginia Sickness and Disability benefits and also changed the amount of the benefit. These changes were codified in 2010.
2010 Legislative Session	
HB 562	Clarified that during periods of deflation, the VRS cost of living adjustment will be 0 percent rather than a negative percentage that would result in a reduction in the monthly retirement benefit.
HB 892	Requires members to be vested to be eligible for a full refund of their member contribution account balance. Non-vested members who request a refund will receive any contributions they have made, plus accrued interest. They also are eligible for any contributions made by their employer before July 1, 2010 and the interest on these contributions. They are not eligible for any contributions made by their employer after July 1, 2010 or the interest on these contributions.
HB 1189	Revised elements of the defined benefit and defined contribution plans for employees hired on or after July 1, 2010.
SB 95	Provided that a State Police officer injured in the line of duty will receive six months of short-term disability at 100 percent of pre-disability income. Also, if a medical evaluation shows that the officer is likely to return to work within another six months, he or she may be eligible for six more months of short-term disability pay at 100 percent of income. If the officer has not returned to work after 12 months, he or she may be eligible for a long-term disability benefit of 60 percent of pre-disability income.
SB 232	Revised elements of the defined benefit and defined contribution plans for employees hired on or after July 1, 2010.
Appropriation Act	Reduced the maximum employer cash match amount for Virginia 457 Deferred Compensation and Cash Match Plan or 403(b) plan participants. In FY 2011, this amount will be reduced to $10 per pay period, but will return to its prior amount of $20 in FY 2012.
Appropriation Act	Established a Transitional Benefits Program for school divisions and political subdivisions wishing to provide severance or enhanced retirement benefits to involuntarily separated employees.
Appropriation Act	VRS will begin managing the investment of the Virginia Line of Duty Act (LODA) Fund, effective July 1, 2011. The State and localities will contribute to the LODA Fund for their respective covered individuals, although localities have the option to self-fund LODA benefits rather than participate with VRS.

Table 4
Summary of Changes to VRS Retirement Benefits

Plan Provision	VRS Plan 1 *Pre- July 1,2010*	VRS Plan 2 *Post- July 1, 2010*	Change Applies To
Average Final Compensation	Average of 36 highest consecutive months of creditable compensation	Average of 60 highest consecutive months of creditable compensation	All Employees
Member Contributions (Defined Benefit Plan)	In most instances, employer contributes 5% member contribution	State employees contribute 5% member contribution on a pre-tax salary reduction basis. School and political subdivision employees – employer's election	All Employees
Normal Retirement Age	Age 65	Normal Social Security retirement age	State, Teachers, non-hazardous duty local plans
Unreduced Retirement	Age 65 with at least 5 years of service or age 50 with at least 30 years of service	Normal Social Security retirement age with at least five years of service credit or when age and service equal 90 years	State, Teachers, non-hazardous duty local plans
Reduced Retirement	Age 55 with at least 5 years of service or age 50 with at least 10 years of service	Age 60 with at least five years of service credit	State, Teachers, non-hazardous duty local plans
Cost-of-Living Adjustment (COLA)	Matches first 3% increase in the Consumer Price Index-Urban and one-half the remaining increase up to a maximum of 5%	Matches first 2% increase in the Consumer Price Index-Urban and one-half the remaining increase up to a maximum of 6%	All Employees

Source: VRS summary of HB 1189 and SB 232, 2010.

Table 5
Impact of Plan 2 Changes on Contribution Rates After Ten Years

Plan	Fiscal Years				Estimated Potential Cumulative Savings[a] (millions)
	2013–2014	2015-2016	2017-2018	2019-2020	
State Employees	(0.29%)	(1.18%)	(1.86%)	(2.49%)	$515
Teachers	(0.47%)	(1.25%)	(1.90%)	(2.50%)	$1,092[b]
State Police (SPORS)	(0.17%)	(0.69%)	(1.16%)	(1.64%)	$9
Law Officers (VaLORS)	(0.35%)	(1.32%)	(2.16%)	(2.81%)	$58
Judges (JRS)	(2.50%)	(4.80%)	(7.59%)	(9.72%)	$38

[a] JLARC staff analysis assumes three percent annual payroll increase beginning in fiscal year 2011.
[b] A portion of the savings due to changes other than the five percent member contribution change will accrue to the State due to the SOQ formula. Savings due to the five percent member contribution change will not accrue to the State because employer coverage of this contribution has been a local option.
Source: VRS June 30, 2010 Actuarial Valuations by Cavanaugh Macdonald Consulting, LLC and JLARC staff analysis.

plans to pay for (1) the cost of benefits accrued by employees *in that year* and (2) the amount of liabilities from *previously* accrued benefits. Separate employer contribution rates are calculated for the plans of State employees, teachers, State Police, other Virginia law officers, and judges. Each political subdivision has its own unique employer contribution rate. In addition, valuations are conducted and contribution rates are calculated for the health insurance credit program, group life insurance program, and Virginia Sickness and Disability Program. Because of changing assumptions and plan experience, the contribution rates change from one actuarial valuation to the next.

The VRS Board must certify these rates, and in most cases it has certified the rates recommended by the actuary. The VRS Board-certified rates become the official rates that are cited in the Commonwealth's Annual Financial Report. Each year, the Governor and General Assembly allocate funds to cover the Board-certified rates, or some portion thereof.

A VRS analysis shows that the Board-certified rates for the two largest State-supported plans – the State employee and Teacher plans – have historically been underfunded. In the past 20 years, the State employee rates have been fully funded in only five years, and the Teacher plan rates have been fully funded in only three years. Had the employer contributions for these two plans been funded according to VRS recommendations, VRS estimates that the trust fund would have 10 percent more in assets, or $5.4 billion, than is currently the case. In its 2007 *Review of State Employee Compensation*, JLARC staff cited a Pew Center for the States report that ranked Virginia 46th among the 50 states in terms of the average amount of the recommended contribution actually paid by states between 1996 and 2007.

There is no statutory requirement that the employer contribution be fully funded in a given year. However, the Governmental Accounting Standards Board (GASB) recommends that pension plan sponsors fully pay their actuarially required contribution each year to ensure that the plan will eventually accrue enough assets to pay for its total liabilities. Compliance with GASB recommendations is one factor considered by bond rating agencies when issuing bond ratings.

If the trend of paying less than the Board-certified contribution continues, the resulting decline in funded ratios will require future generations of taxpayers to bear an increasing portion of the liabilities associated with providing retirement benefits to current employees. These liabilities manifest themselves in the form of higher recommended contributions in years to come.

Valuation Results for State-Supported Plans

The 2010 valuation results are not binding and are generally for information or planning purposes. This is because the official Board-certified rates are based upon valuations conducted in odd years and apply across the biennium. However, the valuations conducted in these off years provide valuable information concerning the magnitude and direction of any potential rate changes and can assist decision makers with budgeting and resource allocation decisions. Table 6 displays calculated contribution rates resulting from valuations of the State-supported employee plans performed as of June 30, 2009, and June 30, 2010. The table also shows that the rates approved by the 2010 General Assembly ("Funded Rates) were less than those certified by the VRS Board of Trustees (2009 valuation rates).

Table 6
FY 2010 Actuarial Valuation Results for State-Supported Plans

	Board-Certified Rates 2011-2012	Funded Rates 2011-012	Funded Status as of 6/30/2009	Informational Rates 2010 Valuation	Funded Status as of 6/30/2010	Impact of One Percentage Point Increase
State Employees	8.46%	2.13%	84.0%	13.29%	75.2%	$33,795,507
Teachers	12.91%	3.93%	76.1%	17.41%	68.6%	$72,881,655
State Police (SPORS)	25.56%	7.76%	73.6%	33.31%	66.8%	$974,319
Judges (JRS)	46.79%	28.81%	72.5%	55.13%	66.5%	$590,747
Law Officers (VaLORS)	15.93%	5.12%	64.7%	20.31%	58.6%	$3,406,665

Note: The fiscal impact of increased rates for the Teachers plan is distributed between General Funds and Local Funds. The General Fund impact for the Teachers plan is estimated to be $24.3 million. Rates do not include the five percent member contribution which, for most employees, is still covered by the employer.
Source: Virginia Retirement System June 30, 2010 Actuarial Valuations, Cavanaugh Macdonald Consulting.

As shown in the table, according to the 2010 valuation rates increased between four and nine percentage points for the State-supported pension plans. While these rates are for information purposes only, VRS has estimated their fiscal impact if they were to be binding, based on the FY 2012 payroll. A rate increase of one percentage point across all State-supported plans would result in a total fiscal impact of $111.6 million, spread across general funds ($42.5 million), non-general funds ($20.5 million), and local funds ($48.6 million, Teachers plan only).

The ratio of assets to liabilities ("funded status") of the plans also decreased. Valuation results indicated that VRS assets fall short of covering its liabilities by approximately $17.6 billion. This reduction in funded status and corresponding increase in contribution rates is primarily due to three factors. First, the five-year smoothing technique employed by the actuary results in the plans' recognizing a portion of the losses experienced in FY 2009 (-21.1 percent). Second, because of a decline in the number of active participants and an increase in retirements, liabilities have increased while the payroll base from which contributions are drawn to pay benefits has decreased. Third, the Board's decision in June to reduce the rate of return assumption for the fund from 7.5 percent to seven percent reduces the funded status because the actuary has assumed that VRS will earn less in investment income to cover the plans' liabilities. In its report to VRS, the actuary also estimated what the funded status of the plans would have been with an unchanged return assumption; this analysis showed that the funded status would still have decreased.

In addition to the valuations for the retirement plans, valuations are performed for the health insurance credit program, group life insurance plan, and Virginia Sickness and Disability Program (VSDP). The valuations for these programs revealed that, with the exception of the VSDP plan, the recommended contribution rates for these benefits would have increased if this were a rate-setting year.

Valuation Results for Local Plans

VRS retirement plans for political subdivisions or localities consist of 104,879 active and 35,418 retired employees representing 577 different employers. For the past several years, the number of political subdivision employees exceeded the number of State employees. While each local plan receives its own valuation, the FY 2010 funded ratio on the actuarial value of assets for all of the local plans is a weighted average of 80 percent, which compares to a FY 2009 weighted average of 87.4 percent. The aggregate actuarial funded status (the value of all plan assets divided by all plan liabilities) for the local plans is 77.7 percent. This compares to an aggregate funded status of 85.1 percent for FY 2009. Because localities are required to fund the actuarially determined contribution rates, the local plans generally have higher funded ratios than the State and Teacher plans.

The average local employer contribution rate for plans that provide enhanced retirement benefits to local law enforcement officers is 13.6 percent, and for those that do not the rate was 9.7 percent. On average, if this were a rate-setting year, employer contribution rates would increase 3.1 percent over FY 2009. However, it is important to note that rates vary across localities based on their experience.

Cash Flow Analysis

VRS funds benefits and other expenses with employee and employer contributions as well as the proceeds of its investment portfolio. With respect to cash flow, the portfolio produces considerable positive cash flow each year through interest, dividends, and other distributions. At the same time, however, VRS pays out more in benefit payments than it receives annually in employer and employee contributions. This net negative external cash-out is more than offset by cash-in from portfolio distributions.

VRS projected the portfolio's cash flow through FY 2020. Its analysis showed cumulative expenses by 2020 will exceed contributions into the fund by $16.1 billion, but income from interest and dividends, as well as distributions from alternative assets, will more than offset this deficit and result in a positive cumulative balance of $14.2 billion. This analysis is based on an investment return of seven percent per year over the ten years, a salary growth of three percent beginning in FY 2013, and fully funded contribution rates – per legislative assumptions – by FY 2017.

VRS Executes Iran Engagement Policy

In February 2009, the House Appropriations Committee Chairman, who is also a member of JLARC, requested that the Board of Trustees consider "some form of action to properly reflect Virginians' concern for the threat posed by [Iran]." The Board responded by developing a policy to scrutinize companies that hold VRS assets and that are conducting business with Iran. According to the policy, a company will be targeted for scrutiny if it (1) has made an investment of $20 million or more in Iran's oil and natural gas sector, (2) actively conducts business activities subject or liable to sanctions under the Iran Sanctions Act of 1996, and (3) has business activities that directly or significantly contribute to the enhancement of Iran's ability to develop its petroleum resources. As long as VRS holds direct investments in securities issued by the company valued at 0.1 percent of the total fund, VRS will communicate to these companies Virginia's objections to Iran's geopolitical actions.

Two such companies – Royal Dutch Shell and Petroleo Brasilero (Petrobas) – had holdings exceeding the 0.1 percent total fund threshold. VRS requested that its investment managers who were holding assets in these two companies make a case for these investments and identify any risks associated with them. The managers contacted by VRS staff were AllianceBernstein, Arrowstreet, BlackRock, T. Rowe Price, and The Boston Company. VRS staff also contacted Royal Dutch Shell and Petrobas to obtain more information on their ties to Iran.

Each company provided a written response to VRS. Petrobas informed VRS that it would not renew its exploration contract with Iran and would terminate operations. Royal Dutch Shell responded that it intends to continue working in Iran, but its Iranian operations represent a small portion of its revenue. Based on these responses, VRS does not intend to change its investment practices.

Modernization Project Slightly Behind Schedule, Within Budget

In June 2006, VRS received the approval of the Board of Trustees to proceed with a six-year modernization program to update systems, business processes, and customer services through state-of-the-art technology. The objectives of the modernization effort are to provide customers near "24/7" access to VRS services; enhance timeliness, accuracy, and consistency of customer service; implement comprehensive knowledge and learning desktop tools; improve business process efficiency; and update outmoded technology systems.

Currently, most business processes at VRS are driven by aging legacy information systems that limit its ability to meet changing customer needs or to automate high-volume transactions. These systems are approaching obsolescence and are difficult to modify and maintain. VRS expects that modernization will allow the agency to reengineer outmoded business processes, automate manual tasks, and create new self-service channels for members.

The overall modernization budget is $46.5 million, the bulk of which ($36.2 million) is for a five-year contract with Sagitec Solutions, LLC to carry out the modernization effort. Working with Sagitec, VRS is replacing software systems with a Web-based solution. Sagitec's work began in January 2009. VRS and Sagitec have completed two of the four main phases of the project. To date, $12.2 million has been spent on payments to Sagitec ($9.9 million), hardware and software expenses ($1.2 million), and other project-related expenses ($1.1 million), including the independent verification and validation services described below.

As an independent State agency, VRS is not required to adhere to the State's policy that an Independent Verification and Validation (IV&V) strategy be undertaken for all major information technology projects. However, VRS views this as a best practice and chose to hire CACI, Inc. to perform an IV&V review for the modernization project. The modernization budget includes $1 million for CACI's IV&V activities. CACI's oversight includes conducting a risk analysis of the project, a review of project planning, and a review of the project's execution.

The VRS Board receives quarterly updates from CACI staff on the progress of the project. In its September 2010 report to the Board, CACI expressed concern about the Sagitec team's failure to achieve certain milestones on time. VRS staff estimated that Sagitec is approximately three months behind schedule, which they believed was manageable. The project delays will not result in additional costs to VRS because the contract with Sagitec is fixed price and none of the delays are attributable to VRS. According to VRS staff, Sagitec has recently hired an additional project manager to focus on project planning in response to the delay.

CACI's reports of continued positive feedback from VRS personnel regarding the quality of the work performed by Sagitec are reassuring. CACI also reported that the modernization program is on budget and achieving the goals set forth by VRS in its initial Request for Proposals.

457 Plan Changes

As of January 1, 2010, ING became the new record keeper for five VRS-administered defined contribution plans, including the 457 plan. Compared to the prior record keeper, VRS reports that participants pay substantially less in fees (19 basis points to ING versus 28 basis points to Great West), amounting to an annualized savings of $1.1 million for participants.

ING provides services to both employers and employees. For employees, ING conducts group meetings and individual counseling sessions, issues quarterly statements, administers a dedicated plan information phone line, and maintains a web site dedicated to the defined contribution plans. For employers, ING issues an employer newsletter and offers ongoing web-based seminars, as well as a web site, to improve employers' ability to assist employees with plan benefits and rules.

House Bill 1830 (2007) made enrollment in the Commonwealth's 457 deferred compensation plan automatic for salaried State employees hired on or after January 1, 2008. The *Code of Virginia* requires an automatic employee contribution of $20 per pay period, matched by an employer cash match of $10. As of October 2010, 20, 547 employees have been eligible for automatic enrollment in the plan, and only 1,021 (5.4 percent) opted out.

Other Agency Accomplishments

Several agency accomplishments were highlighted for the Board of Trustees in an October report to the Administration and Personnel Committee. These are in addition to the other major accomplishments related to the modernization effort and the pension reform changes mentioned above. Accomplishments included an enhancement to *myVRS* to improve the online benefit estimator, as well as a redesign of the annual Member Benefit Profile sent to members. The new profile estimates benefits from VRS, Social Security, and 457 plan savings, as well as the amount the individual member should save to achieve a comfortable retirement.

Additionally, for the second consecutive year, the administrative department met all 23 agency performance outcomes set by the Board of Trustees. Performance outcomes are measured in the categories of customer service, the timeliness of processing service or disability retirements and member refunds, implementing the recommendations of the internal audit department, and maintaining below-median administrative costs as compared to a group of peers. Notably, VRS incurred operating costs per member that were 38 percent below the peer group median, while scoring in the upper quartile on customer service measures when compared to peers.

VRS Oversight Report is published periodically by the Joint Legislative Audit and Review Commission (JLARC) in fulfillment of Section 30-78 *et seq.* of the *Code of Virginia*. This statute requires JLARC to provide the General Assembly with oversight capability concerning the Virginia Retirement System (VRS) and to regularly update the Legislature on oversight findings.

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