

Audit and Compliance Committee Meeting

<u>1111 E. Main Street</u> <u>Third Floor Board Room</u>

Tuesday, 6/13/2023 1:00 - 3:00 PM ET

- I. Minutes of the March 29, 2023 Meeting Meeting Minutes - Page 2
- II. Matters for Discussion with the Auditor of Public Accounts Matters for Discussion with the APA - June 2023 - Page 6
 - A. Status Update on the 2022 Employer Assurances Review
 - B. Entrance on 2023 Annual Comprehensive Financial Report 2023 VRS Annual Report APA Board Entrance - Page 7
- III. Audit Reports
 - A. Report 451: Service Retirements Audit Report #451 - Service Retirements - Page 26
 - B. Report 452: Review of VRS' Master Custodian Audit Report #452 - Review of VRS' Master Custodian - Page 45
- IV. Introduction of the IIA IPPF Evolution
 - IPPF Evolution Global Internal Audit Standards Page 59
- V. Miscellaneous Updates
 - A. Quarterly Report on Fraud, Waste and Abuse Hotline Cases

Fraud, Waste and Abuse Report - February 1, 2023 through April 30, 2023 - Page 74

- B. Management's Quarterly Travel Expenses and Per Diem Report Travel Expenses and Per Diem Report as of March 31, 2023 - Page 78
- C. Next Meeting Date: Wednesday, September 20, 2023



Minutes

The Audit and Compliance Committee of the Board of Trustees met on March 29, 2023, at the Virginia Retirement System located in Richmond, Virginia. The following individuals were present.

Audit and Compliance Committee Members: Joseph W. Montgomery, Committee Chair, Board Vice Chair W. Brett Hayes, Committee Vice Chair A. Scott Andrews, Board Chair

Other Members of the Board of Trustees: John M. Bennett

VRS Staff:

Patricia Bishop, Andrew Junkin, Jennifer Schreck, Judy Bolt, Richard Brooks, Jeanne Chenault, Michael Cooper, David Cotter, Joshua Fox, Krystal Groff, Curt Mattson, Matthew Priestas, Mark Rein, Kristy Scott and Leslie Weldon.

Guests:

Jamie Bitz, Joint Legislative Audit and Review Commission; Erin Rodriguez, Auditor of Public Accounts

The meeting convened at 1:00 p.m.

Opening Remarks

Mr. Montgomery called the meeting to order and welcomed everyone to the March 29, 2023, meeting of the Audit and Compliance Committee of the Virginia Retirement System Board of Trustees and noted no changes or additions to the meeting agenda.

Approval of Minutes

Upon motion of Mr. Bennett, seconded by Mr. Andrews, the committee approved the minutes of the Audit and Compliance Committee meeting held on December 8, 2022.

Audit Reports

The Committee received two audit reports from staff.

Audit Report 449

Ms. Groff presented audit report 449 – Conformance with VITA's IT Security Program. The review determined as of the audit period that VRS' security policies and standards generally conform with VITA's mandatory Information Technology Security Program, with updates to VRS' policies and standards currently underway. There were no written recommendations resulting from the review.



Audit Report 450

Mr. Fox presented audit report 450 – Credit Strategies and Private Investment Partnerships Programs. The review determined VRS provides appropriate oversight and monitoring of the programs. There were no formal recommendations as a result of this review. The Committee discussed the valuation methodology for the investments included in the examination.

Acceptance of the Audit Reports

Upon motion of Mr. Andrews, seconded by Mr. Hayes, the Committee accepted audit reports 449 and 450 as presented.

Annual Report on Code of Ethics

Ms. Schreck discussed the Internal Audit department's adherence to the VRS Code of Ethics and the Institute of Internal Auditors' Code of Ethics. She noted members of Internal Audit also hold various other professional designations and memberships, which provide similar frameworks for ethical behavior in the practice of that profession. Members of the Internal Audit staff complete annual certifications required by these professional organizations.

Mr. Cooper provided a brief overview of VRS' Code of Ethics and the training provided to personnel. Mr. Cooper confirmed all eligible and available VRS staff had completed the annual code of ethics training by December 31, 2022. Mr. Cooper noted two employees were on extended leave as of December 31, 2022 and therefore completed their training upon their return.

Mr. Brooks discussed the Investment Department's Code of Ethics and Standards of Professional Conduct Policy and compliance monitoring, noting all Investment associates were in compliance as of December 31, 2022.

Audit Plan Progress as of December 31, 2022

Ms. Schreck reported on the progress of the annual Audit Plan as of December 31, 2022, the mid-point of the fiscal year. She noted Internal Audit is on track to complete the annual Audit Plan as approved.

Miscellaneous Updates

Quarterly Report on Fraud, Waste and Abuse Hotline Cases

Ms. Schreck noted there were no Fraud, Waste and Abuse cases reported for the period November 1, 2022 through January 31, 2023.

Internal Audit's Review of the Cost-of-Living Adjustments

Ms. Schreck informed the Committee that Internal Audit has reviewed the amounts referred to as "Cost-of-Living Adjustments (COLA)" as calculated by VRS' actuary, Gabriel, Roeder, Smith & Company, to be effective July 1,



2023. Ms. Schreck noted Internal Audit independently recalculated the "Cost-of-Living Adjustments" and found them to be valid and accurate. The results of this review were provided to the Benefits and Actuarial Committee and Board of Trustees in February 2023 to support their review and approval process for these adjustments. The Committee discussed Internal Audit's process of reviewing the COLA.

Management's Quarterly Travel Expense and Per Diem Report

Ms. Schreck shared management's quarterly travel expense and per diem report was included in the meeting materials for the Audit and Compliance Committee's review.

Next Committee Meeting Date

Ms. Schreck acknowledged the next meeting of the Committee is scheduled for June 13, 2023, at 1:00 p.m.

Meeting Adjournment

There being no further business, upon motion by Mr. Bennett, seconded by Mr. Andrews, the Audit and Compliance Committee agreed to adjourn the meeting at approximately 1:16 p.m.

Committee Chair

Secretary

Matters for Discussion with the Auditor of Public Accounts

VRS Annual Report

For informational purposes, you may wish to review VRS' most recent Annual Report, which includes VRS' 2022 Annual Comprehensive Financial Report and the APA's associated opinion. Due to the voluminous nature, the report is not included in the meeting book, but can be found on VRS' website at the following link: <u>VRS Annual</u> <u>Comprehensive Financial Report</u> for the Fiscal Year Ended June 30, <u>2022 (varetire.org)</u>

APA's Report on Internal Control

The APA's Report on Internal Control for the 2022 Annual Report found the financial statements were presented fairly, in all material respects. An internal control finding requiring management's attention and an instance of noncompliance or other matter required to be reported under <u>Government</u> <u>Auditing Standards</u> were also included. This report can be viewed at the following link: <u>Virginia Retirement System for</u> <u>the year ended June 30, 2022</u>

MATTERS FOR DISCUSSION WITH THE APA

Update on the 2022 Employer Assurances Audit

The APA will provide an update on the status of their 2022 Employer Assurances Audit, the results of which are expected to be reported out by the middle of July 2023.

Entrance on VRS' 2023 Financial Statement Audit

The APA will entrance with the Committee on VRS' 2023 Annual Comprehensive Financial Report Audit. For informational purposes links to VRS' 2022 Annual Comprehensive Financial Report and APA's Report on Internal Control for 2022 are provided to the left.

For reference purposes, a list of some of the questions often posed to external auditors when entrancing are provided below. However, entrance meetings with the APA are typically informal, with questions posed as the Committee sees fit.

Typical Questions Posed to External Auditors When Entrancing:

- Do you anticipate any substantial changes in your audit approach, scope, standards, procedures, resources allocated, or other circumstances, which may significantly affect your examination?
- Are there any significant changes in generally accepted accounting principles or other changes which will significantly impact your examination, our financial reporting or your opinion thereon?
- Have you identified any possible changes in the character of VRS' activities? Have these changes, if any, affected your audit approach or scope?
- Are there any special areas in which you expect to focus?
- Are there any potential restrictions on your audit scope or other matters that could affect your audit opinion?
- Do you foresee any significant problems and, if so, how will they be handled?
- Are there any issues the Committee needs to be aware of or are there any areas where you require special assistance or cooperation from VRS?





Fiscal Year 2023 VRS Annual Report Entrance

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June 13, 2023 Zach Borgerding, Audit Director

Auditor of Public Accounts

Employer Assurances Engagement Status Update



Our Team

Zach Borgerding



Director

- 15 years experience
- 8 years experience with VRS
- CPA, CISA and CGFM
- Specialty Focus: Reporting and Standards

Supervisor

Erin Rodriguez

- 5 years experience
- 5 years experience with VRS
- MBA
- Specialty Focus: Data Analysis

Supervisor

Gary Gammon

- 6 years experience
- 2 years assigned to VRS
- CFE, MBA
- Specialty Focus: Higher Education Programs

Supervisor

Amy Stokes

- 8 years experience
- 1st year assigned to VRS
- CPA, CGFM
- Specialty Focus: Reporting and Standards

Auditor

- 2 years experience
- 2 years assigned to VRS
- Specialty Focus: Data Analysis

- Auditor
- <1 year experience
- 1st year assigned to VRS
- CPA
- Prior
 - experience with Virginia529

WWW.APA.VIRGINIA.GOV





Ben Rubert Beth Miller

Our Team (continued)



Basic Financial Statements

- Primary objective of audit is to provide an opinion on fair presentation in accordance with GAAP
- We assess risk of material misstatement at the line item level and design an audit approach responsive to those risks
- Procedures include a combination of tests of detailed transactions and balances, as well as internal control processes

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	-	(additionally)	

• Virginia ACFR

- Objective of audit is also to ensure fair presentation of attachments and supplemental items submitted to DOA
- Inquiries often require communication between VRS, DOA, and their respective audit teams
- The VRS audit PM performs final review for both projects to ensure consistency
- Team also considers internal control processes relating to the compilation of this information



Required Supplementary Information (RSI)

1. INTRODU Chair's Let

2. FINANCIA

- We review for consistency • with the basic financial statements
- We perform limited ۲ procedures, including management inquiries and review of support
- We do not provide an ۲ opinion concerning RSI

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Supplementary Information

- We provide an opinion that schedules are fairly stated 'in relation to' the basic financial statements
- We reconcile the total schedule amount to the basic financial statements and sub-amounts to the general ledger system
- We perform limited additional procedures, including management inquiries

1. INTRODUCTORY SECTION

Chair's Letter Board of Trustees VRS Organization Investment Advisory Committee Defined Contribution Plans Advisory Committee Executive Administrative Team Executive Investment Team Professional Consultants Letter of Transmittal

2. FINANCIAL SECTION

Independent Auditor's Report

Management's Discussion and Analysis

Basic Financial Statements: VRS Statement of Fiduciary Net Position: Defined Benefit Pension Trust Funds, Other Employee Benefit Trust Funds and Other Custodial Plans VRS Statement of Changes in Fiduciary Net Position: Defined

Benefit Pension Trust Funds, Other Employee Benefit Trust Funds and Other Custodial Plans

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VRS Statement of Changes in Fiduciary Net Position: Defined Benefit Pension Trust Funds

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VRS Combining Statement of Changes in Fiduciary Net Position

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Other Information

- We review for inconsistency with the basic financial statements
- We review for apparent • material misstatements of fact based on knowledge of operations
- We do not provide an ۲ opinion or any assurance whatsoever concerning other information

Executive Investment Team Professional Consultants Letter of Transmittal 4. ACTUARIAL SECTION Pension Trust Funds: Actuary's Certification Letter: Pension Summary of Actuarial Assumptions an Solvency Test: Pension Plans Solvency Test: VRS Pension Plans Schedule of Funding (Actuarial Value Schedule of Funding (Actuarial Value I Schedule of Active Member Valuation Schedule of Active Member Valuation Schedule of Retiree and Beneficiary V Plans Schedule of Retiree and Beneficiary Va Pension Plans Actuarial Assumptions and Methods Additional Information About Actuaria Methods: Pension Plans Summary of Pension Plan Provisions Summary of Pension Plan Changes Other Post-Employment Benefit (OPEB) P Actuary's Certification Letter: OPEB Pla Actuary's Certification Letter: OPEB PI Fund Summary of Actuarial Assumptions an Solvency Test: OPEB Plans Schedule of Active Member Valuation

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Significant Risks

Management Override

- Risk is present at all organizations
- Access controls
- Segregation of duties
- Culture/tone at the top
- Whistleblower communication channels

Revenue Recognition

- Risk is generally present at all organizations
- Actuarial gains highly material, complex, and subjective estimate
- Investments highly material, complex, and subjective estimate

Approach to Materiality

- We consider what is likely to affect the judgment of a financial statement user in order to:
 - Assess risk and design audit procedures
 - Evaluate misstatements in amounts and deficiencies in processes
- Includes quantitative and qualitative considerations
- Certain procedures are performed at a lower level of materiality in preparation for the employer-level opinions provided in support of Employer Assurances Engagement

Approach to Fraud

- Team interviews personnel and assesses the risk of fraud
- Team looks for red flags and considers the potential for fraud as it relates to exceptions identified during fieldwork
- VRS is required to notify APA when fraud is identified



Approach to Compliance

- We consider the risk that potential noncompliance could have a material direct or indirect effect on the financial statements
- We assess management's processes
- We test compliance which we deem significant in the context of the audit objectives



- Report on Internal Controls and Compliance
 - We do not provide an opinion on internal controls
 - We are required to report any findings that we deem to be significant deficiencies or material weaknesses
 - Though not required, we plan to issue this report the same week we release the audit opinion



VIRGINIA RETIREMENT SYSTEM

REPORT ON AUDIT FOR THE YEAR ENDED JUNE 30, 2022

Auditor of Public Accounts Staci A. Henshaw, CPA www.apa.virginia.gov (804) 225-3350



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• Statewide Single Audit

- The Statewide Single Audit (SSA) report serves as the internal control report for the Commonwealth's Annual Comprehensive Financial Report
- Findings included in the VRS internal controls report will be carried forward to the SSA report
- Report on status of prior year findings



COMMONWEALTH OF VIRGINIA SINGLE AUDIT REPORT

FOR THE YEAR ENDED JUNE 30, 2022

Auditor of Public Accounts Staci A. Henshaw, CPA www.apa.virginia.gov (804) 225-3350



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Management Communication

- Entrance/Exit with Management
- Bi-weekly status meetings:
 - Financial
 - Investments
- When potential concerns are noted:
 - Confirm condition
 - Obtain response
 - Evaluate significance

Audit Committee Communication

- If you are aware of risks our audit should address, please share those with us
- Unless there are findings requiring your immediate attention, we will present our results to you at the conclusion of the audit
- If earlier communication is warranted, we will coordinate with internal audit to ensure the Committee is informed in a timely manner
- Terms of the engagement and representation letters will be provided

This presentation is intended solely for the information and use of those charged with governance and management, and is not intended to be, and should not be, used by anyone other than these specified parties.

Audit Reports





Report No. 451

Service Retirements

April 1, 2022 – October 31, 2022

Highlighting VRS Core Values: Integrity, Teamwork, Accountability and Agility in Action

THIS REPORT IS INTENDED SOLELY FOR THE USE OF THE VRS BOARD OF TRUSTEES AND THE MANAGEMENT OF VRS AND IS NOT INTENDED FOR OTHER PURPOSES.

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Dear Members of the Audit and Compliance Committee,

We have completed audit number 451, "Service Retirements." The main purpose of our audit was to determine if sufficient controls are in place to support service retirement application processing and that the associated processes are working as expected.

We conducted our audit in accordance with the International Standards for the Professional Practice of Internal Auditing. These standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for the conclusions based upon our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This report was distributed to the VRS Director and members of management for review and comment. As our review did not result in a written recommendation, management did not provide a written response but expressed substantial agreement with our report.

We appreciate the cooperation and assistance of the Retiree Services department throughout this audit.

Respectfully Submitted,

Junniqu P. Bel Schnek

Jennifer P. Bell Schreck, CPA, CISA, PMP Audit Director

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EXECUTIVE SUMMARY

We conducted an examination of VRS' Service Retirements processing for the period April 1, 2022, through October 31, 2022. Our review determined that:

- Processes in place to administer service retirement processing are working as intended, and
- System access relative to service retirement application processing supports the proper segregation of duties and principle of least privilege.

This is our first review of the Service Retirements process since the activity moved in its entirety to the VNAV environment from VRS' legacy system. Most but not all members may now submit their service retirement applications online through myVRS, the member and retiree online portal. Since this functionality was launched, online application submissions have steadily increased with approximately 38 percent of applications submitted through myVRS for calendar year 2023 thus far. The remaining members continue to submit their service retirement applications manually via paper forms.

Service retirements can happen at any time throughout the year, but there tend to be cyclical spikes in application activity ahead of retirements effective January 1st and most notably July 1st.



There are no written recommendations resulting from our review; however, there were minor observations that have been communicated to management for consideration.

SNAPSHOT

During the audit period there were 8,013 service retirements initiated and completed, the majority of which were for a Basic Benefit.



Basic Benefit

- Basic Benefit w Partial Lump-Sum Option
- Survivor Option
- Other Benefit Options

AUDIT ASSESSMENT

Service retirement application processes are working as expected and system access relative to service retirement application processing is limited and supports the principle of least privilege.

Written Recommendations: 0

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BACKGROUND

INTRODUCTION

Eligible members may apply for retirement at least 60 days but not more than 120 days before they wish to retire. Further, they may backdate a retirement application only up to 90 days. Retirements are effective and benefits can begin on the first day of the month, following a bona fide break in service of at least one full calendar month. Members may apply for service retirements online using myVRS or by using a paper application.

SERVICE RETIREMENT APPLICATION PROCESSING

To initiate their retirement through myVRS, members must claim or previously have claimed their myVRS account. Most members are eligible to apply online, excluding those with:



Once logged-in, members initiate the process by selecting "Apply for Retirement" from the Manage My Benefits menu. To ensure only those eligible to apply online do so, myVRS will validate the member's status and display an "Apply Now" button or a message that the application cannot be accepted online and the member must initiate their retirement by paper application.

myVRS-initiated retirements include a counselling experience throughout the process, offering insight regarding the retirement options available and other eligible benefits. In addition, edit checks are built into the data entry process to ensure the integrity of the information to be

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BACKGROUND INFORMATION

Member Outreach and Education is a demonstrable priority for VRS.

The "Getting Ready to Retire" Guide, located on VRS' website, clearly lays out the process and considerations for VRS' members as they reach retirement.

Audit used this document in planning and developing this report's background.



processed, including the validation of key member data elements, such as the member's date of birth, as well as their spouse's, if applicable, via a third-party partner tool.

Once the member submits their electronic application, they cannot make changes. The application moves from myVRS to VNAV and VNAV assigns the application to a service application pending workflow for processing by the service retirement unit.

Paper Applications

When a paper application is submitted by a member and scanned into ECM, VNAV creates a service application pending workflow, just like an application submitted via myVRS. The information from the application is keyed into VNAV by the data entry analyst. A third-party partner tool confirms information from the applicant, such as the social security number, date of birth and, if a survivor option is selected, information related to their spouse. Further, if a member is married, their spouse must complete the spousal acknowledgement on the VRS-5 and sign on or after the date the member signs the application.

Errors identified by the third-party data tool can be corrected by the data entry analyst, unless that data was incorrect on the application. Then, the analyst must contact the applicant for verification of accurate information.

When necessary, a similar error resolution process will be undertaken for myVRS-submitted applications.

When applying for retirement, members can and ideally should also review and update beneficiaries, which can be done through myVRS or by submitting a Designation of Beneficiary form.

Other Considerations

There are various other considerations when applying for retirement depending on the member's employer, years of service, the type of retirement and retirement option selected. Some considerations will require the retiree to obtain and provide additional documentation to VRS to ensure the accurate processing of their benefit.

In addition, members who participated in the various deferred compensation programs administered by VRS will need to consider potential actions to address those benefits.

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Advance Pension Option

An Advance Pension Option allows a member to receive an increased benefit until Social Security Age at which time the benefit will reduce. This allows the member to have a stable income at the time they retire, taking into consideration their future Social Security Benefit.



Members selecting the Advance Pension Option (APO) must obtain a Social Security Benefit estimate (SSE).

The estimate must be less than 12 months old, assume no future earnings after leaving their covered position and be based on their Social Security earnings record.

Health Insurance and Health Insurance Credits

State employees are eligible to enroll in the State Retiree Health Benefits Program upon retirement if they apply within 31 days of their retirement date.

Members that defer retirement when they terminate employment are not eligible to enroll in the program.

Members that decline coverage may not enroll at a later date.

Similarly school division/political subdivision employees may be eligible for retiree health insurance through their employer upon retirement.

Some employers have arranged with VRS to deduct the premiums from the monthly benefit payment.

Members may be eligible for a health insurance credit based on their employer and years of service. If VRS will be deducting the health insurance premiums, VRS will automatically apply the credit to the member's benefit payment. If VRS is not responsible for premium deductions, the member must report their premium and any changes in order for VRS to calculate the health insurance credit benefit.

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Defined Contribution and Deferred Compensation Plans

Upon separation or retirement, members of the Hybrid Retirement Plan and participants in the Commonwealth of Virginia 457 Deferred Compensation and Virginia Cash Match Plan must also consider the next steps for their account balances in these plans. Participants have several options and will work with VRS' Third Party Administrator to act on them. Those options include:



Leave funds in the account and continue to manage their investments (no additional contributions can be made, unless the member returns to covered employement)

Leave funds and use the account(s) to consolidate retirement funds from other qualified employer plans or individual retirement accounts (IRAs)





Request a distribution from the plan (a variety of distribution options are available)

Roll over money to another qualified employer plan or IRA



Purchase an annuity

The above options are not mutually exclusive. For example, an annuity can be purchased with other options. Members who retain their defined contribution and/or deferred compensation accounts with VRS are required to take their first minimum distribution by April 1 of the calendar year following the later of: 1) the calendar year in which you reach age 72, or 2) the calendar year in which you terminate employment from the employer sponsoring their plan.

Application Approval

Once a member's service retirement application is approved, they will receive a letter confirming their retirement selections and benefit payment amount. When VRS makes the first payment, members will receive a letter that provides important details about their retirement payment as well as other benefits.

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RETIREMENT FEATURES

Plans

Eligible members will be covered by one of the following retirement plans. To remain eligible for the retirement plan and the other post-employment benefits administered by VRS, the member cannot take a refund of their contributions.

PLAN	MEMBERS COVERED	PLAN TYPE
Plan 1	Membership date prior to July 1, 2010 and vested before January 1, 2013	Defined Benefit
Plan 2	Membership date between July 1, 2010, and December 31, 2013 ⁽¹⁾ or included in Plan 1 but not vested before January 1, 2013 ⁽¹⁾	Defined Benefit
Hybrid Retirement Plan	Membership date is on or after January 1, 2014 and fall into one of the categories in Note 2 below.	Defined Benefit and Defined Contribution

⁽¹⁾ If covered under the Virginia Law Officers' Retirement System (VaLORS), the State Police Officers' Retirement System (SPORS) or VRS with enhanced hazardous duty benefits or the hazardous duty alternate option and if their membership date is on or after July 1, 2010, the members are in Plan 2.

- ⁽²⁾ As of January 1, 2014, members are in the Hybrid Retirement Plan if they are one of the following:
 - A full-time permanent, salaried state employee.
 - A full-time permanent, salaried teacher or administrative employee of a Virginia public school division.
 - A full-time permanent, salaried employee of a VRS-participating political subdivision (city, county, town, authority, commission), excluding those eligible for hazardous duty benefits.
 - A local law enforcement officer, firefighter or emergency medical technician whose employer does not provide enhanced hazardous duty benefits or the hazardous duty alternate option.
 - An employee who elected the Hybrid Retirement Plan instead of an optional retirement plan (ORP) authorized or administered by VRS.

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Different vesting requirements are in place for the defined contribution components of the Hybrid Retirement Plan.

Vesting

Vesting is the minimum length of service needed to qualify for a retirement benefit. Members become vested in most VRS administered defined benefit plans when they reach five years (60 months) of service credit. There are no vesting requirements for Optional Retirement Plans administered by VRS.

Unreduced Versus Reduced Retirement

If not eligible for a full retirement, meaning they are vested but have not met the age and service requirements to receive full benefits for their plan, members may opt to choose a reduced retirement. The member's age, service credit, retirement plan and the retirement option the member selects will dictate the factor (or reduction factor) used to calculate the member's retirement benefit.

The chart below and continued on the following page shows the member's eligibility for a reduced and unreduced retirement by each retirement plan.

REDUCED AND UNREDUCED RETIREMENT			
Retirement Plan	Reduced Retirement Eligibility	Unreduced Retirement Eligibility	
VRS Plan 1	Age 55 with at least five years of service credit or Age 50 with at least 10 years of service credit	Age 65 with at least five years of service credit or Age 50 with at least 30 years of service credit	
VRS Plan 2	Age 60 with at least five years of service credit	Normal Social Security retirement age with at least five years of service credit or Member's age and service equal 90 Example: Age 60 with 30 years of service credit.	
SPORS, VaLORS and eligible political subdivision hazardous duty employees with enhanced benefits	Age 50 with at least five years of service credit.	Age 60 with at least five years of service credit or Age 50 with at least 25 years of service credit	

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Non-vested members also may leave their balance with VRS but will not be eligible for a retirement benefit.

REDUCED AND UNREDUCED RETIREMENT			
Retirement Plan	Reduced Retirement Eligibility	Unreduced Retirement Eligibility	
Hybrid Retirement Plan (Defined Benefit Component)	Age 60 with at least five years of service credit	Normal Social Security retirement age with at least five years of service credit or Member's age and service equal 90 Example: Age 60 with 30 years of service credit.	

Deferring Retirement

If vested, a member may leave a covered position and defer receiving their monthly retirement until a later date. At retirement the member's benefit will be calculated based on their service credit and average final compensation at the time they left their position.

BENEFIT PAYOUT OPTIONS

Defined Benefit Plan

Members retiring must decide which benefit payout option they wish to select. There are five defined benefit plan options from which members can choose.



Selected payout options are irrevocable, except with a survivor option election. In such cases, if a survivor dies before the retiree, a new survivor may be selected, or the member can elect to receive their original basic benefit.

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Basic Benefit Option

The Basic Benefit is a monthly benefit based on a formula. If members retire prior to eligibility for a full retirement, VRS will determine the amount of their unreduced Basic Benefit and then apply an early retirement reduction factor. The Basic Benefit does not provide continuation of benefits to a survivor; however, a beneficiary is eligible for a lump-sum payment of any funds remaining in the member's contribution account upon death.

Calculating the Unreduced Basic Benefit

The Basic Benefit is calculated based on a percentage (retirement multiplier) of the average final compensation multiplied by the total service credit at retirement. Average final compensation is the average of 36 consecutive months (Plan 1) or 60 consecutive months (Plan 2 and Hybrid Retirement Plan) of highest creditable compensation as a covered employee. The member's retirement plan prescribes the retirement multiplier as reflected in the chart below.

RETIREMENT MULTIPLIERS				
Plan 1	Plan 2	Hybrid		
VRS: 1.70%	VRS: 1.65% on service (earned, purchased or granted) on or after January 1, 2013, and 1.70% on service (earned, purchased or granted) before January 1, 2013	1.00% on service (earned, purchased or granted) while a Hybrid Retirement Plan member. If a member opted into the Hybrid		
SPORS, Sheriffs and R	Retirement Plan from VRS Plan 1 or 2, the applicable multipliers for those plans will be used to calculate their retirement benefit for service earned, purchased or granted while a member of those plans.			
VaLORS: 1.70% or 2.0				
Political subdivision h benefits: 1.70% or 1.8 multiplier choice und				

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If a member is divorced and VRS has an Approved Domestic Relations Order (ADRO) on file, their benefit must be paid as directed by the ADRO.

Survivor Option

With the Survivor Option, members elect to receive a lower monthly benefit during retirement so that their survivor can receive a monthly benefit after the member's death. The member will choose a percentage of their benefit, between 10% and 100%, for their survivor. The benefit amount will be based on this percentage and the member's and survivor's ages at the member's retirement date. A member may name any living person as a survivor and may also name more than one survivor. However, the amount of the member's benefit that can go to a non-spouse survivor may be limited by IRS rules. Finally, the option selected at retirement is irrevocable, but the survivor option may be modified once under certain circumstances. Members can name a new survivor or revert to the Basic Benefit if:

The designated survivor dies The member provides VRS a written consent from their survivor giving up claim to a benefit along with proof of the survivor's good health

The member divorces with less than 20 years of marriage and the survivor is their spouse

The member divorces after 20 years or more of marriage and their spouse dies, remarries or consents in writing to a change in benefit

Basic Benefit or Survivor Option with a PLOP

Members may elect a PLOP with the Basic Benefit or Survivor Option if they work at least one year beyond the date they first become eligible for an unreduced retirement benefit. Prior service credit or granted service credit cannot make the member appear to have active service beyond their eligible date for unreduced retirement and therefore eligible for a PLOP but does count toward eligibility for unreduced retirement.

They can choose an amount equal to one, two or three times their annual Basic Benefit amount, depending on how long they work beyond their unreduced retirement eligibility date. This amount is paid from their member contribution account and reduces their monthly benefit. The chart on the following page provides an example of the member's PLOP eligibility based on the active service they accumulate beyond their date for unreduced retirement.

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PARTIAL LUMP-SUM OPTION PAYMENT (PLOP) AMOUNTS				
Active Service Beyond Unreduced Retirement	PLOP Eligibility	Example Based on an Annual Basic Benefit of \$32,000		
12 months	1x annual Basic Benefit amount (one-year PLOP)	\$32,000		
24 months	1 or 2x annual Basic Benefit amount (one- or two-year PLOP)	\$32,000 or \$64,000		
36 months or more	1, 2 or 3x annual Basic Benefit amount (one-, two- or three-year PLOP)	\$32,000, \$64,000 or \$96,000		

Taxes on the PLOP

If members receive their PLOP payment directly, VRS will deduct 20% for federal income taxes and, if the member lives in Virginia, 4% for state income taxes. An additional 10% tax penalty will be imposed if the member receives the PLOP directly before age 59½.

Alternatively, members can roll over the PLOP to their established Commonwealth of Virginia 457 Deferred Compensation Plan or the Virginia Cash Match Plan if applicable, an Individual Retirement Account (IRA) or another qualified tax-deferred savings plan that accepts rollovers. Hybrid Retirement Plan members have the option to roll over the PLOP to their established Hybrid 457 Deferred Compensation Plan.

Beneficiary Payments Under the PLOP

The member's beneficiary remains eligible for a lump-sum payment of any funds remaining in the member's contribution account at the time of the member's death. However, because the PLOP is paid from the member contribution account, there may not be funds remaining to be refunded.

Under the Survivor benefit with a PLOP, the survivor benefit is applicable so the member's beneficiary would not receive a refund of member contributions at the time of death.

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Advance Pension Option

The Advance Pension Option (APO) allows members to temporarily increase their monthly benefit. Members may select an APO with an unreduced or reduced retirement benefit. The temporary increase will begin when they retire and continue until an age the member chooses, between age 62 and the age the member becomes entitled to a normal Social Security benefit. At the chosen time, the member's benefit will be permanently reduced.

If retiring with a reduced benefit, the member may select the APO if:



Estimating and Electing the Advance Pension Option

For this benefit option, VRS will add a percentage of the member's estimated monthly Social Security benefit to their monthly VRS benefit. Several factors determine the percentage, including their age upon retirement and the age they want their benefit to permanently reduce. Once the temporary increase to the benefit ends, the benefit will be reduced by the estimated monthly Social Security benefit used to determine the temporary increase but will not be reduced by more than 50% of the member's Basic Benefit amount.

The APO does not affect the amount of a member's Social Security benefit. Members may apply for their Social Security when they are eligible, regardless of the age they choose for their VRS benefit to reduce. Members cannot elect the APO in conjunction with other benefit payout options, such as a survivor benefit.

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SCOPE AND METHODOLOGY

The service retirements process was reviewed to ensure that proper controls are in place to protect the *integrity* of the monthly benefits paid to the Commonwealth's newly retired workforce and their beneficiaries. Our examination was designed to:

- Determine whether the retirement application process is working as intended,
- Determine that system access relative to retirement application processing supports the principle of least privilege, and
- Proper segregation of duties exists.

GENERAL ASSESSMENT AND UNDERSTANDING

We obtained a general understanding of the monthly Service Retirement Applications process as well as the controls in place by meeting with key individuals from this area. We also reviewed the applicable policies and procedures and other relevant documents to assist with our understanding of this area.

SERVICE RETIREMENT APPLICATION PROCESSING

We assessed the application process by selecting a sample of service retirement applications submitted via paper and electronically. We reviewed the sampled applications for the accuracy of the benefit paid to the member. We reviewed matters that could affect the benefit calculation such as spiked salaries, ADROs, PLOPs and APOs.

We reviewed first cost-of-living adjustment (COLA) dates and pending, cancelled and inactive applications for reasonableness. Using data analytics, we reviewed months of service for all approved applications to ensure the members were qualified to receive a benefit. We reviewed the timeliness of the processing of applications with relation to its receipt. Lastly, we reviewed various indications of unusual activity such as members with a high basic benefit and members with a benefit and a death date.

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LOGICAL ACCESS

Logical access to VNAV was evaluated for proper authorization, reasonableness in relation to assigned job responsibilities and support of the principle of least privilege, as applicable. Rolebased privileges granted in VRS' Resource Access Management System (RAMS) were compared in relation to current access to VNAV using data analytics.

Further, overrides of system controls in VNAV with respect to the service retirement application process were evaluated for reasonableness based on assigned job responsibilities and the principle of least privilege.

CONCLUSIONS

GENERAL ASSESSMENT AND UNDERSTANDING

The review found the overall process in place for service retirement applications is well designed and benefits calculated were valid and accurate. Further, reasonable assurance was obtained that logical access to VNAV is proper in relation to assigned job responsibilities and the principle of least privilege and that appropriate controls exist over system overrides in VNAV.

SERVICE RETIREMENT APPLICATION PROCESSING

Service Retirement Applications

Review of service retirement applications found that applications were processed accurately whether members applied manually or electronically. Proper support existed for paper applications, and online application processing was reasonable for the sample reviewed.

Benefit Calculations

Accuracy of benefit payments was verified through review of the original benefit calculation, recalculation and through application of the appropriate benefit reduction factors, as appropriate.

Benefit reduction factors are used when a member retires early, selects a survivor benefit, PLOP or APO.

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Through data analytics we determined that all service retirement applications were qualified to receive a benefit by ensuring the months of service were sixty or more. Our review of potentially spiked salaries found that the verification process in place was working as designed; however, an opportunity exists to re-visit the percentage used to identify potential spikes for verification as it has not been updated since 2003. Management concurred with this assessment and indicated it would be addressed in the next biennium.

Further, ADROs, PLOPs and APOs were valid, accurate and properly applied. First COLA dates were accurate and appropriately applied. Pending, cancelled and inactive applications that were not processed for a retirement benefit were reasonable.

Application Timeliness and Unusual Items

The processing of applications was timely and appropriate with respect to their receipt. Members reviewed, who were receiving a high basic benefit, were entitled to the benefit. Lastly, all members reviewed with both a benefit and a death date were reasonable and the result of a last benefit owed to the member.

LOGICAL ACCESS

We found through examination of access, that VRS personnel associated with the service retirement application process had appropriate logical access with respect to their job responsibilities and the principle of least privilege. However, instances were noted where current access in VNAV did not agree to the access authorized for personnel's working position in RAMS. Once shared, management immediately worked to correct the discrepancies. Discussions around the root cause for these instances are underway and will be considered as a part of the results of the Logical and Physical Access review currently in progress.

We found segregation of duties was appropriate and that override of system controls is properly managed.

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FOLLOW-UP ON PRIOR REPORTS

There were no outstanding audit recommendations to consider.

RECOMMENDATIONS

We have no written recommendations to offer as a result of our review.

MANAGEMENT EXIT CONFERENCE

This report was distributed to Ms. Bishop and other members of VRS' management and staff for review and comment. They expressed substantial agreement with this report.

As there are no written recommendations, a written response from management is not required.

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REPORT DISTRIBUTION

Submitted to the Audit and Compliance Committee at its meeting held June 13, 2023.

MEMBERS OF THE AUDIT AND COMPLIANCE COMMITTEE

Joseph W. Montgomery, Committee Chair, Board Vice Chair W. Brett Hayes, Committee Vice Chair A. Scott Andrews, Board Chair

WITH COPIES TO:

OTHER MEMBERS OF THE BOARD OF TRUSTEES

J. Brandon Bell, II John M. Bennett Michael P. Disharoon Susan T. Gooden Jessica L. Hood Lindsey K. Pantele

VRS EXECUTIVE LEADERSHIP

Patricia S. Bishop Andrew H. Junkin Members of the Executive Committees

AUDITOR OF PUBLIC ACCOUNTS

Staci A. Henshaw

JLARC

Kimberly A. Sarte Jamie Bitz

PRINCIPAL AUDITOR IN-CHARGE

Judy S. Bolt, CPA, CIA, CISA, CFE

SUPERVISOR

Josh G. Fox, CIA, CIDA, CFE

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Report No. 452

Review of VRS' Master Custodian

THIS REPORT IS INTENDED SOLELY FOR THE USE OF THE VRS BOARD OF TRUSTEES AND THE MANAGEMENT OF VRS AND IS NOT INTENDED FOR OTHER PURPOSES.

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AUDIT SUPERVISOR

PRINCIPAL AUDITOR IN-CHARGE

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13



Dear Members of the Audit and Compliance Committee,

We have completed audit number 452, "Review of VRS' Master Custodian." The main purpose of our review was to make a general assessment of the operating environment and controls associated with the recordkeeping and safeguarding of assets held by the master custodian through review of Service Organization Control reports as well as an on-site review. We further evaluated VRS' contractual relationship with the master custodian for compliance. Bank of New York Mellon (BNY Mellon) has served as the master custodian for VRS since 1988.

Our review should not be considered an examination in accordance with the International Standards for the Professional Practice of Internal Auditing as much of the information obtained was not verified or substantiated by sufficient evidential matter. Nonetheless, the information obtained during our review was evaluated for reasonableness and consistency and often corroborated via discussions or comparisons with other similar or related documents as well as understanding gained from previous audits.

This report was distributed to VRS' Director, Chief Investment Officer and members of management and BNY Mellon client representatives for review and comment. As our review did not result in a written recommendation, management did not provide a written response but expressed substantial agreement with our report.

We appreciate the cooperation and assistance of the BNY Mellon client representatives throughout this review.

Respectfully Submitted,

Junniqu P. Bel Schnek

Jennifer P. Bell Schreck, CPA, CISA, PMP Audit Director

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EXECUTIVE SUMMARY

The Bank of New York Mellon (BNY Mellon) serves as the master custodian for VRS and maintains the official accounting records for all investments, while also providing security settlement processing, asset custody, income collection and other investment and accounting related services.

Internal Audit conducted an on-site review and used the available BNY Mellon Service Organization Control (SOC) reports to make a general assessment of the operating environment and controls associated with the recordkeeping and safeguarding of VRS' investments as provided by BNY Mellon. As part of this review, we:

- Determined the organizational structure relevant to those segments of BNY Mellon providing services to VRS.
- Gained an understanding of the functions and system processes for the various BNY Mellon business units providing services to VRS, including major computer processing systems.
- Considered BNY Mellon personnel's awareness of and attention to risk management and control issues.
- Identified interactions among and within BNY Mellon business operating units as well as interactions with VRS staff.
- Ascertained, in general terms, information pertaining to BNY Mellon's Internal Audit processes.
- Determined whether any control deficiencies noted within the SOC reports affected the services provided to VRS.
- Determined whether VRS has considered complementary user entity controls as outlined in the SOC reports.
- Ensured adequate and appropriate oversight activities are in place related to the master custodian.

BNY Mellon fees were not included in the scope of this review as they will be considered as a part of our Review of Investment Balances, Performance Reporting and Investment Manager Compensation planned for fiscal year 2024. We have no written recommendations resulting from this review.

SNAPSHOT

BNY Mellon has served as the Master Custodian for VRS since 1988.

As of March 31, 2023, BNY Mellon administered \$102.6 billion in assets on behalf of VRS.

AUDIT ASSESSMENT

VRS has a well-established contractual relationship with BNY Mellon and has appropriately defined and established responsibility for the various services and complementary controls required for the effective provisioning of those services and management of the relationship.

Written Recommendations: 0

Review of VRS' Master Custodian Pg. 3 of 13

BACKGROUND

INTRODUCTION

The Bank of New York Mellon (BNY Mellon) is one of the oldest banks in America. The original company, which traded its shares as The Bank of New York, was the first company listed on the New York Stock Exchange in 1792. The Bank of New York and Mellon Financial Corporation merged in 2007 to form BNY Mellon.

BNY Mellon provides a comprehensive array of services enabling its clients to manage and service their financial assets in more than 100 markets worldwide. BNY Mellon's clients include a significant portion of the key businesses and financial companies worldwide as reflected below.



BNY Mellon, or one of its predecessors, has served as the master custodian for VRS since June 1988. The value of the VRS Trust Fund at that time was approximately \$7.4 billion, compared to the current value of the funds which exceeds \$100 billion.

CUSTODY AND OTHER SERVICES

BNY Mellon maintains the official accounting records for VRS' investments while also providing security settlement processing, asset custody and income collection for a large portion of VRS' investments. As part of these services, BNY Mellon also provides VRS with various investment performance measurements and other analytical tools. Separately, BNY Mellon administers a securities lending program in which VRS participates.

Review of VRS' Master Custodian Pg. 4 of 13

BNY Mellon holds over \$44 trillion in assets under custody and/or administration and \$1.8 trillion in assets under management across its entire client base as of December 31, 2022.

Some other more significant services include:

- Security valuation and pricing
- Account reconciliations
- Compliance monitoring
- Tax reclamation processing
- Accounting and administrative services
- Corporate action processing
- Sub-custodian proxy processing
- Global class-action processing
- Related information technology

ORGANIZATIONAL STRUCTURE

BNY Mellon Asset Servicing is a business unit of BNY Mellon that provides trade and cash management services for certain BNY Mellon clients, including VRS. Asset Servicing is responsible for most of the services received by VRS. The client team responsible for VRS is associated with the following key areas within Asset Servicing:



The Relationship Management and Client Services groups act as VRS' primary contact points and provide for a single point of focus by VRS personnel, while ensuring that all components of BNY Mellon are aware of and appropriately responding to or acting upon VRS service issues.

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Client Services also functions as a single repository for most authorizations, contracts, legal terms and other documents pertaining to the VRS account. As needed, Client Services interacts with VRS on a day-to-day basis. On the other hand, Relationship Management is focused more on strategic issues such as better understanding clients and their needs, ensuring client satisfaction and pursuing product development to meet new and emerging client demands. The Client Services and Relationship Management groups along with the Global Institutional Accounting group have the most frequent interactions with VRS.

There are other BNY Mellon business units involved in the overall delivery of services to VRS in addition to or in support of the preceding areas, including but not limited to, Compliance, Asset Servicing Technology, Centrally Managed Information Technology and Internal Audit.

REPORTING TOOL

Performance management and reporting plays an integral role in VRS' administration of its trust funds as well as its relationship with BNY Mellon. BNY Mellon provides VRS with access to a sophisticated reporting tool to support these activities.

NEXEN

BNY Mellon's digital investment reporting platform is known as NEXEN. It is an interactive webbased client reporting tool which provides VRS access to real-time reporting of cash balances, asset positions, securities lending activity and corporate actions. The tool also provides customized reporting capabilities, trade notification services, proxy voting capabilities and a variety of audit resources. VRS primarily obtains all account statements through NEXEN.

Additional system functionality is currently being considered by VRS, including automation of the account opening process.

SERVICE ORGANIZATION CONTROL REPORTS

Service Organization Control (SOC) reports are designed to help service organizations, like BNY Mellon, providing services to other entities build trust and confidence in the various services performed and the related controls through a report by an independent CPA firm. These reports are intended to meet the needs of a broad range of users that need detailed information and

Review of VRS' Master Custodian Pg. 6 of 13

The VRS audit team maintains view only access to NEXEN through which it can independently obtain reports, account statements, Service Organization Control reports and other relevant information to support the various audits executed by VRS' Internal Audit over the Investment Department. assurance about the controls at the service organization. SOC reports also include a section describing the complementary user entity controls the service provider (BNY Mellon) assumes would be implemented by a user entity (VRS) in connection with achievement of the control objectives described in the SOC report.

All BNY Mellon SOC reports are considered proprietary as they include extensive information on the control structure and specific control objectives, as well as results of control testing performed by the independent service auditor.

BNY Mellon has historically issued quarterly SOC reports on a rolling one-year basis, audited by KPMG, related to Asset Servicing, Custody and Securities Lending Services. Additional SOC reports related to other service areas such as Centrally Managed Information Technology Services and the Complex Accounting and Administration Group are issued on a regular basis.

The SOC 1 (type 2) reports provided by BNY Mellon offer a good overview of BNY Mellon's operating environment and are intended for use by VRS' external auditor in conducting their annual examination for the purpose of expressing an opinion on whether VRS' annual financial statements are presented fairly and in accordance with generally accepted accounting principles. However, these reports also provide VRS, along with Internal Audit, with certain degrees of continuing assurance regarding the level of services being rendered and the reliability of the accounting data processed and recorded by BNY Mellon.

The scope of the SOC reports is defined by the service provider (BNY Mellon) and therefore generally not tailored to a specific client. Therefore, periodic on-site reviews of the service provider allow Internal Audit to understand those procedures and related controls that are specific to VRS but may not be included in the scope of the SOC reports.

VRS Internal Audit reviews BNY Mellon SOC reports on a regular basis as part of our risk monitoring process. Additionally, VRS Internal Audit reviews documentation to confirm the SOC reports are also being reviewed and considered by the VRS Investment Compliance Team on a regular basis.

Review of VRS' Master Custodian Pg. 7 of 13

OTHER OVERSIGHT ACTIVITIES

VRS derives further assurances regarding the quality and reliability of the services rendered by BNY Mellon from various other sources either directly or indirectly. These other sources include:

- Investment manager reconciliations with BNY Mellon records.
- Review and monitoring of investment performance by both external investment managers and VRS investment staff.
- VRS review, oversight and posting of BNY Mellon investment transactions to VRS' general ledger.

BNY Mellon deducts amounts due for services rendered from plan assets on a monthly basis. These fees are reviewed and recorded by Investment Accounting in the VRS general ledger via a journal entry as a part of the investment manager reconciliations noted above.

Due to the unique nature of the Master Custodian agreement, additional performance monitoring is conducted by VRS management on a continuous basis, primarily through their daily interactions with BNY Mellon client services personnel. Further, the VRS Chief Administrative Officer serves as a member of the BNY Mellon Client Advisory Board to stay abreast of changes coming to BNY Mellon and provide feedback on business needs within the industry.

SCOPE AND METHODOLOGY

The scope of this review includes the relevant BNY Mellon SOC reports, an on-site review at BNY Mellon offices located in Everett, Massachusetts, as well as ensuring adequate contract administration over the master custodial agreement. We also reviewed other relevant information, including:

- BNY Mellon 2022 Annual Report, including their independent auditor's opinion on the consolidated financial statements contained therein
- Investment advisory agreement

Review of VRS' Master Custodian Pg. 8 of 13

- Most recent amendment for securities lending
- Collateral investment guidelines for securities lending
- Most recent fee schedules and amendments
- Prior BNY Mellon on-site review VRS internal audit reports
- Significant personnel and organizational charts
- BNY Mellon insurance coverage matrix

We also inquired of VRS management to determine the level of satisfaction with the services provided and to determine if there were any service issues to consider.

OVERSIGHT ACTIVITIES

We reviewed the original BNY Mellon master custodian agreement, including all amendments, fee schedules and appendices, as well as met with VRS management to gain an understanding of the contract terms and related requirements of the master custodian agreement. We also discussed with VRS management the unique requirements necessary to serve as the master custodian for an organization such as VRS, due to the complexity of investments held by VRS.

SERVICE ORGANIZATION CONTROL REPORTS

Internal Audit reviews the BNY Mellon SOC reports related to asset servicing, custody and securities lending services; complex administration and accounting group and centrally managed information technology services as they are issued. The most recent review, related to custody and security lending services, covered the one-year period ending December 31, 2022. The most recent report related to the Centrally Managed Information Technology Services covered the one-year period ending September 30, 2022. The most recent report related to the Complex Administration and Accounting Group covered the one-year period ending March 31, 2022.

The main objective of these reviews is to determine if control deficiencies are noted within the SOC reports, and if so, whether these deficiencies could affect the services provided to VRS by BNY Mellon. This information is considered as a part of our ongoing risk assessment activities in support of our audit plan. Internal Audit also utilizes BNY Mellon's SOC reports to provide a basis for understanding the internal control structure and related processes as we audit specific areas administered by VRS which require interaction with BNY Mellon.

Review of VRS' Master Custodian Pg. 9 of 13

BNY Mellon retains custody of over 500 individual accounts on behalf of VRS.

ON-SITE REVIEW

Internal Audit conducted an on-site review at BNY Mellon offices located in Everett, Massachusetts, March 30 through March 31, 2023. We defined the desired agenda topics with input from the Auditor of Public Accounts, focusing on areas where there was a desire for a more in-depth understanding of the services provided by BNY Mellon than was available through the BNY Mellon SOC reports.

The BNY Mellon Relationship Management and Client Services personnel coordinated the on-site visit. During our on-site review, we interacted with BNY Mellon personnel from the following groups or areas:



VRS Internal Audit were introduced and interacted with the key BNY Mellon personnel responsible for the VRS relationship in these areas. We were provided detailed presentations, which included discussion of VRS specific checklists and procedures.

CONCLUSIONS

GENERAL ASSESSMENT AND UNDERSTANDING

As a result of our review of BNY Mellon, we have no issues to report. Similarly, based on our discussions with VRS personnel, we are not aware of any significant issues regarding services provided by BNY Mellon.

Review of VRS' Master Custodian Pg. 10 of 13

OVERSIGHT ACTIVITIES

We found adequate oversight related to the master custodian agreement. Based on discussions with VRS management, we determined VRS regularly reviews the performance of the services provided by BNY Mellon and has negotiated numerous contract modifications related to the services offered by BNY Mellon since the inception of the contract. We found all contract modifications to be reasonably supported and appropriately approved by all parties.

SERVICE ORGANIZATION CONTROL REPORTS

Based on our review of the BNY Mellon Asset Servicing Custody and Securities Lending Services SOC Report as of December 31, 2022, we found the report did not include any control deficiencies that would have an adverse effect on the services that are provided to VRS. We also reviewed BNY Mellon SOC annual reports related to the Centrally Managed Information Technology Services and the Complex Administration and Accounting Group for the one-year periods ending September 30, 2022 and March 31, 2022, respectively. We found neither report included control deficiencies that would have an adverse effect on the services that are provided to VRS.

We also found that VRS had adequately considered the applicable complementary user entity controls included in the SOC reports.

ON-SITE REVIEW

Based on the meetings and discussions we had with various BNY Mellon personnel during our on-site review, we found BNY Mellon to be a very structured and methodical organization. In the areas we reviewed, we found responsible personnel were aware of the business risks impacting their operations. Additionally, we noted BNY Mellon had instituted reasonable procedures and controls to adequately minimize and/or mitigate such risks.

Overall, we found the BNY Mellon personnel to be courteous and very knowledgeable related to the services provided to VRS. We appreciate the time and assistance provided by the BNY Mellon client representatives in coordinating and attending the on-site review. Regulatory review and compliance, risk assessments, increased automation and internal controls were constant themes shared by most of the departments and units with which we met during our on-site review.

Review of VRS' Master Custodian Pg. 11 of 13

FOLLOW-UP ON PRIOR REPORTS

There were no outstanding audit recommendations to consider.

RECOMMENDATIONS

We have no written recommendations to offer as a result of our review.

MANAGEMENT EXIT CONFERENCE

This report was distributed to Ms. Bishop, Mr. Junkin, other members of VRS' management and BNY Mellon client representatives for review and comment. They expressed substantial agreement with this report.

As there are no written recommendations, a written response from management is not required.

Review of VRS' Master Custodian Pg. 12 of 13

REPORT DISTRIBUTION

Submitted to the Audit and Compliance Committee at its meeting held June 13, 2023.

MEMBERS OF THE AUDIT AND COMPLIANCE COMMITTEE

Joseph W. Montgomery, Committee Chair, Board Vice Chair W. Brett Hayes, Committee Vice Chair A. Scott Andrews, Board Chair

WITH COPIES TO:

OTHER MEMBERS OF THE BOARD OF TRUSTEES

J. Brandon Bell, II John M. Bennett Michael P. Disharoon Susan T. Gooden Jessica L. Hood Lindsey K. Pantele

VRS EXECUTIVE LEADERSHIP

Patricia S. Bishop Andrew H. Junkin Members of the Executive Committees

AUDITOR OF PUBLIC ACCOUNTS

Staci A. Henshaw

JLARC Kimberly A. Sarte Jamie Bitz

PRINCIPAL AUDITOR IN-CHARGE

Josh Fox, CIA, CIDA, CFE

AUDIT SUPERVISOR

Kristy Scott, CPA, CISA, CIA

Review of VRS' Master Custodian Pg. 13 of 13

Introduction of the IIA IPPF Evolution



IIA IPPF Evolution to Global Internal Audit Standards

The Institute of Internal Auditors





The Institute of Internal Auditors

Established in 1941

Serves more than 230,000 members Nearly 200 countries and territories Offers professional development Develops standards, guidance and certifications Primary Professional Designation: CIA











International Professional Practices Framework

Comprised of

- Mission Statement
- Mandatory Guidance
 - Definition of Internal Auditing
 - Core Principles
 - Code of Ethics
 - International Standards for the Professional Practice of Internal Auditing (Standards)
- Recommended Guidance
 - Implementation Guidance
 - Supplemental Guidance

The IIA Standards Board periodically reviews the IPPF for potential enhancements based on changes in the auditing and risk landscape.







IPPF Evolution Project

4





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International Professional Practices Framework



Core Principles

Demonstrates competence and due professional care

Is objective and free from undue influence (Independent)

Aligns with strategies, objectives and risks of the organization

Appropriately positioned and adequately resourced

Demonstrates quality and continuous improvement

Communicates Effectively

Provides risk-based assurance

Is insightful, proactive and future-focused

Promotes organizational improvement

Internal Auditing Definition

Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

Standards

Statements of basic requirements for the professional practice of internal auditing (attribute and performance) and for evaluating the effectiveness of its performance

Interpretations, which clarify terms or concepts within the statements

Glossary

Code of Ethics

Includes four Principles: Integrity, Objectivity, Confidentiality and Competency Provides Rules of Conduct to ensure the professional practice of the four Principles

Recommended Guidance

Implementation

Supplemental

Aligns with Standards

IPPF Evolution





Source: The IIA

Five Domains







Global Internal Audit Standards - Structure



Five Domains, 15 Principles

Domain I. Purpose of Internal Auditing					
II. Ethics and Professionalism					
1. Demonstrate 2. Mai Integrity Object		4. Exercise Due Professional Ca			
III. Governing the Internal Audit Function	IV. Managing the Int Audit Function		Performing Internal Audit Services		
6. Authorized by the Board	9. Plans Strategically	1	.3. Plan Engagements Effectively		
7. Positioned Independently	10. Manages Resource 11. Communicates Effe		.4. Conduct Engagement Work .5. Communicate Engagement Conclusions and Monitor		
8. Overseen by the Board	12. Enhances Quality		Action Plans		

Source: The IIA



Must

The Global Internal Audit Standards use the word "must" to specify an unconditional requirement

Should

As used in the Considerations for Implementation of the Global Internal Audit Standards, the word "should" describes practices that are preferred but not required

May

As used in the Considerations for Implementation of the Global Internal Audit Standards, the word "may" describes optional practices to implement the Requirements

Noteworthy Changes

- Refines the Mission Statement and Definition of Internal Auditing into the Purpose of Internal Auditing
- Consolidates expectations from the Code of Ethics and the current standards within the Global Internal Audit Standards
- Identifies specific ways the Board must demonstrate/ communicate its support for the internal audit function
- Dictates specific actions to be performed by the Chief Audit Executive to support the administration of the internal audit function and ensure effective communication with management and the Board





Noteworthy Changes

- Includes and expands upon previous implementation guidance within the body of the Standards
- Introduces implementation considerations for the *Standards* specific to
 - public sector entities
 - small internal audit shops
 - outsourced activities





What are we doing?





Participating in the process



Informing important stakeholders



Assessing near and longer-term impacts



Assessing our internal audit function's readiness for the changes



Developing an action plan for our internal audit function to meet the future

IPPF Evolution – The Next Step





Source: The IIA

Questions




Miscellaneous Updates



INTERNAL AUDIT

Report of Alleged Fraud, Waste and Abuse Hotline Cases

For Complaints Received During the Period February 1, 2023 through April 30, 2023

SUMMARY OF CASES REVIEWED AND CLOSED

During the period February 1, 2023 through April 30, 2023, we did not receive any cases of potential fraud, waste and abuse from the Office of the State Inspector General or other sources.

Background

Fraud, Waste and Abuse relating to VRS can be comprised of any number of concerns. Such items can be reported to VRS' Internal Audit Department directly or through the Office of the State Inspector General (OSIG) State Employee Fraud, Waste and Abuse Hotline. (A majority of complaints are received through OSIG.)

All matters that relate to Fraud, Waste and/or Abuse reported are reviewed to determine the proper protocol for investigation.

Committee Reporting

Cases of a serious and/or significant nature will be reported to the VRS Audit and Compliance Committee immediately. At a minimum, a summary of all Hotline cases will be reported to the Audit and Compliance Committee on a quarterly basis.

Retention

Hardcopy documents, including handwritten notes, are stored in a secure location until the case is closed, upon which they are shredded. Electronic files are stored on Internal Audit's secured drive. Documentation containing case details are labeled "<u>CONFIDENTIAL – STATE</u> <u>FRAUD, WASTE AND ABUSE HOTLINE</u> <u>DOCUMENTS</u>" and sensitive items are labeled FOIA Exempt. As appropriate, files are disposed of in accordance with the Library of Virginia's retention policy.

FRAUD, WASTE AND ABUSE CASE MANAGEMENT

PROCESSING OF COMPLAINTS

When received, the Audit Director and Hotline Auditor perform a preliminary review of the complaint. After initial discussion, the Hotline Auditor determines whether a formal response is required by OSIG (cases referred by OSIG may or may not require a formal response, depending on the nature of the complaint) and adds the case to Internal Audit's Hotline Tracking System.

The Hotline Auditor sets up a case file on Internal Audit's secured and restricted drive to maintain confidentiality. The Hotline Auditor then evaluates the case details and may review information available in VRS' systems to obtain further details about the subject of the complaint. Additionally, the Hotline Auditor may forward the details of the case to other VRS personnel for review. The Hotline Auditor also notifies the VRS Director of the case.

Complaints regarding disability benefits constitute the large majority of the Hotline cases received by VRS. The Hotline Auditor will meet with appropriate VRS staff, as necessary, to discuss details of the case in order for all parties to proceed forward with their portion of the investigation. Complaints forwarded to others are monitored for resolution. Actions and determinations for cases are reviewed for reasonableness by the Hotline Auditor. Once a determination of appropriate action has occurred, such action is documented in the Internal Audit case file and on the Hotline Tracking System. The Internal Audit Director is apprised of all actions and determinations.

For other complaints, such as internal fraud, waste or abuse (examples could include abuses of various types of leave, teleworking policies, employee theft, etc.), the Hotline Auditor investigates the allegation and obtains supporting documentation from management, as needed. If a determination is made that there is a reasonable possibility of fraud, waste or abuse, management is notified of the allegation by the Audit Director and given a reasonable timeframe in which to report back to the Audit Director any actions taken regarding the allegation. The Audit Director determines the reasonableness of such action, reports the actions and resolution of the complaint to the Hotline Auditor who documents the results in the case file and on the Hotline Tracking System.

All investigation results are reported to the VRS Director and members of the VRS Audit and Compliance Committee once a case is resolved, regardless of the outcome.

Management's Quarterly Travel Expenses and Per Diem Report



Patricia S. Bishop Director 1200 East Main Street P.O. Box 2500 Richmond, VA 23218-2500 Toll-free: 1-888-VARETIR (827-3847) Website: www.varetire.org Email: vrs@varetire.org Fax: 804-786-1541

MEMORANDUM

To: Jennifer P. Schreck, Internal Audit Director

From: Patricia S. Bishop, Director

Date: May 24, 2023

Subject: Summary of Travel Related Expenses

I am attaching the following:

- 1. Summary of Travel Related Expenses Paid During the Quarter of and Fiscal Year-to-Date Through March 31, 2023.
- 2. Summary of Other Sponsored Travel Related Expenses Paid During the Quarter of and Fiscal Year-to-Date Through March 31, 2023. There was no reportable Other Sponsored Travel Related Expenses for the period.
- 3. Detail of Travel Related Expenses Paid During the Quarter of and Fiscal Year-to-Date Through March 31, 2023.
- 4. Record of Attendance and Per Diems for the Quarter Ended March 31, 2023.

This information should be shared with the Audit & Compliance Committee.

If you have any questions, please do not hesitate to ask.

PSB/lbk

Attachments

Summary of Travel Related Expenses

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Fiscal Year-To-Date Q3 2023

		Current Quarter Expenses Total Travel Out-of-State-Travel												Fiscal Ye	ar-To-Date Expe	nses	
		Total Travel			Out-	of-Stat	e-Trav	vel						Total Travel		Out-	of-State-Travel
								ravel									0
Traveler	Sponsor Paid	VRS Paid	Total	# Trips	Cost	AM	BD				5V I	IR	Sponsor Paid	VRS Paid		# Trips	Cost
Andrews, Allen	-	\$306.22	\$306.22	-	-		-	-	-	-	-	-	-	\$1,590.28	\$1,590.28		-
Beasley, Michael	-	-	-	-	-		-	-	-	-	-	-	-	\$2,293.04	\$2,293.04		-
Bell II, John	-	\$504.36	\$504.36	-	-	· -	-	-	-	-	-	-	-	\$1,974.36	\$1,974.36		-
Deo, Ravindra	-	-	-	-	-		-	-	-	-	-	-	-	\$279.50	\$279.50	-	-
Disharoon, Michael	-	\$296.06	\$296.06	-	-		-	-	-	-	-	-	-	\$1,313.72	\$1,313.72	-	-
Economou, Theodore	-	\$2,246.94	\$2,246.94	-	-		-	-	-	-	-	-	-	\$2,246.94	\$2,246.94	-	-
Garrett, William	-	\$269.86	\$269.86	-	-	· -	-	-	-	-	-	-	-	\$1,886.89	\$1,886.89	-	-
Irvin, Shannon	-	-	-	-	-		-	-	-	-	-	-	-	\$307.50	\$307.50	-	-
Lewis, Wilbert	-	-	-	-	-		-	-	-	-	-	-	-	\$1,292.09	\$1,292.09	-	-
Montgomery, Joseph	-	\$154.58	\$154.58	-	-		-	-	-	-	-	-	-	\$574.58	\$574.58	-	-
Muralidhar, Arun	-	-	-	-	-		-	-	-	-	-	-	-	\$321.59	\$321.59	-	-
Seward, Troilen	-	-	-	-	-		-	-	-	-	-	-	-	\$168.75	\$168.75	-	-
Bishop, Patricia	-	\$1,227.64	\$1,227.64	-	-		-	-	-	-	-	-	\$1,795.05	\$10,487.96	\$12,283.01	3	\$11,055.37
Chenault, Jeanne	-	-	-	-	-		-	-	-	-	-	-	-	\$3,009.94	\$3,009.94	1	\$2,865.08
Cooper, Michael	-	-	-	-	-		-	-	-	-	-	-	-	\$226.40	\$226.40	1	\$226.40
Faison, Barry	-	-	-	-	-		-	-	-	-	-	-	-	\$2,282.58	\$2,282.58	1	\$2,282.58
Junkin, Andrew	-	\$948.63	\$948.63	1	\$948.63	- 1	-	1	-	-	-	-	-	\$1,611.68	\$1,611.68		\$948.63
Schreck, Jennifer	-	-	-	-	-		-	-	-	-	-	-	-	\$2,032.29	\$2,032.29		\$2,032.29
Adelaar, Stephen	-	-	-	-	-		-	-	-	-	-	-	-	\$1,291.60	\$1,291.60		\$1,121.66

Summary of Travel Related Expenses

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Fiscal Year-To-Date Q3 2023

		Current Quarter Expenses Total Travel Out-of-State-Travel												Fiscal Ye	ear-To-Date Expe	nses	
		Total Travel			Out-o	of-Sta	ate-Ti	avel						Total Travel		Out-	of-State-Travel
								Trav	el rea	isons	6						
Traveler	Sponsor Paid	VRS Paid	Total	# Trips	Cost	AM	ВD	CF	DD	мм	sv	TR	Sponsor Paid	VRS Paid	Total	# Trips	Cost
Alouf, John	\$9,186.15	\$651.57	\$9,837.72	2	\$9,837.72	1	-	-	1	-	-	-	\$27,094.07	\$2,245.01	\$29,339.08	8	\$29,339.08
Apte, Advait	-	-	-	-	-	-	-	-	-	-	-	-	-	\$1,459.97	\$1,459.97	1	\$1,459.97
Ball, Daniel	-	\$1,437.57	\$1,437.57	1	\$1,437.57	-	-	1	-	-	-	-	-	\$4,486.66	\$4,486.66	2	\$2,696.50
Bennett, Matthew	-	-	-	-	-	-	-	-	-	-	-	-	\$8,494.94	\$2,562.62	\$11,057.56	1	\$11,057.56
Billingslea, Erica	-	\$3,643.10	\$3,643.10	1	\$3,643.10	-	-	-	1	-	-	-	\$3,693.94	\$5,079.28	\$8,773.22	4	\$8,773.22
Bliss, Kevin	-	\$945.66	\$945.66	1	\$945.66	-	-	1	-	-	-	-	\$739.32	\$3,185.09	\$3,924.41	4	\$3,924.41
Carlson, Ryan	-	-	-	-	-	-	-	-	-	-	-	-	-	\$4,362.07	\$4,362.07	1	\$4,362.07
Chang, Warren	\$935.04	\$838.76	\$1,773.80	2	\$1,773.80	1	-	-	1	-	1	-	\$25,972.05	\$2,027.24	\$27,999.29	7	\$27,999.29
Coleman, Thomas	-	-	-	-	-	-	-	-	-	-	-	-	\$1,123.49	\$4,002.77	\$5,126.26	3	\$3,987.77
Corsello, Perry	\$2,796.98	\$28.34	\$2,825.32	1	\$2,825.32	1	-	-	-	-	-	-	\$11,662.15	\$95.84	\$11,757.99	5	\$11,757.99
Desai, Michael	-	\$1,283.13	\$1,283.13	1	\$1,283.13	-	-	-	1	1	-	-	-	\$1,283.13	\$1,283.13	1	\$1,283.13
Fennell, Laurie	-	\$55.00	\$55.00	-	-	-	-	-	-	-	-	-	-	\$55.00	\$55.00	-	-
Gentry III, William	\$3,199.87	\$30.67	\$3,230.54	2	\$3,230.54	2	-	-	-	1	-	-	\$17,890.77	\$3,371.86	\$21,262.63	10	\$21,262.63
Honrado, Cordell	-	-	-	-	-	-	-	-	-	-	-	-	-	\$1,562.47	\$1,562.47	1	\$1,562.47
Jones, De'Von	-	\$623.61	\$623.61	1	\$623.61	-	-	-	1	-	-	-	\$12,418.52	\$9,337.21	\$21,755.73	7	\$21,755.73
Koutrakos, Kristina	-	-	-	-	-	-	-	-	-	-	-	-	-	\$2,696.69	\$2,696.69	2	\$2,696.69
Lacy, Matthew	-	-	-	-	-	-	-	-	-	-	-	-	-	\$767.86	\$767.86	1	\$767.86
Le, Vu	-	\$1,951.48	\$1,951.48	1	\$1,951.48	-	-	1	-	-	-	-	-	\$10,140.97	\$10,140.97	4	\$10,140.97
Ma, Chung	-	\$2,220.10	\$2,220.10	2	\$2,220.10	-	-	2	-	-	-	-	-	\$6,695.30	\$6,695.30	4	\$4,485.30

Summary of Travel Related Expenses

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Fiscal Year-To-Date Q3 2023

			Curren	t Quarter E	xpenses									Fiscal Ye	ar-To-Date Expe	nses	
		Total Travel			Out-	of-Sta	ate-Tr	avel						Total Travel		Out-	of-State-Travel
								Trave	el rea	sons	;						
Traveler	Sponsor Paid	VRS Paid	Total	# Trips	Cost	AM	BD	CF	DD	мм	sv	TR	Sponsor Paid	VRS Paid	Total	# Trips	Cost
Matoua, Katherine	-	\$2,114.88	\$2,114.88	3	\$2,114.88	-	-	2	1	-	-	-	-	\$6,677.95	\$6,677.95	7	\$6,677.95
Molla, Kidus	-	-	-	-	-	-	-	-	-	-	-	-	-	\$3,514.13	\$3,514.13	1	\$3,514.13
Mulvin, Thomas	-	\$1,128.30	\$1,128.30	1	\$1,128.30	-	-	-	-	-	1	-	-	\$1,495.14	\$1,495.14	2	\$1,495.14
Muniz, Alex	-	\$1,793.30	\$1,793.30	1	\$1,793.30	-	-	1	-	-	-	-	-	\$7,710.32	\$7,710.32	3	\$7,710.32
Murphy, James	\$5,624.38	\$185.05	\$5,809.43	3	\$5,809.43	3	-	-	-	2	-	-	\$18,110.81	\$796.60	\$18,907.41	7	\$18,907.41
Noland, Walker	-	\$306.57	\$306.57	1	\$306.57	-	-	-	-	-	1	-	\$1,547.04	\$1,862.99	\$3,410.03	3	\$2,375.80
Oliff Jr, Bryan	-	-	-	-	-	-	-	-	-	-	-	-	-	\$836.91	\$836.91	1	\$836.91
Pugliese, Laura	-	\$488.34	\$488.34	-	-	-	-	-	-	-	-	-	-	\$2,416.24	\$2,416.24	-	-
Rhodes, Garret	-	-	-	-	-	-	-	-	-	-	-	-	-	\$2,797.53	\$2,797.53	1	\$2,797.53
Sarki-Hurd, Hajara	-	\$220.11	\$220.11	1	\$220.11	-	-	-	-	-	1	-	\$13,752.95	\$1,179.55	\$14,932.50	5	\$14,049.38
Schlussler, Daniel	-	-	-	-	-	-	-	-	-	-	-	-	-	\$5,196.14	\$5,196.14	2	\$5,196.14
Scott, Michael	-	\$420.13	\$420.13	1	\$420.13	-	-	1	-	-	-	-	-	\$420.13	\$420.13	1	\$420.13
Tran, Viet	-	\$968.55	\$968.55	1	\$968.55	-	-	-	1	-	-	-	-	\$968.55	\$968.55	1	\$968.55
Turner, Korey	-	-	-	-	-	-	-	-	-	-	-	-	-	\$1,148.84	\$1,148.84	1	\$1,148.84
Voeks III, Robert	-	\$2,829.11	\$2,829.11	1	\$2,829.11	-	-	-	-	1	-	-	\$10,128.79	\$3,802.73	\$13,931.52	5	\$13,575.17
Woodall, Steven	-	\$2,631.37	\$2,631.37	2	\$2,631.37	-	-	2	-	-	-	-	-	\$3,809.15	\$3,809.15	3	\$3,809.15
Zizzo, Nicholas	-	-	-	-	-	-	-	-	-	-	-	-	-	\$2,100.15	\$2,100.15	2	\$2,100.15
Zozulya, Olga	-	-	-	-	-	-	-	-	-	-	-	-	-	\$1,152.98	\$1,152.98	1	\$1,152.98
Total	\$21,742.42	\$32,748.99	\$54,491.41	31	\$48,942.41	8	-	12	7	5	4	-	\$154,423.89	\$148,494.76	\$302,918.65	121	\$276,580.33

Virginia Retirement System Summary of Other Sponsored Travel Related Expenses (Staff Not Otherwise Includable in Quarterly Reporting) Fiscal Year-To-Date Through March 2023

	Cu	Irrent Quarter	Fisc	al Year-To-Date
	Value		Value	
Name of Traveler	Provided	Sponsor	Provided	Sponsor
	-		-	
	-		-	
	-		-	
	-		-	
	-		-	
	-		-	
	-		-	
	-		-	
Totals	-		-	

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Andrews, Allen	02/09/2023	02/09/2023 R	lichmond, VA		Attended VRS Board/Committee meetings.	-	\$146.72	\$146.72
Andrews, Allen	03/21/2023	03/22/2023 R	lichmond, VA		Attended the VRS Board of Trustees retreat.	-	\$159.50	\$159.50
Bell II, John	02/09/2023	02/09/2023 R	lichmond, VA		Attended a VRS Board of Trustees meeting.	-	\$256.76	\$256.76
Bell II, John	03/21/2023	03/22/2023 R	lichmond, VA		Attended the VRS Board of Trustees retreat.	-	\$247.60	\$247.60
Disharoon, Michael	02/09/2023	02/09/2023 R	lichmond, VA		Attended VRS Board/Committee meetings.	-	\$144.10	\$144.10
Disharoon, Michael	03/21/2023	03/22/2023 R	lichmond, VA		Attended the VRS Board of Trustees retreat.	-	\$151.96	\$151.96
Economou, Theodore	08/17/2022	08/19/2022 R	Richmond, VA		Attended the IAC Meeting	-	\$2,246.94	\$2,246.94
Garrett, William	02/07/2023	02/07/2023 R	lichmond, VA		Attended a Benefits and Actuarial Committee meeting.	-	\$134.93	\$134.93

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Garrett, William	02/09/2023	02/09/2023	Richmond, VA		Attended VRS Board/Committee meetings.		\$134.93	\$134.93
Montgomery, Joseph	02/09/2023	02/09/2023	Richmond, VA		Attended VRS Board/Committee meetings.		\$73.36	\$73.36
Montgomery, Joseph	03/21/2023	03/22/2023	Richmond, VA		Attended the VRS Board of Trustees retreat.	-	\$81.22	\$81.22
Bishop, Patricia	02/25/2023	02/27/2023	Washington, DC		Attended the National Association of State Retirement Administrators Winter Meeting in Washington, DC.	-	\$1,227.64	\$1,227.64
Junkin, Andrew	02/27/2023		New York, New York		JP Morgan Public Fund CIO Conference	-	\$948.63	\$948.63
Alouf, John	01/10/2023	01/11/2023	Boston, MA		Due Diligence with TA		\$587.20	\$587.20

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End D	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Alouf, John	03/06/2023	03/09/2023 Lond	don, England	Apax Partners	Travel to London to attend Apax Partner's LPAC meeting / This is sponsored travel	\$9,186.15	\$64.37	\$9,250.52
Ball, Daniel	03/21/2023	03/23/2023 Seat	ttle, WA		PREA Spring Conference	-	\$1,437.57	\$1,437.57
Billingslea, Erica	01/10/2023	01/12/2023 Lond	don		Travel to London, UK for a due diligence meeting with prospective manager, Park Square.	-	\$3,643.10	\$3,643.10

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Bliss, Kevin	02/06/2023	02/07/2023 A	Austin, TX		Attended the WITH Intelligence Winter Conference. Kevin is a member of the Advisory Board.	-	\$945.66	\$945.66
Chang, Warren	03/01/2023	03/02/2023 A	Austin, TX	Morgan Stanley Real Estate	Travel to Austin, TX to attend the Morgan Stanley Prime Property Advisory Committee meeting	\$935.04	\$20.00	\$955.04
Chang, Warren	03/27/2023	03/27/2023 N	New York, NY		Due diligence meeting with Global Infrastructure Partners (GIP)	-	\$818.76	\$818.76

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End D	estination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Corsello, Perry	03/19/2023	03/22/2023 Califo	ornia	Ares SOF	Travel to Laguna Niguel for the Ares SOF Annual Meeting and Advisory Board Meeting. **Sponsor Travel	\$2,796.98	\$28.34	\$2,825.32
Desai, Michael	09/12/2022	09/14/2022 Bosto	on, MA		Travel to Boston to attend Man Numeric onsite meeting	-	\$1,283.13	\$1,283.13
Fennell, Laurie	02/07/2023	02/07/2023 Richr	mond, VA		CPE Ethics Seminar	-	\$55.00	\$55.00

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start		Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Gentry III, William	02/07/2023	02/08/2023 Chic	ago, IL G	GTCR	Travel to Chicago to attend the GTCR Advisory Committee meeting / sponsored travel	\$826.82	\$9.00	\$835.82
Gentry III, William	03/06/2023	03/07/2023 Saus		PG	TPG Advisory Committee meetings / sponsored travel	\$2,373.05	\$21.67	\$2,394.72
Jones, De'Von	01/10/2023	01/11/2023 Bost	on, MA		Due diligence/on-site visits for TA	-	\$623.61	\$623.61

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Le, Vu	01/05/2023	01/08/2023	New Orleans, LA		Travel to New Orleans for the ASSA Conference		\$1,951.48	\$1,951.48
Ma, Chung	01/05/2023		New Orleans, Louisiana		ASSA Annual Meeting 2023, New Orleans, Louisiana for Chung Ma. January 5- 8, 2023.	-	\$1,462.07	\$1,462.07
Ma, Chung	03/13/2023	03/14/2023	Charlotte, NC.		Candid Conversations Race, Opportunity, and the Path Forward March 13-14, 2023, in Charlotte, NC Chung Ma		\$758.03	\$758.03

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Matoua, Katherine	10/13/2022	10/14/2022	Washington, DC.		UBS Leadership Circle and EG IMF/WB Fall Breakfast Meeting, October 13-14, 2022, for Katherine Matoua. Traveler will be driving to destination.	-	\$289.22	\$289.22
Matoua, Katherine	03/06/2023	03/08/2023	Washington, DC.		2023 Spring Conference Governance as The Linchpin: The G is the Key. Katherine Matoua, Washington, DC. March 6-8, 2023. Traveler will be transported by train.	-	\$1,075.66	\$1,075.66
Matoua, Katherine	03/13/2023	03/13/2023	Washington, DC.		National Association for Business Economics Conference for Katherine Matoua. 3/28-3/30. 2023. Washington, DC. Payment.	-	\$750.00	\$750.00

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Mulvin, Thomas	03/27/2023	03/28/2023	Houston, TX		Site visits with Carson in Houston, TX area.	-	\$1,128.30	\$1,128.30
Muniz, Alex	01/05/2023	01/08/2023	New Orleans, LA		ASSA Conference		\$1,793.30	\$1,793.30
Murphy, James	09/26/2022	09/30/2022	San Francisco, CA A	sia Alternatives	Travel to San Francisco to attend Asia Alternatives LPAC meeting / sponsored travel	\$3,591.60	\$90.26	\$3,681.86

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Murphy, James	11/09/2022	11/11/2022	New York, NY	Vista; Vista Equity Partners	Travel to New York, NY to attend the Vista LPAC meeting	\$1,471.15	\$39.21	\$1,510.36
Murphy, James	11/16/2022	11/17/2022	New York, NY	Apollo Global; Apollo Global Management	Travel to New York, NY to attend the Apollo Global Mgmt Annual meeting and LPAC	\$561.63	\$55.58	\$617.21
Noland, Walker	03/08/2023	03/08/2023	Holly Springs, NC		Drove to Holly Springs, NC for property tours with Apollo	-	\$306.57	\$306.57

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Pugliese, Laura	01/23/2023	01/24/2023 Washington, DC		Attended the Board of Directors Meeting for Stable Value Investment Association, of which I am a Board member.	_	\$488.34	\$488.34
Sarki-Hurd, Hajara	03/08/2023	03/08/2023 Holly Springs, NC		Drove to Holly Springs, NC for property tours with Apollo		\$220.11	\$220.11
Scott, Michael	11/15/2022	11/15/2022 New York		Travel to New York for the Defined Contribution Institutional Investment Association (DCIIA) Academic Forum.	-	\$420.13	\$420.13

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Tran, Viet	12/08/2022	12/09/2022	New York, NY		Travel to New York, NY for due diligence with Hellman and Friedman	-	\$968.55	\$968.55
Voeks III, Robert	03/27/2023	03/28/2023	San Francisco, CA		Thoma Bravo Annual Meeting	-	\$2,829.11	\$2,829.11
Woodall, Steven	01/10/2023	01/11/2023	New York		Travel to NYC to attend the AIF Global Annual Investors' Meeting. Panelist - Private Credit Roundtable.	-	\$988.54	\$988.54

Virginia Retirement System

Board/Committee Members and Selected VRS Staff

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Woodall, Steven	02/08/2023	02/10/2023	New York		Travel to New York for the Aksia Palooza	-	\$1,642.83	\$1,642.83
					Conference. Update meetings with Carlyle PC -			
					Skyline and Carlyle PIP.			

Total	\$21,742.42	\$32,748.99	\$54,491.41

VRS BOARD OF TRUSTEES AND COMMITTEES RECORD OF ATTENDANCE & PER DIEMS FOR 1Q2023

	Month Paid:	Jan-23		Feb-23		Ма	r-23			Per	Diem Paym	ents	
		N/A	2/7/23	2/9/23	2/9/23	3/21/23	3/22/23	Total Days	Per Diem Rate		()		Total
Member	Area		B&A	IPC	BOT	BOT Retreat	BOT Reatreat	Attended		Jan	Feb	Mar	
A. SCOTT ANDREWS, CHAIR	BOT		-	Х	Х	Х	Х	5	\$ 300.00	\$-	\$ 300.00	\$ 600.00	\$ 900.00
J BRANDON BELL, II	BOT		Х	-	Х	Х	Х	4	300.00	-	600.00	600.00	1,200.00
JOHN M. BENNETT	BOT		Х	Х	Х	Х	Х	7	300.00	-	600.00	600.00	1,200.00
MICHAEL P. DISHAROON	BOT		-	Х	Х	Х	Х	5	300.00	-	300.00	600.00	900.00
WILLIAM A. GARRETT	BOT		Х	Х	Х	-	-	8	300.00	-	600.00	-	600.00
SUSAN GOODEN	BOT		-	Х	Х	Х	Х	3	300.00	-	300.00	600.00	900.00
W. BRETT HAYES	BOT		-	-	Х	-	-	4	300.00	-	300.00	-	300.00
JESSICA L. HOOD	BOT		-	-	-	Х	Х			-	-	600.00	600.00
JOSEPH W. MONTGOMERY	BOT		-	Х	Х	Х	Х	4	300.00	-	300.00	600.00	900.00
LINDSEY PANTELE	BOT		Х	-	Х	-	-	5	300.00	-	600.00	-	600.00
RIVINDRA DEO	DCPAC		-	-	-	-	-	1	300.00	-	-	-	-
C. MATT HARRIS	DCPAC		-	-	-	Х	Х	-	300.00	-	-	600.00	600.00
SHANNON T. IRVIN	DCPAC		-	-	-	-	-	1	300.00	-	-	-	-
RICK LARSON	DCPAC		-	-	-	-	-	1	300.00	-	-	-	-
BRENDA O. MADDEN	DCPAC		-	-	-	-	-	1	300.00	-	-	-	-
ARUN MURALIDHAR	DCPAC		-	-	-	Х	Х	1	300.00	-	-	600.00	600.00
DAVID A. WINTER	DCPAC		-	-	-	-	-	1	300.00	-	-	-	-
MICHAEL R. BEASLEY	IAC		-	Х	-	-	-	1	300.00	-	300.00	-	300.00
THEODORE ECONOMOU	IAC		-	-	-	-	-	1	300.00	-	-	-	-
PALMER GARSON	IAC		-	Х	-	Х	-	1	-	-	-	-	-
THOMAS S.GAYNER	IAC		-	-	-	Х	-	1	300.00	-	-	300.00	300.00
LAWRENCE E KOCHARD	IAC		-	-	-	Х	-	3	300.00	-	300.00	300.00	600.00
NANCY G. LEAKE	IAC		-	Х	-	Х	Х	1	300.00	-	300.00	600.00	900.00
WILBERT BRYAN LEWIS	IAC		-	Х	-	-	-	1	300.00	-	-	-	-
ROD SMYTH	IAC		-	-	-	-	-	1	300.00	-	-	-	-
WILLIAM H. WEST	IAC		-	-	-	Х	Х	1	300.00	-	-	600.00	600.00
										\$-	\$4,800.00	\$ 7,200.00	\$12,000.00
Number Attending		0	4	10	9	14	11	48					
Total Days per Diem Paid (Control	Total)	0	4	9	3	13	11	40	x \$300			=	12,000.00

X = Present