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Report to the Governor and the General Assembly of Virginia

VRS Oversight Report

DECEMBER 2019

JLARC
JOINT LEGISLATIVE AUDIT
AND REVIEW COMMISSION

Joint Legislative Audit and Review Commission

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

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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 598 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.

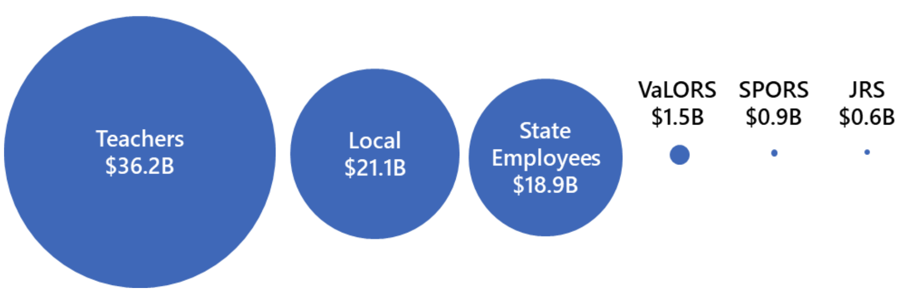
VRS serves over 725,000 members, retirees, and beneficiaries. Active members include current state and local employees and teachers in Virginia's public school divisions. VRS also serves retirees, their designated beneficiaries, and "deferred" members, who are not actively employed and are not collecting benefits.

The financial assets used to pay VRS benefits are pooled in the VRS trust fund, which held $82.7 billion in assets as of September 30, 2019. Ranked by value of assets, VRS is the nation's 19th largest public or private pension fund. In FY19, VRS paid $5 billion in retirement benefits and $414 million in other post-employment benefits, not including benefits paid outside of the trust fund through the defined contribution plans.

VRS receives funds from three main sources: employer contributions, member contributions, and investment income. In FY19, VRS received $3.7 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 FY19. VRS investments generated a return of 5.5 percent for the one-year period ending September 30, 2019. The total annualized return over the 10-year period was 8.4 percent, which is above the new 6.75 percent long-term (30+ year) rate of return that VRS assumes for its investments.

FIGURE 1
VRS pension assets by plan



SOURCE: VRS 2019 valuation report.
NOTE: Figures show total actuarial value of assets attributable to each retirement plan as of June 30, 2019. 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 (in aggregate) hold more assets than the State Employees plan because political subdivisions have historically fully funded the required contributions. The liabilities for the local plans (in aggregate) and the State Employees plan are similar.

FIGURE 2

VRS fast facts

MEMBERSHIP as of June 30, 2019

345,678	Actively employed members[a]
214,545	Retired members & beneficiaries
164,804	Inactive members
725,027	Total

NET ADDITIONS for fiscal year ending June 30, 2019[b]

$2.9 billion	Employer contributions
$1.1 billion	Member contributions
$5.2 billion	Net investment income
–$5.6 billion	Benefits paid and other expenses[c]
$3.7 billion	Net additions[d]

ASSETS as of September 30, 2019

$82.7 billion

Total VRS trust fund assets

INVESTMENT PERFORMANCE as of September 30, 2019

	1 year	3 years	5 years	10 years
Total return	5.5%	8.0%	6.8%	8.4%
Benchmark	5.9%	8.1%	6.6%	8.0%
Excess return	-0.4%	-0.1%	+0.2%	+0.4%

SOURCE: VRS 2019 annual report and 2019 membership and investment department data.
a Active membership included 149,396 teachers, 110,415 local government and political subdivision employees, and 85,867 state employees, state police, law enforcement officers, and judges. Within the retirement plans are three different benefit groups. Active membership by benefit group included 157,130 in Plan 1, 84,859 in Plan 2, and 103,689 in the hybrid plan. b Includes all additions and deductions to the trust fund for VRS retirement plans and other benefits programs. c Includes $5.0 billion in retirement benefit payments, $414 million in other benefits, $118 million in refunds, and $64 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 $82.7 billion in assets as of September 30, 2019, an increase of $2.5 billion from a year ago. Approximately $27.9 billion of the trust fund was managed in-house, including all fixed income and some public equities, real assets, and cash. The remaining $54.8 billion was managed by external managers under VRS supervision.

The total fund's investment performance was mixed relative to its investment benchmarks. The total fund outperformed its investment benchmark for the five-year and 10-year periods ending September 30, 2019, but underperformed its investment benchmark for the one-year and three-year periods (Figure 3). The trust fund's investment returns largely exceeded the new 6.75 percent long-term (30+ year) rate of return that is assumed by VRS for its investments. The fund's three-year, five-year, and 10-year returns exceeded the long-term rate of return, but the fund's one-year return of 5.5 percent was below the long-term rate of return assumption.

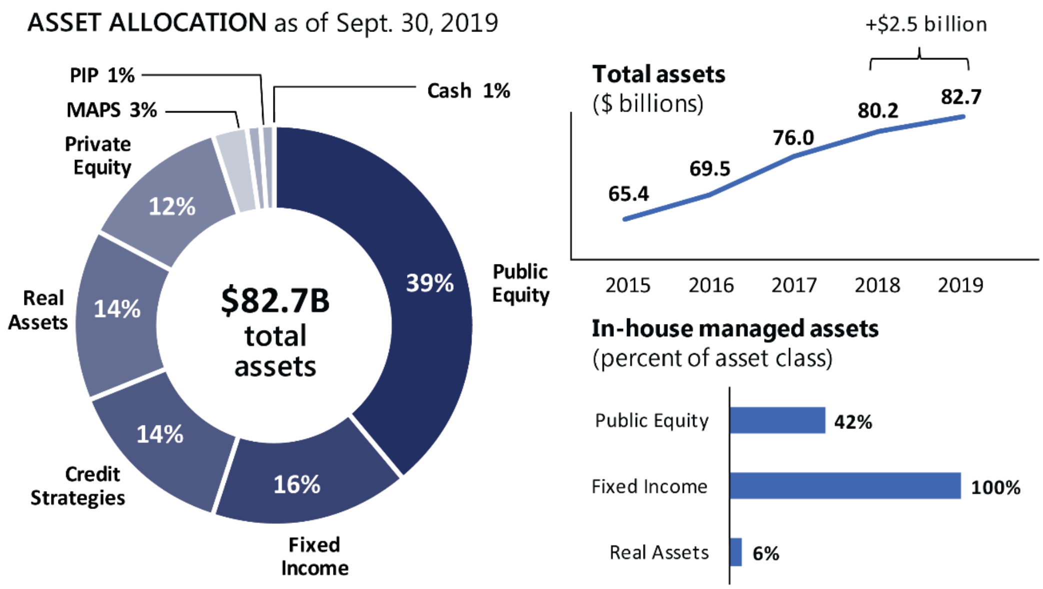
The VRS board adopts a **long-term return assumption** based on the advice of the Investment Advisory Committee, VRS investment staff and plan actuary, and surveys from investment managers and consultants. This is the rate of return expected over the next 30+ years, based on projections of future market 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 6.75 percent.

Public equity. The public equity program continues to be the largest VRS asset class, with $32.5 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. Forty-two percent of the program's assets are managed in-house. The program outperformed its benchmarks for the 10-year period, but it did not meet its benchmarks for the fiscal year to date (first quarter of FY20) or the one-year, three-year, or five-year periods. The underperformance was mainly due to underperformance in value and low-volatility exposures, according to VRS staff. This is the second year in a row that the public equity program underperformed its one-year and three-year benchmarks for this time period.

Fixed income. The fixed income program is the second-largest VRS asset class, with $13.1 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.

FIGURE 3
Asset allocation and trust fund investment performance



TRUST FUND INVESTMENT PERFORMANCE
for the period ending September 30, 2019

	FY to date	1 year	3 years	5 years	10 years
Total fund	1.4%	5.5%	8.0%	6.8%	8.4%
VRS custom benchmark	1.4	5.9	8.1	6.6	8.0
Public equity	0.2	0.5	8.7	6.8	9.0
Benchmark	0.4	1.5	9.4	6.9	8.6
Fixed income	2.4	10.7	3.4	3.9	4.6
Benchmark	2.3	10.3	2.9	3.4	3.7
Credit strategies	0.6	5.3	6.2	5.2	7.2
Benchmark	1.1	6.6	5.8	5.1	6.4
Real assets	2.0	8.2	9.2	10.2	11.5
Benchmark	1.5	6.9	7.1	8.4	9.5
Private equity	4.3	14.0	16.7	12.8	14.7
Benchmark	4.0	10.1	15.4	10.5	15.5
Multi-asset public strategies (MAPS)	0.8	1.9	n/a	n/a	n/a
Benchmark	1.4	6.1	n/a	n/a	n/a
Private investment partnerships (PIP)	2.8	7.5	9.4	n/a	n/a
Benchmark	2.5	7.0	9.3	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 $12.0 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 quarter of FY20) 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 $11.3 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 $9.8 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 quarter of FY20), one-year, three-year, and five-year periods, but underperformed in the 10-year period. The underperformance was largely due to strong public equity returns coming out of the global financial crisis, where the private equity return was behind the benchmark.

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 quarter of FY20) and the one-year period. This underperformance is due to defensive positioning and underperforming quantitative factor strategies in the risk-based investments portion of the program, and defensive positioning and currency volatility in the dynamic strategies portion of the program. The portfolio is too new to have performance or benchmarks for additional periods.

*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 September 30, 2019 because valuations of private assets have a timing lag behind other assets. Instead, performance figures are based on valuations as of June 30, 2019, adjusted for cash flows during the quarter that ended September 30, 2019.

Private investment partnerships. The private investment partnerships portfolio is another relatively new, small exposure program, with $1.1 billion 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 quarter of FY20) and the one-year and three-year periods. 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. The VRS board recently approved several noteworthy changes to investment policies, including reducing the assumed long-term rate of return for investments from 7.0 percent to 6.75 percent, modifying the strategic asset allocation, and updating investment benchmarks. VRS's investment expenses are lower than its peers, in part, because VRS manages some investments in house.

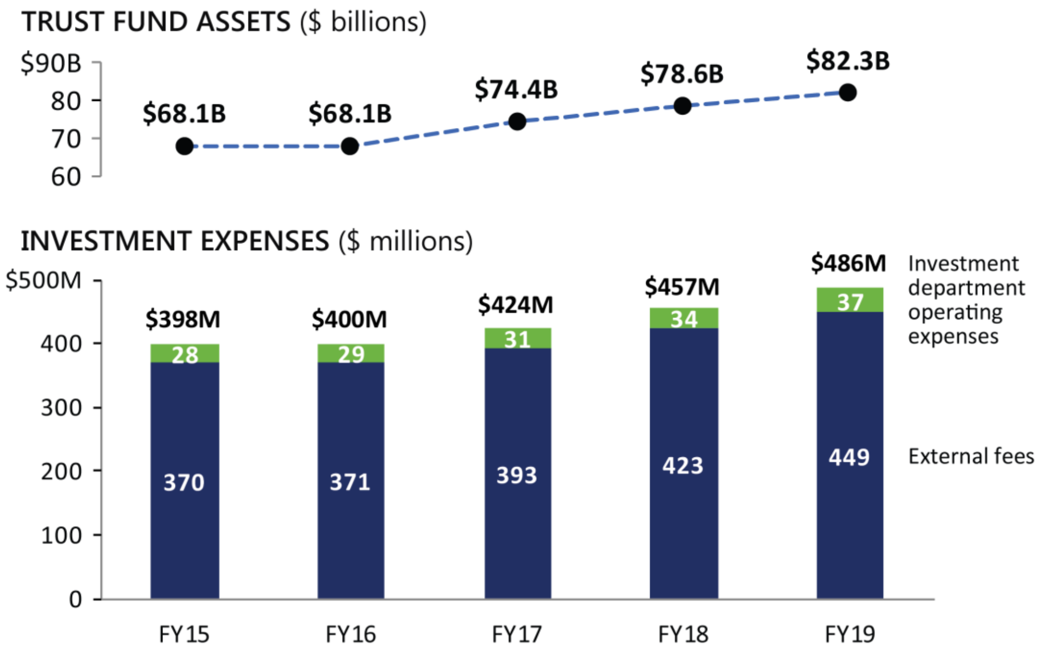
VRS investment expenses increased as the trust fund increased, but expenses remained lower than peers

VRS investment expenses include external fees, paid mostly to outside investment managers, and the VRS investment department's operating expenses. External fees account for over 90 percent of investment expenses.

VRS investment expenses have increased over time, but this is mostly because of the growing value of assets held in the VRS trust fund (Figure 4). Investment expenses increased by an average of 5.2 percent per year, for a total increase of $88 million since FY15. This growth was driven by the trust fund, which also grew by an average of 4.9 percent per year over the same five-year period. VRS investment expenses as a percentage of total trust fund investments were between 0.57 percent and 0.59 percent during this time. Most of VRS's investment expenses are fees paid to external managers based on the value of the assets they hold. As the trust fund grew, so did the value of assets held by external managers and, correspondingly, the total fees they were paid.

VRS investment department expenses represent a small but growing part of overall investment expenses. These expenses grew from $28 million in FY15 to $37 million in FY19, an increase of 32 percent. The main growth drivers were related to staffing, data subscriptions, and consulting services. During this time period, VRS added and filled eight full-time positions in the investment department. In addition, the cost of data feeds increased, and VRS hired a third party to assist with process improvement. Although investment department expenses increased during this time period overall, their growth reflects the expansion of the in-house management group, and it generally aligns with total fund growth.

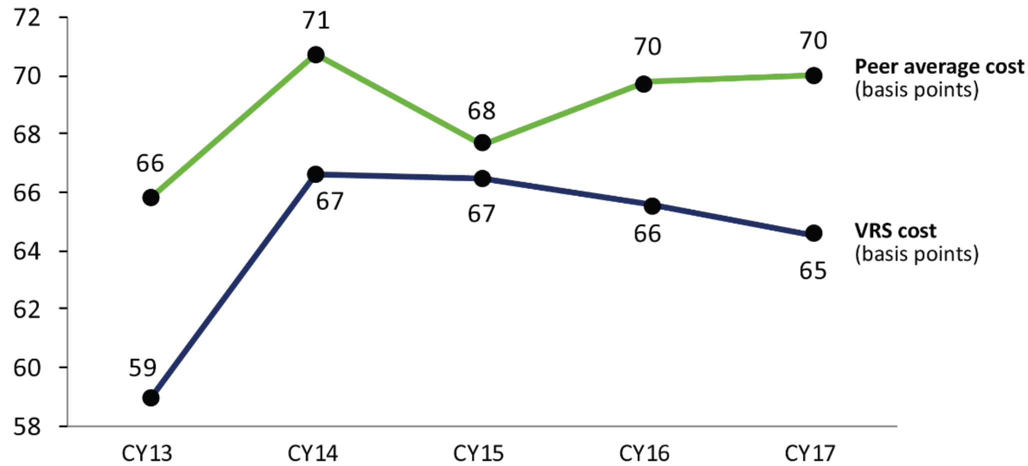
FIGURE 4
Trend in VRS investment expenses compared to trust fund assets



SOURCE: VRS annual reports and investment department data.
NOTE: Trust fund assets are as of June 30 each year. External fees include management and performance fees paid to third parties that invest VRS assets. They also include fees paid to the bank that serve as the trust fund's custodian and legal fees. Investment department operating expenses include all staff, IT, facility, and contract services fees (other than those captured in external fees) related to the investment department's routine operations.

Although VRS investment expenses have increased overall, they remain lower than the investment expenses of peer retirement systems. VRS has hired an investment benchmarking consultant, CEM Benchmarking, to annually review its investment expenses and compare them to peers. CEM looked at VRS expenses as a percentage of the trust fund, measured in basis points. CEM reported that VRS investment expenses increased after 2013 but have steadily decreased since then to a level of 65 basis points in 2017. VRS expenses were one to seven basis points lower than the peer average over the same time period, adjusted for fund size and asset mix (Figure 5). (CEM's reported investment expenses are different than those reported by VRS because CEM reports on a calendar year basis and makes adjustments to expenses and the assets they are measured against so that they are comparable to peers.) The difference in basis points between VRS and its peer average was the equivalent of $7 million to $44 million in lower total investment expenses in a given year.

FIGURE 5
VRS investment expenses compared to peers



SOURCE: CEM investment benchmarking reports to the VRS board.
NOTE: Peer average cost is an estimate of the cost that VRS's peers would incur if they had VRS's asset mix. 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 2018 and 2019 are not yet available.

In-house asset management reduced fees paid to external investment managers

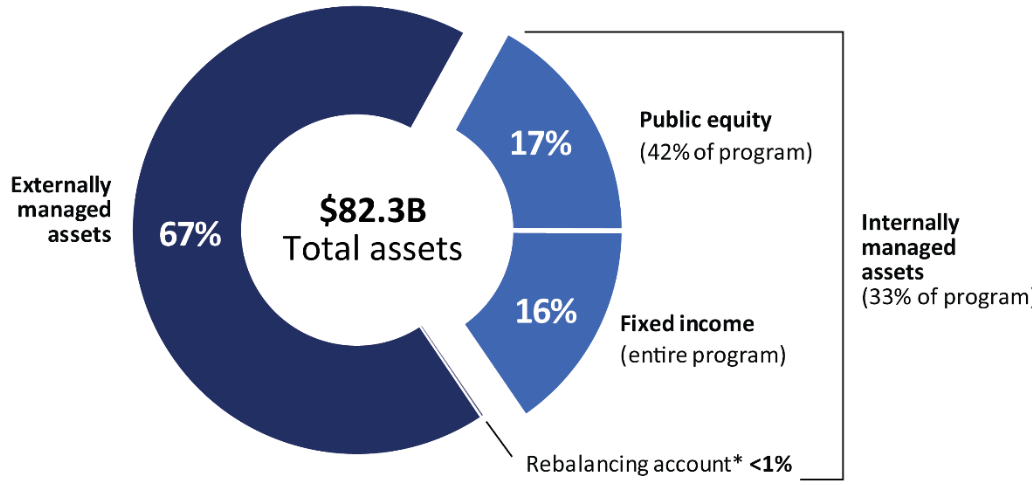
VRS manages a portion of the trust fund's assets in-house, with the goal of reducing costs while maintaining a high return on investments. As of the end of FY19, 33 percent of the trust fund was managed in-house (Figure 6). In-house managed assets included the entire fixed income program and approximately 42 percent of the public equity program.

VRS staff indicated that in-house management of assets has resulted in substantial cost savings while providing a high return relative to benchmarks. According to VRS's investment benchmarking consultant, CEM, approximately $52 million is saved annually by managing assets in-house instead of paying fees to outside managers. These annual savings remain in the fund to be reinvested, which compounds the savings over time.

In-house managed public equity assets outperformed their benchmark for the 10-year period ending September 30, 2019. These assets generated an annualized return of 11.9 percent over the 10-year period, 90 basis points above the 10-year benchmark. However, similar to the overall public equity program, in-house managed public equity assets underperformed their benchmark for the one-year, three-year, and five-year periods.

In-house managed fixed income assets outperformed their benchmarks for all periods ending September 30, 2019. The assets outperformed the 10-year benchmark by 40 basis points and generated an annualized return of 4.1 percent over that period.

FIGURE 6
VRS in-house and externally managed assets (as of June 30, 2019)



SOURCE: VRS investment department data, 2019.
NOTE: The rebalancing account may include fixed income, equity, and cash exposure. In-house managed real assets are grouped into the public equity program for reporting purposes. Does not sum because of rounding.

VRS lowered the long-term rate of return assumption to 6.75 percent to account for lower anticipated future investment returns

The VRS board approved a reduction in the long-term rate of return assumption from 7.0 percent to 6.75 percent in October 2019. The new return assumption was made effective retroactively as of July 1, 2019 and was used by VRS's plan actuary (Cavanaugh Macdonald Consulting, LLC) to calculate the funded status of VRS plans at the end of FY19 (June 30, 2019) and to develop the board-certified contribution rates for FY21–FY22. VRS last modified the long-term rate of return assumption in 2010, when it was reduced from 7.5 percent to 7.0 percent.

The VRS board reduced the long-term rate of return assumption because of lower projected future investment returns. Investment returns are expected to be significantly lower than historical levels over the next five to 10 years because of the possibility of an economic downturn, according to industry projections. To account for this, VRS adopted a blended rate of return that assumes low investment returns in the near-term and moderate investment returns over the long-term (sidebar). To further increase the probability that the fund will meet expected investment returns, VRS's new rate also reflects the 40^{th} percentile of projected investment returns (60 percent probability of being met) rather than the median (50 percent probability of being met), which was used previously.

VRS's **long-term rate of return assumption** is based on both near-term and long-term investment return projections. Considering both the near-term and long-term investment horizons when setting the long-term rate of return assumption fulfills a recommendation from JLARC's actuary, GRS Retirement Consulting, that was included in the 2018 Quadrennial Actuarial Audit.

VRS's new long-term rate of return assumption is relatively conservative compared with other states, although other states' return assumptions have been trending downward in recent years. The median long-term rate of return assumed across other states was 7.25 percent as of August 2019, according to data collected by the National Association of State Retirement Administrators. Only 10 percent of statewide plans have rates set at or below 6.75 percent like Virginia's. Having an appropriate long-term rate of return assumption is important because it can significantly impact a plan's funded status and the contribution rates charged to employers. For example, return assumptions that are too high understate liabilities and undercharge employers.

Beginning in FY21, VRS will need approximately $178 million in additional pension contributions from employers each year to cover the lower investment returns assumed under the new long-term rate of return. Approximately $74 million of the additional employer contributions will come from general funds, while the remaining $104 million will come from non-general funds. In total, approximately $2.2 billion in employer contributions will be needed for VRS's statewide plans each year to fully fund the employer contribution rates.

VRS approved changes to the strategic asset allocation policy and modified several investment benchmarks

The VRS board approved changes to the strategic asset allocation policy for the trust fund in October 2019. The new asset allocation policy will be effective on January 1, 2020 and reflects the results of an asset liability study that VRS hired a consultant (Verus) to complete in 2019. The VRS board last approved changes to the asset allocation policy in June 2016.

The most significant change from the new asset allocation policy will be a reduction in assets in VRS's public equity portfolio (Table 1). The proportion of assets invested in public equity will be reduced from 40 percent to 34 percent. Assets that were previously invested in public equity will be added to the private equity, PIP, and MAPS portfolios. These changes should provide the plan with additional diversification to help protect against stock market volatility and future economic downturns, according to VRS staff. In addition, the new asset allocation policy is projected to increase the plan's expected long-term investment returns from 7.02 percent to 7.11 percent. It will take a few years for VRS to transition assets from public equity to the private equity and other portfolios; therefore, the benefits of the new asset allocation policy will not be realized immediately.

TABLE 1
VRS strategic asset allocation policy

Asset class	Current policy target	New policy target	Change
Public equity	40%	34%	↓ 6%
Fixed income	16	15	↓ 1
Credit strategies	14	14	None
Real assets	14	14	None
Private equity	11	14	↑ 3
Private investment partnerships (PIP)	2	3	↑ 1
Multi-asset public strategies (MAPS)	3	6	↑ 3

SOURCE: VRS board meeting documents.

The VRS board also approved modifications to VRS's investment benchmarks in October and November 2019. The purpose of the modifications is to ensure that the benchmarks used for each of the portfolios align with the current investment approach of the portfolio. For example, changes to the fixed income benchmark will account for the high yield investments that have been added to the portfolio in recent years. All benchmark modifications will be fully implemented by June 30, 2020.

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 2). 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 $5.1 billion as of September 30, 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 deselected Fidelity as a provider in June 2019. Participants pay investment, administrative, and other fees based on the provider they choose and the investment options they select.

TABLE 2
VRS defined contribution plans (as of September 30, 2019)

	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]	$3,397
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.	$1,089
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.	$562
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).	$18

SOURCE: VRS administration and investment department data.
[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, $17.6 million; Optional Retirement Plan for School Superintendents, $226,000; and Virginia Supplemental Retirement Plan for certain educators, $145,000.

Defined contribution plans (DCP)

Target-date portfolios. Participants may select a diversified investment portfolio that reflects their target retirement date. These portfolios are the default for members who do not elect an investment option, and they 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 $1.5 billion in assets, met or exceeded all of their performance benchmarks (Table 3).

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 allows members to purchase units of the investments held by the VRS defined benefit trust fund. The individual options, which hold $2.4 billion in assets, met or exceeded the majority of their performance benchmarks (Table 3). Two options did not meet their one-year and three-year benchmarks.

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 $49 million in assets. Because all investment decisions are made by the account holders, VRS does not use performance benchmarks for the brokerage accounts.

TABLE 3
Investment performance of VRS defined contribution plans

for the period ending September 30, 2019

	1 year	3 years	5 years	10 years
Options available for all plans				
Target-date portfolios				
Met or exceeded benchmark	10	10	9	8
Total number of options	10	10	9	8
Individual options				
Met or exceeded benchmark	8	8	10	10
Total number of options	10	10	10	10
Additional option under the higher education plan				
TIAA				
Met or exceeded benchmark	5	5	3	3
Total number of options	10	10	10	10
Fidelity				
Met or exceeded benchmark	8	7	6	8
Total number of options	24	24	24	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. 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. TIAA also offers a self-directed brokerage account. As of September 30, 2019, the TIAA program held over $801 million in assets. The investment options under TIAA underperformed the majority of their benchmarks across all periods (Table 3).

Until recently, ORPHE participants were also able to choose from options available through Fidelity, but VRS deselected Fidelity as a provider in 2019 (effective for new hires June 1, 2019 and for existing participants January 1, 2020). Fidelity participants will be able to maintain their existing investments, but they will be unable to contribute additional funds to investment options through the plan. As of September 30, 2019, the Fidelity program held over $236 million in assets. The investment options under Fidelity underperformed the majority of their benchmarks across all periods (Table 3).

In addition to Fidelity, $49 million is held with other 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 for existing participants as of September 30, 2019. VRS will continue tracking Fidelity's performance until Fidelity is fully deselected in January 2020.

VRS conducted a review of ORPHE plan employer contribution rates in 2019. These rates are established in statute, and VRS is required to review them at least once every six years (§ 51.1-126). The purpose of the review is to help the VRS board determine whether changes to the employer contribution rate are warranted. VRS staff led the review, but VRS's actuary, Cavanaugh Macdonald Consulting LLC, validated the review's methodology and findings. The review concluded that the ORPHE employer contribution rates are generally in line with peers. The average maximum contribution rate reported for VRS's peer institutions was 8.8 percent in 2019; the peer average has not changed since VRS's last review, which was conducted in 2013. The contribution rate for ORPHE Plan 1 members (people hired before 7/1/2010) was 10.4 percent, which is slightly above the peer average. The contribution rate for ORPHE Plan 2 members (people hired after 7/1/2010) is 8.5 percent, which is similar to the peer average. The adequacy of ORPHE plan benefits at retirement (the benefit replacement ratio) was also in line with other VRS plans. The VRS board approved a motion to accept the review and did not recommend changes to the ORPHE contribution rates.

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. Every two years, the VRS board certifies the employer contribution rates that are needed to pay and fully fund the plans over time, as determined and recommended by its actuary. Employer contribution rates for the Teachers Plan, State Employees Plan, and other state-supported plans must be enacted each biennium in the Appropriation Act. For all state-supported plans, the Code of Virginia requires the state to fully fund the board-certified contribution rates. For the 598 local plans that are not supported by the state, the Code of Virginia requires employers to pay the rates certified by the VRS board, with some limited exceptions.

Virginia's statutory schedule for fully funding rates requires the state to pay 100 percent of the board-certified employer contribution rates by FY19 (§ 51.1-145). The schedule, which was enacted in 2012, gradually increased the portion of funding required for each plan in each biennium. The General Assembly fully funded rates ahead of schedule in FY18 for all plans.

The VRS actuary performs valuations annually, which provide an update on the funded status of the retirement plans. Funded status is a key indicator of the financial health of the plans.

Employer contribution rates increased for most statewide plans because of decrease in long-term rate of return assumption

The VRS board certified the employer contribution rates that were recommended by its actuary for the FY21–FY22 biennium. The board-certified rates *increased* from the preceding biennium for most of VRS's statewide plans. For example, rates for the Teachers plan increased from 15.68 percent (FY19–FY20 biennium) to 16.62 percent (FY21–FY22 biennium). Similarly, rates for the State Employees plan increased from 13.52 percent to 14.46 percent during the same time period (Table 4). The increase in rates reverses the trend of decreasing rates over the previous two biennia for most plans (Figure 7). The primary cause of the rate increases is the recent reduction in VRS's long-term rate of return assumption from 7.0 percent to 6.75 percent. VRS will need approximately $178 million in additional employer contributions each year to cover the lower investment returns anticipated under the new return assumption.

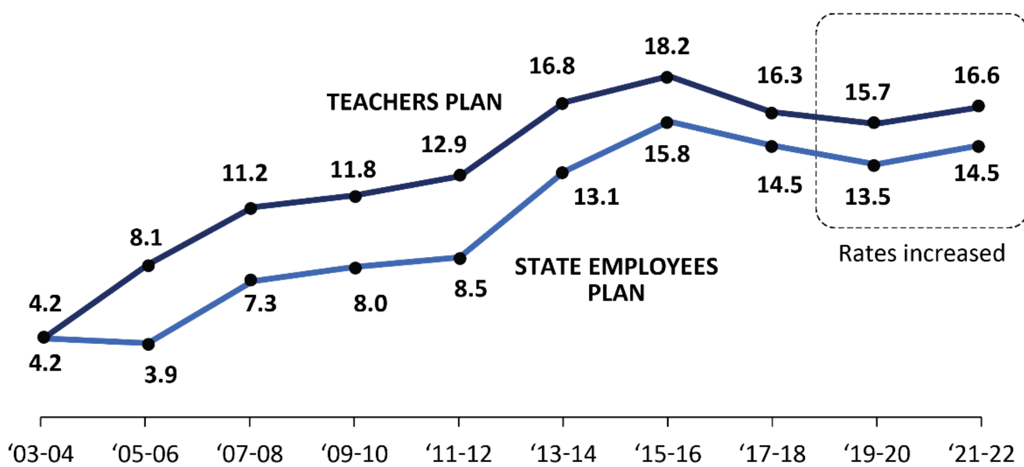
Employer contributions are also paid by local governments and political subdivisions in support of the 598 local plans. The VRS actuary calculates a unique rate for each local plan, and the VRS board certifies rates. Local employers have historically been required to pay the full board-certified rate for their individual plans, with a few exceptions in recent years. The average of the board-certified employer contribution rates for local plans increased from 7.60 percent for FY19–FY20 to 8.33 percent for FY21–FY22. This increase is largely due to the reduction in VRS's long-term rate of return assumption. The average rate for local plans is much lower than the rates for the state plans because local plans generally have smaller unfunded liabilities. However, trends for individual local plans vary depending on the unique plan experience of each employer.

TABLE 4
Employer contribution rates certified by VRS board

	FY19–FY20	FY21–FY22	Percentage point change
Teachers	15.68%	16.62%	↑ 0.94%
State Employees	13.52	14.46	↑ 0.94
VaLORS	21.61	21.88	↑ 0.27
SPORS	24.88	26.26	↑ 1.38
JRS	34.39	29.84	↓ 4.55
Local plan average	7.60	8.33	↑ 0.73

SOURCE: VRS board meeting documents.

FIGURE 7
Board-certified employer contribution rates for Teachers and State Employees plans

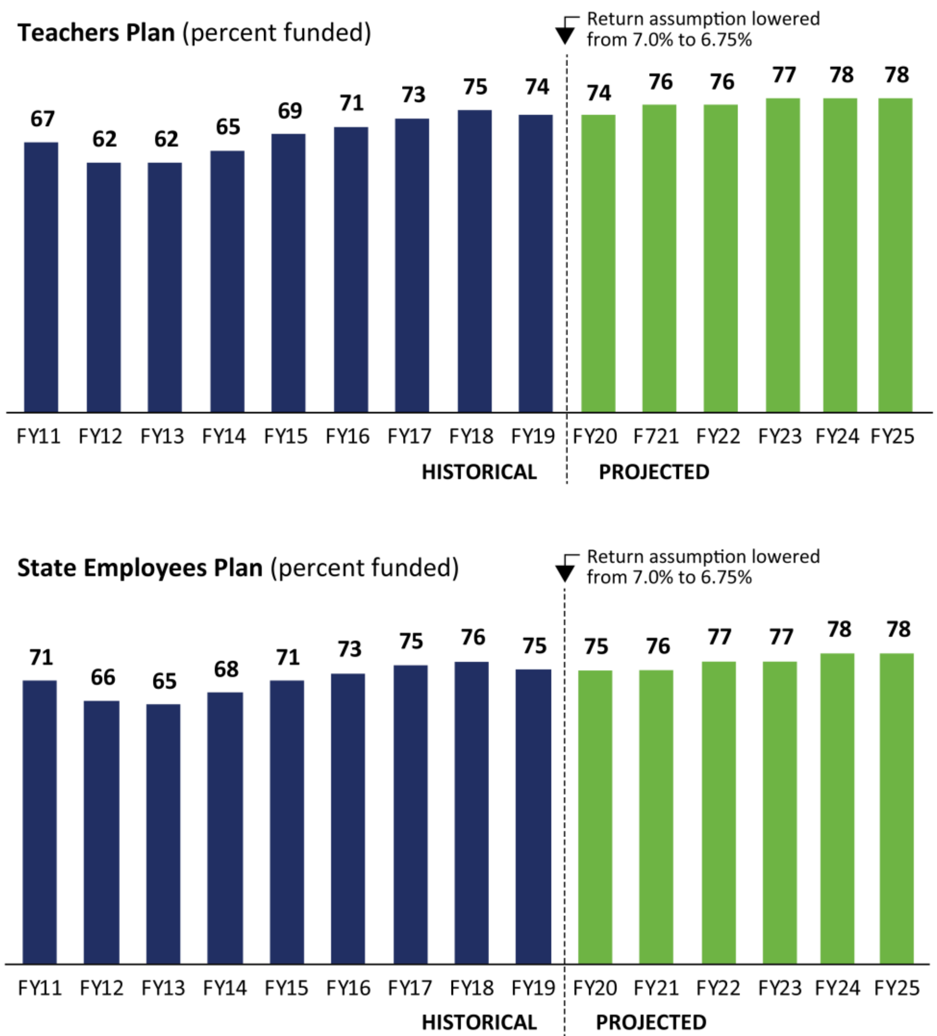


SOURCE: VRS annual reports and historical actuarial data.
NOTE: Board-certified rates reflect the percentage of payroll that each VRS-participating employer would need to contribute to VRS to pay off each plan or program's liabilities over time, as calculated by the VRS actuary. Rates must be enacted by the governor and General Assembly in the annual Appropriation Act. Prior to the 2017–2018 biennium, the governor and the General Assembly did not fully fund the rate, so the rates enacted in the Appropriation Act may not match board-certified rates for all past years.

Funded status of VRS plans decreased slightly in FY19 because of decrease in long-term rate of return assumption

The health of a pension plan is commonly measured by its funded status, which is the ratio of plan assets to liabilities. In FY19, the funded status decreased for VRS's state employees, teachers, SPORS, VaLORS, and JRS plans. This was the first time in five years that the funded status decreased for several statewide plans, including the state employees and teachers plans (Figure 8). The primary cause of the decreases in funded status is the reduction in VRS's long-term rate of return assumption. Although VRS's new rate was not approved by the VRS board until October 2019, it was used by VRS's actuary retroactively to calculate the funded status for plans at the end of FY19 (June 30, 2019). Assuming lower long-term investment returns means that more employer contributions are needed to fund the board certified rates for the statewide plans. Beginning in FY21, the funded status of the state employees and teachers plans is expected to increase again, assuming investments meet or exceed the new assumed 6.75 percent rate of return.

FIGURE 8
Funded status of Teachers and State Employees plans



SOURCE: VRS actuarial valuation report, 2019, and historical actuarial data.
NOTE: Funded status shown is based on actuarial value of assets, using a five-year smoothing period. The VRS Board lowered the long-term rate of return assumption from 7.0 percent to 6.75 percent in October 2019, but actuarial calculations of funded status for FY19 assumed a 6.75 percent rate of return. Future funded status projections assume 6.75 percent rate of return on investments and 2.5 percent inflation. The Government Accounting Standards Board requires that the funded status of the plans be reported using the market value of assets, which is how they are reported in VRS financial statements.

The average funded status of the local plans, adjusted to account for size differences across plans, decreased from 93 percent in FY18 to 90 percent in FY19. Local plans have maintained a higher average funded status than the Teachers plan or the state-supported plans mainly because local employers have generally been required to fully fund their plan contribution rates. However, the funded status of any individual local plan may be higher or lower than the group average.

4. Benefits administration and agency management

Administration of member benefits is one of VRS's core responsibilities. To carry out this and other duties, the agency must be effectively managed. Notable topics related to benefits administration and agency management include growth in agency spending and the anticipated increase in the voluntary contributions of hybrid plan members resulting from the plan's statutory auto-escalation feature.

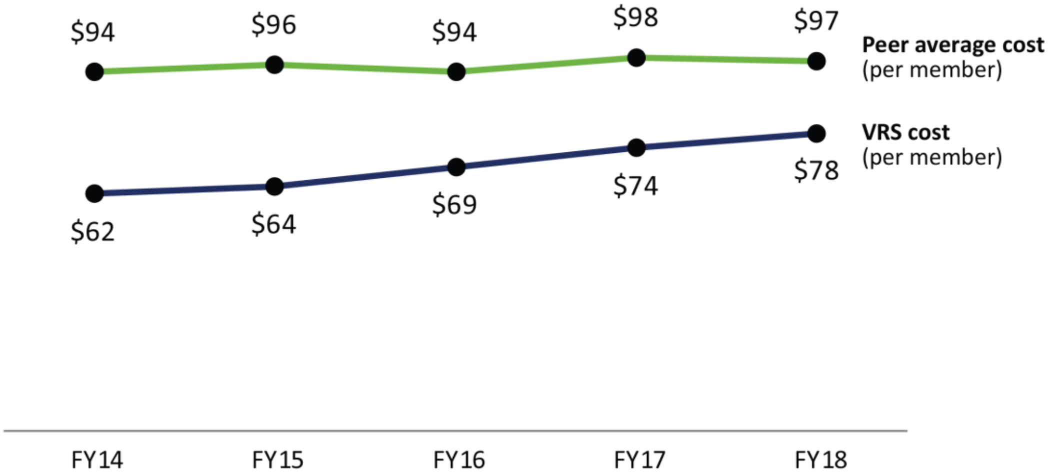
VRS operating expenses increased but remained lower than peers

VRS operating expenses include spending related to benefits administration, agency management, and investment department operations (not including external fees). Agency expenses in FY19 were $99 million. Expenses increased by $24 million in the four-year period from FY15 to FY19, with an average growth rate of 7.4 percent per year.

VRS expense increases were attributable to three primary cost drivers. The first driver was higher IT costs. VRS continues to modernize its IT systems to add new capabilities, such as improving online member services and further strengthening its cybersecurity. VRS recently migrated away from a legacy mainframe system to a new system and developed a new platform to disburse monthly retiree and beneficiary payments. The second driver was the expansion of the investment department, including addition of new staff positions and development of new IT capabilities. This expansion was commensurate with the overall growth of the total fund. The third cost driver was implementation of the new hybrid plan. VRS added several new staff positions to administer the new plan, made system changes to properly account for the plan, and distributed educational and other materials. VRS also incorporated a third-party defined contribution plan administrator to help carry out various plan administrative functions. Other factors contributing to the growth in expenses include the implementation of the Line of Duty Act program and expansion of member counseling services to assist members as benefit offerings expanded and increased in complexity.

Although VRS expenses increased, VRS's administrative costs compare favorably to peer retirement systems. VRS hires a consultant, CEM Benchmarking, to annually review the administration expenses related to its retirement plans and benchmark them to peers. (This comparison excludes investment expenses and costs associated with administering other benefit programs, such as the retiree health insurance credit program.) CEM reported that VRS retirement plan administration costs were $18 to $32 lower per member than its peer average from FY14 to FY18 (Figure 9). This difference was estimated to be $10 million to $17 million less in administrative expenses in a given year. VRS expenses grew at a faster rate than the peer average, likely because of costs associated with implementing major projects such as the hybrid plan and IT projects.

FIGURE 9
VRS retirement plan administration costs compared to peers



SOURCE: CEM retirement plan administration benchmarking reports to the VRS board.
NOTE: Benchmark comparisons for 2019 are not yet available.

Hybrid plan voluntary contribution participation rate will increase in January 2020 because of automatic escalation

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 approximately 30 percent of the total active VRS membership as of June 30, 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 consider making 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.*

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

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

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

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

*80 percent replacement target takes into account social security benefits 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.

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 are not subject to the automatic escalation if they opt out or if they are already making the maximum 4 percent voluntary contribution.

The percentage of hybrid plan members making voluntary contributions will increase in January 2020 because of an automatic rate escalation. Automatic rate escalations increase participation rates because they bring participants into the voluntary contribution component of the plan unless they opt out. (Members making the maximum 4 percent voluntary contribution are not subject to the automatic escalation.) The plan's first statutory automatic rate escalation took place in January 2017, bringing the percentage of members making voluntary contributions to 79 percent. However, the percentage of members making voluntary contributions has since declined because over 59,000 new hybrid members have joined the plan, and new employees tend not to initiate a voluntary contribution when they start employment. As of October 1, 2019, only 45 percent of hybrid members were making voluntary contributions. On January 1, 2020, the voluntary contribution rate will increase 0.5 percent for members who do not opt out or choose a different amount. Members can opt out of the automatic escalation between October 1, 2019 and December 15, 2019, but few members (less than 1 percent) had decided to opt out as of October 30, 2019. The opt out rate for the last automatic rate escalation in 2017 was 3.1 percent.

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919 East Main Street   Suite 2101   Richmond, VA   23219