OVERSIGHT VRS Report

JOINT LEGISLATIVE AUDIT & REVIEW COMMISSION OF THE VIRGINIA GENERAL ASSEMBLY

Biennial VRS Status and Semi-Annual Investment Report December 2012

Profile: Virginia Retirement System Investments (as of September 30, 2012)

Market Value of Assets: **$55 billion**

Number of External Managers and Mandates:
Public Equity – 26 managers (14 traditional, 12 hedge funds); 28 mandates (16 traditional, 12 hedge funds)
Credit Strategies – 22 managers; 45 mandates
Fixed Income – 2 managers; 6 mandates
Private Equity – 66 managers; 173 mandates
Real Assets – 26 managers; 39 mandates

Total Return on Investments			
10 years	*5 years*	*3 years*	*1 year*
8.2%	**1.1%**	**9.2%**	**14.3%**
Performance/Long-Term Benchmark			
7.6%	**2.8%**	**10.5%**	**19.9%**
Performance/Intermediate Benchmark			
8.0%	**1.3%**	**9.1%**	**15.0%**

Number of VRS Investment Department Staff: 60 authorized FTEs (8 vacant)

FY 2012 Investment Expenses: : $288.69 million (54.4 basis points)

FY 2012 Investment Department Operating Expenses: $17.3 million* (3.3 basis points)

Investment Policy Indicators (as of September 30, 2012)

	Asset Allocation	*Asset Allocation* (% of Asset Class)		*Type of Management* (% of Accounts)	
Asset Class	**Percent of Total Assets**	**Domestic**	**Non-U.S.**	**External**	**VRS**
Public Equity	43.0%	46.6%	53.4%	66.0%	34.0%
Credit Strategies	19.8%	76.0%	24.0%	98.0%	2.0%
Fixed Income	19.3%	100.0%	0.0%	2.6%	97.4%
Private Equity	8.7%	82.8%	17.2%	100.0%	0.0%
Real Assets	8.5%	87.0%	13.0%	98.5%	1.5%
Cash	0.6%	n/a	n/a	100.0%	0.0%

***Includes administrative expenses.**

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 optional retirement plans for selected employees. VRS also administers the Virginia Sickness and Disability Program (VSDP), a group life insurance plan, long-term care insurance plans, the Health Insurance Credit, and the Line of Duty Act fund (jointly with the Department of Accounts).

VRS serves approximately 600,000 active members, retirees, and beneficiaries. As of June 30, 2012, the active employees include 147,216 teachers, 104,895 local government employees, and 87,918 State employees. VRS provides benefits to 167,747 retirees and beneficiaries. In addition, there are 121,407 inactive and deferred members. In FY 2012, 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 2012 and the eighth 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 and resulting retirement plan changes, VRS' modernization effort, the plans' actuarial valuations and benefit funding, and various agency initiatives.

Semi-Annual Investment Report

This section of the report provides an overview of the performance of VRS investments as of September 30, 2012, as well as noteworthy changes or initiatives being undertaken in the investment department. These include the Board's hiring of a new Chief Investment Officer, a Board of Trustees review of its investment policies, and a discussion of the methodology for determining investment staff compensation.

Overview of VRS Investment Department Performance

As of September 30, 2012, the VRS trust fund held $55 billion in assets. The fund earned 14.3 percent over the one-year period ending September 30. The fund's performance fell short of its long-term benchmark in all but the ten-year period ending September 30, 2012. The fund exceeded its intermediate term benchmark – which is more reflective of the types of investments held by VRS – in the three- and ten-year periods.* Performance indicators are provided in Table 1. The fixed income,

* The long-term benchmark is determined by the Board of Trustees and is a mix of stocks (60 percent) and bonds (40 percent) used to set the overall risk policy for the total fund. For example, if the long-term benchmark's composition of stocks increases, the risk level of VRS' investments can rise. The intermediate-term benchmark is a weighted average of the various benchmarks used in each investment program, such as public equity. According to VRS staff, the intermediate-term benchmark is a more accurate measure of the fund's performance because it reflects the performance of similar types of investments, and the long-term benchmark is better used to measure the Board's investment policy decisions.

real assets, and private equity programs exhibited the highest level of investment performance relative to their benchmarks for the period ending September 30, 2012.

Table 1
VRS Investment Performance for Period Ending September 30, 2012

Program/ Performance Objective	Fiscal Year to Date	1 Year	3 Years	5 Years	10 Years
Total Fund	*4.1%*	*14.3%*	*9.2%*	*1.1%*	*8.2%*
Total Fund Benchmark - Intermediate	3.9	15.0	9.1	1.3	8.0
Total Fund Benchmark - Long Term	4.4	19.9	10.5	2.8	7.6
Total Public Equity	*6.2*	*20.0*	*8.2*	*-1.3*	*8.7*
Public Equity Custom Benchmark	6.5	21.6	7.9	-1.1	8.7
Total Credit Strategies	*4.3*	*13.6*	*9.7*	*5.5*	*n/a*
VRS Credit Strategies Custom Benchmark	4.3	17.0	10.9	5.6	n/a
Total Investment-Grade Fixed Income	*1.9*	*7.4*	*7.9*	*7.5*	*6.0*
Fixed Income Custom Benchmark	1.6	6.2	6.2	6.8	5.4
Total Real Assets	*2.8*	*15.1*	*13.0*	*0.4*	*9.7*
Real Assets Custom Benchmark	2.6	14.1	10.3	2.0	9.4
Total Private Equity	*0.9*	*7.6*	*14.8*	*4.7*	*13.2*
Private Equity Custom Benchmark	-2.7	6.3	19.2	2.9	8.4

Source: VRS investment department data, 2012.

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 be VRS' largest asset class, constituting 43 percent of the portfolio or $23.6 billion. Public equity is the only asset class with the majority of its investments in non-U.S. holdings.

For the period ending September 30, 2012, the public equity program's performance relative to its benchmark has been mixed. The public equity program achieved a one-year return of 20 percent, 160 basis points less than its benchmark for that time period. The program exceeded its benchmark by 30 basis points for the three-year period and met its benchmark of 8.7 percent earnings for the ten-year period. VRS staff have cautioned that the program may not perform as well as the overall public markets in periods of substantial gains because the program has more exposure to higher quality stocks than the market as a whole and has a lower risk profile than its benchmark.

Credit Strategies. Credit strategies is the second largest VRS asset class and held $10.9 billion in assets, or 19.8 percent of the total fund, as of September 30, 2012. The VRS credit strategies program includes investments in broad sub-categories such as rate sensitive, non-rate sensitive, emerging markets, and convertible bonds. According to VRS staff, in the current VRS portfolio, credit strategies are used opportunistically whenever they are expected to provide good risk-adjusted returns relative to traditional stock and bond investment options available to the plan. Through this program, VRS can earn long-term returns comparable to equity investments, but with lower market risk. Benefits of this asset class include further diversification and increased cash flows, as well as lower volatility compared to equities. Approximately three-quarters of VRS' credit strategies are invested domestically. The credit strategies program has underperformed its established benchmark in all but the fiscal-year-to-date period as of September 30, 2012. As of July 2012, the program and the benchmark were realigned to reflect the broad sub-categories that make up the program. This change is intended to make the benchmark more reflective of the underlying portfolio than has often been the case in the past.

Investment-Grade Fixed Income. The fixed income program is VRS' third largest asset class, accounting for $10.6 billion of the trust fund's assets, or 19.3 percent of the portfolio as of September 30, 2012. The fixed income program serves as a diversifier for the overall portfolio. All of the fixed income assets are invested domestically.

For the period ending September 30, 2012, the fixed income program has consistently outperformed its benchmark. The program exceeded its benchmark in the one-, three-, five-, and ten-year periods, as well as the fiscal-year-to-date period.

Recently, VRS has begun moving more of its assets into the internally managed portfolio. Internal accounts currently represent 97.4 percent of the fixed income program, compared to 35 percent as of September 30, 2011.

Real Assets. The total value of the VRS real assets portfolio as of September 30, 2012, was $4.7 billion, or 8.5 percent of the total fund.* (The Real Estate Program was renamed the Real Assets Program in 2011 to reflect the focus of VRS staff over the past several years on potential investments in timberland, infrastructure, and farmland, in addition to commercial real estate.) The majority (87 percent) of the real assets portfolio is invested domestically. This asset class outperformed its benchmark in all but the five-year period ending September 30, 2012.

Private Equity. As of September 30, 2012, private equity constituted nearly nine percent of the total fund, or $4.8 billion.* Private equity is an alternative to traditional public equity. Through active equity management, VRS expects to earn a meaningful return on its private equity investments. Most (83 percent) of VRS' private equity assets are invested domestically.

For the period ending September 30, 2012, the private equity program has generally performed well, compared to its benchmarks. The program's performance far exceeded established benchmarks in the one-, five-, and ten-year periods, but underperformed for the three-year period ending September 30, 2012. Over the long term, VRS staff expect the program to outperform its benchmark and continue to earn a premium over the public equity program. As of September 30, 2012, the private equity program earned higher returns than the public equity program in the three-, five-, and ten-year periods. Moreover, the dollar-weighted annualized performance from the inception of the program in April 1989 through June 30, 2012, was 21.81 percent.

Hedge Funds. In total, hedge fund investments constituted $4.6 billion, or 8.4 percent of the total portfolio as of September 30, 2012. While not an asset class, VRS considers investment in hedge funds to be an active strategy that can be used within any of the investment programs, subject to a total policy limit currently set by the Board at ten percent. Most of the hedge funds are managed by public equity managers, but there are also hedge fund managers in the credit strategies program.

New Chief Investment Officer Hired

On September 1, 2010, VRS announced that its chief investment officer (CIO) would not seek reappointment by the Board after the expiration of his contract in August 2011. Following a year-long search, the Board announced at its September

* Whereas performance figures for the real assets and private equity programs reflect data on cash flow into the program as of September 30, 2012, 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, 2012 valuations, adjusted for cash flows during the quarter ended September 30, 2012.

2011 meeting the appointment of Ronald D. Schmitz as the new CIO. Prior to his appointment to VRS, Mr. Schmitz served in CIO positions for the Oregon Public Employees Retirement System and the Illinois State Board of Investment. Mr. Schmitz also held positions in the private sector at Sears, Kraft Foods, and Blue Cross and Blue Shield.

Board Undertakes Year-Long Review of Investment Policies

In 2011, the VRS Board initiated a review of its long-term investment objectives, its investment policies, and its tolerance for investment risk. According to VRS staff, the economic conditions and financial market volatility of the last several years have caused many institutional investors to rethink their approach to investing. A new committee, the Investment Policy Committee, was established to lead this review.

The objective of the Investment Policy Review is to establish the Board's consensus risk tolerance for the portfolio. Although this review is still underway, VRS staff anticipate that the primary change to come out of the review is a decrease in public securities (stocks and bonds) and a corresponding increase in private market assets (real estate, real assets and private equity). A secondary outcome will likely be that the Board will establish a single investment policy benchmark. This single benchmark will reflect the Board's tolerance for investment risk and the target proportion of the total fund to be held in each asset class. It will also provide the Board and other VRS constituencies with a single tool for measuring the success of the Board's investment policy as well as the investment staff's performance.

VRS Increases Assets Under Internal Management, Reducing Fees

For more than ten years, VRS has used internal investment staff to manage a portion of its assets. VRS has further internalized its asset management in recent years. Currently, VRS manages approximately $18 billion in assets internally, or approximately 33 percent of the total fund. According to VRS staff, the performance of investments managed by VRS staff compares favorably to those managed externally, and this shift toward increased internal management has produced an estimated annual fee savings of approximately $16 million, net of internal costs. In order to accommodate this shift, VRS has added additional staff and systems support, the costs of which are reportedly minor compared to the savings and benefits gained by internal management of investments.

According to VRS staff, increasing the amount of assets under internal management produces several benefits in addition to reduced management fees. Benefits include an improved ability to control investment risks and develop new investment strategies.

VRS Implements New Investment Options for Defined Contribution Plans

On July 23, 2012, the investment options available to the State's optional defined contribution plan participants were replaced with new options and a simpler structure. These plans currently have a total of $1.9 billion in assets spread across more than 143,000 participant accounts. According to VRS, the new options and simplified structure better accommodate members' varying levels of knowledge about and interest in actively managing their investments.

The new structure includes three investment paths, and participants are able to select investment options in each. VRS characterizes the first path as a "Do-It-For-Me Path," in which diversification, asset allocation, and rebalancing decisions are made by investment professionals, but guided by a member's personal circumstances and anticipated retirement date. The second path has been characterized as a "Help-Me-Do-It Path," in which members who are interested in more actively managing their investments may do so through a menu of core fund options across asset classes. The third path has been characterized as a "Do-It-Myself Path," in which members are able to fully manage their investments through a self-directed brokerage account. In addition to a new structure, VRS also initiated a competition for the management of each fund. The competition resulted in a substantial change in managers and in a lower fee structure.

These changes only affected employees participating in the 457 deferred compensation plan, the cash match plan, the Optional Retirement Plans for political appointees and school superintendents, and/or the Virginia Supplemental Retirement Plan. The changes were communicated to defined contribution plan participants through mailings, presentations, and the VRS website. The one-time costs of the transition were $441,000, which were paid from a reserve account held by VRS, not from participant account balances.

Over the past several years, the optional 457 deferred compensation and 401(a) cash match plans have become an increasingly larger component of VRS members' future retirement assets. Legislation passed in 2007 changed participation in the deferred compensation plan for State employees to an "opt-out" automatic enrollment plan rather than a voluntary "opt-in" plan, effective January 1, 2008. Between January 1, 2008, and June 30, 2012, only seven percent of newly hired employees have opted out of participating in the deferred compensation plan, and VRS estimates that approximately 18,000 individuals have been automatically enrolled in the 457 plan. As of June 30, 2012, VRS reported a total of 72,563 deferred compensation participants, more than double the number of participants (34,014) documented at the end of calendar year 2002. Participants' average account balances have also increased since 2002, by 56 percent. As of June 30, 2012, average account balances were nearly back to pre-recession levels.

While the number of accounts and average account balances have increased substantially, the average amount that participants contributed to these accounts, in nominal dollars, has decreased slightly over that period. While at the end of calendar year 2002, VRS reported that participants deferred an average of $2,460 to their 457 plan accounts annually, that average amount was $2,294 at the end of calendar year 2011. Although this is likely due to the impact of the national economic slowdown on individuals' ability to increase their savings, it is also influenced by the fact that most new 457 plan participants since January 1, 2008, have been automatically enrolled in the plan with an automatic deferral amount of $20 per paycheck.

Board Awards Incentive Payments to Investment Staff, Initiates Incentive Pay Plan Review

A third-party analysis for 2011 found the salaries of VRS investment department staff to be slightly below the target salaries of other large public funds, but that total cash compensation opportunities, which may include annual incentive awards, exceeds established targets for compensating staff competitively. 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 organizations. In 2012, VRS contracted with McLagan to perform this compensation study. McLagan found that "salaries are generally low, with 64 percent of employees falling below the public fund high quartile," but that when salary is combined with other compensation such as incentive pay, "total cash compensation opportunities are competitive." Compared to a peer group that includes private and public sector competitors, McLagan found that VRS' actual cash compensation exceeded the peer-group median by 16 percent in 2011.

Still, McLagan recommended that "salary levels should continue to be adjusted [upwards]" to match 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 six percent below this level. McLagan did not, however, recommend that position-level salary ranges be adjusted.

In addition to salaries, VRS investment staff have historically been awarded incentive pay. Prior to 2009, this incentive pay was based on the fund's performance over three- and five-year periods. In June 2009, the Board approved a new revised compensation plan for its professional investment staff that changed how incentive pay is determined and distributed. Rather than relying primarily on a formula, the new compensation approach grants the Board and the CIO more flexibility in determining and awarding annual incentives for the investment staff.

At its September 2012 meeting, the Board voted unanimously to award an incentive pool of $3.7 million to the professional investment staff, based, in part, on the performance of the fund in FY 2012 relative to the intermediate-term benchmark. Consistent with the new compensation policy, the majority of the pool was distributed among 35 investment staff at the discretion of the CIO. The remainder was granted by the Board to the CIO. To be eligible for any incentive payments, a staff member must have met certain performance expectations and have complied with the agency's Code of Ethics and Standards of Professional Conduct policy.

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." This difference equates to the targeted incentive pay amount. The pay plan allows for the Board to award between zero percent and twice the target amount to the investment staff. In this case, the Board voted unanimously to award 1.5 times the target amount.

Incentive awards are based, in part, on the total fund's performance relative to the intermediate-term benchmark. Table 2 summarizes incentive awards made since the implementation of the new pay plan. The table shows that the magnitude of positive or negative performance relative to the intermediate-term benchmark does not consistently align to the incentive award amounts. For example, the one-year performance of the fund relative to the intermediate-term benchmark was better in FY 2009 than in FY 2010, yet no incentive payments were awarded in FY 2009. Additionally, the fund underperformed the intermediate-term benchmark in FY 2011 and then outperformed it in FY 2012, but incentive payments were awarded in both years that were 1.5 times the targeted payment amounts.

Not shown in the table are several qualitative factors taken into consideration by the Board in its determination to award incentive payments. For FY 2012, these include the expansion of VRS staff's internal management responsibilities, which are projected to result in $7 million in investment fee savings over time, and staff's successful implementation of the deferred compensation plan investment changes.

There is shared concern by the Board Chair, the new CIO, and JLARC staff about the revised pay plan's disproportionate reliance on qualitative, subjective measures of performance. This concern prompted VRS to initiate a review of the incentive pay plan. Additionally, JLARC staff expressed concern about the apparent inconsistency between the incentive award amounts and the fund's performance relative to its benchmarks. JLARC staff received preliminary approval from the Commission in November to conduct an implementation review of the Board's efforts to revise the investment professionals pay plan. JLARC staff expect final approval of the review in December, and will report the outcome of this review in the July 2013 semi-annual investment report.

Table 2
Investment Staff Incentive Awards, FYs 2009-2012

	FY 2009	FY 2010	FY 2011	FY 2012
Incentive Pool Awarded	$0	$2,013,546	$3,412,335	$3,728,364
Incentive Pool Relative to Target	0%	100%	150%	150%
Total Fund's Performance Relative to One-Year Intermediate-Term Benchmark	-96 basis points	-124 basis points	-28 basis points	+27 basis points
Total Fund's Performance Relative to Three-Year Intermediate-Term Benchmark	+39 basis points	-44 basis points	-86 basis points	-39 basis points
Total Fund's Performance Relative to Five-Year Intermediate-Term Benchmark	+67 basis points	+15 basis points	-2 basis points	-27 basis points
Fiscal Year Absolute Return	-21.06%	14.08%	19.08%	1.43%

Source: VRS Investment Department Data, 2009, 2010, 2011, 2012.

Legislation Increases Employee Contributions and Restructures Retirement Plans

The General Assembly enacted legislation in 2011 and 2012 that ended the 28-year practice of the State paying the employee contribution and fundamentally restructured the State retirement plans by moving from a defined benefit to a hybrid model (defined benefit and defined contribution) for new hires. This and other legislation is summarized in Table 3.

Table 3

VRS-related Legislation Passed in the 2011 and 2012 Legislative Sessions

Bill Number	Description
2011 Legislative Session	
Bill Number	**Description**
HB 1794	Allowed VRS to collect member or beneficiary benefit overpayments from employers under certain conditions.
HB 2095	Established that members who are convicted of a felony associated with the performance of their job duties on or after July 1, 2011 will forfeit their eligibility for retirement, life insurance, Virginia Sickness and Disability (VSDP) and VSDP long-term care benefits.
HB 2096	Provided that constitutional officers with at least 20 years of service credit whose positions are abolished can retire with an unreduced benefit at age 50 if elected to office before July 1, 2010, or age 60 if elected on or after July 1, 2010.
Appropriation Act	Required State employees in the VRS Plan 1 defined benefit program to receive a five percent raise and begin paying the five percent member contribution effective July 1, 2011 on a pre-tax salary reduction basis. This provision excluded State elected officials, judges, ORP participants and Plan 2 state employees, as well as local government positions reimbursed by the Compensation Board.
Appropriation Act	Required State agencies to submit payments to VRS on a monthly instead of quarterly basis.
Appropriation Act	Increased limit for cash match for salaried state employees who participate in the 457 Deferred Compensation Plan and the 403 (b) plan from $10 to $20 per pay period.
2012 Legislative Session	
HB 140	Removed mandatory retirement at age 70 for regional jail and jail farm superintendents.
HB 350	Removed the military disability benefit as an offset for the VSDP.
SB 497	Required members employed by local governments or school boards to pay the five percent employee contribution, effective July 1, 2012, and required that these contributions be offset by a five percent salary increase. Also authorized local employers to phase in the five percent employee contribution over a maximum of five years.
HB 1130/ SB 498	Reduced benefits for certain current and future employees and established a mandatory hybrid retirement plan for new employees hired on or after January 1, 2014. *(See subsequent section of this report for further details.)*
HB 438	Provided that employees with at least five years of service credit in an enhanced hazardous duty position who become disabled and are unable to return to a hazardous duty position may, at the employer's option, accept a non-hazardous duty position at a salary not less than that of the previous position with the same employer. The employee will continue to receive enhanced hazardous duty coverage in this position.
HB 791	Created a new purchase of service category, amended various group life insurance benefits, and clarified policy that the death of members who die while on active military duty will be treated as a death in service.
HB 792	Allowed local employers to opt to auto-enroll new or returning employees in the VRS deferred compensation plan or the locality's own deferred compensation plan. Employees have option to opt out.
HB 42/SB 424	Codified existing language in Appropriation Act that the Line of Duty Act definition of a deceased person will include fire companies or departments that provide fire protection services to Virginia National Guard or Virginia Air National Guard facilities.
HB 395/ SB 441	Codified existing language in Appropriation Act that the State comptroller may advance beneficiary payments to a funeral service provider to pay burial and transportation costs for an employee who dies in the line of duty.
HB 1134	Added to the Line of Duty Act that the definition of a deceased person will include any full-time sworn member of the Department of Motor Vehicles enforcement division.
Appropriation Act	Required local governments and school divisions to select an employer contribution rate certified by the VRS Board of Trustees for the 2012-2014 biennium <u>or</u> an alternate rate, which is the higher of the 2011-2012 VRS Board-certified rate or 70 percent of the 2012-2014 VRS Board-certified rate.

Changes Enacted in 2011 Require State Plan Members to Contribute

The most significant change to the retirement plans' structure resulting from the 2011 General Assembly Session is the requirement that existing State employees hired before July 1, 2010, contribute five percent of their salary toward the cost of their benefits. Legislation enacted in 2010 required new employees hired on or after July 1, 2010, to make this contribution. Changes in the 2011 Session applied to employees hired prior to that date. As a result, nearly all State employees now pay this five percent member portion. For employees affected during the 2011 Session (those hired before July 1, 2010), however, the legislation provides for a five percent salary increase to help offset employees' costs.

The five percent member contribution is established in §51.1-144 of the *Code of Virginia*. Between 1983 and 2011, the State had paid the five percent member portion on behalf of employees.

Changes Enacted in 2012 Include New Hybrid Plan for Future Employees

Legislation enacted by the 2012 General Assembly significantly changed the structure of the retirement benefits provided to most future and active State and local employees. As a result of these changes, it is estimated that VRS employers will save approximately $3.6 billion ($1.5 billion in general funds) in reduced retirement costs for State employees and teachers over the next 20 years. However, the changes also reduced benefits for most current and future State and local employees.

The most significant change to the retirement benefits' structure will affect future employees hired by the State, local governments, and school divisions. Employees hired on or after January 1, 2014, will not participate in the traditional defined benefit retirement plan that has been provided to public employees, but will instead be enrolled in a "hybrid" retirement plan that combines elements of a traditional defined benefit pension with a 401(k)-style defined contribution plan. Current employees will have the option to join the hybrid plan in lieu of their existing defined benefit plan, and this decision will be irrevocable. (Active and future employees in hazardous duty positions that qualify for enhanced retirement benefits in localities that have elected enhanced benefits, under the State Police Officers Retirement System, and the Virginia Law Officers Retirement System are exempt from this new plan design.) This legislation is effective January 1, 2014.

The legislation that created the hybrid retirement plan for future new hires also enacted changes to the defined benefit plan structure for "Plan 1" employees with less than five years of service as of January 1, 2013, and "Plan 2" employees. (Plan 2 employees are VRS members hired on or after July 1, 2010, who were placed in a different tier of retirement benefits pursuant to plan changes that were enacted in 2010.) These changes, most of which already apply to Plan 2 members, will go into effect January 1, 2013, and include modifications to the retirement benefit multiplier and the calculation of an employee's average final compensation, both of which are used to calculate the amount of a member's retirement benefit. The legislation also modified age and service requirements for this group of employees and reduces the maximum cost-of-living adjustment (COLA) that can be applied to benefit payments after retirement. These changes will result in lower benefits at retirement.

The legislation also requires that to be eligible for a cost-of-living adjustment, all VRS members with fewer than 20 years of service who retire with a reduced benefit must wait until they reach the age and years of service at which they would have been eligible for an unreduced benefit. There is an exception to this provision for members who are within five years of unreduced retirement eligibility as of January 1, 2013.

Finally, the legislation establishes a schedule for the General Assembly to follow for making progress toward paying 100 percent of the contribution rates certified by the Board of Trustees for the State-supported retirement plans by July 1, 2018. Statute now requires that, for the State employees' plan, 67.02 percent of the Board-certified rates be paid for fiscal years 2013 and 2014, 78.02 percent for fiscal years 2015 and 2016, 89.01 percent for fiscal years 2017 and 2018, and 100 percent for fiscal years 2019 and beyond.

Other legislation enacted in 2012 requires VRS members who are school division or political subdivision employees to contribute five percent of their salaries on a pre-tax basis to the cost of their defined benefit retirement plans. Employers have the option of phasing in this requirement for their existing employees, but are required to provide an offsetting salary increase to employees hired prior to July 1, 2012. In addition, all new hires who were hired on or after July 1, 2012, must contribute the five percent member contribution. This legislation was effective July 1, 2012. As of July 1, 2012, 83 percent of local government employers and 60 percent of school division employers opted to impose the full five percent member contribution. The remaining employers have chosen to phase in member contributions by July 1, 2016.

Actuarial Valuation Indicates Decreased Funded Status, Higher Contribution Rates

VRS pension benefits are funded through a combination of investment income, member contributions, and employer contributions. To achieve the VRS Board's goal of being fully funded, every two years the VRS actuary calculates the recommended employer contribution, which is the amount of funds deemed necessary from the State and local employers 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 VSDP. Because of plan assumptions and experience, the contribution rates may change from one actuarial valuation to the next.

The VRS Board must certify these employer contribution 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.

The Board-certified rates for the two largest plans – the State employees' and teachers' plans – have historically been underfunded. In the past 20 years, the State employee rates have been fully funded in only three years, and the teachers' plan rates have been fully funded only once. As mentioned above, one aspect of the legislation enacted in 2012 is a requirement that the General Assembly and Governor follow a schedule, specified in statute, to pay the full Board-certified rate by fiscal year 2019. Previously, there has been no statutory requirement that the employer contribution be fully funded in a given year.

Valuation Results for State-Supported Plans

The 2012 valuation results are not binding and are used for informational or planning purposes. 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 4 (page 13) displays calculated contribution rates resulting from valuations of the State-supported employee plans performed as of June 30, 2011, and June 30, 2012. The table also shows that the rates approved by the 2012 General Assembly ("Contribution Rates") were less than those certified by the VRS Board of Trustees ("2011 Valuation"), and that, if 2012 had been a rate-setting year, the rates that would have been recommended would have been higher.

The ratio of assets to liabilities ("funded status") of the plans also decreased over the past two years. Valuation results indicated that VRS assets fall short of covering its liabilities by approximately $23.4 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). The 2013 valuation is the last year that this substantial loss will be factored into determining the plan's funded status, which will affect contribution rates for the 2015-2016 biennium. Second, the fund's total investment return for FY 2012 amounted to 1.43 percent, several percentage points below the seven percent assumed rate of return approved by the Board and assumed by the actuary for conducting the plans' valuations. Third, the 2012 valuation found that the gap between Board-certified employer contribution rates and the contributions made by the State added $1.2 billion to the total unfunded liabilities. The underfunding of the contribution rates is further compounded by the declining number of active members in the VRS plans. Not only have contributions been less as a percentage of total payroll than what the actuary has determined are necessary, they have been based on a declining payroll, resulting in fewer dollars flowing into the trust funds.

The funded status of the State-supported plans is expected to continue to decline over the next year due largely to the impact of the FY 2009 losses. Starting with the FY 2014 valuation, the funded status of the five plans is projected to improve. However, the funded status of the State employees' and teachers' plans are not expected to exceed their FY 2012 levels until FY 2021 and FY 2018, respectively, and are not expected to exceed the 70 percent funded level during the 20-year period. These projections assume that VRS' investments meet the Board's earnings expectations and that the State's contributions into the plans equal the Board-certified rates by FY 2018. Figure 1 (page 14) shows the projected funded status for the State employees' defined benefit plan through FY 2032. The funded status is projected to improve after employer contributions equal 100 percent of the Board-certified rates and as more employees enroll in the new hybrid plan.

Table 4
Actuarial Valuation Results for State-Supported Plans
FY 2011 and FY 2012

	FY 2011 Valuation		FY 2012 Valuation		
Plans	**Funded Status 6/30/2011**	**Contribution Rates Calculated by VRS Actuary and Certified by VRS Board *2011 Valuation***	**Funded Status 6/30/2012**	**Contribution Rates Calculated by VRS Actuary *2012 Valuation***	**Contribution Rates Funded by State 2013-2014**
State Employees	70.6%	13.07%	65.6%	14.87%	8.76%
Teachers	66.6%	16.77%	62.4%	18.20%	11.66%
State Police (SPORS)	62.6%	32.62%	57.9%	35.16%	24.74%
Judges (JRS)	65.2%	54.11%	62.0%	55.18%	45.44%
Law Officers (VaLORS)	55.0%	19.52%	51.9%	21.30%	14.80%

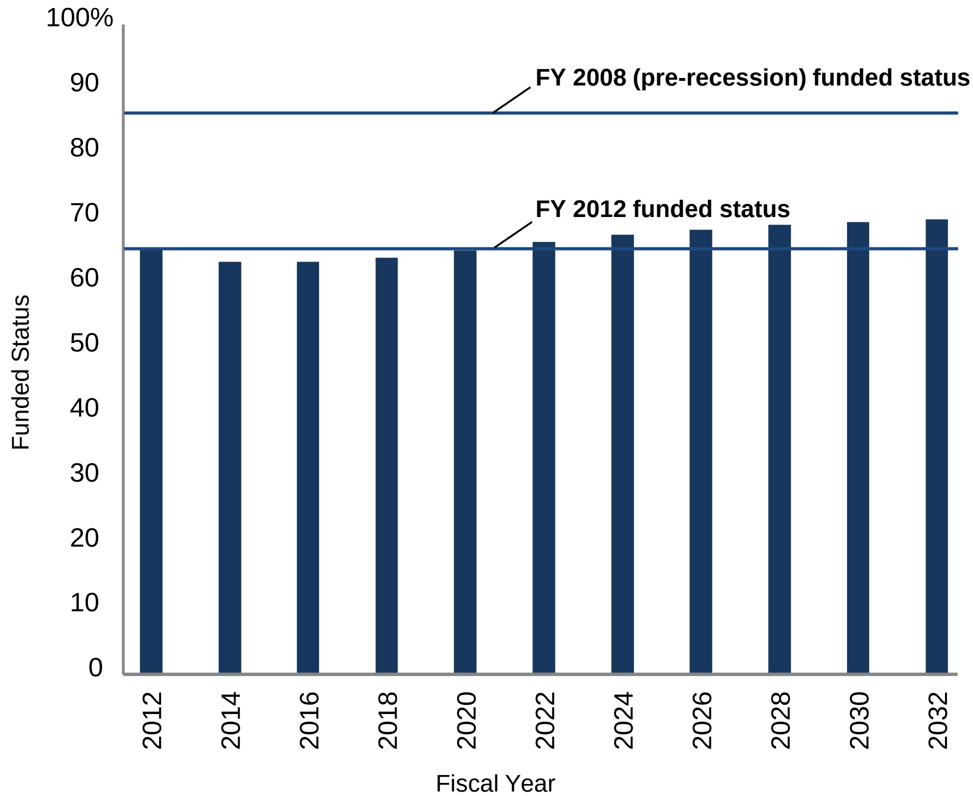
Note: Valuations conducted in odd years, such as FY 2011, are used by the Board to certify employer contribution rates determined necessary to make progress toward fully funding the plans' liabilities. Valuations conducted in even years, such as FY 2012, are for information purposes only.

In addition to the valuations for the retirement plans, valuations are performed for the health insurance credit program, group life insurance plan, and VSDP. The valuations for these programs revealed that 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 104,895 active and 39,570 retired employees representing 583 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 2012 funded ratio on the actuarial value of assets for all of the local plans is a weighted average of 76 percent, which compares to a weighted average of 78.3 percent in FY 2011 and 80 percent in FY 2010. The aggregate actuarial funded status (the value of all plan assets divided by all plan liabilities) for the local plans is 73.3 percent for FY 2012. This compares to an aggregate funded status of 76.3 percent for FY 2011. 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. In the aggregate, the unfunded liability for all of the 583 plans totals $4.74 billion.

Figure 1
Projected Funded Status of State Employees' Defined Benefit Plan



Source: Data obtained from VRS actuary, Cavanaugh Macdonald, 2012.

For informational purposes, the average local employer contribution rate for plans that provide enhanced retirement benefits to local law enforcement officers would be 13.8 percent for FY 2012, and for those that do not the rate would be 9.6 percent. On average, if this were a rate-setting year, employer contribution rates (net of member contributions of five percent) would increase 4.7 percent over FY 2011. However, it is important to note that rates vary across localities based on their experience.

Accounting Rules to Change Beginning Fiscal Year 2013

The Government Accounting Standards Board (GASB) has adopted modifications to its accounting and financial reporting standards, which will affect how VRS and participating employers report their pension liabilities and expenses in the future. According to the GASB, these modifications are designed to "improve the decision-usefulness of reported pension information and to increase the transparency, consistency, and comparability of pension information across governments." The modifications relate to public pension plans' accounting and financial reporting matters only, and do not concern pension plan funding. These new standards will be phased in during 2013, 2014, and 2015, with different standards becoming effective at different times.

According to VRS, the impact of the new accounting rules includes:

- Significant pension liabilities will be added to State and local financial statements.
- The volatility of reported liabilities will increase.
- Accounting rules will no longer link to funding requirements – new funding standards will need to be developed to replace the former actuary's recommended contribution (ARC).
- At least two actuarial reports will be required each year – one for accounting and one for pension funding.

Three changes are expected to have the greatest impact on employers. These are changes regarding how pension liabilities are calculated, when and how pension expenses are recognized on employers' financial statements, and how employers participating in cost-sharing plans report their share of pension plan costs. According to GASB, these changes will more clearly portray the employer's financial circumstances.

One of the most significant changes to GASB accounting rules relates to employers' calculation of their pension liabilities. Instead of using an assumed long-term rate of return, if the pension fund is expected to be depleted before all benefit payments are made, then a lower rate of return must be used. This lower rate of return is a blend of the VRS assumed rate of return and a municipal bond rate. The blended rate allows governments and plans to use the assumed long-term rate of return to the point that assets are projected to be available to pay for liabilities, but from the point at which assets are projected to be insufficient to cover liabilities, a municipal borrowing rate must be used for an assumed rate of return. Notably, VRS can continue to use the long-term assumed rate of return to calculate assets and liabilities as long as the General Assembly fully funds the Board's certified contribution rates by July 1, 2018, which is the schedule established in SB 498 and HB 1130, passed in 2012. According to VRS, "if there comes a point in time when VRS is unable to assume that future contribution rates will be fully funded, then from that point forward the VRS would be required to discount liabilities using a blended discount rate…[which] would be lower than seven percent and would generate an increase in reported liabilities."

Another significant change in GASB accounting rules relates to employers in cost-sharing pension plans, such as the VRS teachers' plan. Employers participating in cost-sharing plans will be required to report a net pension liability and pension expense based on their proportionate share of the collective amounts for all the employers in the plan (such as the percent of the employer's payroll to the plan's total payroll). To date, information pertaining to net pension liability has only been required in the pension plan's financial statements, not in the financial statements of participating employers.

Importantly, according to GASB, "while this information will, in some cases, give the appearance that a government is financially weaker than it was previously, the financial reality of the government's situation will not have changed." However, the new standards are likely to increase the overall reported liabilities of Virginia's local governments, which may affect their bond ratings and borrowing costs.

Excess Retirement Benefits Paid From 2010 to 2012

Effective July 1 of the second calendar year after retirement (reflected in the August 1 paycheck), VRS members are entitled to receive a cost-of-living adjustment (COLA) to their retirement benefits. The COLA is routinely calculated by the VRS actuary each year and approved by the Board. For current retirees, the *Code of Virginia* provides for a COLA that equals 100 percent of the first three percent of the annual increase in the consumer price index-urban and half of the increase above three percent, up to a maximum COLA of five percent.

As reported in JLARC's July 2012 *VRS Semi-Annual Investment Report,* in 2012, VRS staff discovered that the COLA had been miscalculated in 2009. Under the statutory formula, retirees were entitled to a COLA in 2009 of 3.42 percent. However, the VRS actuary incorrectly calculated the COLA as 3.84 percent and reported it to the Board. The incorrect COLA was applied to retirees' benefits effective July 1, 2009 (August 1, 2009 paycheck).

As a result, excess payments were made to approximately 133,000 retirees and beneficiaries over the three-year period from fiscal year 2010 to fiscal year 2012. The excess payments totaled $29.1 million over the three-year period and averaged $238, cumulatively, for retirees. In addition, there are approximately 1,885 state employees on long-term disability (LTD) who received excess payments related to the COLA.

Section 51.1-124.9 of the *Code of Virginia* requires that errors in payments be corrected by the Board of Trustees. In cases where a VRS member or beneficiary receives more or less than the benefit they are entitled to due to an error in his or her record, the *Code* requires the Board to "correct the error and as far as practicable adjust the payments so that the actuarial equivalent of the correct benefit shall be paid." At its June 2012 meeting, the Board voted to adjust the affected retirees' as well as LTD recipients' benefit payments prospectively so that the 2012 COLA will be applied on the benefit that retirees would have received had the correct 2009 COLA of 3.42 percent been applied.

Three sections of the *Code of Virginia* permit VRS to recover overpayments (§51.1-124.9, §51.1-510, §51.1-124.22). The *Code* further states that "if a member has been overpaid through no fault of his and could not reasonably have been expected to detect the error the Board may waive any repayment which it believes would cause hardship." Because of the relatively small amounts of the individual overpayments, the Board determined that the *Code's* hardship provision would not need to be invoked and that collection of the overpayment would be pursued.

At its June 2012 meeting, the Board voted to collect the overpayments made over the three-year period. However, rather than deducting these amounts from retirees' future benefit payments, the Board voted to collect the majority of the overpaid sum from the affected members' and LTD recipients' group life insurance benefits at the time they are paid. Section 51.1-510 of the *Code of Virginia* permits the use of this method to collect overpayments. Retirees and survivors who are not covered by group life insurance will have their benefits actuarially reduced to recover the overpayments. Future retirement benefits will be adjusted for affected LTD recipients without group life insurance.

According to VRS staff, this method will recover the current value of approximately $26.6 million of the $28.7 million in overpayments. Approximately $1.2 million of the remainder cannot be recovered through group life insurance because it is largely attributed to already deceased members and, to a lesser extent, some closed claims related to LTD. The VRS actuary has agreed to pay VRS for this unrecoverable amount.

Despite the Board's actions, the trust fund will still experience losses as a result of the COLA miscalculation. This is because the method of recovering the bulk of the overpayments through group life insurance distributions results in the State losing the benefit of the compounding interest that would have been earned on those assets. While VRS has not calculated the impact of this method on the fund's future assets, the Board determined that it is least disruptive to active retirees' benefits and does still allow the trust fund to at least recover the current value of the overpayments.

VRS staff reviewed COLA calculations back to 1979 and confirmed that this miscalculation was an isolated incident. Going forward to ensure that the correct COLA is applied to retirees' benefits, VRS has implemented additional procedures to more closely review the actuary's COLA calculations, and the agency's internal audit department will also review each year's COLA calculations.

VRS Systems' Modernization Progressing, but Contractor Delays Result in VRS Staff Assuming Greater Responsibility

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.

Prior to the modernization project, most business processes at VRS were driven by aging legacy information systems that limited the agency's ability to meet changing customer needs or to automate high-volume transactions. These systems have been 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.

Three of the four main phases of the modernization project have been implemented to date. Phase 1 included project planning and development of the standards and methodologies that would be used during the program. During Phase 2, all agency business processes were examined from a customer's perspective to identify opportunities for new or improved services and operating efficiencies. In Phase 3, which was implemented in November 2012, new software systems to support the needs of VRS' participating employers were implemented. In Phase 4, the modernization project will conclude by providing new functionality and services to VRS members. Work on Phase 4 has been postponed until after VRS has implemented the pension plan changes passed by the 2012 General Assembly.

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. After two schedule delays, VRS cancelled a number of the services planned for Sagitec in the contract, electing to rely primarily on VRS staff to complete those aspects of the contract. Accordingly, Sagitec will provide limited staff support for Phase 4 work, but Phase 4 will be managed and executed by VRS staff.

As of September 30, 2012, $22.5 million has been spent on payments to Sagitec ($16.9 million), hardware and software expenses ($2.7 million), and other project-related expenses ($2.9 million), including the independent verification and validation services described below. VRS also tracks the indirect costs associated with the modernization program, which totaled $18.4 million as of June 30, 2012. To date, therefore, approximately $40.9 million in direct and indirect costs have been spent on the modernization effort.

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's Audit Committee receives quarterly updates from CACI staff on the progress of the project.

JLARC Staff Issue Request for Proposals for New Actuary

JLARC retains the services of an actuary for use by the Senate Finance and House Appropriations committees, as well as JLARC staff. Since 2006, JLARC's actuary has been Mercer. Mercer notified JLARC in early 2012 that the company would no longer be conducting actuarial analysis and support for clients in this same manner after existing contracts expired. Mercer's contract with JLARC expires on July 1, 2013.

In October, JLARC staff issued a request for proposals for a new actuary that will support JLARC's ongoing oversight for both VRS and the Virginia College Savings Plan. The deadline for proposals was October 29, 2012, and four proposals were received. After evaluating the proposals and receiving presentations from three of the firms, Gabriel, Roeder, Smith and Company has been selected as the new actuary.

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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