Report to the Governor and the General Assembly of Virginia

VRS Oversight Report

JULY 2019





Joint Legislative Audit and Review Commission

Senator Thomas K. Norment, Jr., Chair Delegate R. Steven Landes, Vice-Chair

Delegate Terry Austin
Delegate Betsy Carr
Delegate M. Kirkland Cox
Senator Emmett W. Hanger, Jr.
Delegate Charniele L. Herring
Senator Janet D. Howell
Delegate S. Chris Jones
Senator Ryan T. McDougle
Delegate Robert D. Orrock, Sr.
Delegate Kenneth R. Plum
Senator Frank M. Ruff, Jr.
Delegate Christopher P. Stolle

Martha S. Mavredes, Auditor of Public Accounts

JLARC director

Hal E. Greer

JLARC staff for this report

Kimberly Sarte, Associate Director for Ongoing Oversight and Fiscal Analysis Lauren Axselle, Principal Legislative Analyst for Ongoing Oversight and Fiscal Analysis

Information graphics: Nathan Skreslet Managing Editor: Jessica Sabbath

Overview

The Virginia Retirement System (VRS) administers retirement plans and other benefit programs for state and local government employees. The two largest plans are the Teachers Plan and the State Employees Plan (Figure 1). Other pension plans include the individual retirement plans for 595 local political subdivisions and plans for state police officers (SPORS), other Virginia state law officers (VaLORS), and judges (JRS). VRS also administers several defined contribution retirement plans. In addition to retirement plans, VRS administers post-employment benefit programs. These include life insurance, sickness and disability, long-term care, and the retiree health insurance credit program. VRS also conducts eligibility determinations and fund administration for Virginia's Line of Duty Act.

VRS serves approximately 722,000 members, retirees, and beneficiaries. Active members include current state and local employees and teachers in Virginia's public school divisions. VRS also serves 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, which held \$80.4 billion in assets as of March 31, 2019. Ranked by value of assets, VRS is the nation's 19th largest public or private pension fund. In FY18, VRS paid \$4.8 billion in retirement benefits and \$416 million in other post-employment benefits, not including benefits paid through the defined contribution plans.

VRS receives funds from three main sources: employer contributions, member contributions, and investment income. In FY18, VRS received \$4.1 billion in net additions to the trust fund (accounting for expenses and benefits paid out).

Investment income is critical to the health of the VRS trust fund, accounting for over half of total additions in FY18. VRS investments generated a return of 4.7 percent for the one-year period ending March 31, 2019. The total annualized return over the 10-year period ending March 31, 2019 was 10.1 percent, which is above the 7.0 percent long-term (30+ year) rate of return that VRS has assumed for its investments.

FIGURE 1 VRS pension assets by plan



SOURCE: VRS 2018 valuation report.

NOTE: Figures show total actuarial value of assets attributable to each retirement plan as of June 30, 2018. Trust fund assets attributable to other benefit programs are not shown. Figure for local plans is the aggregate of assets for political subdivisions that participate in VRS. Local plans hold more assets than the State Employees plan because they typically have been fully funded by local employer contributions, whereas the State Employees plan has not been fully funded in the past. The State Employees plan is larger than the local plans as measured by pension obligation.

FIGURE 2 VRS fast facts

MEMBERSHIP as of March 31, 2019



352,476 Actively employed members^a

212,575 Retired members & beneficiaries

157,136 Inactive members

722,187 Total

NET ADDITIONS for fiscal year ending June 30, 2018^b



\$2.8 billion Employer contributions

\$1.1 billion Member contributions

\$5.5 billion Net investment income

-\$5.4 billion Benefits paid and other expenses^c

\$4.1 billion Net additions d

ASSETS as of March 31, 2019



\$80.4 billion

Total VRS trust fund assets

INVESTMENT PERFORMANCE as of March 31, 2019



	1 year	3 years	5 years	10 years
Total return	4.7%	8.4%	6.7%	10.1%
Benchmark	3.7%	8.0%	6.2%	9.5%
Excess return	+1.0%	+0.4%	+0.5%	+0.6%

SOURCE: VRS 2018 annual report and 2019 membership and investment department data.

a Active membership included 154,479 teachers, 109,769 local government and political subdivision employees, and 88,228 state employees, state police, law enforcement officers, and judges. Within the retirement plans are three different benefit groups. Active membership by benefit group included 163,781 in Plan 1, 86,309 in Plan 2, and 102,386 in the hybrid plan. b Includes all additions and deductions to the trust fund for VRS retirement plans and other benefits programs. c Includes \$4.8 billion in retirement benefit payments, \$416 million in other benefits, \$123 million in refunds, and \$60 million in administrative and other expenses. d Does not sum because of rounding.

1. Trust fund investments

Management of the 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 allocation for the fund. The investment department manages investment programs within the guidelines set by the board. The investment department manages approximately one-third of the assets in-house and contracts with external managers to manage other assets.

Investment performance and asset allocation

The VRS trust fund held \$80.4 billion in assets as of March 31, 2019, an increase of \$2.3 billion from a year ago. Approximately \$27.3 billion of the trust fund was managed in-house, including all fixed income and some public equities, real assets, and cash. The remaining \$53.1 billion was managed by external managers under VRS supervision.

The total fund outperformed its investment benchmark for all periods ending March 31, 2019, both short and long term (Figure 3). However, the trust fund's investment returns were mixed relative to the 7.0 percent long-term (30+ year) rate of return that has been assumed by VRS for its investments. For the one-year and five-year periods, the trust fund's investments achieved returns below the long-term rate of return assumption, at 4.7 percent and 6.7 percent, respectively. The fund's three-year and 10-year returns exceeded the long-term rate of return.

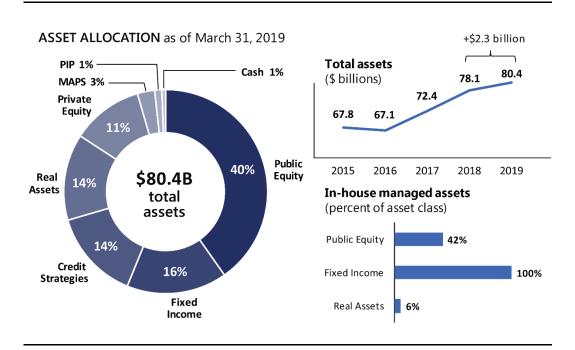
Public equity. The public equity program continues to be the largest VRS asset class, with \$32.3 billion in assets. The program consists of stocks and other equity securities for publicly traded companies in the U.S. and globally. Public equity investments are typically higher-risk than bonds and are expected to provide long-term capital growth and inflation protection. Forty-two percent of the program's assets are managed inhouse. The program outperformed its benchmarks for the five-year and 10-year periods, but it did not meet its benchmarks for the fiscal year to date (first three-quarters of FY19) or the one-year or three-year periods. The underperformance was mainly due to equity hedge funds underperforming compared to the benchmark and underperformance in value and low-volatility exposures, according to VRS staff.

Fixed income. The fixed income program is the second-largest VRS asset class, with \$12.8 billion in assets. The program consists of U.S. dollar-denominated securities, such as bonds and money market instruments, that pay a specific interest rate. Fixed income investments are typically lower risk relative to most other asset classes and are expected to generate steady returns even in down equity markets. All fixed income assets are managed in-house. The program outperformed its benchmarks for all periods.

The VRS board adopts a long-term return assumption based on the advice of the Investment Advisory Committee, VRS investment staff and plan actuary, and surveys from investment managers and consultants. This is the rate of return expected over the next 30+ years, based on projections of future market performance.

The long-term return assumption is one of the key assumptions used to determine the plan's funded status and employer contribution rates. The current long-term return assumption is 7%.

FIGURE 3
Asset allocation and trust fund investment performance



TRUST FUND INVESTMENT PERFORMANCE

for the period ending March 31, 2019

	FY to date	1 year	3 years	5 years	10 years
Total fund	3.7%	4.7%	8.4%	6.7%	10.1%
VRS custom benchmark	2.8	3.7	8.0	6.2	9.5
Public equity	1.4	2.0	9.6	6.9	12.5
Benchmark	1.7	3.1	10.2	6.8	12.0
Fixed income	5.0	4.8	2.7	3.2	5.0
Benchmark	4.6	4.5	2.0	2.7	3.7
Credit strategies	3.4	3.8	7.4	4.8	9.4
Benchmark	4.5	4.5	7.0	4.7	8.2
Real assets	6.0	9.8	9.7	10.7	10.8
Benchmark	5.2	8.1	7.4	8.8	8.8
Private equity	8.9	11.7	15.2	13.0	13.5
Benchmark	-3.5	-3.4	10.8	8.6	14.3
Multi-asset public strategies (MAPS)	0.6	n/a	n/a	n/a	n/a
Benchmark	2.3	n/a	n/a	n/a	n/a
Private investment partnerships (PIP)	4.6	7.1	7.8	n/a	n/a
Benchmark	-0.3	2.2	6.1	n/a	n/a

SOURCE: VRS investment department data.

NOTE: Asset allocations do not sum to 100 percent because of rounding.

Credit strategies. The credit strategies program is the third-largest VRS asset class, with \$11.5 billion in assets. The program includes investments in emerging market debt, high-yield bonds, convertible bonds, bank loans, and direct lending. Credit strategies investments are intended to provide higher income than bonds and better risk-adjusted returns than stocks. All of the program's assets are managed externally. The program outperformed its benchmarks for the three-year, five-year, and 10-year periods, but not the fiscal year to date (first three-quarters of FY19) or one-year period. The recent underperformance was due to defensive positioning and/or illiquid investments, according to VRS staff.

Real assets. The real assets program is the fourth-largest VRS asset class, with \$11.0 billion in assets.* The program includes investments in real estate, infrastructure, and 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 to the public equity market. Most VRS real assets are managed externally. The program outperformed its benchmarks for all periods.

Private equity. The private equity program is the smallest of the five major asset classes, with \$9.1 billion in assets.* Private equity is an alternative to traditional public equity and generally consists of ownership in companies that are not listed on public exchanges. 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 outperformed its benchmarks in the fiscal year to date (first three-quarters of FY19), one-year, three-year, and five-year periods, but underperformed in the 10-year period. The program has achieved its intended purpose and outperformed the public market on an annualized basis over the 10-year period.

Multi-asset public strategies. The multi-asset public strategies program is a relatively new, small exposure program, with \$2.2 billion in assets. The portfolio includes dynamic strategies, which are opportunistic multi-asset allocation approaches. The portfolio also includes risk-based investments, which are uncorrelated, and diversifying strategies relative to the rest of the assets in the fund. The portfolio is managed externally and has underperformed its benchmark for the fiscal year to date (first three-quarters of FY19). This underperformance is due to defensive positioning and underperforming quantitative factor strategies in the risk-based investments portion of the program, and the market volatility in late 2018 in the dynamic strategies portion of the program. The portfolio is too new to have performance or benchmarks for additional periods.

5

^{*}Performance figures for the real assets and private equity programs, as well as the private investment partnerships portfolio, do not reflect managers' actual valuations of these investments as of March 31, 2019 because valuations of private assets have a timing lag behind other assets. Instead, performance figures are based on valuations as of December 31, 2018, adjusted for cash flows during the quarter that ended March 31, 2019.

Private investment partnerships. The private investment partnerships portfolio is another relatively new, small exposure program, with \$900 million in assets. The portfolio comprises multi-asset private investments and is managed externally. The portfolio exceeded its benchmark for the fiscal year to date (first three-quarters of FY19), one-year period, and three-year period. The portfolio is too new to have performance or benchmarks for five-year and 10-year periods.

Investment policies and programs

The VRS board sets investment policies, and the professionals in the investment department implement programs to fulfill those policies. VRS recently completed a statutorily required stress test to help inform investment policies and programs. VRS is also in the process of conducting an asset liability modeling review to further inform investment decisions.

VRS completed a stress test and sensitivity analysis in December 2018

VRS completed its annual stress test and sensitivity analysis for the General Assembly in December 2018, as required by statute (§ 51.1-124.30:1). The report's purpose was to measure various risks faced by VRS and analyze their potential effect on the health of the VRS retirement plans.

The report concluded that existing unfunded liabilities expose VRS plans to increased risk in the event of a market downturn; therefore; the state could consider dedicating additional resources to reduce or pay off unfunded liabilities. The state already has made progress toward this goal, according to the report. The funded status of the plans has increased by approximately 10 percent over the past five years because of strong market returns and the state's decision to fully fund VRS's actuarially determined contribution rates. To make additional progress, the state could consider several approaches, including reducing the amortization periods for remaining legacy unfunded payments, maintaining current employer contribution rates, and making lump sum contributions to the legacy unfunded liabilities, according to VRS.

The report also found that VRS's projected median rate of return on investments is 6.83 percent, which is within a reasonable range of outcomes. (The 25th and 75th percentiles are 5.87 percent and 7.79 percent, respectively.) The median is slightly lower than VRS's current long-term investment rate of return assumption, which is 7 percent. Investment returns in any given year that are lower than the assumed rate of return could result in employers having to pay higher contribution rates in the future. Reducing the long-term investment rate of return assumption would also increase employer contribution rates. For example, reducing the long-term investment rate of return assumption to 6.75 percent in FY21 would require an estimated \$214 million in additional funding each year, \$95 million of which would come from general funds.

VRS is conducting an asset liability review in 2019

VRS is currently conducting a detailed review of the trust fund's asset allocation with assistance from an external consultant, Verus. VRS last reviewed the asset allocation in 2016. Through the review, VRS hopes to identify ways to maximize its investment

Risks faced by VRS include but are not limited to: poor investment returns, volatile market conditions, legacy unfunded liabilities, and changes in mortality rates, plan membership, and payroll.

returns given the risk tolerance that it has adopted for the fund, improve the stability of contribution rates, and increase the funded status. For example, the review will examine ways to minimize risk in scenarios of market volatility and the impact of modifying the long-term rate of return that VRS assumes for the retirement plan. VRS and Verus staff will present the review's findings to the VRS board in fall 2019. These findings will be used to inform the asset allocation and long-term rate of return assumption adopted by the board, which will be used in the rate-setting process that will be conducted in October and November 2019.

2. Defined contribution plans

VRS manages several defined contribution plans for its members. All state employees and many local VRS members are eligible to participate in one or more of the plans (Table 1). Participants in these plans have their own accounts, and individual participants determine how their money is invested in an investment line-up designed by VRS. The defined contribution plans are similar in structure to private-sector 401(k) plans and individual retirement accounts (IRAs).

Some of the VRS defined contribution plans are intended to provide primary retirement benefits, whereas others are intended to supplement pension benefits. The aggregate value of participant accounts held in the VRS-managed defined contribution plans was \$4.8 billion as of March 31, 2019.

Plan performance

Participants in the VRS defined contribution plans may choose from 21 investment options available through the defined contribution plans (DCP) lineup. These options include (1) diversified target-date portfolios, (2) individual investment options, and (3) self-directed brokerage accounts. Participants pay a flat administrative fee every year and additional investment fees based on the options they select. Participants in the Optional Retirement Plan for Higher Education may choose to invest in options available through VRS's DCP lineup or in options available through another provider, TIAA. In the past, participants have also been able to invest in options available through Fidelity; however, VRS recently deselected Fidelity as a provider (see page 10). Participants pay investment, administrative, and other fees based on the provider they choose and the investment options they select.

TABLE 1 VRS defined contribution plans (as of March 31, 2019)

Plan	Description	Assets (\$M)
Deferred compensation and cash match	State employees, and some local VRS members, can choose to make voluntary contributions to their Commonwealth 457 deferred compensation plan to supplement their retirement income. Most eligible state employees receive a modest cash match from employers in their Virginia 401(a) cash match plan. ^a	\$3,262
Optional plan for higher education ^b	Faculty and other eligible employees at public colleges and universities may make an irrevocable one-time decision to participate in this defined contribution plan instead of the State Employees Plan. Employers are required to make contributions to participant accounts, and employees hired after July 1, 2010, are also required to contribute.	\$1,056
Hybrid	State and local members of the hybrid plan are required to contribute to their Hybrid 401(a) plan and can choose to make voluntary contributions to their Hybrid 457 plan. Employers make mandatory contributions to participant accounts and match a portion of voluntary contributions made by members. Members are also enrolled in the hybrid plan's defined benefit component.	\$460
Other ^c	An optional retirement plan is offered as an alternative to political appointees (in place of the VRS State Employee plan) and to school superintendents in school divisions that have elected to have the plan (in place of the VRS Teachers plan).	\$17

SOURCE: VRS administration and investment department data.

Defined contribution plans (DCP)

Target-date portfolios. Participants may select a diversified investment portfolio that reflects their target retirement date. These portfolios include a broad spectrum of investments, such as stock, bond, and real estate funds. The mix of investments is automatically adjusted over time to become more conservative as the participant approaches retirement age. The target-date portfolios, which hold \$1.3 billion in assets, met or exceeded all of their performance benchmarks (Table 2).

Individual options. Participants may select from one or more individual options to build a customized investment portfolio. The options include different types of stock, bond, money market, and real estate funds, and a fund that reflects the investments held by the VRS trust fund. The individual options, which hold \$2.4 billion in assets, met or exceeded most of their performance benchmarks (Table 2). One option failed to meet its one-year benchmark.

^a Most political subdivisions do not have a cash match plan. ^b The following higher education institutions administer their own optional plans: George Mason University, Virginia Commonwealth University, the University of Virginia, Virginia Tech, and the College of William and Mary. Faculty at these institutions are not eligible to participate in the VRS optional plan for higher education. ^c The amounts held in the other plans are as follows: Optional Retirement Plan for Political Appointees, \$16.3 million; Optional Retirement Plan for School Superintendents, \$200,000; and Virginia Supplemental Retirement Plan for certain educators, \$100,000.

Self-directed brokerage accounts. The brokerage accounts allow participants to select from thousands of publicly traded mutual funds, exchange-traded funds, and individual securities. Participants who use brokerage accounts have full control over their investments, down to the individual securities held in their portfolio. The brokerage accounts hold \$48 million in assets. Because all investment decisions are made by the account holders, VRS does not use performance benchmarks for the brokerage accounts.

TABLE 2 Investment performance of VRS defined contribution plans

for the period ending March 31, 2019					
	1 year	3 years	5 years	10 years	
Options available for all plans					
Target-date portfolios Met or exceeded benchmark Total number of options	10 10	10 10	9	9	
Individual options Met or exceeded benchmark Total number of options	9 10	10 10	10 10	10 10	
Additional option under the higher education plan					
TIAA Met or exceeded benchmark Total number of options	<u>4</u> 10	4 10	<u>3</u>	<u>3</u> 10	
Fidelity Met or exceeded benchmark Total number of options	<u>5</u> 24	<u>11</u> 24	<u>8</u> 23	<u>11</u> 22	

SOURCE: VRS investment department data.

NOTE: (1) Options at top are available to all plan participants. (2) Total number of investment options reported for a given period can change because longer-term performance data is not available for newer options. (3) Performance of target-date and individual options is reported net of investment fees but not administrative fees. Performance of the additional options under the higher education plan is reported net of investment and embedded record-keeping and plan administration fees, where applicable. (4) Some funds are passively managed. Passively managed investment options are expected to trail their benchmarks by the expense ratio (fees) charged by the investment managers. Actively managed options are expected to outperform the market and were measured against the benchmark net of investment fund fees. Capital preservation investment options, such as stable value and money market funds, are expected to generate returns at or above zero and were assessed relative to that benchmark. (5) VRS Board of Trustees deselected Fidelity as a provider for new hires effective June 1, 2019 and for existing participants effective January 1, 2020.

Optional Retirement Plan for Higher Education

Participants in the Optional Retirement Plan for Higher Education (ORPHE) can choose to invest in the VRS DCP lineup or with TIAA. Participants in ORPHE have also been able to choose from options available through Fidelity, though Fidelity was recently deselected as a provider (see below). Under TIAA, participants may select a diversified portfolio option or build a custom portfolio from different types of stock, bond, money market, and real estate funds. Under Fidelity, participants have been able to select a target-date portfolio or build a portfolio from a variety of investment options. Both offer self-directed brokerage accounts. As of March 31, 2019, the TIAA and Fidelity programs held over \$1 billion in assets. The investment options under both TIAA and Fidelity underperformed the majority of their benchmarks across all periods (Table 2).

An additional \$50 million is held with private deselected providers that VRS no longer partners with under the higher education retirement plan. VRS does not track investment performance for deselected providers because participants can no longer contribute to them through the plan. VRS tracked Fidelity's performance during the most recent period because Fidelity was still a provider as of March 31, 2019. VRS will continue tracking Fidelity's performance until Fidelity is fully deselected in January 2020.

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 defined contribution plan activities are guided by the Defined Contribution Plans Advisory Committee. Two VRS board members serve on the committee, and the remaining members are appointed by the board. The committee provides guidance to the board and staff.

VRS Board approved changes to Fidelity and TIAA ORPHE providers

The VRS Board of Trustees approved two substantive changes to ORPHE providers in 2019, including (1) deselecting Fidelity as a provider and (2) changing the TIAA investment options to those that are more beneficial to participants. Both changes were recommended by the Defined Contribution Plans Advisory Committee on April 25, 2019 and approved by the VRS Board of Trustees on May 13, 2019. Fidelity's status as a deselected provider went into effect for new hires on June 1, 2019, and it will go into effect for existing participants on January 1, 2020. Changes to the TIAA investment options will go into effect in January 2020.

The decision to remove Fidelity as a provider was largely driven by Fidelity's investment underperformance, high fees, and insufficient service offerings. For the period ending on March 31, 2019, Fidelity failed to meet nearly two-thirds (62 percent) of its investment benchmarks across all investment periods (Table 2). Investment underperformance also occurred in previous years, with Fidelity failing to meet 58 percent of its investment benchmarks as of September 30, 2018 and 22 percent of its investment

benchmarks as of March 31, 2018. Fidelity investments have higher investment and administration fees because most are actively managed. For example, Fidelity's administration fee was \$60 for participants in 2019, which is nearly double the fee that participants in VRS's DCP lineup paid. Fidelity's fees are also bundled, which is less transparent to program participants, according to VRS staff. In 2019, Fidelity stopped offering on-site investment counseling services to participants. Several employers and participants have reached out to VRS to ask about this service.

VRS also changed the TIAA investment options because of investment underperformance and high fees. For the periods ending in March 31, 2019 and September 30, 2018, TIAA failed to meet 65 percent of its investment benchmarks across all investment periods. Similar to Fidelity, TIAA investments have higher investment and administration fees than the DCP line-up. For example, an individual who has a TIAA CREF Money Market Account paid \$235* in investment and other fees in 2019 for an account with \$100,000, while an individual with a VRS DCP Money Market Fund paid \$111 in investment and other fees for an account of the same size. TIAA fees are also bundled, which is less transparent to program participants.

VRS staff have conducted numerous site visits and issued multiple written communications to inform stakeholders of the Fidelity and TIAA changes. VRS prioritized stakeholder outreach and feedback while developing changes to Fidelity and TIAA, because of the unique recruitment and retention benefits that these investment options provide to participating higher education institutions. In fall 2018 and spring 2019, VRS staff met with employers and faculty around the state to explain the OR-PHE program and how it is structured (e.g., contracts, services, and fees). In spring 2019, staff reached out to various stakeholders to inform them of potential changes (sidebar). Staff also will distribute several additional communications in 2019 to answer participants' frequently asked questions and keep them apprised of program changes.

VRS staff anticipate some participants will want to continue to invest with Fidelity. To facilitate this, VRS is providing participants with the option to indicate that their assets are to remain with Fidelity. To select this option, participants will need to complete a hard copy form. Participants who do not complete the form will have their assets automatically transferred to the VRS DCP (default) or TIAA (if selected). This likely will increase participation in VRS's DCP among higher education employees. Participants who wish to continue investing with Fidelity will also be able to do so through self-directed brokerage accounts.

Stakeholders contacted by VRS staff include plan participants, participating colleges and universities, the State Council of Higher Education for Virginia, the Department of Human Resource Management, the Secretaries of Finance and Education, House Appropriations Committee staff, Senate Finance Committee staff, and JLARC staff.

Investment and other fees for the VRS DCP Money Market Fund include investment management fees and fees for administrative costs. TIAA CREF Money Market Account fees include fees for investment management and other investment-related expenses, fees for recordkeeping and administration costs, 12(b)-1 distribution fees, and mortality and expense risk fees. The total fund expense ratio is 0.08% for the VRS DCP Money Market Fund and 0.24% for the TIAA CREF Money Market Account.

^{*}Example assumes that all funds are in a legacy TIAA CREF Money Market contract, as is the case with most funds invested in this option. Funds invested in TIAA CREF Money Market contracts since 2017 are eligible for a 0.10% plan service credit, but the amount of credit received varies by individual and typically is minimal.

3. Legislation enacted in 2019

Through legislative action, the General Assembly can adjust contribution rates and funding, benefits and eligibility, and other aspects of VRS retirement plans and benefits programs. In 2019, the General Assembly enacted legislation and budget language that affect VRS (Table 3).

TABLE 3
VRS legislation and budget language enacted by 2019 General Assembly

SB 1227	Extension of critical shortage teacher program Extends the sunset provision for the critical shortage teacher program from July 1, 2020 to July 1, 2025.
HB 2166	Change in definition of law-enforcement officer Changes the definition of law enforcement officer to include part-time investigators with the Virginia Lottery.
Item 474 O.1.a and O.1.b	Modification of existing ORPHE surcharge Requires higher education institutions that have their own ORPHE plan to pay a surcharge for positions converted to ORPHE-eligible positions and provide VRS with a list of these positions and their ORPHE participation status each year.

SOURCE: Virginia Legislative Information System and VRS.

4. Benefits administration and agency management

Administration of member benefits is one of the core responsibilities of VRS. To carry out this and other duties, the agency must be effectively managed. Current topics related to benefits administration and agency management include a decline in the proportion of hybrid plan members making voluntary contributions, progress made towards VRS's information technology modernization effort, and VRS board member reappointments.

Hybrid plan voluntary contribution participation rate continues to decline until next automatic escalation in 2020

The hybrid plan combines elements of a traditional defined benefit retirement plan with a 401(k)-style defined contribution plan. Hybrid plan members include most state employees, teachers, and local employees hired on or after January 1, 2014, and make up 29 percent of the total active VRS membership as of March 31, 2019. (State employees in the SPORS and VaLORS plans, and local employees with enhanced hazardous duty benefits, are not eligible to participate in the hybrid plan.) The hybrid plan has lower costs and liabilities for the state than the defined benefit plans it replaced. Therefore, it is expected to gradually reduce costs for the state and most localities as it covers an increasing proportion of the workforce. The plan also transfers a higher proportion of investment and longevity risk from employers to plan members.

To ensure adequate savings at retirement, members of the hybrid plan should make voluntary contributions to the defined contribution portion of their plan. Hybrid plan members are required to contribute 1 percent of their salary to their defined contribution component. Hybrid plan members may make additional voluntary contributions of up to 4 percent of their salary and receive an employer match, thereby enhancing their retirement savings. Hybrid plan members who do not make adequate voluntary contributions will likely not meet an income replacement target of approximately 80 percent of their pre-retirement income. (Voluntary contributions needed to meet income replacement targets vary by income level.)*

The percentage of hybrid plan members making voluntary contributions peaked after the plan's first statutory automatic rate escalation took place in January 2017 but has since declined (Figure 4). As of March 31, 2017, 79 percent of members were making voluntary contributions. However, by March 31, 2019, less than half of hybrid plan members were making voluntary contributions. Employee turnover has contributed to the decline in the proportion of members making voluntary contributions. Over 59,000 new hybrid plan members have been added to the plan since the automatic escalation in 2017, and new employees tend not to initiate a voluntary contribution when they start employment. As a result, the percentage of members who make voluntary contributions

Hybrid plan members contribute a total of 5% to 9% of salary toward their retirement benefits.

Members must contribute 4% of salary toward their defined benefit component.

Members are required to contribute 1% of salary to their defined contribution component and may voluntarily contribute up to an additional 4%.

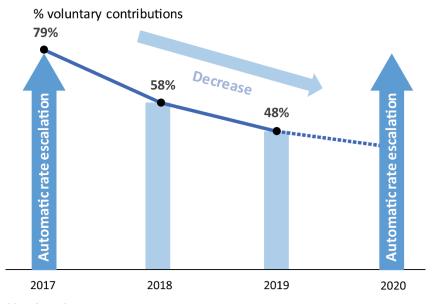
Employers also are required to contribute to a member's defined benefit component at the actuarially determined rate. Employers are required to contribute 1% of salary toward a member's defined contribution component and up to an additional 2.5% in matching contributions.

An automatic escalation of 0.5 percent occurs every three years for voluntary member contributions to the defined contribution component of the hybrid plan, as required under statute (§ 51.1-169 C.3). Members can opt not to allow the increase, or they can choose a different increase amount.

^{*80} percent replacement target takes into account social security and assumes 30 years of service. Actual voluntary contributions needed to meet income replacement target varies with members' income levels and annual investment returns. Hybrid plan members who make the maximum 4 percent in voluntary contributions would potentially receive retirement benefits greater than Plan 1 or Plan 2 members.

will likely continue to decline until the next automatic escalation takes place in January 2020.

FIGURE 4
Percentage of hybrid plan members making voluntary contributions since last automatic rate escalation in 2017



SOURCE: VRS.

NOTE: Data as of March 31 in 2017, 2018, and 2019.

A plan change would likely be required to significantly increase the percentage of hybrid plan members making voluntary contributions and to maintain the progress. To increase participation by new employees, employees could be automatically enrolled at a minimum voluntary contribution rate when they are hired with an option to opt out. Automatic escalation could also be done more frequently than every three years, which would bring hybrid members into the voluntary portion of the plan sooner and would increase their contribution rate more quickly. Recent experience shows that such changes could be effective at increasing voluntary participation, as only 3 percent of hybrid plan members opted out of the 2017 automatic escalation.

Legacy IT system retired as part of modernization effort

VRS retired its legacy mainframe IT system ("RIMS") in mid-April 2019 as part of its ongoing business transformation modernization effort. Several functions in the new system ("VNAV") went live at the end of April with minimal disruption to customer services. VRS staff are conducting close quality monitoring and were scheduled to gradually bring new capabilities online through June 2019 to ensure that the new system operates as expected. The new system has enabled employers and participants to complete several previously manual processes online. It also has given VRS staff a single system to provide customer support services and readily access information

about past customer interactions. The new system will be the foundation for upcoming online retirement processing.

VRS board member appointments

The VRS board is a supervisory board that is directly vested with authority for managing and overseeing most aspects of the retirement system. It includes nine members, five of whom are appointed by the governor and four appointed by the General Assembly. The board delegates day-to-day management responsibilities to the VRS director and chief investment officer.

W. Brett Hayes was appointed to a second term by the General Assembly's Joint Rules Committee in February 2019. He was originally appointed to the board in 2013. His new term will expire in 2023. Mr. Hayes is a managing principal at Wells Fargo Financial Advisors and serves as one of the statutorily required subject-matter experts appointed by the legislature.

Joseph W. Montgomery was also appointed to a second term by the General Assembly's Joint Rules Committee in February 2019. He was originally appointed to the board in 2014. His new term will expire in 2024. Mr. Montgomery is the managing director of the Optimal Service Group of Wells Fargo Advisors, LLC and serves as another statutorily required subject-matter expert appointed by the legislature.



JLARC.VIRGINIA.GOV