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Report to the Governor and the General Assembly of Virginia

Prepaid529 Investment Management

2017

JLARC
JOINT LEGISLATIVE AUDIT
AND REVIEW COMMISSION

JLARC staff for this report
Kimberly Sarte, Assistant Director for Ongoing Oversight and Fiscal Analysis
Joe McMahon, Principal Legislative Analyst for Ongoing Oversight and Fiscal Analysis

Information graphics: Nathan Skreslet

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Prepaid529 Investment Management

SUMMARY The investment management structure for Virginia529's prepaid college tuition program, Prepaid529, is well defined and not unusual for an institutional investor of its kind. However, several factors warrant a reconsideration of the current structure and practices. The management structure of Prepaid529 has not changed since the fund was established, even though the fund has grown dramatically and added more complex investments. Prepaid529 is a public fund, so the state has a financial interest in fund performance, accountability, and transparency.

Prepaid529 investment returns have underperformed relative to benchmarks in recent years. A third-party review of benchmarks would help determine whether existing benchmarks are appropriate or whether there is a need to reconsider investment decisions and practices. Within the current management structure, adding an Investment Director position to Virginia529 would promote accountability for fund performance and improve fund management and governance. Responsibility to manage Prepaid529 investments should not be transferred to the Virginia Retirement System or the Department of Treasury because fiduciary and governance concerns, as well as other challenges, outweigh the benefits of such an arrangement.

JLARC staff were asked to review the investment management structure of Virginia529's Prepaid529 fund and to assess whether there are options to more efficiently manage the fund, including but not limited to, assigning management of the fund to the Virginia Retirement System (VRS) or the Department of Treasury (Treasury).

Several factors warrant a review of the Prepaid529 investment management structure at this time. Investment returns for the Prepaid529 fund have underperformed relative to benchmarks the past several years. Virginia has two other large institutional investors, VRS and Treasury, that may be able to more efficiently manage the Prepaid529 fund. Strategies and practices used to manage investment of prepaid college tuition programs in other states can also be considered.

Prepaid529 has not undergone an external review of its investment management or investment performance, other than a high-level review that occurred as part of a 2010 Auditor of Public Accounts report on statewide investment policies. The Prepaid529 fund undergoes periodic asset-liability studies by an actuary, and a number of ongoing internal reviews of the fund are performed by Virginia529's staff and investment consultant.

Virginia's Prepaid529 fund

Prepaid college savings plans offer tuition contracts that cover the cost of college tuition and eligible fees at a future date (sidebar). Prepaid tuition programs generally guarantee a benefit for plan participants, regardless of market performance. As a result, they protect plan participants from unpredictable future increases in tuition. Prepaid college tuition programs differ from 529 savings plans, which are investment portfolios, usually of stock or bond funds. With 529 savings plans, investors bear the risk of both market performance and increases in tuition. Both prepaid tuition programs and 529 savings plans have tax advantages.

Section 529 of the Internal Revenue Code authorizes Prepaid college savings programs.

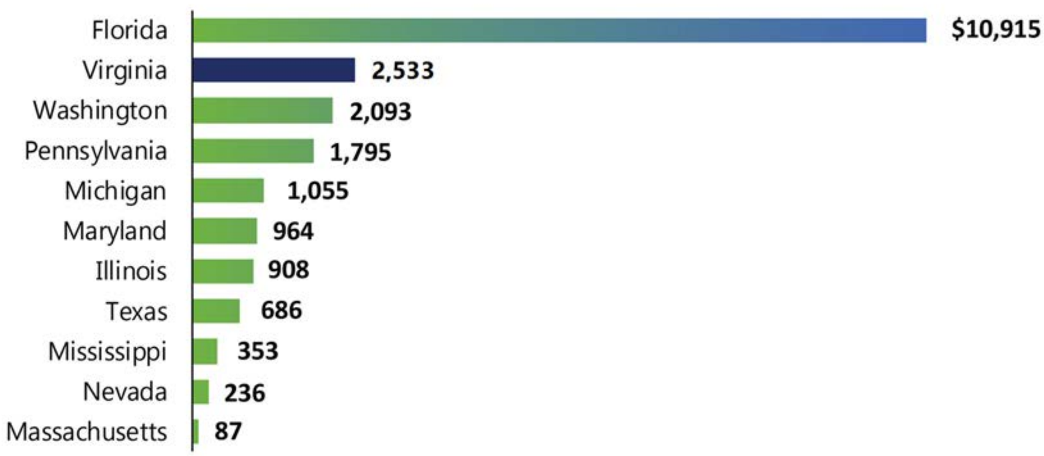
Prepaid529 contracts cover tuition and fees for a set period, typically ranging from one to eight semesters at a university or college.

Prepaid529 contracts define tuition and fees as the normal, in-state, undergraduate, full-time tuition and mandatory fees assessed to all students. Contracts do not cover additional costs with a specific program, course, or major.

Prepaid tuition programs nationwide

Virginia's Prepaid529 is one of 11 state prepaid college tuition programs nationwide that are currently open to new enrollment. Prepaid tuition programs vary greatly in the amount of assets under management. Virginia's program, which reported $2.5 billion in assets under management as of March 31, 2017, is the second largest in the country, behind Florida (Figure 1).

FIGURE 1
Prepaid college tuition programs by asset size ($ millions)



SOURCE: Strategic Insight: Market Data on 529 Prepaid Plans by Plan, as of 4Q 2016. Mercer Performance Report to Virginia529 Investment Advisory Committee 5/8/17.
NOTE: Only states with prepaid college tuition programs that are open to new enrollment are shown. Assets reported for Texas include only the Texas Tuition Promise Fund and not the Texas Guaranteed Tuition Program, which has been closed to new enrollment. The Washington program was closed to new enrollment but re-opened on July 1, 2017. Virginia assets reported as of March 31, 2017. Assets as of the 4Q 2016 were $2,450,675,908.

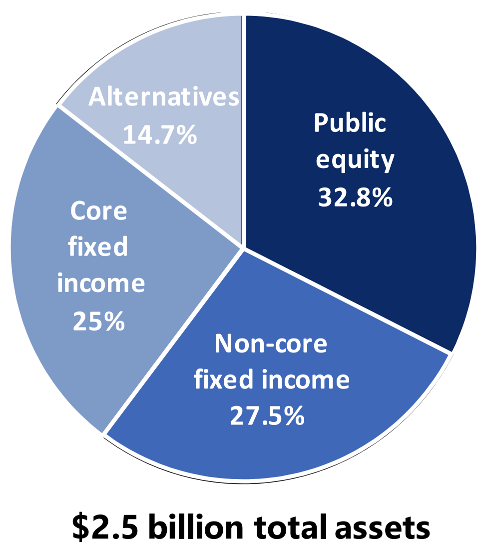
Prepaid529 assets

Virginia529 administers Prepaid529, including investment of the program's assets. Prepaid529 fund assets are invested with the goal of capturing investment gains that meet or exceed the investment return assumptions of the program over time. Investment returns help to increase funding of the plan and to offset increases in the cost of contracts. Steady returns are needed to keep the plan well funded and contract prices affordable.

The Prepaid529 program held $2.5 billion in assets as of March 31, 2017. Total assets under management for the Prepaid529 fund have increased slightly in the past five years. Net deductions, primarily for benefit payouts, have been relatively stable, with additions from investment returns, contract sales, and fee revenues. The Prepaid529 program had approximately 65,000 active accounts in 2017.

Program assets are managed under a single enterprise fund and are divided into four asset classes: public equity, core fixed income, non-core fixed income, and alternatives (Figure 2). All assets in the Prepaid529 fund are managed by external managers.

FIGURE 2
Prepaid529 asset allocation as of March 31, 2017



SOURCE: Virginia529 program data.
NOTE: **Public equity** includes $830 million in stocks and other equity securities for publicly traded companies in the U.S. and abroad. **Non-core fixed income** includes $697 million investments in high yield bonds, convertible bonds, and emerging market debt. **Core fixed income** includes $634 million in U.S. dollar-denominated securities that pay a specific interest rate, such as government bonds, corporate bonds, and U.S. Treasury bills. **Alternatives** includes $372 million investments in real assets (real estate, infrastructure, and natural resources), private equity (investments in privately held companies) and hedge funds (unique strategies to provide higher returns, more consistent returns, or lower risk than standard market investments).

Prepaid529 investment management structure

Prepaid529 has a well-defined investment management structure that utilizes investment experience and incorporates checks and balances. The Virginia529 board and its Investment Advisory Committee (IAC) oversee investment of the Prepaid529 fund. The board and IAC receive guidance and support from Virginia529 staff and an investment consultant when making investment decisions. The investment management structure for Prepaid529 is similar to those in other states where a college savings plan agency, as opposed to a state treasurer or investment board, is responsible for investment management of prepaid programs.

Virginia529 board

The Virginia529 board comprises 11 members and oversees all aspects of Virginia529, including Prepaid529. The board has a fiduciary duty as trustee of the fund and determines the fund's overall asset allocation and long-term rate-of-return goals. In meeting these responsibilities, the board relies on the advice and guidance of the IAC and Virginia529 management. The board delegates certain responsibilities, such as manager selection, to the IAC.

Investment Advisory Committee

The IAC is appointed by the Virginia529 board to assist the board and staff in managing Virginia529's assets. The IAC is directed by statute to provide the board with sophisticated, objective, and prudent advice on all matters related to the management of investments (§ 23.1-702). The IAC offers recommendations to assist the board in determining high-level investment parameters such as target asset allocations and investment strategies. The IAC is delegated certain investment responsibilities such as reviewing Prepaid529's investments, monitoring investment performance, and interviewing, selecting, and terminating investment managers.

The IAC typically has about 10 members, although this can vary. The Virginia529 board chairman and the CEO and CFO are ex officio voting members, and the state Treasurer and Comptroller are also members. In addition, the IAC has between four and six citizen members, appointed annually by the board chairman. To be appointed, a citizen member must have extensive experience in at least one of five investment areas: (1) domestic or international equity or fixed-income securities; (2) cash management; (3) alternative investments; (4) institutional real estate investments; or (5) managed futures.

Virginia529 staff

Virginia529 staff involved in investment management of Prepaid529 include the CEO, CFO, and four investment staff who report to the CFO. Virginia529 management and staff, with the assistance of an investment consultant, oversee external investment managers, monitor their performance, and provide information to the board and IAC. Investment staff have primary responsibility for day-to-day investment operations and cash flow.

The Virginia529 **Chief Financial Officer** (CFO) responsibilities include financial operations, accounting, budgeting, financial reporting, and duties related to investments.

Investment consultant

Virginia529 contracts with an investment consultant to provide additional expertise to the board, IAC, and staff. In general, the consultant is expected to provide (1) evaluation of the investment results; (2) investment modeling; (3) assistance in identifying, screening, and selecting investment managers; and (4) other information as requested. The investment consultant is expected to make recommendations to the Virginia529 board and IAC for achieving overall investment program objectives. The investment consultant participates in IAC meetings.

Virginia529 **investment staff** include an investment and financial reporting manager and three investment operations analysts. Investment staff report to the CFO.

Prepaid529 fund performance

Investment returns for the Prepaid529 funds have trailed a majority of their performance benchmarks over multiple time periods for the past five years. Such sustained underperformance relative to benchmarks is not typical, according investment professionals. It is unclear whether Prepaid529 fund returns lagging benchmarks is the result of investment decisions, inappropriate benchmarks, or a combination of both. In any case, sustained underperformance relative to benchmarks of a public fund warrants review.

A **benchmark** is an objective standard, based on comparable indexes or funds, against which the investment performance of a fund can be measured.

Benchmarks should closely align with investors goals, reflect the amount of investment risk, and mirror the investment approach of the portfolio in order to make comparisons to the benchmark as useful as possible.

Performance has trailed benchmarks

The Prepaid529 fund's investment returns have consistently trailed their benchmarks over the past five years. For the most recent one-year period, ending March 31, 2017, the fund's investments achieved a return of 9.5 percent, which was below its benchmark of 10.3 percent for that period (Table 1). The total fund underperformed its benchmarks for the one-, three-, five-, and 10-year periods. Performance has trailed benchmarks for a majority of Prepaid529 managers, over multiple time periods, and across several asset classes; the total fund's underperformance relative to benchmarks is not attributable to a few isolated cases of managers underperforming.

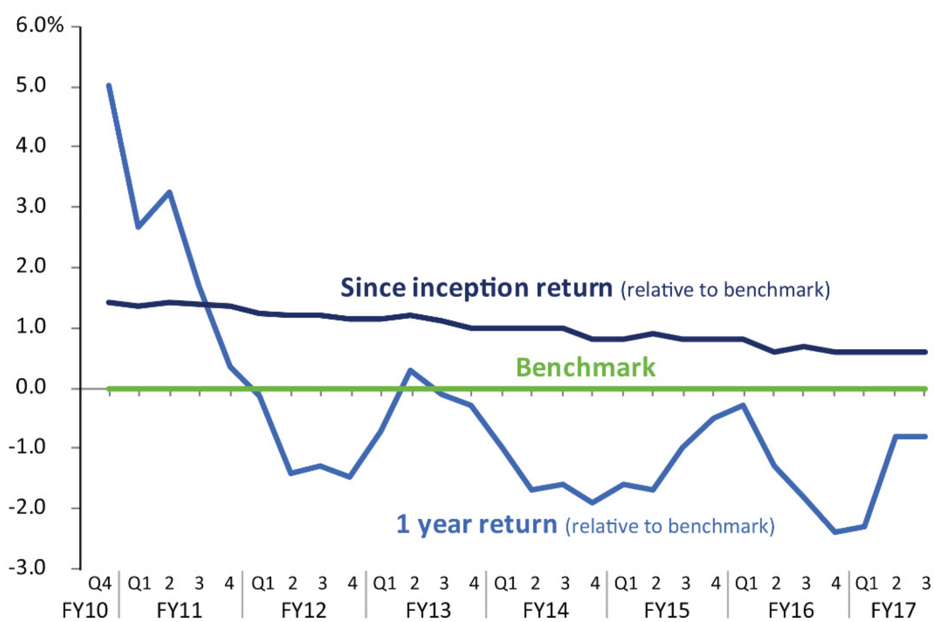
TABLE 1
Investment performance relative to benchmarks

FUND INVESTMENT PERFORMANCE
for the period ending March 31, 2017

	Fiscal year to date	1 year	3 years	5 years	10 years	Since inception
Total Fund	4.0%	9.5%	3.9%	5.5%	4.5%	6.2%
Benchmark	4.0	10.3	5.2	6.6	4.8	5.6
Public Equity	8.3	16.7	3.7	7.9	4.7	6.8
Benchmark	7.1	15.7	5.7	9.0	4.4	5.4
Non-Core Fixed Income	3.2	9.5	4.4	5.5	4.9	5.6
Benchmark	3.7	12.4	5.0	6.8	5.3	6.5
Core Fixed Income	0.8	3.8	2.4	1.9	3.6	5.0
Benchmark	0.8	0.8	2.3	1.7	3.8	4.8
Alternatives	2.0	4.2	5.8	5.5	0.7	4.6
Benchmark	3.4	11.2	8.5	7.9	2.1	5.9

SOURCE: Virginia529 and Bank of New York Mellon.
NOTE: Inception date is October 1997 for all asset classes except alternatives, which has an inception date of May 2005. Performance is reported net of investment fees.

FIGURE 3
Prepaid529 quarterly performance relative to one-year and since-inception benchmarks



SOURCE: JLARC staff analysis of Prepaid529 quarterly investment reports.
NOTE: Since-inception benchmark dates to October 1997.

The annual return of the fund (6.2 percent) since its inception is above the total fund's since-inception benchmark (5.6 percent) and near the long-term rate-of-return goal set by the board (6.25 percent). However, the total fund has underperformed its annualized one-year benchmarks for 22 of the past 23 quarters and the fund's performance has declined relative to the since-inception benchmark during that time (Figure 3).

A number of factors have contributed to the underperformance of the Prepaid529 fund relative to benchmarks. These include decisions to weight investments toward certain strategies within asset classes that have generally not performed as well as other strategies. For example, within the public equity class, Prepaid529 funds have been weighted toward emerging markets and small cap stocks, which have not performed as well as domestic markets and large cap stocks. Furthermore, the fund has relatively new private equity investments, which take five or more years to mature and realize full returns.

Another factor cited by Virginia529 staff is a deliberate decision to protect and maintain the strong funded status (Appendix C) of the program by choosing conservative managers with higher-quality assets relative to their respective benchmarks. This conservative election is meant to provide protection against losses in down markets, but it tends to achieve lower returns in up markets, such as those experienced by Prepaid529 in recent years.

A plan's **funded status** is the value of the accumulated assets relative to the cost of all current and future liabilities.

Third-party review of benchmarks

Benchmarks are used to evaluate the performance of an investment fund and increase the transparency of fund performance for stakeholders. Other institutional investors in Virginia and prepaid college tuition programs in other states performed better than Prepaid529 relative to their respective benchmarks. Both Treasury and VRS outperformed a majority of their benchmarks for the current one-, three-, and five-year periods, as well as consistently on a one-year basis in recent years. Prepaid programs in two other states indicated that they outperformed a majority of their benchmarks in those same periods. Of states reviewed, only Illinois has a prepaid fund that underperformed relative to benchmarks to a similar extent as Prepaid529.

There are two possible explanations for the underperformance of the Prepaid529 fund relative to benchmarks, both of which support the need for a third-party review of benchmarks. IAC decisions about investments—such as manager selection—and about strategies within asset classes—such as weighting toward certain types of investments—may be responsible for performance. Different decisions could potentially result in better investment returns. Investment returns are important because they affect funded status and could provide opportunities to reduce contract prices and ultimately improve the affordability of Prepaid529 contracts.

Alternatively, some of the current benchmarks may not be appropriate to measure the performance of the Prepaid529 fund as currently invested. For instance, it is possible that the current benchmarks do not reflect the conservative investment approach cited by Virginia529. Appropriate benchmarks are essential to assess Prepaid529's investment performance and, in turn, hold Virginia529 accountable for performance.

Prepaid529 benchmarks should be reviewed by a third party with expertise in investment benchmarking to determine whether they are the appropriate indicators against which to measure performance of the Prepaid529 fund, given the investment strategy currently used by Virginia529 board and IAC. The contract with an independent third party should be procured through a request for proposal (RFP) that is not affiliated with Virginia529's current investment consultant. Prepaid529 is a public fund, and accurate benchmarks are necessary to ensure accountability and transparency for plan participants and other stakeholders such as the state.

RECOMMENDATION 1

The Virginia529 board should contract with a third party to conduct an independent review of Prepaid529 benchmarks. The board should report findings from the review, and any actions taken by the board in response to the findings, to JLARC by July 1, 2018. The review should determine whether the current benchmarks are the appropriate indicators against which to measure performance of the Prepaid529 fund, given the investment goals, strategies, and risk tolerance that the Virginia529 board and Investment Advisory Committee have adopted for the fund.

Performance attribution analysis

Virginia529 staff cite investment allocations within asset classes, deliberate conservative decisions, and an immature private equity portfolio as key factors contributing to returns that lag benchmarks. Understanding how these factors affect performance is important for the board and other stakeholders, and fosters transparency around fund performance.

Performance attribution analysis is the practice of examining components of a portfolio to identify the impact of the manager and asset allocation decisions in relation to overall investment policy. The process can give insight into the factors, such as manager performance or investment strategies, that may cause a fund to underperform or overperform relative to benchmark.

Virginia529 staff, with the assistance of the investment consultant, should be required to conduct performance attribution analysis for the Prepaid529 fund and formally report findings to the board on a routine basis. Performance attribution analysis is currently conducted at the manager level and reported to the IAC, according to Virginia529 staff. The same type of analysis could be conducted more broadly, at the total fund level and by asset class. A formal and routine report to the board would provide stakeholders a better understanding of the decisions and factors that drive fund performance. For example, this type of analysis could offer better insight into how Prepaid529's deliberately conservative investment portfolio impacts investment performance relative to benchmarks.

RECOMMENDATION 2
The Virginia529 board should direct staff to perform attribution analysis of the Prepaid529 fund at the total fund and asset class level. Staff should perform this analysis with the assistance of the investment consultant and report results to the board on a routine schedule adopted by the board.

Prepaid529 fund investment management should not be assigned to Treasury or VRS

For this report, JLARC staff were directed to review the option of assigning the management of Prepaid529 fund investment to Treasury or VRS, the state's other main institutional investors, as a means to increase efficiency. Such an arrangement would have some potential to increase the efficiency of investment management (Appendix D) but would have drawbacks that outweigh the advantages, making them unsuitable options. Because of the drawbacks, and because Prepaid529 has a well-defined investment management structure that is similar to other institutional investors and prepaid programs, reassigning investment management of Prepaid529 is not warranted.

A **fiduciary** is an individual or group in whom another has placed trust and confidence to manage and protect property or money. The fiduciary has an obligation to act in the best interest of its beneficiaries.

The VRS board, committees, and investment staff are fiduciaries of the VRS investments; the Virginia529 board, committees, and executive management are fiduciaries of Prepaid529.

Treasury management of Prepaid529 investments

Treasury does not invest in all of Prepaid529's asset classes and therefore is not a practical option to manage investment of the Prepaid529 fund. Treasury manages two main accounts, the General Account and the Local Government Investment Portfolio, both of which comprise only core fixed income assets. Core fixed income assets make up only one-fourth of the Prepaid529 portfolio, the remainder of which is in non-core fixed income, public equity, and alternatives. Because Treasury's investment expertise is limited to core fixed income, Treasury would need to hire additional investment staff, or create an investment committee with expertise in additional asset classes, or outsource the Prepaid investment function. Treasury's need for more staff and expertise would likely diminish any efficiencies that could be gained.

VRS management of Prepaid529 investments

VRS has the expertise to manage Prepaid529 investments, but the legal, fiduciary, governance, and administrative difficulties created by such a reassignment would be considerable. Under the Constitution of Virginia, the Prepaid529 fund could not be combined with the VRS trust fund:

> The funds of the retirement system shall be deemed separate and independent trust funds, shall be segregated from all other funds of the Commonwealth, and shall be invested and administered solely in the interests of the members and beneficiaries thereof. (Article X, § 11)

In practice, Prepaid529 and the VRS trust fund would need to be managed separately, because the two funds have material differences in investment requirements—long-term rates of return, target asset allocation, investment horizon, and liquidity requirements—that make them incompatible to be commingled.

If VRS were to manage Prepaid529 investments, VRS staff assert that the most efficient approach would be to use their existing investment managers, contracts, and pricing, and have the Prepaid529 fund mirror the VRS trust fund as closely as possible. The current Prepaid529 asset allocation could remain intact, and investment of assets would be distributed across VRS managers using the existing Prepaid529 allocation percentages. If VRS were to be required to customize Prepaid529 investments in ways that less closely align with existing VRS investments, such as by using different managers, it would reduce the efficiencies that could be gained.

Fiduciary and governance obstacles

There are two main scenarios for VRS management of the Prepaid529 fund, each presenting its own fiduciary and governance concerns. The first scenario would be the most legally defensible from a fiduciary standpoint, according to Aon Hewitt Investment Consulting (AHIC) (sidebar); however, it would represent a major shift in the roles of VRS and Virginia529. In this scenario, VRS would take investment management and fiduciary responsibility for Prepaid529 in its entirety. The VRS board would set asset allocations and the long-term rate-of-return goal for Prepaid529, and VRS staff would invest the fund accordingly. This scenario would require changes in statute to remove Virginia529 as fiduciary and trustee of the Prepaid529 fund, to assign the responsibility of investment management of Prepaid529 to VRS, and to establish the VRS board as the trustee of the fund, with the same fiduciary responsibilities and standards applying to Prepaid529 as to other VRS investments. These changes would place Prepaid529 and the funds managed by VRS on equal standing under the VRS board. VRS would have a duty of impartiality to both VRS members and Prepaid529 plan participants (sidebar).

Aon Hewitt Investment Consulting (AHIC) worked with JLARC in an advisory role and prepared findings and recommendations for this report.

AHIC specializes in investment governance and fiduciary responsibility for pension plans and other public investment funds.

The **duty of impartiality** requires a trustee to respect the interests of all the beneficiaries.

This duty applies to state investment boards and some state treasurers, which have investment responsibility for multiple trusts with multiple beneficiaries.

This scenario would represent a major shift in the roles of the VRS and Virginia529 boards, and it would change the traditional role of VRS as an institution. Expansion of the role of the VRS board to include investment management of the Prepaid529 fund would result in an entity that is more akin to a state investment board. In some states, treasuries or investment boards manage investment of the prepaid fund, but no other state has assigned fiduciary responsibility for its prepaid plan to its retirement system, according to AHIC and a JLARC survey of other prepaid programs. Potential efficiencies gained in this scenario are likely too minor to warrant such a fundamental shift in the state's approach to managing investments.

A second scenario for VRS management of the Prepaid529 fund would represent a less dramatic shift in board responsibilities, agency roles, and state statute, but would raise greater fiduciary and governance concerns. Under the second scenario, only Prepaid529 investment management—such as selection of investment managers and determining strategies within asset classes—would be assigned to VRS. The Virginia529 board would retain responsibility for setting asset allocation and the long-term rate-of-return goal. This second scenario would require only minimal shifts in board responsibilities for VRS and Virginia529. The VRS statute would need to be amended to provide authority for management of Prepaid529 fund investments. VRS currently manages four other state funds (sidebar).

This second scenario would raise greater fiduciary concerns and complications. VRS fiduciaries are subject to fiduciary standards comparable to those set forth in the Employee Retirement Income Security Act (ERISA), the federal law governing most nongovernmental employee benefit plans. ERISA standards require an undivided duty of loyalty to members, among other fiduciary requirements. This is interpreted by AHIC and VRS staff to mean that the VRS board and staff have a fiduciary responsibility to serve *solely* members of the retirement system. Assigning the management of the Prepaid529 fund to VRS could be interpreted as a violation of this duty of loyalty to VRS members. VRS could be exposed to claims of fiduciary breach.

VRS manages four other state funds:

- Commonwealth Health Research Fund
- Commonwealth's Attorney Training Fund
- Volunteer Firefighters' and Rescue Squad Workers' Service Award Fund
- Line of Duty Act Fund

The four funds combined have assets of approximately $60 million. VRS management of the funds is authorized by statute (§§ 51.1-124.36 through 51.1-124.39).

There are multiple examples of how VRS's duty of loyalty to VRS members would be in tension under this scenario. For instance, the VRS chief investment officer and investment management staff would report to both the VRS and Virginia529 boards. VRS investment staff would have to dedicate resources to the investment of the Prepaid529 fund, detracting staff resources from the investment of retirement system assets. This scenario would also create tension between the competing investment needs of each. For example, private equity managers often have limited capacity for the amount of assets that can be invested, and VRS investment staff would have to choose which fund's assets received priority with top-tier managers.

This second scenario also presents a considerable governance concern. Accountability for investment performance would be split across the Virginia529 board and VRS investment staff. In cases of underperformance, it would difficult to determine who should be held accountable—the Virginia529 board for decisions such as asset allocation, or VRS investment staff for decisions such as manager selection. Under this scenario, having given up control of the fund, the Virginia529 board might be unable to influence the investment decisions made by VRS.

Administrative costs

Under either scenario, administrative and investment costs at VRS would increase. Depending on the scenario, VRS would need additional FTE staff in each area of investment, compliance, and financial reporting in order to handle additional work of managing the Prepaid fund. Additional administrative costs resulting from either scenario would likely be over $1 million for VRS, according to JLARC staff estimates.

VRS currently manages the investment of four other state funds, but those funds are small, commingled with the trust fund, and add only minor administrative and investment expense (sidebar above). These funds have assets under management that are negligible compared to the trust fund, involve few distributions per year, and are invested to exactly mirror the VRS trust fund. The Prepaid529 fund is approximately 40 times larger than the four other funds combined, has cash inflows and outflows at various times throughout the year, and would have unique investment requirements as a separate fund.

Invest529 is a college savings plan. As of March 31, 2017, Virginia529 managed $3.7 billion in 233,000 Invest529 accounts.

ABLEnow is a savings plan for people with disabilities. As of March 31, 2017, Virginia529 managed $1 million in 634 ABLEnow accounts.

Under either scenario, VRS costs would increase, but Virginia529 costs could not be substantially reduced. Virginia529 would retain responsibility for investing and administering other savings programs, including Invest529 and ABLEnow, so Virginia529 would need to maintain, to some extent, its administrative staff, investment staff, the investment consultant, and the IAC. Further, according to Virginia529, there are some synergies in terms of information and investment experience shared among Prepaid529, Invest529, and ABLEnow, which would be lost if Prepaid529 were reassigned to VRS. Virginia529 would remain responsible for implementing portions of the Prepaid529 program, such as collection and distribution of Prepaid529 funds.

Perception risk

Virginia529 staff expressed concern that moving the Prepaid529 fund to VRS could signal to potential customers that the Prepaid529 fund is experiencing investment performance problems and is therefore a risky investment. The Prepaid529 program is a voluntary program that must attract customers, and any indication of distress has potential to reduce future interest in the program.

Options for improving investment management and governance

In general, the investment management structure for Prepaid529 is well defined and similar to other institutional investors and prepaid programs. The IAC members possess sufficient expertise across all asset categories, are adequately engaged in their role, and obtain sufficient information from Virginia529 staff and the investment consultant to make informed decisions. The investment consultant has extensive investment advisory experience and has access to a substantial amount of investment expertise across its organization. Use of the IAC and a consultant is consistent with practices for prepaid programs in other states. In addition, AHIC found no major concerns with the roles of the IAC or investment consultant.

However, several factors warrant a reconsideration of the current Prepaid529 investment management structure and practices. The investment management structure for Prepaid529 has been in place since the fund was established in 1997 and has not been the primary focus of an external review since that time. The fund has grown substantially and added more complex investments since inception. Furthermore, Prepaid529 is a public fund, so the state has a financial interest in fund performance, accountability, and transparency. Several changes to Prepaid529 investment structure and practices would promote accountability and improve governance of the fund.

Investment Director position would strengthen investment management structure

Investment management of the Prepaid529 fund could be improved through the creation of an executive level Investment Director position. The size and complexity of the fund justify an Investment Director, and such a position would promote accountability for future investment performance.

Investment Director position would promote accountability for fund management and performance

An Investment Director position that is evaluated based on management and performance of Prepaid529 investment would allow the Virginia529 board to better promote accountability for fund management and performance. Under the current management structure, Virginia529 staff, the IAC, and the investment consultant share responsibility for investment performance of the Prepaid529 fund (Table 2). For example, although the IAC adopts sub-asset allocations, the CEO, CFO, and investment consultant play key roles in shaping those decisions. Staff of another institutional investor in Virginia explained the problems of this dynamic, stating that "decisions by consensus can weaken the investment process because it disperses the risks of decisions." Creating an Investment Director position would increase the accountability of the decision-making process.

There is currently no full-time position dedicated to fund management and performance. IAC membership is voluntary, part-time, and uncompensated. The investment consultant serves in an advisory role, meant to provide information and guidance, and monitor performance of investments. The consultant is not compensated based on performance of the fund. The CEO and CFO are held responsible for performance of the fund. However, in practice only a single *formal* performance measure is used for both positions: fund performance relative to the "since-inception" benchmark, which dates back to the fund's inception in 1997. The CEO and CFO have met this performance measure every year, but the total fund has underperformed a majority of shorter-term benchmarks in the past several years, and returns relative to the since-inception benchmark have steadily declined during that time. Furthermore, the CEO and CFO are evaluated on numerous other responsibilities related to management and administration at Virginia529.

TABLE 2
Prepaid529 investment management roles and responsibilities

Investment decisions	Virginia529 board	Investment Advisory Committee	CEO and CFO	Virginia529 investment staff	Investment consultant
Asset allocations	●	●			●
Fund benchmarks	●	●			●
Long-term rate of return target	●	●			●
Sub-asset allocations		●			●
Investment exposures and strategies		●			●
Investment manager interviews, selection, and review		●	●		●
Investment manager oversight					
Due diligence			●	●	●
Performance			●	●	●
Compliance			●	●	
Communications			●	●	

● **Plays a role in process**

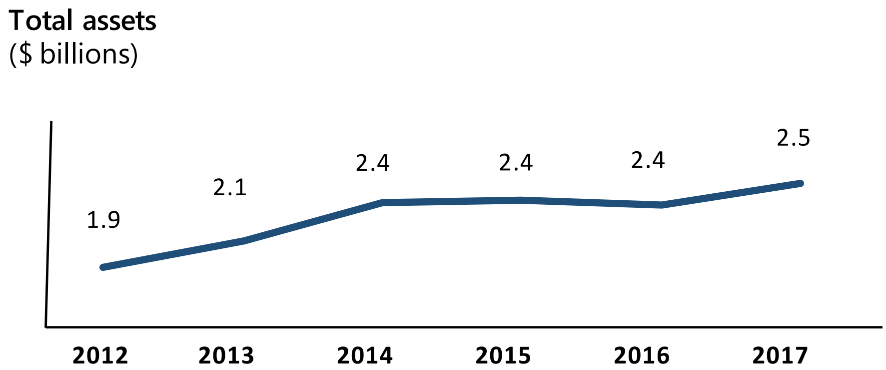
SOURCE: Code of Virginia, Virginia529's Statement of Investment Policy and Guidelines for Prepaid529, charters of Virginia529 board and IAC, Virginia529.
NOTE: The CEO and CFO are ex officio voting members of the IAC.

Size and complexity of fund justify Investment Director position

The Prepaid529 fund is large and complex enough to warrant a full-time Investment Director position. The fund, which is growing, has approximately $2.5 billion in assets under management (Figure 4). In the first 10 months of FY17, the fund had approximately $200 million in investment returns. The Prepaid529 fund engages 29 private managers, which require ongoing performance and compliance monitoring, communication, and evaluation. Fifteen percent of fund assets are in alternative investments that have a greater level of complexity than other types of investments, thus requiring greater expertise and diligence to ensure proper management.

AHIC indicated that a plan the size of Prepaid529 should have a dedicated chief investment officer (CIO) or equivalent position. Additionally, an individual with Virginia529 board and IAC experience stated that the fund was able to get by without a CIO in the past, but acknowledged that it may be time to reconsider due to the growth in size and complexity of the fund.

FIGURE 4
Prepaid529 assets under management



SOURCE: Virginia529 annual reports.

Other institutional investors in Virginia, and most prepaid programs in other states, have a full-time CIO or equivalent position such as an Investment Director. Both VRS and Treasury employ a full-time CIO or equivalent position, and most prepaid college tuition funds in other states are managed by one or more staff with portfolio management expertise, such as a CIO, senior investor, or Investment Director. Prepaid programs in other states are often managed by a treasury department or investment board, which employs staff with credentials comparable to an Investment Director. Likewise, Virginia's four largest public university endowment funds, ranging in size from approximately $800 million to $7 billion, have a designated CIO with extensive portfolio management experience.

Investment Director would further strengthen a healthy investment environment

An Investment Director position would further strengthen the discussion and deliberation around Prepaid529 fund investment management decisions. According to AHIC and staff at another institutional investor in Virginia, an investment director with extensive investment management experience and expertise would provide a valuable additional perspective. The presence of such an investment professional would reduce the potential for overreliance on the investment consultant. When appropriate, the Investment Director could challenge the consensus of the IAC.

Considerations for the Investment Director position

An Investment Director at Virginia529 should be an executive level position with duties and responsibilities related to all aspects of investment management. An individual filling this position should have requisite investment expertise and credentials, such as the Chartered Financial Analyst (CFA) designation, and experience across asset classes. Similar positions at other institutional investors are often referred to as CIO, senior investor, or investment program director.

The Investment Director position at Virginia529 should have responsibilities that fit the needs of the agency and Prepaid529 program. For example, the Virginia529 Investment Director would manage a relatively small investment staff, maintain the use of a qualified investment consultant, utilize 'fund of fund' strategies in the private equity market, and would not conduct internal asset management.

The Virginia529 board would have to make decisions about the separation of roles and responsibilities of the Investment Director, IAC, board, and investment consultant. Typical responsibilities of an Investment Director include overseeing investment portfolios, monitoring investment managers, and providing information to stakeholders such as the board and IAC. (See Appendix E.) Several of these roles are currently distributed between the Virginia529 staff, investment consultant, and IAC.

The Virginia529 board would also have to make decisions on how an Investment Director's performance would be evaluated. The Investment Director should be evaluated on, among other things, success in overseeing individual managers and institutional investment portfolios, researching investments, and providing information to the board and IAC. Furthermore, the Investment Director position should be evaluated, at least in part, by performance measures that are tied to performance of the total fund, within asset classes and across managers. Short-term investment returns must be carefully weighed against long-term investment performance when evaluating the Investment Director's performance. The extent to which the Investment Director is evaluated on performance would depend on the level of authority assigned to the Investment Director by the board.

The Virginia529 board should work with an executive search firm to design and recruit the Investment Director position. The board would have to address a number of considerations for the position (Table 4). The firm could consider a survey of board and IAC members to gain a better understanding of how members would envision an Investment Director position in practice.

TABLE 3
Examples of considerations for the Investment Director position

To whom would the Investment Director report?
The Investment Director and CEO could have parallel reporting responsibilities to the board, similar to the VRS structure, or the Investment Director could report to the CEO.

Which party has authority over manager selection?
The Investment Director could be given manager selection responsibility while receiving guidance from the IAC, or the IAC could retain responsibility for selecting investment managers.

How is the Investment Director evaluated?
The Investment Director could be evaluated on a number of factors such as, but not limited to, investment performance of the total fund, within asset classes and across managers; ability to identify, evaluate, and address issues with individual managers; ability to oversee, structure, and evaluate institutional investment portfolios.

How is the Investment Director compensated?
The Investment Director could be compensated with a fixed salary, performance-based compensation, or a combination of both.

Does the Investment Director have a role on the IAC?
The Investment Director could participate in IAC meetings and inform the committee, while not being a member, or the Investment Director could be a voting member of the IAC.

How would a new Investment Director position affect the current investment staff roles at Virginia529?
Investment staff at Virginia529 could report to the Investment Director rather than the CFO, but some investment staff who focus on financial reporting related to investments may be better positioned under the CFO.

SOURCE: JLARC staff analysis.

RECOMMENDATION 3
The Virginia529 board should work with an executive search firm and gather input from the board and members of the Investment Advisory Committee to establish the roles and responsibilities of an Investment Director position for Virginia529. The position should have similar roles, responsibilities, and requisite skills as an Investment Director (or equivalent position) at institutional investors managing funds of comparable size and complexity and be designed to meet the needs of Virginia529 and its investments.

RECOMMENDATION 4
The General Assembly may wish to consider amending Chapter 7 of Title 23.1 of the Code of Virginia to create an Investment Director position that would have investment management responsibility at Virginia529, including the Prepaid529 fund.

CFO role on IAC

The Virginia529 board should remove the CFO as a voting member of the IAC, in order to promote independence and objectivity in managing the Prepaid529 fund. The CFO participates in setting contract pricing and managing the funded status. The CFO's priorities and goals in this role may be in conflict with those applicable to the investment role. An example would be determining the acceptable level of investment risk.

AHIC expressed concern that the current arrangement is not an example of good governance, because it establishes competing priorities for the CFO. Furthermore, AHIC indicated that it is not standard practice for a CFO to serve as a voting member on this type of advisory committee. According to a JLARC survey of prepaid programs in other states, only one other state has staff of the prepaid plan who vote as part of an advisory committee or board. Further, if the Investment Director position is established, there will be no need to have the CFO serve on the IAC.

RECOMMENDATION 5

The Virginia529 board should change the Investment Advisory Committee charter to remove the Chief Financial Officer as an ex officio voting member of the Investment Advisory Committee.

Appendix A: Study mandate

Motion of the Commission: September 2016

JLARC staff are directed to review the investment management structure of the VA529 prePAID fund and assess whether there are options to more efficiently manage the fund, including but not limited to, assigning the management of prePAID investments to the Virginia Retirement System or the Virginia Department of Treasury.

Appendix B: Research activities and methods

JLARC staff conducted the following primary research activities:

- a survey of prepaid tuition programs in other states regarding investment management of their prepaid fund;
- interviews with staff of Virginia529, Virginia Retirement System (VRS), and Treasury; members of the Virginia529 Investment Advisory Committee (IAC); and the Virginia529 investment consultant;
- contracting with Aon Hewitt Investment Consulting to serve in an advisory role to conduct research and provide findings in the areas of investment management practices and governance; and
- document review.

Survey of other Prepaid programs in other states

JLARC staff conducted a survey of prepaid college tuition programs in other states to gather information on the investment management structure in place to manage each state's prepaid fund. The survey was sent to the 10 other states that currently have an open prepaid college tuition program. The survey was completed by staff in each state who were identified as having the greatest knowledge of the investment management structure of the prepaid program.

The survey included questions and requests for additional information. Topics covered by the survey included: background on the prepaid college tuition plan, information describing the investment management structure for fund investments, investment fees and expenses for fund investments, fund investment performance, and description of how fund performance is evaluated. JLARC staff received responses from prepaid college tuition programs in nine states: Florida, Illinois, Maryland, Massachusetts, Michigan, Mississippi, Nevada, Texas, and Washington.

Additional research on other states was conducted by JLARC staff through review of information that was publicly available about investment policy and guidelines, management structure, asset allocations, and investment performance.

Interviews with stakeholders and other investment experts

JLARC staff conducted numerous interviews over the course of the study pertaining to investment management, governance, strategy, performance, and evaluation. JLARC staff interviewed Virginia529 staff on several occasions over the course of the review. JLARC staff also interviewed investment staff at Virginia's other large institutional investors, the Virginia Retirement System (VRS) and Department of Treasury. Additional interviews were conducted with current and former members of the Virginia529 Investment Advisory Committee, the Virginia529 board chair, who also sits on the IAC, and the Virginia529 investment consultant.

Aon Hewitt Investment Consulting

A team from Aon Hewitt Investment Consulting (AHIC) with expertise in fiduciary and governance issues related to public pension and 529 funds served in an advisory role for JLARC over the course of the project. The AHIC team assisted JLARC staff in assessing the fiduciary and governance implications of different options for managing the investments of the Prepaid529 fund, including assigning management of investments to the VRS. The consultant's scope of work included a review of the current fiduciary standards and governance framework at Virginia529 for the management of plan assets, a review of the fiduciary and governance considerations related to assigning investment management of the fund to VRS, and identification of measures to enhance the investment management structure at Virginia529 should responsibility for the investment management of the fund remain at Virginia529.

During the course of this study, the AHIC team reviewed state and federal statute, the Constitution of Virginia, and documentation relating to the Prepaid529 program and investments. AHIC prepared a written summary of findings for JLARC staff and discussed findings with JLARC staff during a series of phone calls.

Document review

JLARC staff reviewed documents from Virginia529, including governance documents, such as the Statement of Investment Policy and Guidelines for Prepaid529, Virginia529 board charter, and IAC charter; Prepaid529 performance reports; annual reports; benchmarking and management fee documentation; and past correspondence between Virginia529 and the General Assembly and governor regarding Prepaid529 investment management.

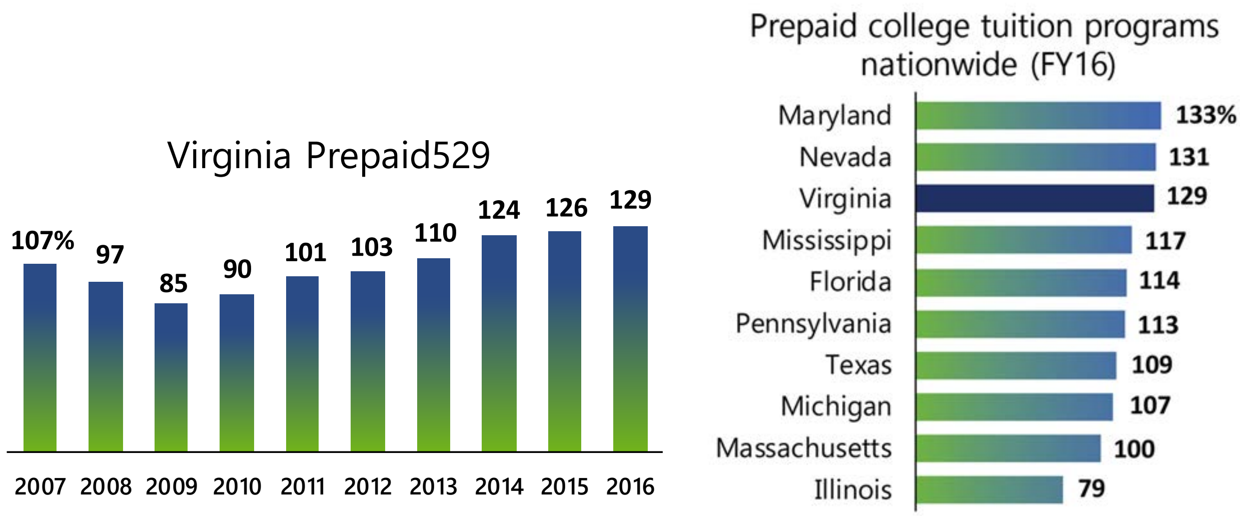
JLARC staff reviewed documents from VRS and the Department of Treasury, including benchmarking and management fee documentation; investment management structure; and investment performance.

Appendix C: Funded status of Prepaid529 and other prepaid programs

Virginia529 must maintain sufficient assets in the Prepaid529 fund to pay the program's future obligations. The Prepaid529 fund currently has sufficient assets to cover its liabilities, according to the most recent actuarial valuation. Prepaid529's funded status was 129 percent at the end of FY16. Over the past 10 years, Prepaid529's funded status has been 85 percent or higher (Figure 3). The low point occurred at the end of the 2007-2009 recession, when major declines in the domestic and international equity and credit markets affected many of the program's investments.

Prepaid529's current funded status is higher than most open prepaid college tuition programs in other states, most of which are over 100 percent funded (Figure 3). Many of the underfunded programs have changed their contract pricing, closed to new enrollment, or been discontinued altogether.

FIGURE C-1
Funded status of prepaid college tuition programs



SOURCE: Virginia529 actuarial data and JLARC survey of prepaid college tuition programs in other states.
NOTE: Funded status for other states represents end of most recent fiscal year. Dates may differ by state. Only states with prepaid college tuition programs that are open to new enrollment are included. Funded status for Texas includes the Texas Tuition Promise Fund but not the Texas Guaranteed Tuition Program, which has been closed to new enrollment. Funded status for Mississippi includes accounts sold from 2014 to the present but excludes legacy accounts sold prior to 2012. Washington state's Guaranteed Education Tuition program, which is funded at 136 percent, is not directly comparable; funded status levels were affected by substantial decreases in state tuition and fees over the past two fiscal years.

Appendix D: Potential benefits of VRS managing Prepaid529

If the many challenges of VRS managing the Prepaid529 fund could be overcome, some benefits would likely result. Assigning investment management of the Prepaid529 fund to VRS would leverage the expertise of VRS investment staff and would likely achieve lower investment management fees. Overall, the expense ratios experienced by Prepaid529 and the VRS trust fund were comparable in FY16 (.62 and .58 respectively). However, a larger portion of VRS assets are invested in more expensive asset classes, such as private equity and real estate, as compared to the Prepaid529 fund. If Prepaid529's assets were invested with VRS managers, using Prepaid529's allocation percentages, at the same fees paid by the VRS trust fund, the expense ratio for Prepaid529 would be approximately .46 percent. Under VRS management, fees would be nearly 25 percent less than fees paid by Virginia529 in FY16. Savings would be approximately $3.5 million.

The **expense ratio** is a measure of what an investment costs. An expense ratio is determined through a calculation where a fund's operating expenses are divided by the average dollar value of its assets under management.

An **investment management fee** is a charge levied by an investment manager for managing an investment fund. The fee is intended to compensate the managers for their time and expertise for managing the portfolio

A substantial amount of the fee savings would result from VRS's ability to use internal asset management, through which VRS achieves far lower expense ratios than can be obtained through external managers. Approximately one-fourth of the Prepaid529 fund is invested in core fixed income, an asset class that VRS internally manages in its entirety for the trust fund. Similarly, VRS manages approximately 40 percent of the trust fund public equity portfolio and could likely do the same for the Prepaid529 fund. Overall, VRS could internally manage nearly 40 percent of the Prepaid529 portfolio. VRS's ability to achieve lower fees than other institutional investors has been documented. A third-party review of VRS investment management fees found that VRS paid less in fees than the median of peer retirement systems, in part because VRS manages more assets internally.

Appendix E: Example responsibilities of an Investment Director

An Investment Director, also referred to as CIO, senior investor, or investment program director, can have responsibilities related to all aspects of investment management. Example responsibilities of such a position include:

- Overseeing, evaluating, and structuring investment portfolios.
- Coordinating asset allocation for all asset classes and subclasses.
- Monitoring investment managers, investment consultant, and custodian.
- Interviewing and visiting investment managers.
- Reviewing investment policy and investment management structure.
- Providing information to an investment advisory committee and board.
- Overseeing preparation of investment reporting.
- Ensuring investment compliance.

Appendix F: Agency response

As part of JLARC's extensive validation process, state agencies and other entities involved in a JLARC assessment are given the opportunity to review and comment on an exposure draft of the report. JLARC staff provided an exposure draft of this report to Virginia529.

This Commission draft incorporates, as appropriate, technical corrections made in response to comments from Virginia529.

Virginia529's written response letter is included here.

Dream Save Achieve

Mary G. Morris
Chief Executive Officer
Direct: 804-786-0832

July 5, 2017

Hal Greer
Director
Joint Legislative Audit and Review Commission
919 East Main Street, Suite 2101
SunTrust Building
Richmond, Virginia 23219

Re: 2017 Prepaid529 Investment Study

Dear Mr. Greer:

Thank you for the opportunity to review and comment on the exposure draft of the *2017 Prepaid529 Investment Management Report* (the Report) recently completed by JLARC staff (JLARC). The Prepaid529 program (Prepaid529) is one of three[1] qualified tuition programs (within the meaning of §529 of the Internal Revenue Code) administered by the Virginia College Savings Plan (Virginia529 or the Plan), an independent agency of the Commonwealth of Virginia, pursuant to its statutory authority under Title 23.1, Subtitle II, Chapter 7 of the Code of Virginia (Va. Code §§ 23.1-700 *et seq.*). Virginia529 also administers the new ABLEnow disability savings program pursuant to the same statutory authority. Although the Report addresses only the investment management of Prepaid529, responsibility for all aspects of the four programs sponsored by Virginia529 – including responsibility for professional, prudent, sophisticated and objective investment management - are interrelated and difficult to separate and this response will refer to that as appropriate.

The Report is the result of a September 12, 2016 motion by the Commission directing JLARC staff "*to review the investment management structure of the VA529 Prepaid529 fund and assess whether there are options to more efficiently manage the fund, including but not limited to, assigning the management of Prepaid529 investments to the Virginia Retirement System or the Virginia Department of Treasury.*" The Report addresses the threshold question regarding the possibility of reassigning investment management responsibility and concludes that given that "Prepaid529 has a well-defined investment management structure that is similar to other institutional investors and prepaid programs, reassigning investment management of

[1] CollegeWealth closed to new accounts in FY2017 and is no longer maintained as a stand-alone program; Invest529 offers an FDIC-Insured Portfolio to replace CollegeWealth.

9001 Arboretum Parkway • Richmond, Virginia 23236
Phone 804-371-0766 • Toll-Free 1-888-567-0540 • Toll-Free Fax 1-866-757-1295 • Virginia529.com

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Prepaid529 is not warranted." Virginia529 concurs completely with this conclusion and will not address that aspect of the Report further except to note that we believe the analysis in Appendix D of the Report with respect to the potential for a reduction in costs to Prepaid529 if assets were invested through the Virginia Retirement System (VRS or the System) is overstated and overly simplified. The Report does not consider that the VRS would pass on to Virginia529 additional costs to the System of managing the Prepaid529 portfolio, over and above the internal asset management fees for that portion of the Prepaid529 portfolio which could be managed internally. In addition, the calculations assume that certain asset classes that VRS does not currently manage would be managed internally and also ignores certain fixed costs such as custodial fees that would be incurred by VRS. Such charges could substantially reduce or eliminate any potential cost reduction to Prepaid529.

We have reviewed the Report carefully and agree that most of the remaining recommendations can and will be implemented by Virginia529 to enhance transparency and understanding of the portfolio asset allocation structure and results. The recommendations provide an additional opportunity for Virginia529 to evaluate the current portfolio structure and whether it is performing as expected given the long-term focus and defensive posture established for the Prepaid529 portfolio and the market conditions in the current cycle. Specifically, we commit to work with the Virginia529 board to pursue an independent third party review of existing benchmarks and report the findings and any actions taken by the Plan's Investment Advisory Committee (IAC) and/or Board to JLARC at a future date. **(Recommendation 1)** The review will assist in determining whether the Program is utilizing appropriate benchmarks in light of the positioning of the Fund. Separately from the independent review, Virginia529, Mercer and the IAC had already commenced a benchmark review and adopted at the June IAC meeting a revised benchmark framework for its alternatives portfolio. In addition, the Program will develop a methodology for a more formal attribution analysis, for the entire portfolio, than has been standard practice and looks forward to receiving examples of such analyses from JLARC staff to ensure development of a document that addresses the questions raised. **(Recommendation 2)** The Report recommends that the CFO no longer be a voting *ex officio* member of the IAC and Virginia529 will make that recommendation to the Board and assume that can be accomplished at the next Board meeting. **(Recommendation 5)**

The only remaining recommendations in the Report relate to the establishment of a Chief Investment Officer (CIO) or Investment Director position at Virginia529 whose sole function would be the professional investment management of the Prepaid529 portfolio and oversight of the Invest529 portfolios. **(Recommendations 3 and 4)** Virginia529 has reservations about the prescriptive conclusion that such a position is without question needed at Virginia529 and the corollary implication that by adding the position there will be a definite and measurable enhancement of investment performance, investment management and governance (e.g., investment performance accountability).

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We do not agree that the governance and performance of the existing management team and structure requires a "fix." Rather than the legislative mandate to change Virginia529's investment management structure, Virginia529 would appreciate an opportunity to consider and review a variety of approaches and models for investment management and ways in which our governance and operational structure could be effectively modified, without presupposing the threshold solution. We believe something short of an all or nothing approach is worth considering. It is appropriate to consider the unique nature of the Prepaid529 investment portfolio, the impact on Virginia529's organizational structure, the costs of implementing a new model and the ability to identify and attract the right candidate before deciding on a particular model. Any legislative change would be premature before such a review.

We note in support of our request for flexibility to consider different approaches to investment management, that the Report acknowledges that:

> *"Prepaid529 has a well-defined investment management structure that utilizes investment experience and incorporates checks and balances. The Virginia529 board and its Investment Advisory Committee (IAC) oversee investment of the Prepaid529 fund. The board and IAC receive guidance and support from Virginia529 staff and an investment consultant when making investment decisions. The investment management structure for Prepaid529 is similar to those in other states where a college savings plan agency, as opposed to a state treasurer or investment board, is responsible for investment management of prepaid programs."*

Notwithstanding the above comment, the Report in a different section states that "[o]ther institutional investors in Virginia, and most prepaid programs in other states, have a full-time CIO or equivalent position...and most prepaid college tuition funds in other states are managed by one or more staff with portfolio management expertise ... [and] are often managed by a treasury department or investment board, which employs staff with credentials comparable to a CIO. Likewise, Virginia's four largest public university endowment funds, ranging in size from approximately $800 million to $7 billion, have a designated CIO with extensive portfolio management experience."

Based on our knowledge of the operations of other prepaid programs across the country, we believe the case for an Investment Director/CIO is overstated. Currently there are eleven open prepaid programs (and one suspended program) operating in the United States; three of which contain over 70% of assets under management in open programs – Florida, Virginia and Washington - and none of these three utilize a CIO model. Florida is the oldest, largest and arguably most successful prepaid program in the country with almost $11 billion in assets under management and an investment management structure and philosophy similar to that of Virginia529. Virginia's Prepaid529 program is the second largest prepaid program in the country. Washington's program (currently suspended to new accounts) is managed by the state investment board with little input from the program. A number of prepaid programs are housed in state treasury departments and so have a different model for investment

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management than Virginia529, but do not have dedicated investment management staff for their prepaid portfolios. The practice in Virginia is that the Director of Cash Management and Investments for the Virginia Department of the Treasury (the *de facto* CIO) serves as the Treasurer's designee member at most IAC meetings.

The Report provides little analysis of the functioning or mandates or actual staffing of the endowments and foundations, including the Virginia public university endowment funds, mentioned in the Report. Based on our knowledge of such funds, we believe the comparisons are incomplete and not compelling, and will not address them further in this response.

We agree with JLARC staff that a number of investment management models, including one with a CIO and staff, can be effective and advisable in various circumstances. The information in the Report is helpful and Virginia529 is committed to exploring changes to our model; however, we do not agree with any implication that the current system is in some way flawed or inappropriate or that it has not resulted in strong performance and adherence to its mandate to ensure the long-term health and solvency of the Prepaid529 program while keeping contract costs as low as possible. The Prepaid529 portfolio was successfully managed through the recession of 2007-2009 and returned to a fully funded actuarial status within two years, ending the last two fiscal years with a solid and appropriate 126% and 129% actuarial funded status, respectively.

As JLARC staff have attended most, if not all, Board and IAC meetings since 2013, they have had an opportunity to assess the commitment and level of engagement of all parties supporting our investment management structure and I believe would concur that they are committed, engaged and accomplished. However, the Report makes several statements that reflect what may be possible but is not the reality at Virginia529 and we believe this is an important distinction which cuts against the ultimate recommendation with respect to adding an Investment Director, particularly by statute, to the organizational structure of Virginia529. The Report notes that:

> *"Under the current management structure, Virginia529 staff, the IAC, and the investment consultant share responsibility for investment performance of the Prepaid529 fund (Table 2). For example, although the IAC adopts sub-asset allocations, the CEO, CFO, and investment consultant play key roles in shaping those decisions. Staff of another institutional investor in Virginia explained the problems of this dynamic, stating that "decisions by consensus can weaken the investment process because it disperses the risks of decisions." Creating a CIO position would increase the accountability of the decision making process."*

We respectfully but completely disagree with the conclusions of an unnamed "staff of another institutional investor in Virginia" that our investment process might be weakened by what we submit is a collaborative process which takes advantage of the strengths of the various participants in the process. There is no shortage of discussion or questioning or challenging of either our investment consultant or internal staff; individual IAC members also

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are quite comfortable professionally and effectively challenging their peers on the Committee, leading to fully debated and articulated decisions.

The Report further states that:

"There is currently no full-time position dedicated to fund management and performance. IAC membership is voluntary, part-time, and uncompensated. The investment consultant serves in an advisory role, meant to provide information, guidance, and monitor performance of investments. The consultant is not compensated based on performance of the fund. Only the CEO and CFO are held responsible for performance of the fund, through a single performance measure for both positions: the "since-inception" benchmark, which dates back to the fund's inception in 1997. The CEO and CFO have met this performance measure every year, but the total fund has underperformed a majority of shorter-term benchmarks in the past several years and returns relative to the since-inception benchmark have steadily declined during that time. Furthermore, the CEO and CFO are evaluated on numerous other responsibilities related to management and administration at Virginia529."

The current structure, rather than being a weakness in our process or investment management, is a part of its strength. Virginia529 has concerns about the focus of the Report on tightly tying any party's compensation to investment performance. Although no one is compensated directly or solely based on investment performance – particularly not short term quarterly or annual performance – there is full accountability for the overall performance and results of the program by all participants.

A brief discussion of Virginia529's investment philosophy and the positioning of the Prepaid529 portfolio may be helpful at this point. The Prepaid529 portfolio remains ahead of its long-term total Fund benchmark by some 60 basis points, is almost exactly on track with the assumed long-term return of 6.25% on the portfolio and finished fiscal year 2016 with an actuarial funded ratio of 129% (and similar results are anticipated for FY2017). We have discussed with JLARC staff several reasons that Prepaid529 portfolio performance has lagged certain benchmarks for the last several years. We are committed to reviewing those benchmarks and doing a better job of articulating and showing in lay terms and charts the performance attribution and the relationship between the benchmarks and performance.

The primary reason for relative underperformance to benchmarks is that Virginia529's IAC has assigned the Fund portfolio-level benchmarks based on the underlying asset allocation policy/strategy as opposed to assigning benchmarks at the asset class (manager) level on a more granular basis. The Prepaid529 Fund benchmark was not established as a goal to necessarily be beaten on a quarter-by-quarter basis. Rather the Prepaid529 Fund benchmark was established as a true benchmark to which out- or under-performance would be measured over the long-term, and deviations would be explained as a result of manager selection or manager performance. Manager performance benchmarks on the other hand were selected for monitoring performance based on the portfolio-level asset allocation and

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asset-class specific market indices with secondary benchmarks assigned and reviewed if the manager's investment style differed from the original asset-class or allocation benchmark. The manager benchmarks represent a baseline for measuring active management performance versus passive management. This methodology results in a consistent framework by which Virginia529's IAC may define success, establish and monitor an appropriate risk level and asset allocation to meet objectives, and measure success against those objectives. The Report only refers to the total Fund performance.

Virginia529 intentionally has created a portfolio that is relatively defensively structured, with less domestic equity and more international and emerging market equity than many similar portfolios. In addition, some of the managers in the portfolio, such as the high-yield fixed income manager, have higher quality mandates than many benchmark peers, which will result in relative underperformance in certain markets. The existing total Fund benchmark does not capture those aspects of our portfolio positioning. Mercer, the IAC and staff review and discuss results quarterly and focus on understanding the reasons for any under- or over-performance and whether managers have performed as expected given market conditions. Admittedly, that kind of review, discussion and consideration is not captured in a total Fund performance chart. Our intent is to position the portfolio defensively to limit losses in down markets which we believe is more important than outperformance in strong markets in which the Fund's absolute performance has been solid. A review of the Report's performance chart is instructive and, in fact, shows that the public equity and core fixed income segments of the portfolio have outperformed in most time periods. The alternatives portfolio shows underperformance in all time periods, which is to be expected in any new private equity (added in 2010) performance because of the J-curve effect in that strategy which typically takes a full ten-year cycle to prove itself. Finally, the non-core fixed income segment of the portfolio also has underperformed in all time periods and the underperformance of those two segments has resulted in total Fund underperformance versus the total Fund benchmark. However, the underlying managers within the alternative and non-core fixed income categories have performed in line with expectations given market conditions.

We agree that Virginia529 has the people and processes and governance structure acknowledged in the Report. However, the Report states that the investment management structure has been in place and unchanged since inception in 1997 and has not been thoroughly reviewed since then, which is not accurate.

The investment management structure is, in fact, reviewed annually by Morningstar, a highly regarded, independent investment research organization. Morningstar annually conducts an independent assessment and rating of the largest 63 of 84 529 savings programs in the country. Morningstar rates two of our programs, Invest529 and CollegeAmerica. Invest529 is one of only three programs in the country to receive a Gold rating by Morningstar; CollegeAmerica is one of only two advisor programs to receive a Silver rating. In completing the ratings, Morningstar reviews many aspects of the program, including investment management and governance, and Virginia529 received Positive ratings on all five pillars of the Morningstar rating system: Parent, Process, People, Performance and Price. In receiving

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the Gold rating, Virginia529 is rated against some of the largest and best known investment management companies in the country, including our partner the American Funds, Vanguard, T. Rowe Price, Franklin Templeton, TIAA and others.

With respect to the investment management structure of Virginia529, there have been a number of positive changes to our management structure and processes in the more than twenty year history of the Program. The *ad hoc* process of utilizing an Investment Advisory Committee was codified in the Code of Virginia **at the request of Virginia529** in 2009 and specific professional criteria for membership on the Committee were established in the Code. Similar action was taken at the same time with respect to Virginia529's Audit and Actuarial Committee. In addition, although almost from inception the Board and IAC utilized investment guidelines and an investment consultant (something which most 529 plans did not do for many years – and which some still do not), in recent years we significantly modified and enhanced investment guidelines and procedures to add additional structure and robustness to our investment management (including but not limited to significant compliance oversight, liquidity and cash management oversight, formalized manager due diligence, and formalized portfolio rebalancing processes), all of which strengthened the Plan's investment management and governance structure.

We again express our appreciation to the JLARC staff for the professional, courteous and cooperative manner in which they conducted their work during the course of the investment study. To recap, we concur in the ultimate conclusion of the Report that no change in investment responsibility should be considered for the Prepaid529 portfolio. We have agreed to undertake an independent benchmark review and report results and actions taken and to commence regular attribution analysis of the portfolio to ensure a focus on what is causing over and under performance and to remove the CFO from membership on the IAC, allowing that person to focus solely on the staff side of the process. Finally, we commit to studying and considering structural changes to our investment management process, including the potential reorganizing of the investment staff at Virginia529 and hiring of a CIO or Investment Director, but request that such action not be mandated or codified, particularly not until a study of the implications, costs and organizational impact of incorporation of such changes have been assessed thoroughly.

Sincerely,

Mary G. Morris

c: Members, Virginia529 Board
Kimberly Sarte, JLARC
Joe McMahon, JLARC

PREPAID529 INVESTMENT MANAGEMENT 2017

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919 East Main Street, Suite 2101 Richmond, VA 23219