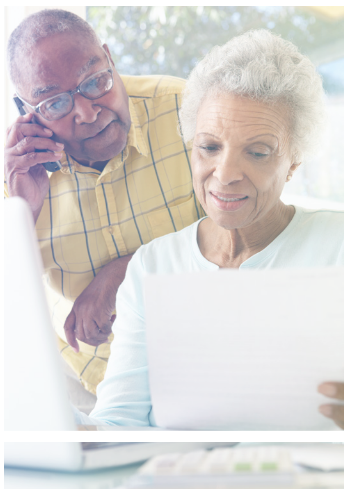
Commonwealth of Virginia
December 2015

Report to the Governor and the General Assembly of Virginia

VRS Oversight Report

DECEMBER 2015



JLARC
JOINT LEGISLATIVE AUDIT
AND REVIEW COMMISSION

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Report No. 480

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Overview

The Virginia Retirement System (VRS) administers retirement plans for employees of state and local governments. The two largest plans are the Teachers Plan and the State Employees Plan. Other plans include those for state police officers (SPORS), other Virginia state law officers (VaLORS), judges (JRS), and individual retirement plans for 585 local political subdivisions. In addition to retirement plans, VRS administers several other benefit programs. These include life insurance, sickness, disability, long-term care, and post-employment benefit programs, such as the retiree health insurance credit program.

Overall, VRS serves approximately 650,000 members, retirees, and beneficiaries. Active members include current state and local employees and teachers in Virginia's public school divisions. Others served by VRS include retirees, their designated beneficiaries, and deferred members who are not actively employed and are not collecting benefits.

The financial assets used to pay VRS benefits are pooled in the VRS trust fund. The fund held $65.4 billion in assets as of September 30, 2015. Based on the value of these assets, the retirement system ranks as the nation's 22nd largest public or private pension fund. In FY 2015, VRS paid $4.1 billion in retirement benefits and $0.4 billion in other post-employment benefits.

VRS receives funds from three sources: employer contributions, member contributions, and investment income. In FY 2015, VRS received $2.0 billion in net additions to the trust fund, after accounting for expenses.

Investment income is critical to the health of the VRS trust fund, accounting for almost half of total additions in FY 2015. VRS investments provided a return of 1.5 percent for the one-year period ending September 30, 2015. The total return over the 10-year period was 5.8 percent, which is below the seven-percent long-term rate of return that has been assumed by VRS for its investments.

VRS pension plans

PLAN SIZE BY TOTAL LIABILITY as of June 30, 2015 ($ billions)

Source: VRS 2015 valuation report.
Note: The total liability is the sum of all plan obligations and does not account for plan assets. A separate calculation is used to determine the unfunded liability, or the portion of total liability that cannot be paid from current assets. Local liability is the aggregate for local governments and political subdivisions that participate in VRS.

VRS fast facts

MEMBERSHIP as of September 30, 2015

337,579	Actively employed members[a]
189,654	Retired members & beneficiaries
123,223	Inactive members
650,456	Total

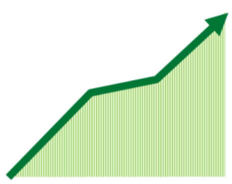
NET ADDITIONS for fiscal year ending June 30, 2015b

$2.7 billion	Employer contributions
$0.9 billion	Member contributions
$3.0 billion	Investment income
($4.6 billion)	Benefits paid and other expenses[c]
$2.0 billion	Net additions

ASSETS as of September 30, 2015

$65.4 billion
Total VRS trust fund assets

INVESTMENT PERFORMANCE as of September 30, 2015



	1 year	3 years	5 years	10 years
Total return	1.5%	8.0%	8.0%	5.8%
Benchmark	0.9%	7.4%	7.6%	5.3%
Excess return	+0.6%	+0.6%	+0.4%	+0.5%

Source: VRS 2015 annual report and investment department data.
[a] Active membership included 143,608 teachers, 105,075 local government employees, and 88,896 state employees, state police, law enforcement officers, and judges. Within the retirement plans are three different benefit groups. The Plan 1 group has 209,153 members, Plan 2 has 96,546, and Hybrid Plan has 31,880. [b] Includes all additions and deductions to VRS retirement plans and other benefits programs managed as part of the trust fund. [c] Includes $4.1 billion in retirement benefit payments, $368 million in other benefits, $106 million in refunds, and $47 million in administrative and other expenses.

1. Trust Fund Investments

Management of the VRS trust fund investments is one of the core responsibilities of VRS. The VRS Board of Trustees sets investment policies for managing the trust fund, including the desired asset allocations for the fund. The VRS investment department manages investment programs within the guidelines set by the board. The investment department manages some assets internally and contracts with external managers to manage other assets.

Investment performance and asset allocation

The VRS trust fund held $65.4 billion in assets as of September 30, 2015, representing a decrease of $109 million from the year before. The fund decreased over this one-year period because of losses experienced in the first quarter of FY 2016. Approximately $23.4 billion of the trust fund was managed internally, including all of fixed income and some public equities and real assets. The remaining $42.0 billion was managed by external managers under VRS supervision.

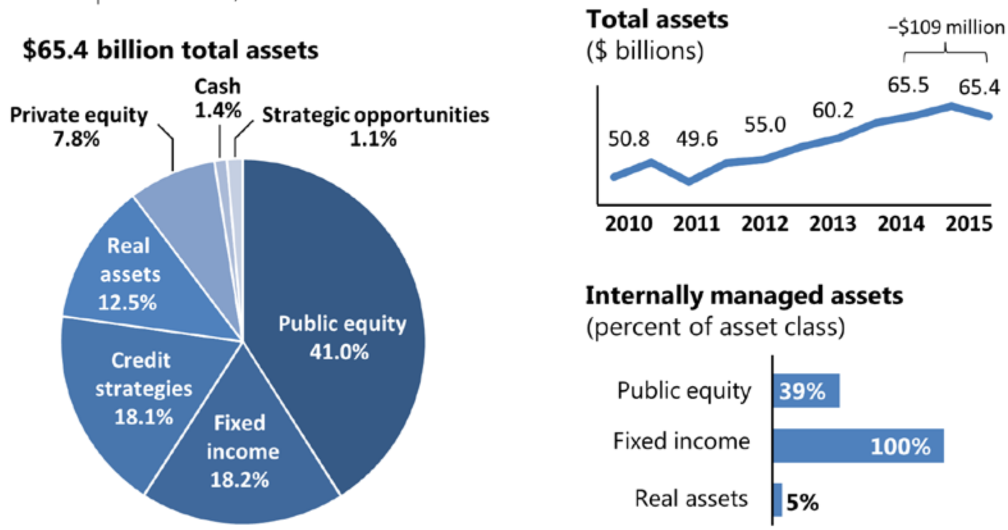
The trust fund's recent investment returns were low, but the fund has outperformed its benchmarks. For the one-year period ending September 30, the trust fund's investments achieved a return of 1.5 percent. The fund's 10-year return of 5.8 percent was below the seven percent long-term rate of return that has been assumed by VRS for its investments. However, the total fund outperformed its benchmark for all periods, including both the short and long-term (Figure 1).

Public equity. The public equity program continues to be the largest VRS asset class, with $26.8 billion in assets. The program consists of stocks and other equity securities for publicly traded companies in the U.S. and abroad. Public equity investments are typically higher risk investments relative to bonds and are expected to provide long-term capital growth and inflation protection. Over one-third of the program's assets are managed internally. The program outperformed its benchmarks for all periods.

Investment-grade fixed income. The fixed income program is the second largest VRS asset class, with $11.9 billion in assets. The program consists of U.S. dollar-denominated securities that pay a specific interest rate, such as bonds and money market instruments. Fixed income investments are typically lower risk relative to most other asset classes and are expected to provide steady returns even in down equity markets. All fixed income assets are managed internally. The program outperformed its benchmarks for all periods except the fiscal year to date, when it underperformed by a slim margin.

FIGURE 1
Trust fund investment performance and asset allocations

ASSET ALLOCATION
as of September 30, 2015



TRUST FUND INVESTMENT PERFORMANCE
for the period ending September 30, 2015

	Fiscal year to date	1 year	3 years	5 years	10 years
Total Fund	−3.1	1.5	8.0	8.0	5.8
VRS Custom Benchmark	−3.3	0.9	7.4	7.6	5.3
Public Equity	−7.5	−1.1	9.9	8.7	5.5
Benchmark	−7.7	−2.7	8.8	7.9	5.0
Investment-Grade Fixed Income	1.1	3.0	2.0	3.6	5.2
Benchmark	1.2	2.9	1.7	3.2	4.8
Credit Strategies	−3.2	−1.2	5.1	5.9	5.9
Benchmark	−3.3	−1.2	3.9	5.0	5.1
Real Assets	2.2	11.4	12.0	13.1	8.1
Benchmark	2.7	10.5	10.7	11.9	7.9
Private Equity	4.0	7.2	15.4	14.7	12.8
Benchmark	0.7	6.5	17.2	18.2	9.8
Strategic Opportunities	−3.1	−0.5	n/a	n/a	n/a
Benchmark	−4.3	−1.9	n/a	n/a	n/a

Source: VRS investment department data.

Credit strategies. The credit strategies program is the third largest VRS asset class, with $11.8 billion in assets. The program includes investments in broad subcategories such as emerging market debt, high yield bonds, convertible bonds, bank loans, and direct lending. Credit strategies investments are intended to provide higher income than traditional stock and bond investments and attractive, risk-adjusted returns. All of the program's assets are managed externally. The program met or outperformed its benchmarks for all periods.

Real assets. The real assets program is the fourth largest VRS asset class, with $8.1 billion in assets.* The program includes investments in real estate, infrastructure, and in natural resources such as timber. Real assets investments are expected to reduce volatility of the total fund by offering returns that do not have a high statistical correlation with the public equities market. Most real assets are managed externally. The program outperformed its benchmarks for all periods except the fiscal year to date, when it underperformed by half a percentage point.

Private equity. The private equity program is the smallest of the five major asset classes, with $5.1 billion in assets.* Private equity is an alternative to traditional public equity and generally consists of equity securities for companies that are not listed on the public exchange. Private equity investments are "opportunistic" investments that are intended to outperform public equity markets over the long term and enhance total fund returns. All private equity assets are managed externally.

The program underperformed its benchmarks for the three- and five-year periods, but outperformed benchmarks for the fiscal-year-to-date, one- and 10-year periods. Although private equity underperformed against the mid-term benchmarks, the program achieved its intended purpose of earning higher returns than the public equity program for all periods.

Strategic opportunities. The strategic opportunities program is the smallest asset class, with $0.7 billion. The program was created for investments that have a compelling potential for competitive returns but do not fit neatly into any of the five major asset classes. The program allows VRS to gain experience with new investment approaches that are not widely used. Individual investments in this portfolio include two hedge funds, one tactical asset allocation strategy and two private investment partnerships. All strategic opportunities assets are managed externally. This program outperformed its benchmarks for the two time periods it has been in existence.

Investment policies and programs

The VRS board sets investment policies, and the professionals in the investment department implement programs to fulfill those policies. VRS investment expenses

* Performance figures for the real assets and private equity programs do not reflect managers' actual valuations of these investments as of September 30, 2015, because this data has not yet been made available to VRS. Instead, performance figures are based on valuations as of June 30, 2015, adjusted for cash flows during the quarter that ended September 30, 2015.

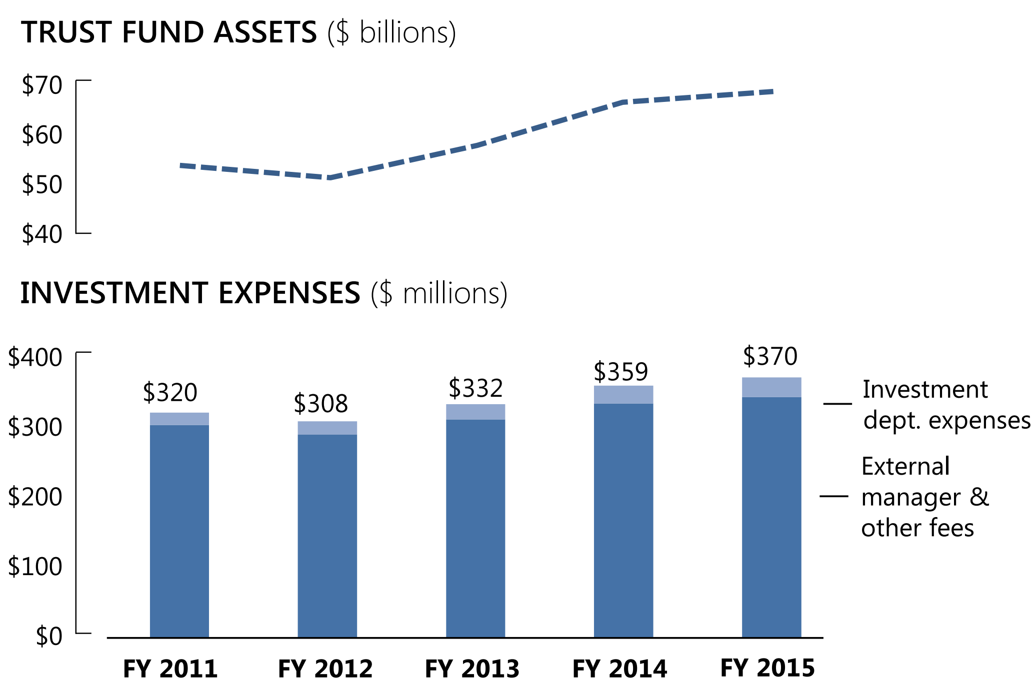
have increased as the trust fund has grown, but in terms of costs, VRS still compares favorably to its peers. The investment department's operating budget has grown at a faster rate than other investment expenses because VRS increased its internal management of assets. VRS staff indicated that the cost of internal management is lower than the cost of external management.

VRS investment expenses increased, along with the value of the trust fund, but remained lower than its peers

VRS investment expenses include fees paid to external investment managers, fees paid to the trust fund custodian and other third parties, and the VRS investment department's operating expenses. Fees to external managers and others account for over 90 percent of investment expenses.

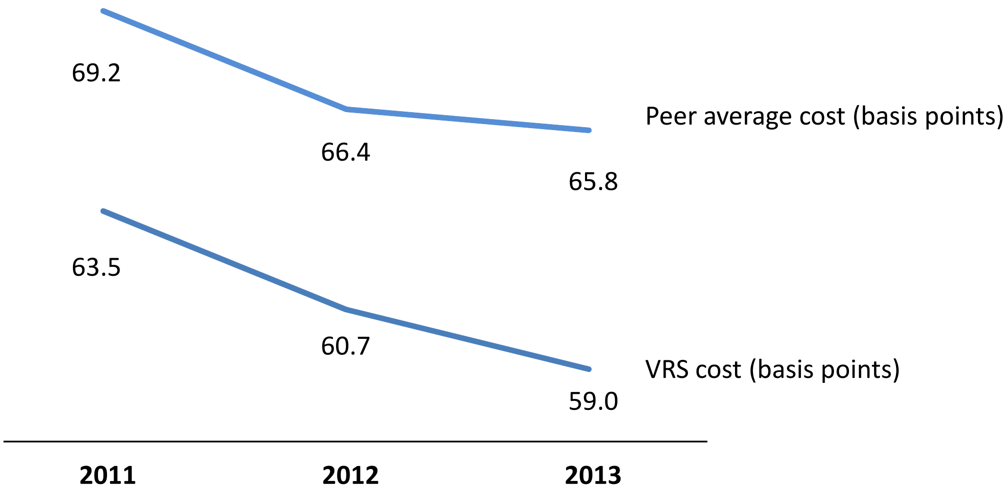
VRS investment expenses have increased over time, but this is mostly a function of the growing value of assets held in the VRS trust fund (Figure 2). Investment expenses increased by an average of four percent per year, for a total increase of $50 million since FY 2011. This growth was driven by the trust fund, which grew by an average of six percent per year.

FIGURE 2
Trend in VRS investment expenses compared to trust fund assets



Source: VRS annual reports and investment department data.

FIGURE 3
VRS investment expenses compared to peers



Source: CEM investment benchmarking reports to the VRS board.
Note: In conducting its analysis, CEM makes adjustments to VRS expenses and the assets they are measured against so that they are comparable to peers. Benchmark comparisons for 2014 and 2015 are not yet available.

Although VRS investment expenses have increased overall, they compare favorably to peer retirement systems. VRS hires a consultant, CEM, to annually review its investment expenses and benchmark them to peers. CEM looks at VRS expenses as a percentage of the trust fund, measured in basis points. The consultant reported that VRS investment expenses fell from 63.5 to 59.0 basis points from 2011 to 2013. This was 5.7 to 6.8 basis points lower than its peer average over the same time period, once costs are adjusted for fund size and asset mix (Figure 3). The difference in basis points between VRS and its peer average was the equivalent of $29-41 million in lower total investment expenses per year.

Investment department budget has grown as the trust fund's assets and use of internal management have increased

The VRS investment department's operating budget includes all expenditures related to investment management other than fees paid to external managers, the trust fund custodian, and a few other third parties. The department's budget represents a small but growing part of overall investment expenses.

The budget for the VRS investment department grew from $17.6 million in FY 2011 to $28.7 million in FY 2015, an increase of 63 percent. The main driver of budget growth was staffing expenses. VRS added 13 new full-time positions in the investment department over this time period and received funding to fill 11 existing, but vacant, positions. VRS also increased the amount budgeted for staff salaries and incentive awards. The second major driver of budget growth was IT expenses.

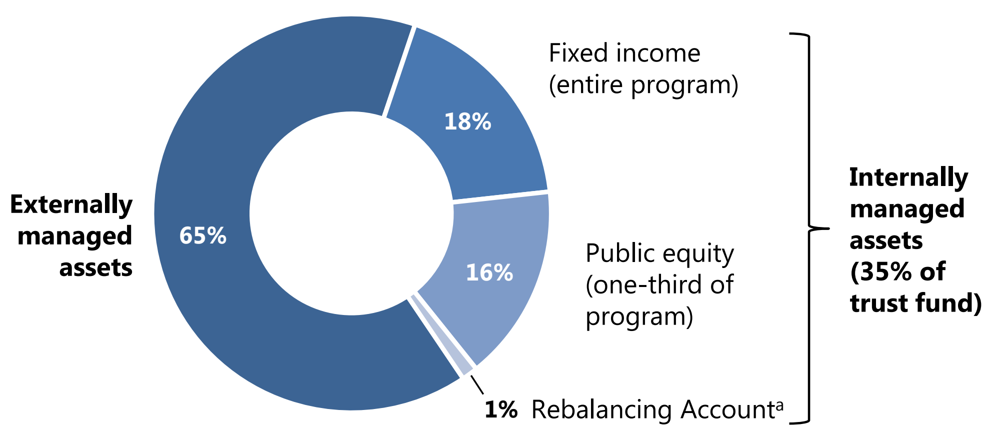
A substantial portion of the staffing and IT cost increase was attributable to the expansion of the internal asset management group. VRS hired several new internal investment managers and purchased new software systems, data feeds, and licenses to support them. VRS reported that the expansion of internal asset management generates net savings for the trust fund by reducing fees paid to external managers. These fees, and their associated savings, are not captured in the investment department's operating budget but are captured through reductions to VRS's total investment expenses.

VRS also increased the number of staff tasked with overseeing externally managed assets and dedicated to research. New staff were added to oversee external managers because the value of those assets continued to grow, even as VRS increased internal management. New research and risk management staff were added to improve VRS's ability to evaluate new and existing investment strategies.

Increased internal management of assets reduced fees paid to external investment managers

Several years ago, the VRS board authorized the expansion of its internal asset management group, with the goal of lowering costs while maintaining a high level of return on investments. As of FY 2015, 35 percent of the total trust fund, $24.1 billion in assets, are managed internally (Figure 4). These assets include the entire fixed income program and over a third of the public equity program.

FIGURE 4
VRS internally and externally managed assets



Source: VRS investment department data, 2015.
[a] The rebalancing account may include fixed income, domestic equity, non-U.S. equity, and cash exposure.

VRS staff indicated that internal management of assets has resulted in substantial cost savings while providing a high level of return relative to benchmarks. VRS staff estimated that approximately $23 million is saved annually by managing assets internally instead of paying fees to outside managers. These annual savings remain in the fund to be reinvested, which compounds the savings over time. Internally managed investment portfolios outperformed their benchmarks for the one-, three-, and five-year periods ending June 30, 2015. Most recently, internally managed public equity assets provided a return of 6.2 percent in FY 2015, which was 150 basis points above the benchmark. Fixed income assets provided a 2.0 percent return, which was 10 basis points above the benchmark.

2. Defined Contribution Plans

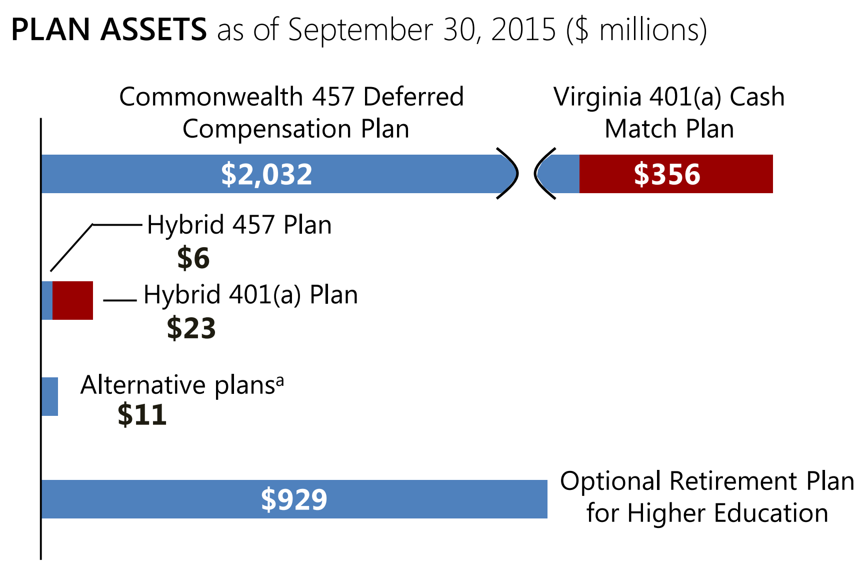
VRS manages several defined contribution plans for its members. Participants in these plans have their own individual accounts, and each participant determines how their money is invested. These accounts accrue funds that the account holders can use in retirement. The defined contribution plans are similar in structure to private sector 401(k) plans or personally-owned individual retirement accounts (IRAs). Some plans are intended to serve as primary retirement benefits, whereas others are intended to supplement VRS pension benefits. The aggregate value of participant accounts held in the VRS-managed defined contribution plans was $3.4 billion as of September 30, 2015.

Types of plans

All state employees and many local VRS members may be eligible to participate in one or more of the defined contribution plans managed by VRS (Figure 5). Each plan has its own eligibility rules.

All state employees and many local VRS members have the option to participate in the Commonwealth of Virginia 457 Deferred Compensation Plan. Most state employees who participate in the Commonwealth 457 plan are also enrolled in the Virginia 401(a) Cash Match Plan and are eligible to receive a modest cash match from their employers. The two plans are intended to supplement employee retirement income, not to serve as primary retirement plans.

FIGURE 5
VRS defined contribution plans



Source: VRS administration department data.
[a] Includes the Optional Retirement Plan for Political Appointees ($10.9 million), Optional Retirement Plan for School Superintendents ($0.3 million), and Virginia Supplemental Retirement Plan for certain educators ($0.1 million).

Members of the state's Hybrid Plan are required to participate in the Hybrid 401(a) Cash Match Plan and have the option to make voluntary contributions to the Hybrid 457 Deferred Compensation Plan.* Together, these plans are intended to be one of the main sources of retirement income for Hybrid Plan members. The other major source of retirement income for these members is their Hybrid Plan pension benefit.

Alternative defined contribution plans are available for political appointees, school superintendents, and certain groups of educators. The Optional Retirement Plan for Political Appointees and the Optional Retirement Plan for School Superintendents are offered as alternatives to the standard State Employees or Teachers plans. School divisions may choose to offer the Virginia Supplemental Retirement Plan to certain employees, in addition to the standard Teachers Plan benefits.

The Optional Retirement Plan for Higher Education is available for faculty at public colleges and universities. Once hired, faculty must make an irrevocable one-time decision to participate either in this plan or in the standard State Employees Plan. Employers are required to make contributions to participant accounts, and employees hired after July 1, 2010, are also required to contribute.

Plan performance

Participants in the VRS defined contribution plans have several options for investing their assets. Participants in the Commonwealth 457, Virginia 401(a), Hybrid 457 and 401(a), and alternative defined contribution plans, select from the same group of investment options. Participants in the Optional Retirement Plan for Higher Education select from two separate groups of investment options.

Commonwealth 457, Virginia 401(a), Hybrid, and alternative plans

Participants in the Commonwealth 457, Virginia 401(a), Hybrid 457 and 401(a), and alternative defined contribution plans may choose from a group of 21 investment options. These options include (1) diversified target date portfolios designed by investment professionals, (2) individual investment options, for participants who would like to build their own customized portfolios, and (3) self-directed brokerage accounts, for participants who would like full control over their investments. Participants pay a flat administrative fee every year and additional investment fees according to the options they select.

Target date portfolios. Participants may select a diversified investment portfolio in accordance with their target retirement date. These portfolios include a broad spectrum of investments, such as different types of stock, bond, and real estate funds. The mix of investments is automatically adjusted over time to become more con-

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* Hybrid Plan members include most state and local employees hired on or after January 1, 2014. Starting January 2016, hybrid members in the Teachers Plan will have the option to make voluntary contributions to a 403(b) plan that is sponsored by their school division instead of VRS, if their school division elects to offer this option.

servative as the participant approaches retirement age. The target-date portfolios, which hold $582 million in assets, met or outperformed most of their performance benchmarks (Figure 6).

Individual options. Participants may select from one or more individual options to build a customized investment portfolio based on their personal preferences. The options include different types of stock, bond, money market, and real estate funds, and an option that reflects the investments held by the VRS trust fund. The individual options, which hold $1.8 billion in assets, met or outperformed most of their performance benchmarks (Figure 6).

Self-directed brokerage account. The brokerage account option allows participants to select from thousands of publicly traded mutual funds, exchange-traded funds, and individual securities. Participants in this option have full control over their investments, down to the individual securities held in their portfolio. The self-directed brokerage account holds $27 million in assets. Because all investment decisions are made by the account holders, there are no performance benchmarks for the self-directed brokerage accounts.

FIGURE 6
Investment performance for Commonwealth 457, Virginia 401(a), Hybrid and alternative defined contribution plans

for the period ending September 30, 2015

	Fiscal year to date	1 year	3 years	5 years	10 years or since inception
Target date portfolios					
Met or exceeded benchmark	4	9	9	9	10
Total number of options	10	9	9	9	10
Individual options					
Met or exceeded benchmark	8	7	8	9	9
Total number of options	11	11	11	11	11
Self-directed brokerage account[a]					

Source: VRS investment department data.
Note: The total number of portfolio options can change because longer-term performance data is not available for newer options. Performance is reported net of investment fees, but not administrative fees.
[a] There are no benchmarks for measuring the performance of the self-directed brokerage accounts because all investment decisions are made by the account holders.

Optional Retirement Plan for Higher Education

Participants in the Optional Retirement Plan for Higher Education may select from up to 35 investment options offered by two private investment managers: TIAA-CREF and Fidelity. Participants must choose one of these as their plan provider, and then can select from that provider's investment options. Some participants in the higher education plan also have accounts with providers that VRS no longer partners with, or "deselected" providers. Participants in the higher education plan pay investment, administrative, and other fees based on the provider and investment options they choose.

TIAA-CREF options. Participants in TIAA-CREF may select one or more individual options to build a customized investment portfolio according to their personal preferences. The individual options include different types of stock, bond, money market, and real estate funds, and one diversified portfolio option. The TIAA-CREF program holds $698 million in assets. The investment options in the TIAA-CREF program underperformed most of their performance benchmarks (Figure 7).

Fidelity options. Participants in Fidelity may select from several investment options. Participants may select one of several target-date portfolios which provide a diversified mix of investments that change over time as the participant approaches retirement age. Participants may also select from one or more individual options to build a customized investment portfolio according to their personal preferences. The individual options include different types of stock, bonds, money market, and real estate

FIGURE 7
Investment performance for the Optional Retirement Plan for Higher Education

for the period ending September 30, 2015

	Fiscal year to date	1 year	3 years	5 years	10 years or since inception
TIAA-CREF options					
Met or exceeded benchmark	3	3	4	4	2
Total number of options	11	11	11	11	11
Fidelity options					
Met or exceeded benchmark	6	14	14	10	6
Total number of options	24	24	23	22	24
Deselected providers[a]					

Source: VRS investment department data.
Note: Performance is reported net of investment, administrative, and other fees. The total number of portfolio options can change because longer-term performance data is not available for newer options.
[a] VRS does not track performance of investment options from deselected providers because they are no longer available to participants.

funds. The Fidelity program holds $183 million in assets. The investment options in the Fidelity program underperformed most of their benchmarks (Figure 7).

Deselected provider options. Participants may have accounts with providers that VRS no longer partners with. Participants can keep these accounts but cannot contribute new funds through the higher education plan. Because the investment options offered by these providers are no longer available to participants, VRS does not track their performance. The deselected providers hold $49 million in assets.

Plan management

VRS manages the defined contribution plans through contracts with private companies. These companies provide account administration and investment management services to plan participants. VRS's management activities are overseen by the Defined Contribution Plans Advisory Committee. The committee is appointed by the VRS board and provides guidance to the board and staff.

VRS is restructuring the Optional Retirement Plan for Higher Education

VRS is restructuring the Optional Retirement Plan for Higher Education. The original goals of restructuring were to reduce the fees charged to participants and improve plan management. Currently, the plan's two private providers, TIAA-CREF and Fidelity, are responsible for both administering participant accounts and managing investments. This structure, which "bundles" administration and investment services, generally reduces VRS control over the plan. For example, VRS cannot easily negotiate for lower administrative and investment fees because the fees and services of each provider are bundled together. VRS cannot easily move some participant accounts to new providers because of contract provisions that restrict control over those accounts.

Following a two-year review of the Optional Retirement Plan for Higher Education, VRS staff determined the plan should be restructured by separating the administration and investment functions into discrete contracts and retaining a single plan administrator. Separating the functions would improve VRS's ability to negotiate for lower fees and better services for participants. It would also give VRS more control over the plan's investment options. VRS intended to award the contract for the plan administrator first, and then establish the line-up of investment choices for participants.

In October 2015, VRS selected ICMA-RC as the third-party administrator for the plan. The company was selected from among four vendors that participated in a competitive bid process. VRS employed a consultant to assist it with the process, including development of the request for proposals and vendor selection. The board's Defined Contribution Plans Advisory Committee supervised the process and recommended VRS select ICMA-RC. The board subsequently approved the selection of ICMA-RC. The company was already the administrator for the other VRS defined contribution plans.

The administrative fees proposed in the ICMA-RC bid were significantly lower than those currently charged by the two existing plan providers. ICMA-RC proposed charging a flat administrative fee of $43 to $46 per participant per year. By comparison, the annual administrative fees charged by the current plan providers are equivalent to an average of $149 and $134 per participant, respectively. (The fees charged by current providers are based on the amount of assets held in participants' accounts, and so the fees charged to a given individual could be higher or lower depending on their asset balances and the investment options they have chosen.)

VRS's restructuring of the Optional Retirement Plan for Higher Education raised concerns among plan participants and institutions. Plan participants at several public universities contacted VRS to express disagreement with the changes, and the Faculty Senate of Virginia wrote VRS a letter that expressed the displeasure of many of its members. Participants were upset that their existing providers may no longer be available. They were also upset by a lack of outreach and direct communications from VRS about the changes. Institutions that offer the plan also expressed concerns about the changes. Senior administrators at several higher education institutions indicated to VRS that keeping the current providers was critical for faculty retention and recruitment.

In response to these concerns, VRS altered its approach for restructuring the plan. Instead of moving to a single administrator and a single line-up of investment options, VRS is negotiating to keep the plan's two existing providers alongside ICMA-RC as the administrator for a third line-up of investment options. VRS anticipates the new line-up of investment options will be put in place by late 2016. The change will likely reduce the number of participants whose accounts would have been administered by ICMA-RC, so VRS may need to renegotiate that contract.

The modified approach does not fully address the original restructuring goals set by VRS. The two current providers, and their "bundled" administration and investment structure, will likely remain in place unless additional changes are made to the contracts with those providers. Under this structure, VRS will continue to have limited control over administrative fees and the investment options that are offered.

The modified approach will provide plan participants with additional options to choose from. VRS indicated it will provide participants with information on the fees charged by providers and the performance of investment options, so that participants can make informed decisions.

Board adopted statement of investment beliefs for VRS defined contribution plans

The VRS board adopted a formal statement of investment beliefs for the defined contribution plans in November 2015. The statement is intended to guide future decisions related to the plans. The statement was developed by the Defined Contribution Plan Advisory Committee and VRS staff, with the assistance of a consultant. The guiding beliefs state that VRS should:

- Provide a wide range of investment options, including diversified portfolio options, individual options (stock, bond, and alternative investments), and brokerage accounts;
- Continuously evaluate the investment options offered, using quantitative and qualitative approaches;
- Control costs and ensure fees are transparent to participants;
- Educate participants, especially about key retirement planning risks and the impact of their financial decisions;
- Actively govern the plans through the VRS staff, the board, and its advisory committee;
- Employ lessons learned from managing the VRS pension plans; and
- Explore ways to improve the defined contribution plans and better serve participants.

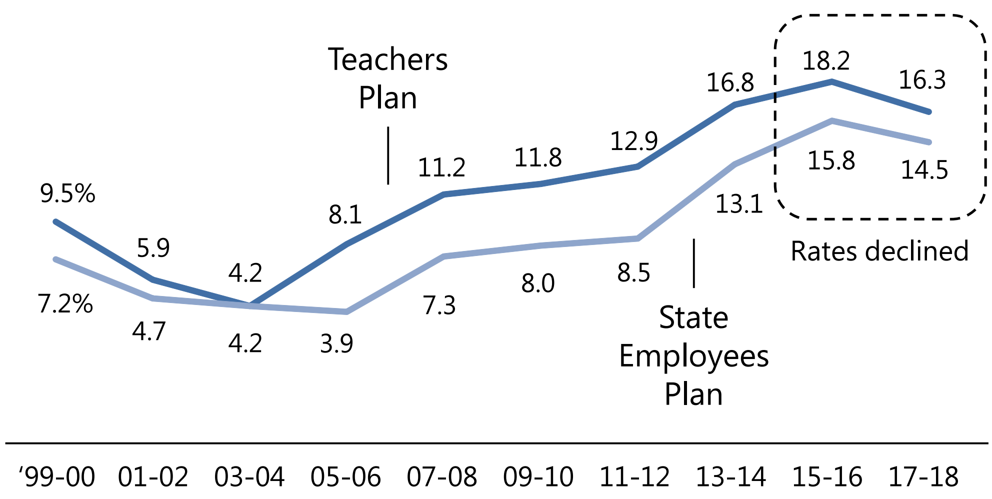
3. Trust Fund Rates and Funding

Employer contributions, paid by the state and local political subdivisions through contribution rates, are one of the main sources of funding for VRS retirement plans and other defined benefit programs. The retirement plans funded through employer contributions include the Teachers Plan, State Employees Plan, other state-supported plans, and the 585 local plans. Every two years, the VRS board certifies the employer contribution rates that are needed to fully fund its plans, as determined by its actuary. The VRS actuary also reports annually on the funded status of the plans. The funded status of the retirement plans are key indicators of their financial health.

Most employer contribution rates decreased, but the rate employers will pay for the Teachers Plan increased slightly

The VRS board has certified the employer contribution rates that were recommended by its actuary for the FY 2017–FY 2018 biennium. The board-certified rates decreased from the preceding biennium for most plans, including the Teachers and State Employees plans. This is the first time that the board-certified rates have declined for both of the major plans since the FY 2003–FY 2004 biennium (Figure 8). Rates decreased due to strong performance by VRS investments, the state's renewed commitment to funding the plans, and the initial impact of 2010 and 2012 legislative reforms of the retirement system. Lower rates make the plans more affordable for the state and for local political subdivisions.

FIGURE 8
Board-certified employer contribution rates for Teachers and State Employees plans



Source: VRS annual reports and historic actuarial data.
Note: Rates are the percentage of payroll that each VRS-participating employer must contribute to VRS.

General Assembly schedule for fully funding rates.

Legislation enacted in 2012 requires the state pay 100 percent of the board-certified employer contribution rates by FY 2019. The schedule gradually increased the portion of funding required for each plan in each biennium. For FY 2017–FY 2018, the state must pay 89.84 percent of the board certified rate for the Teachers Plan and 89.01 percent for the State Employees Plan.

The General Assembly uses the board-certified rates to determine what the state and school divisions must contribute to VRS. The rates approved by the General Assembly encompass all employer contributions to the Teachers, State Employees, VaLORS, SPORS, and JRS plans (Table 1). For the FY 2017–FY 2018 biennium, the General Assembly is statutorily required to fund from 89 to 95 percent of the board-certified rates for each plan. The funding percentage required by statute is slightly different for each plan.

The statutorily required rate for the Teachers plan increased slightly, but the required rate for the State Employees plan decreased significantly. The required rate for the Teachers plan is increasing, even though the board-certified rate is decreasing, for two reasons. First, the previous Teachers plan rate covered only 80 percent of the board-certified rate, and the new rate covers almost 90 percent. Second, the required rate for FY 2016 was reduced after the General Assembly made a one-time contribution of $193 million to the Teachers plan. This reduction makes the rate change from FY 2016 to FY 2017 look larger than it would otherwise have been.

The General Assembly may enact rates that are higher than the minimum rate required under statute. The 2015 General Assembly accelerated the funding schedule for the four state-supported plans, providing contributions equal to 90 percent of the board-certified rates in FY 2016. This 90 percent funding level is actually higher than the funding level that is statutorily required for the State Employees Plan in the

TABLE 1
Actual and required employer contribution rates

	Actual funded rate[a]		Rate required by statute[b]
	FY 2015	**FY 2016**	**FY 2017–FY 2018**
Teachers	14.50%	14.06%	14.66% or 14.69 if 90% funded level is adopted
State Employees	12.33	14.22	12.87 or 13.01 if 90% funded level is maintained
VaLORS	17.67	19.00	20.42
SPORS	25.82	27.83	26.66
JRS	51.66	50.02	42.74

Source: Appropriation Acts, 2014-2015, and VRS letter to the governor and General Assembly.
Note: rates for local plans are not included because they are not set by the General Assembly.
[a] The FY 2016 employer contribution rate for the Teachers Plan was decreased because an additional one-time payment of $193 million was made to that plan at the end of FY 2015. The rate was adjusted downward to reflect the plan's reduced unfunded liability. The FY 2016 rates for the State Employees, VaLORS, SPORS, and JRS plans were increased to 90 percent of the board-certified rates because of an increase in state revenue. The rates were adjusted upward to reflect the decision to make additional payments to these plans over the course of the fiscal year. [b] The rate required by statute is based on (a) a percent funding requirement, set forth in § 51.1-145 of the Code of Virginia, multiplied by (b) the rate certified by the VRS board. The percent funding requirements for FY 2017–FY 2018 are: Teachers 89.84%; State Employees 89.01%; VaLORS 91.94%; SPORS 91.95%; and JRS 94.66%. The board-certified rates for FY 2017–FY 2018 are: Teachers 16.32%; State Employees 14.46%; VaLORS 22.21%; SPORS 28.99%; and JRS 45.15%.

coming biennium. The General Assembly could therefore choose to continue to fund the rate for the State Employees Plan at the 90 percent funding level or adopt the lower, minimum statutorily required funding level of 89.01. The General Assembly could also choose to adopt a 90 percent funding level for the Teachers Plan, which has a minimum funding requirement of 89.84. The other state-supported plans must all be funded at levels above 90 percent.

Employer contributions to the local plans are paid by local governments and political subdivisions. A unique rate is calculated for each of the 585 local plans, and rates are certified by the VRS board. These local employers have historically been required to pay the full board-certified rate for their individual plans, with a few exceptions in recent years.

Funded status of VRS plans continued to improve

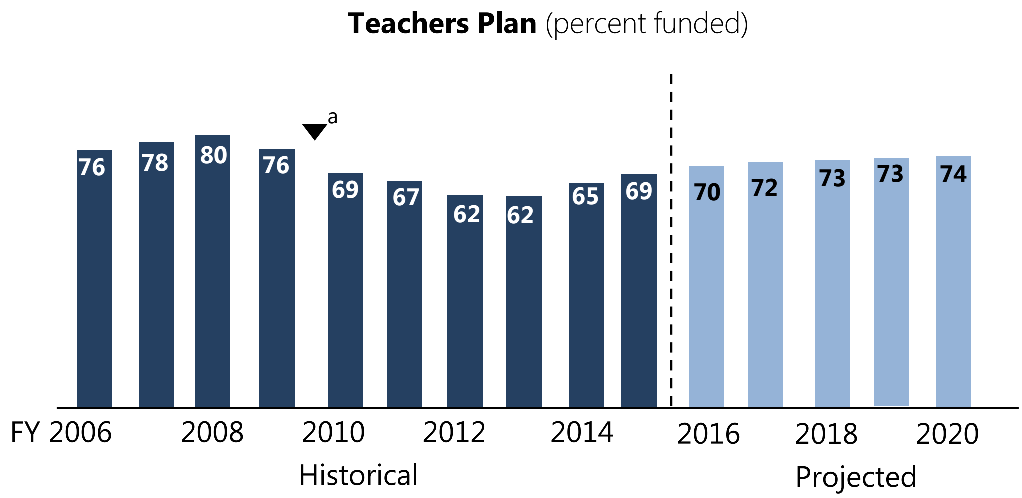
The health of a pension plan is commonly measured by its funded status, which is the ratio of plan assets to liabilities. The funded status of the State Employees and Teachers plans improved in FY 2015 for the second year in a row (Figure 9). This upward trend reverses the steady decline in funded status that the plans experienced over the past several years. The other state-supported plans, SPORS, VaLORS, and JRS, experienced an increase in funded status for the third year in a row. The upward trend is expected to continue for all plans.

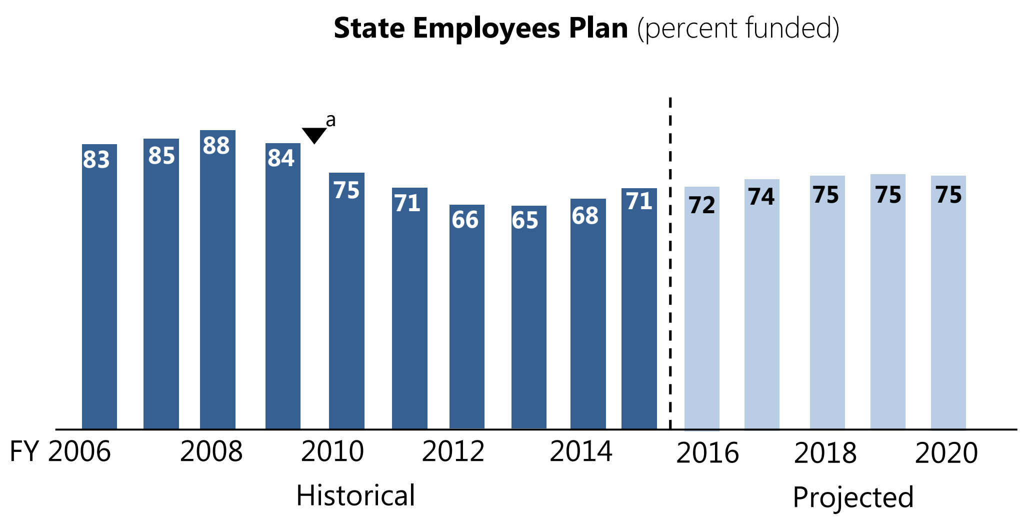
The average funded status of the local plans, adjusted to account for size differences, increased for the third year in a row, from 84 percent in FY 2014 to 88 percent in FY 2015. The average funded status is expected to continue improving in the coming years. Local plans have maintained an average higher funded status than the Teachers plan or the state-supported plans because local employers have generally been required to fully fund their plan contribution rates. However, the funded status of any individual local retirement plan may be higher or lower than the group average.

The funded status of the VRS plans has improved in recent years, due in part to strong investment performance. VRS uses the investment gains and losses it has experienced over the past five years when determining the actuarial value of its assets. This actuarial smoothing minimizes the effects of market volatility and provides more stable contribution rates for employers. The trust fund earned a 10.3 percent return for the five-year period ending June 30 2015, which was well above the assumed 7.0 percent annual rate of return. The funded status of the plans is projected to continue improving if markets continue to perform at or above the assumed rate.

The state's renewed commitment to fully funding the VRS plans has also helped improve their funded status. The 2012 General Assembly enacted legislation requiring the state to fund 100 percent of the board-certified employer contribution rates by FY 2019. Fully funding the rates will help reduce the unfunded liabilities currently associated with the plans and the accrual of new unfunded liabilities. As previously noted, the 2015 General Assembly accelerated the funding schedule for the state-supported plans by providing VRS with additional funds beyond what was statutorily required.

FIGURE 9
Funded status of Teachers and State Employees plans





Source: VRS actuarial valuation report, 2015, and historical actuarial data.
Note: Funded status is reported based on actuarial value of assets, using a five-year smoothing period. Projections assume 7.0% rate of return on investment and 2.5% inflation. The funded status of the plans can also be reported using the market value of assets, which is how they are reported in VRS financial statements.
[a] The VRS board lowered the investment return assumption from 7.5% to 7.0% starting in FY 2010, which contributed to the decrease in the funded status of the VRS plans in that year.

Legislative reforms have reduced plan costs and will lower contribution rates

Legislative reforms enacted by the 2012 General Assembly have reduced plan costs. These reforms created the Hybrid Plan benefit group for new members and shifted some existing members from the "Plan 1" pension benefit group into the "Plan 2" group, which provides less generous benefits. VRS estimated that these changes reduced the amount of funding needed to support the VRS retirement plans by $38 million in FY 2015, with additional reductions expected in the coming years (Table 2). Less funding is needed because the benefits provided to newer members are not as costly as the benefits provided to the members they are replacing. Funding reductions are passed on to the state and local political subdivisions through lower employer contribution rates.

TABLE 2
2012 legislative reforms reduce VRS funding needs

Estimated reduction in funding	FY 2015	FY 2016	FY 2017
General fund	$16 million	$16.5 million	$18 million
Non general fund	22 million	22.5 million	24 million
Total reduction in funding	$38 million	$39 million	$42 million

Source: VRS actuarial analysis.

4. Benefits Administration and Agency Management

Administration of member benefits is one of the core responsibilities of VRS. In order to carry out this and other duties, the agency must be effectively managed. Notable issues relating to benefits administration and agency management include the continued implementation of the Hybrid Plan, growth of the administration budget, and the completion of two legislatively required studies.

Hybrid Plan continues to be implemented

The Hybrid Plan combines elements of a traditional defined benefit pension with a 401(k)-style defined contribution plan. Hybrid Plan members include most state and local employees hired on or after January 1, 2014, and now constitute nine percent of the total active VRS membership. The plan is expected to gradually reduce state and local government retirement costs as an increasing proportion of the workforce is covered under it.

More Hybrid Plan members made voluntary contributions to their accounts but contributions generally remained low

Hybrid Plan member contributions to defined contribution component

Members are required to contribute one percent of salary to the defined contribution component of the plan, and receive a one percent match from their employers. Members may choose to contribute up to an additional four percent of salary, and receive an additional employer match of up to 2.5 percent. The maximum member contribution is 5 percent and the maximum employer match is 3.5 percent.

Voluntary member contributions to the defined contribution component of the Hybrid Plan have increased steadily since the plan opened, but remain low overall. Only nine percent of members have chosen to make voluntary contributions. That nine percent represents an improvement over a year ago, when only four percent of members were choosing to make voluntary contributions, but it is only a small portion of the plan's membership.

The low rate of voluntary contributions raises concerns that many Hybrid Plan members may not have adequate savings to retire. A Hybrid Plan member who only makes the minimum one percent contribution, and retires at 65 with 30 years of service, would receive a benefit equal to about one-third of their final salary. This benefit may not be enough to allow the member to retire, even after social security benefits are included. By comparison, a member in the traditional Plan 2 pension group would receive a benefit equal to about half of their final salary and would be better able to retire.

To promote voluntary contributions, VRS has implemented a campaign to educate VRS employers and members. Employer education is essential because employers are responsible for providing information to newly hired employees and counseling them on their options. Member education is essential because employees must ultimately decide whether to contribute additional money to their retirement accounts. VRS is also working with the administrator of the Hybrid Plan's defined contribution component to make it easier for newly-hired employees to begin making voluntary contributions soon after they are hired.

VRS recently examined ways that voluntary contributions could be increased by changing aspects of the Hybrid Plan's design. Options for change include introducing an auto-enrollment provision, modifying the current auto-escalation provision, and shifting a portion of members' mandatory contributions away from the plan's defined benefit component and toward its defined contribution component. If implemented, these changes would provide Hybrid Plan members with close to the same level of income replacement that is provided under the traditional VRS pension groups. The options for changing the Hybrid Plan are documented in VRS's Cash Balance Retirement Plan report, released in November 2015.

Legislative change that allows school divisions to offer a 403(b) plan option was implemented

The General Assembly enacted legislation in 2015 that allows school divisions to offer additional defined contribution plan options to Hybrid Plan members. Previously, Hybrid Plan members were only allowed to enroll in the VRS sponsored Hybrid 457 and 401(a) defined contribution plans. Mandatory employee and employer contributions will continue to go to the VRS-sponsored plans. However, under the new law, school divisions may choose to offer their own employer-sponsored 403(b) plans for members' voluntary contributions and related employer matches. Members will have the choice to participate in additional plans sponsored by their school division, participate in VRS-sponsored plans, or not make voluntary contributions at all. The law goes into effect January 2016.

VRS has contacted all school divisions and required them to elect whether or not they will offer 403(b) plans to their employees in the upcoming year. Five school divisions have chosen to offer this option in 2016. School divisions are allowed to change their decision on an annual basis.

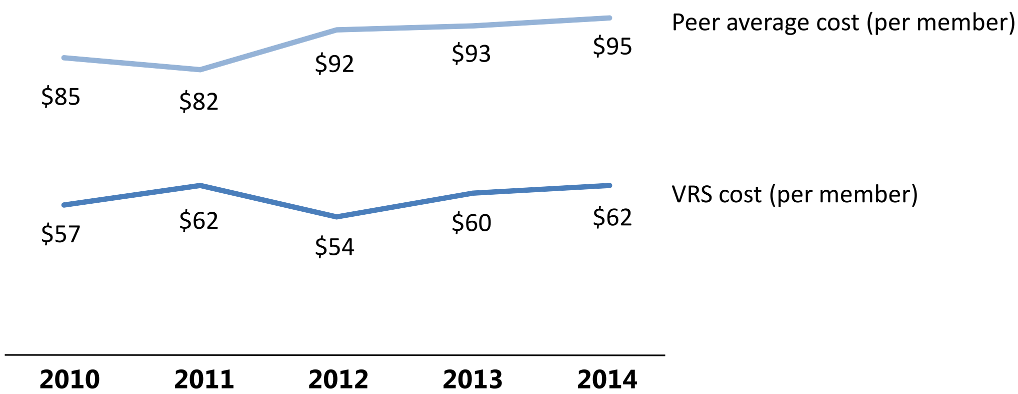
VRS administration budget has grown but expenses remain lower than peers

The VRS administration budget includes all expenditures related to benefits administration and agency management. The administration budget for FY 2016 is $42.6 million. The administration budget does not include investment department expenditures (see page 6).

VRS administration budget growth from FY 2011 to FY 2016 was 14 percent (adjusted for one-time costs related to the IT modernization project). This represented an increase of $4.7 million. The main driver of budget growth was staffing expenses. VRS added over a dozen new full- and part-time positions to administer the new Hybrid Plan and assist with member counseling. The other major driver was IT expenses.

Hybrid Plan implementation accounted for about half of the budget increase. New staff to administer and support the Hybrid Plan accounted for most of the positions that were added to the VRS payroll. New educational and other materials for the plan were developed, printed, and distributed, which further increased expenses.

FIGURE 10
VRS retirement plan administration costs compared to peers



Source: CEM retirement plan administration benchmarking reports to the VRS board.
Note: Benchmark comparisons for 2015 are not yet available.

Member counseling and IT expenses accounted for about one-third of budget growth. On the member counseling side, new staff were added to address increased call volumes and the need for one-on-one consultations. On the IT side, VRS increased salaries to attract and retain senior staff with experience in its new modernized IT systems. VRS also implemented disaster recovery capabilities for its new IT systems.

Although VRS administration expenses have increased, its costs compare favorably to peer retirement systems. VRS hires a consultant, CEM, to annually review the administration expenses related to its retirement plans and benchmark them to peers. (The comparison is limited to administration of retirement plans because other benefit programs, such as retiree health credit programs, have very different structures and administration demands.) CEM reported that VRS retirement plan administration costs were $28 to $38 lower per member than its peer average from 2010 to 2014 (Figure 10). This difference was equivalent $14 million to $19 million per year in lower administrative expenses, system-wide. VRS retirement plan administration costs increased 8.8 percent during this time frame, but that was less than the 11.8 percent average increase experienced by its peers.

Legislatively required studies of the Line of Duty Act and cash balance retirement plans were completed

VRS completed two legislatively required studies in 2015. The first study examined the Line of Duty Act (LODA) program and how it could be administered. The second study examined cash balance retirement plans in other states and how they could be implemented in Virginia.

LODA report recommended statutory changes to the program's administration

JLARC's 2014 review of Virginia's LODA program presented several recommendations to improve program administration and options to ensure its fiscal sustainability. One of the recommendations was to transfer the administration of the LODA program from the Department of Accounts to VRS for eligibility determinations and to the Department of Human Resource Management (DHRM) for ongoing health insurance benefits. The 2015 General Assembly passed HB 2204, which implemented many of the recommended changes. However, the legislation will not take effect unless it is reenacted by the 2016 General Assembly.

In the interim, HB 2204 directed VRS and DHRM to review JLARC's recommendations and develop proposals to simplify and clarify the LODA program. VRS focused on how administration of the program could be changed, and DHRM focused on assessing what health insurance options the program could offer. VRS and DHRM participated in several stakeholder meetings to discuss these and other issues related to the LODA program. VRS and DHRM submitted their respective written reports to the House Appropriations Committee and Senate Finance Committee in October 2015.

TABLE 3
VRS recommendations for changing how the LODA program is administered

VRS recommendations
1. VRS should be given authority to develop policies and procedures for administering the LODA program.
2. Employers, who do not currently participate in the LODA eligibility determination process, should be allowed to submit information as a part of that process. This approach should be used instead of providing employers the right to appeal decisions, which would allow employers to provide information only after an eligibility determination has already been made.
3. The VRS medical board should be given specific authority to make LODA eligibility determinations.
4. Appeals to LODA eligibility determinations should be governed by the Administrative Process Act of the Code of Virginia.
5. Employers should not be required to collect beneficiary information every three years. However, employers should be required to include beneficiary information in the training they provide to employees about the LODA benefits available to them and their families.
6. VRS should manage LODA funds in the same manner as the VRS trust fund. However, LODA funds should be held separate from the VRS trust fund.
7. VRS should be granted clear authority to (a) collect LODA premiums from participating employers and (b) collect reimbursement for eligibility determinations from non-participating employers.
8. All employers should be required to provide VRS with demographic and experience data.

Source: VRS Line of Duty Act report, October 2015.

VRS's report includes several recommendations for changing how the LODA program is administered (Table 3), assuming that responsibility for LODA administration will be transferred from the Department of Accounts to VRS. Some of the administrative changes proposed by VRS are already captured under HB 2204, and others require additional legislative changes. VRS's report includes an appendix that shows how its recommendations could be incorporated into HB 2204.

Report on cash balance retirement plans examined how they could be implemented in Virginia

VRS was directed to study cash balance retirement plans and provide the General Assembly with a proposal outlining how such a plan could be implemented in Virginia (HB 1969, 2015). VRS was required to evaluate potential plan costs, risks, administrative impacts, effect on employee benefits, and a funding structure that would allow employers to still meet funding requirements of other VRS plans. VRS also examined how the current Hybrid Plan could be changed to increase voluntary member contributions.

Cash balance plans provide members with a defined benefit based on contributions credited to their personal accounts, and those contributions grow by an annual interest credit. The interest credit is determined using either a predetermined fixed rate, such as four percent, or a variable rate that is tied to an index, such as the 30-year U.S. Treasury rate. Because cash balance plans provide a return based on member contributions, they appear similar to 401(k)-style defined contribution plans. However, the member accounts are "hypothetical" accounts in a trust fund, and investment decisions are made by the fund manager. Member returns are also guaranteed, which creates a liability for the employer, similar to a defined benefit pension liability.

VRS submitted its written report to the House Appropriations Committee and Senate Finance Committee in November 2015. The report's key findings were as follows:

- Cash balance plans are not prevalent in the public sector,
- Cash balance plans adopted by other states provide lower retirement benefits and have lower costs than the current VRS plans,
- Cash balance plans "front load" benefits and are more generous to shorter-term employees, whereas traditional pension plans "back load" benefits and are more generous to longer-term employees,
- Cash balance plans can have lower investment risk for employers than traditional pension plans, depending on the design used, but they increase cash flow risk,
- Current Hybrid Plan already reduces employers' investment risk,
- Implementing a cash balance plan would cost $12 million to $13 million and would increase operating costs by $330,000 to $450,000 per year,

- Implementing a new plan in the near future would delay a major IT project aimed at improving services to VRS members,
- Implementing a new plan would not significantly reduce the state's funding obligations for its pension plans, because the state is scheduled to continue paying off its legacy unfunded liability for the next 28 years, and
- Virginia's current Hybrid Plan could be changed to improve member benefits for a modest cost.

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